
Article

Shaping Supreme Court Policy Through Appointments: The Impact of a New Justice

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Different theories of decision making on the U.S. Supreme Court make radically different predictions about the impact of a new Justice on the Court. Using a new method for locating average majority opinion locations in a policy space, we test the predictions in a case study: the replacement of Justice Potter Stewart by Justice Sandra Day O'Connor. We find a direct effect from the new Justice: O'Connor's majority opinions were more conservative than Stewart's and neither Justice's majority opinions were located at the Court's median. In addition, O'Connor's appearance on the Court induced strong but varying peer effects among the other Justices: conservatives and most moderates wrote more conservative majority opinions while some liberals wrote somewhat more liberal opinions. These findings appear quite harsh to the Median Voter Model of Supreme Court decision making and diverge in important ways from the predictions of the Median Majority and Monopoly Author models. They appear somewhat friendlier to recent "author influence" theories. We discuss the implications for the President's ability to shape the Court's policy through appointments. The evidence suggests those opportunities are substantial.

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I. INTRODUCTORY FRAMEWORK

Presidents have sharp tools for shaping judicial policy. Among these are:

- Appointing faithful agents in federal law enforcement agencies who advance the President's policy aims, for instance, in antitrust, voting rights, affirmative action, wire tapping and surveillance, drug enforcement, and immigration contexts;¹
- Selecting ideologically compatible judges for seats in the lower federal judiciary;²
- Drafting or supporting court-curbing legislation in Congress, with an aim toward intimidating a hostile or unreceptive Supreme Court;³ and
- Mobilizing public opinion against a hostile Supreme Court, thereby pressuring the Justices.⁴

History shows the potency of these tools.⁵ But as potent as they may be, the President's "big gun" for shaping federal judicial policy remains *changing the makeup of the U.S. Supreme Court itself*.

Bringing the Supreme Court into a degree of ideological congruence is attractive to presidents, for at least four reasons. First, an ideologically congruent Supreme Court is unlikely to overturn key parts of the President's legislative program.⁶ But

1. See DAVID E. LEWIS, *THE POLITICS OF PRESIDENTIAL APPOINTMENTS* 6–8, 55–58 (2008).

2. See Erwin Chemerinsky, *Ideology and the Selection of Federal Judges*, 36 U.C. DAVIS L. REV. 619, 620 (2003) ("Every President in American history, to a greater or lesser extent, has chosen federal judges, in part, based on their ideology."); see also Richard L. Revesz, *Environmental Regulation, Ideology, and the D.C. Circuit*, 83 VA. L. REV. 1717, 1717–18 (1997) (noting the politicization of decision making in environmental cases before the D.C. Circuit and how participating judges generally reflect the views held by the party of the appointing President).

3. See Thomas S. Clark, *The Separation of Powers, Court-Curbing and Judicial Legitimacy* 14–16 (Nov. 5, 2008) (unpublished manuscript), available at <http://userwww.service.emory.edu/~tclark7/constitutional.pdf> (discussing various impetuses behind court-curbing legislation).

4. See THOMAS R. MARSHALL, *PUBLIC OPINION AND THE SUPREME COURT* 78–79, 97–98, 117 (1989) (noting that a majority of Supreme Court decisions reflect public opinion and that the Supreme Court will seldom defy nationwide public opinion).

5. See sources cited *supra* notes 1–4 (discussing the effectiveness of these tools in varying circumstances).

6. See David A. Strauss, *Memo to the President (and His Opponents): Ideology Still Counts*, 102 NW. U. L. REV. COLLOQUY 49, 50 (2007), <http://www.law.northwestern.edu/lawreview/Colloquy/2007/22/LRColl2007n22Strauss.pdf> (discussing how President Franklin Roosevelt proposed legislation to reshape

more than this, an ideologically congruent Supreme Court can oversee the lower federal judiciary and encourage compliance with an administration's goals even from judges unreceptive to the President's aims.⁷ This is important when the courts themselves implement federal legal policy. Perhaps even more critically, however, a sympathetic federal judiciary creates a supportive environment for the President's men and women throughout the bureaucracy. Secure that the courts will uphold their decisions and protect them from subsequent prosecution or liability, the President's appointees in the agencies can move with boldness, dispatch, and energy.⁸ Finally, an ideologically congruent Supreme Court can be a powerful ally in any legal or constitutional confrontation with a hostile or recalcitrant Congress.

It is important, however, not to overstate the case: for some presidents, federal legal and judicial policy is simply not a priority. Until the *Steel Seizure* case,⁹ for example, President Truman seems not to have seen the federal judiciary as valuable for much except patronage.¹⁰ Such presidents may be content merely with a federal judiciary that does not actively thwart their ends. But given the size and reach of the modern administrative state,¹¹ the scale and scope of federal law enforcement agencies and national security agencies,¹² and the

the Court, hoping to assure a majority in favor of his legislative programs, after the Supreme Court declared key features of the New Deal unconstitutional).

7. Charles M. Cameron et al., *Strategic Auditing in a Political Hierarchy: An Informational Model of the Supreme Court's Certiorari Decisions*, 94 AM. POL. SCI. REV. 101, 113–14 (2000) (noting that the Court can use the certiorari process to enforce its doctrinal preferences throughout the judicial hierarchy).

8. See THE FEDERALIST NO. 70, at 396–97 (Alexander Hamilton) (Clinton Rossiter ed., 1961) (discussing the value of a unitary executive where every magistrate would be personally responsible for his behavior, thereby allowing the chief magistrate to take swift and decisive action).

9. *Youngstown Sheet & Tube Co. v. Sawyer (Steel Seizure)*, 343 U.S. 579 (1952).

10. See SHELDON GOLDMAN, PICKING FEDERAL JUDGES 68–76 (1997) (“Truman and his administration primarily treated judgeships as patronage, in the service of the partisan agenda.”); DAVID ALISTAIR YALOF, PURSUIT OF JUSTICES 20, 38–40 (1999) (discussing how President Truman wanted to feel a sense of “personal comfort” with and loyalty from his Supreme Court nominees).

11. See LEWIS, *supra* note 1, at 20–21 (“Today the federal government employs 2.5 million civilians in full-time positions . . .”).

12. See, e.g., Department of Homeland Security, Department Subcomponents & Agencies, <http://www.dhs.gov/xabout/structure/> (last visited Apr. 13,

political saliency of some judicial actions—for instance, on bus-
ing, abortion, gun control, wire taps, and property rights¹³—
control of the federal judiciary is apt to be of at least moderate
importance to all modern presidents and of vital importance to
some.

Given the potential rewards to the President from shaping
the Court, the real issue becomes *feasibility*: under what cir-
cumstances can presidents use Supreme Court appointments to
shape judicial policy? Analytically, four questions become criti-
cal:

1. When can the President place an ideologically congru-
ent nominee on the Supreme Court, if he chooses to try?
2. If the President places an ideologically congruent Jus-
tice on the Court, is that Justice likely to serve as a faithful
agent or instead develop into an unpredictable maverick?
3. How much difference can a faithful agent make in the
Court's policy output in the short term?
4. How much difference can a faithful agent make in the
long-term?

In our view, the social scientific evidence indicates that a
careful President can usually place an ideologically congruent
nominee on the Court.¹⁴ And, the evidence suggests to us that

2009) ("More than 87,000 different governmental jurisdictions at the federal,
state, and local level have homeland security responsibilities.").

13. Cf. Emerson H. Tiller & Frank B. Cross, *What Is Legal Doctrine?*, 100
NW. U. L. REV. 517, 532 (2006) (noting that judges may be less inclined to ad-
here to strict legal doctrine in cases where the political saliency of the issue is
high).

14. See, e.g., Charles M. Cameron et al., *Senate Voting on Supreme Court
Nominees: A Neoinstitutional Model*, 84 AM. POL. SCI. REV. 525, 532 (1990)
[hereinafter Cameron et al., *Senate Voting*] (noting that a strong President can
successfully nominate a highly qualified and ideologically congruent Justice);
Lee Epstein et al., *The Increasing Importance of Ideology in the Nomination
and Confirmation of Supreme Court Justices*, 56 DRAKE L. REV. 609, 631–35
(2008) (noting that contemporary Justices "may be entrenching their Presi-
dent's views into the law—and may be doing so long after he leaves office").
Collectively and consistently, these papers show that presidents can almost
always place a nominee on the Court who is seen as well qualified. See, e.g.,
Charles M. Cameron & Jee-Kwang Park, *Voting for Justices: Change and
Continuity in Confirmation Voting 1937–2006*, at 9–10 (2007) (unpublished
manuscript, on file with authors). More specifically, when the President's co-
partisans control the Senate, he can place almost any reasonable nominee on
the Court. See *id.* at 7. Even if the President's copartisans do not control the
Senate, a nominee will likely prove successful if her record is void of scandal-
ous behavior, partisan political involvement, or controversial activities and if
she is manifestly well qualified for the job. See *id.* at 10; Epstein et al., *supra*
at 628. And, even when the Senate rejects a nominee, the President can return

presidents who take the trouble to screen, groom, cultivate, repeatedly test, and promote cadres of probable soul-mates are very likely to identify and place consistent and reliable agents on the Court.¹⁵ Accordingly, we turn to the third question: What difference does a new Justice make, especially in terms of short-term policy?

The central point of this Article is this: *your answer depends on your theory of the Court*. More precisely, your answer depends on your understanding of how the *characteristics* of the Justices on the Court—especially their ideological commitments—map into *judicial or policy outcomes*, especially on average or on average for important cases. How this mapping or aggregation works is the subject of contemporary social scientific theories of collegial courts.¹⁶

To illustrate, consider a concrete example: the replacement of Thurgood Marshall by Clarence Thomas. By most accounts, Marshall was one of the most liberal Justices who ever served on the High Court;¹⁷ Thomas is one of the most conservative

with an ideologically similar person and achieve success. See Cameron et al., *Senate Voting*, *supra* at 532.

15. See STEVEN TELES, *THE RISE OF THE CONSERVATIVE LEGAL MOVEMENT* 1–2 (2008) (identifying the fact that conservatives have made a concerted effort to find and place reliable agents on the Court); Ward Farnsworth, *The Use and Limits of Martin-Quinn Scores to Assess Supreme Court Justices, with Special Attention to the Problem of Ideological Drift*, 101 NW. U. L. REV. COLLOQUY 1891, 1901–02 (2007), <http://www.law.northwestern.edu/lawreview/v101/n4/1891/LR101n4Farnsworth.pdf> (noting that presidents can act to reduce the chances of future erratic ideological behavior while on the Court by choosing their agents more carefully); see also Charles M. Cameron & Jee-Kwang Park, *How Will they Vote? Predicting the Future Behavior of Supreme Court Nominees, 1937–2006*, at 4, 14–15, 22–24 (2007) (unpublished manuscript, on file with authors), available at <http://www.princeton.edu/~ccameron/HowWillTheyVote.pdf> (describing how improved measures predict future behavior better while also noting that the predictability of nominees has increased substantially over time). *But see* Lee Epstein et al., *Ideological Drift Among Supreme Court Justices: Who, When, and How Important?*, 101 NW. U. L. REV. 1483, 1493, 1497, 1519, 1526 (2007) (commenting that some Justices seem to change their voting behavior on case dispositions over time, thus calling into question the ability of presidents to place faithful agents on the Court).

16. See, e.g., Bernard Grofman & Timothy J. Brazill, *Identifying the Median Justice on the Supreme Court Through Multidimensional Scaling: Analysis of “Natural Courts,”* 112 PUB. CHOICE 55, 57, 63 (2002); Keith Krehbiel, *Supreme Court Appointments as a Move-the-Median Game*, 51 AM. J. POL. SCI. 231, 235, 238 (2007) (discussing the move-the-median model and its implication for Supreme Court appointments to shift policy objectives of the Court).

17. See, e.g., Guy-Uriel E. Charles, *Colored Speech: Cross Burnings, Epistemics, and the Triumph of the Critics?*, 93 GEO. L.J. 575, 624 (2005) (“For the

since the New Deal.¹⁸ What difference if any did this change in personnel make for policy outcomes between the last natural court¹⁹ on which Marshall served (Rehnquist 4)²⁰ and the first natural court on which Thomas served (Rehnquist 5)?

In thinking about how the Marshall-Thomas switch *might* make a difference we can distinguish three distinct potential mechanisms. These are:

The *direct effect*—the difference in average content between the arriving Justice’s majority opinions and the departing Justice’s majority opinions. Were Thomas’s majority opinions more conservative than Marshall’s?

Peer effects—the difference in content between a *continuing* Justice’s majority opinions before and after the arrival of the new Justice. Did liberal Justice William Brennan’s opinions shift in a conservative direction after Thomas’s arrival? Or did they become even more liberal? How about the majority opinions penned by conservative Justice William Rehnquist?

Context distribution effects—the difference in critical decision contexts, such as opinion assignment or disposition coalition, following the turnover in membership. Did liberal Justices receive fewer assignments of important cases, following the Marshall-Thomas switch, resulting in more conservative opinions in important cases even absent any peer effects?²¹

majority of Justice Marshall’s time on the Court, he was one of the most liberal members . . .”).

18. See, e.g., Lee Epstein & Tonja Jacobi, *Super Medians*, 61 STAN. L. REV. 37, 82 n.183 (2008) (noting commentary suggesting that Justice Thomas is “consistently the most conservative voter on the Court”).

19. A “natural court” refers to a Supreme Court whose membership is constant. The departure of a Justice marks the end of one natural court; the arrival of his or her replacement marks the beginning of the next. LEE EPSTEIN ET AL., *THE SUPREME COURT COMPENDIUM* 313 (1994). Because the bargaining dynamics on a multimembered court reflect its membership, natural courts (rather than annual terms, for instance) form the logical unit for studying bargaining and coalition formation on the Supreme Court. See *id.* at 303–13 for a listing of Supreme Court natural courts through 1993.

20. Throughout this Article, we label natural courts according to the classifications provided in Harold Spaeth’s database. See HAROLD J. SPAETH, *THE ORIGINAL UNITED STATES SUPREME COURT JUDICIAL DATABASE* (2009), <http://www.cas.sc.edu/poli/juri/sctdata.htm>. The Spaeth database begins a natural court each time a Justice leaves or joins the Court. As a result, some natural courts identified by the Spaeth database have open seats. Professor Epstein et al. provide an alternative classification that begins a natural court each time a new Justice joins the Court. See EPSTEIN ET AL., *supra* note 19, at 303–13.

21. To these one might add a *case selection effect*—the difference in type of cases selected following the turnover in membership. For instance: Did the new Court take more or fewer extremely consequential cases than did the pre-

Expectations about these three effects depend on one's theory of the Court. Suppose, for example, you adopt one common approach to understanding the Court, the Monopoly Author theory.²² According to this theory, authors write plurality opinions expressing their own policy preferences.²³ So this theory predicts that opinions authored by Thomas will be vastly different from those authored by Marshall. In other words, the direct effect for Thomas- versus Marshall-authored opinions is predicted to be huge, perhaps even eye-popping. On the other hand, Monopoly Author theory predicts that the ideological tenor of opinions authored by continuing Justice Brennan will be exactly the same across the two courts, as will those authored by Justice Rehnquist in the two courts. In other words, the theory predicts zero peer effects. Since their ideologies were so similar, the theory also predicts that Brennan's opinions will be similar in content to those authored by Marshall, and Rehnquist's will be similar to Thomas's. Consequently, if the opinions assigned to Thomas would have gone to Marshall, and other assignments remain the same, Thomas's impact on the Court's average policy output would be substantial and equal to his direct decision impact (weighted by the number of cases involved). Moreover, if Thomas's presence on the Court allowed the redirection of important cases from liberals to conservatives, then his impact on the new Court's policy would be even greater, magnifying the direct effect. Conversely, though, if the cases assigned to Thomas all would have gone to Rehnquist, and those that would have gone to Marshall were just reassigned to Brennan, and all other cases retained their assignments, Thomas's impact on the Court's average policy would be very modest: the distribution effect from his appointment would counteract or offset the direct decision effect. The Monopoly Author theory is silent about predicted context effects,²⁴

vious Court? We will not consider case selection effects in this Article.

22. The Monopoly Author theory can be seen as the game-theoretic version of the earlier behavioralist "attitudinal model," which asserted that Justices vote on the merits in accord with their personal ideologies. See JEFFREY A. SEGAL & HAROLD J. SPAETH, *THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED* 86–97 (2002) (discussing the attitudinal approach in detail); see also *infra* Part III.C (discussing the Monopoly Author approach).

23. See SEGAL & SPAETH, *supra* note 22, at 86.

24. See THOMAS H. HAMMOND ET AL., *STRATEGIC BEHAVIOR AND POLICY CHOICE ON THE U.S. SUPREME COURT* 52 (2005) (noting that Segal and Spaeth's attitudinal model "did not provide any kind of carefully specified model" to predict "whether the justice's earlier behavior is influenced by strategic considerations").

but one might expect conservative Chief Justice William Rehnquist to use his administrative powers to exploit context effects, thereby magnifying Thomas's impact.

Other theories of the Supreme Court make quite different, even wildly different, predictions about the three effects. For example, consider surely the most prominent theory of Supreme Court decision making, the Median Voter (MV) approach.²⁵ Theorists of nomination politics almost always assume this theory.²⁶ As explained in Part III, this theory holds that the content of the majority opinion corresponds to the wishes of the Court's median voter, irrespective of who authored the opinion or which Justices voted with the majority in the case's disposition.²⁷ In the Marshall-Thomas example, the Median Voter approach predicts a moderate direct effect rather than a large one, as the median moved moderately in a conservative direction. It predicts similarly moderate peer effects, rather than zero effects for all the continuing Justices. And, it predicts those peer effects will be identical for each and every continuing Justice. Finally, it holds that distribution effects are irrelevant rather than potentially consequential, since all majority opinions are predicted to have the same ideological content.

Can we glean any evidence from the empirical record to show which theory or theories best accords with the facts, and which theories seem far off the mark? And, what do the better-performing theories imply about the President's ability to shape the Court and its near-term policies? In this Article we hope to make progress in answering these questions. To do so, we carefully examine one case of judicial turnover, the replacement of Justice Potter Stewart by Justice Sandra Day O'Connor. We employ this case study primarily because the last natural court containing Justice Stewart (Burger 6) and the

25. See, e.g., *id.* at 79–215 (applying the Median Voter theorem to develop a formal model of strategic decision making on the Supreme Court); Epstein & Jacobi, *supra* note 18, at 44–49 (same).

26. See, e.g., Krehbiel, *supra* note 16, at 232–36; Bryon J. Moraski & Charles R. Shipan, *The Politics of Supreme Court Nominations: A Theory of Institutional Constraints and Choices*, 43 AM. J. POL. SCI. 1069, 1072–73 (1999); David W. Rohde & Kenneth A. Shepsle, *Advising and Consenting on the 60-Vote Senate: Strategic Appointments to the Supreme Court*, 69 J. POL. 664, 666–67 (2007).

27. See *infra* Part III.A (explaining the role of the Median Voter approach in Supreme Court decision making).

first containing Justice O'Connor (Burger 7) were so lengthy that they provide an abundance of data for comparison.

The structure of the Article is as follows. In Part II we review the measures of judicial preferences we employ and propose a new and feasible empirical method for estimating the average location in a policy space of a group of majority opinions, for example, all the majority opinions authored by a particular Justice or all the majority opinions authored by a particular Justice in a particular dispositional coalition. In Part III we review the major contending theories of policymaking on the U.S. Supreme Court and draw out their implications for the policy impact of a new Justice. We emphasize predictions we can test with the Burger 6 and Burger 7 data. Part IV, the heart of the Article, presents the Stewart-O'Connor case study. In Part V we briefly discuss the implications of our findings for the President's ability to shape the Court's policy through appointments.

We can summarize our principal findings succinctly. Although opinion assignment patterns did shift somewhat between Burger 6 and Burger 7, the most important consequences appear to be the direct and peer effects. The direct effect was sizeable: O'Connor's opinions were considerably more conservative than Stewart's. The switch also induced sizeable peer effects in the other Justices. However, these were not uniform: conservatives and right-leaning moderates tended to write more conservative opinions. In contrast, the most extreme liberals and some left-leaning moderates wrote more liberal opinions. These patterns appear quite harsh to many of the theories, especially the Median Voter theory. They appear friendlier to recent "author influence" theories. The implications for presidential power are very clear: every nomination can matter, not just those that move the median, and peer effects can be just as consequential as direct effects. In short, the President's ability to shape judicial doctrine can be substantial, if he chooses to try.

II. MEASUREMENT TECHNIQUES

A. THE JUSTICES' PREFERENCES

Modern theories of collegial courts typically assume judges have most-preferred policies or rules.²⁸ In this sense, judges are

28. See, e.g., Ward Farnsworth, *Dissents Against Type*, 93 MINN. L. REV.

assumed to be somewhat similar to congressmen, presidents, or knowledgeable engaged citizens. Legal scholars sometimes justifiably bristle at what can appear at times as an unreflective legal realism, but a half-century of data analysis demonstrates unequivocally that no theory of Supreme Court decision making can get very far without positing a degree of policy preferences by the Justices.²⁹

Empirically estimating the Justices' ideologies has been, and remains, a challenge. Roughly speaking, the state of the art has gone through three phases. First, analysts used the party of the appointing President as a proxy for ideology under the fairly reasonable but hardly perfect assumption that Republican presidents tend to nominate conservatives and Democratic presidents tend to nominate liberals.³⁰ The release of the U.S. Supreme Court Judicial Data Base³¹ allowed a somewhat more refined practice, however. The data's compiler, Professor Harold Spaeth of Michigan State University, scored the disposition in each Supreme Court case since 1952 as "liberal" or "conservative," based on the identity of the prevailing litigant.³² Using Spaeth's scoring, one can easily calculate the percentage of the time a Justice voted for Spaeth's "liberal" case disposition. This percentage was widely used as a measure of judicial ideology during the 1990s.³³

Around 2000, judicial scholars began to adapt sophisticated scaling methods, originally developed by congressional scholars

1535, 1536–37 (2009) (noting how most legal realists assume that judges vote according to their policy preferences); Lewis A. Kornhauser, *Appeal and Supreme Courts*, in VII ENCYCLOPEDIA LAW AND ECONOMICS, CIVIL AND CRIMINAL PROCEDURE 45, 54, 57 (2000), available at <http://encyclo.findlaw.com/7200book.pdf> (noting in a survey of economic literature on judicial appeals and collegiality of courts that various authors assume judges have an ideal or most-preferred policy).

29. See Kornhauser, *supra* note 28, at 54, 57 (noting that a majority of Supreme Court decision-making theories assume that judges have policy preferences).

30. See Daniel R. Pinello, *Linking Party to Judicial Ideology in American Courts: A Meta-Analysis*, 20 JUST. SYS. J. 219, 221, 240–43 (1999) (analyzing numerous empirical studies that have sought to connect party identification with judicial ideology and concluding that political party affiliation "is a dependable measure of ideology in modern American courts").

31. SPAETH, *supra* note 20.

32. *Id.* at 53–55.

33. See, e.g., Frank B. Cross, *Political Science and the New Legal Realism: A Case of Unfortunate Interdisciplinary Ignorance*, 92 NW. U. L. REV. 251, 252, 303 (1997) (discussing Segal and Spaeth's use of the Judicial Database in designing their attitudinal model).

to infer congressmen's ideologies from their roll call voting, and applied them to the Justices' votes on case dispositions.³⁴ These scaling methods typically estimate a one-dimensional policy scale and infer for each Justice a most-preferred or "ideal point" on the scale.³⁵ Professor Ward Farnsworth has provided a non-technical but sophisticated appreciation of the most widely used of these measures, the "Martin-Quinn" or MQ scores.³⁶ As Farnsworth notes, the scaling technique is based on how similar the voting on case dispositions were for the Justices—Justices who voted similarly are assigned similar scores, and Justices who vote differently receive different scores.³⁷

The MQ scale is centered on zero,³⁸ with negative scores indicating liberal preference and positive scores indicating conservative preference. In fact, the MQ scores correlate very highly with "percent liberal voting" scores; empirically, a zero lifetime MQ score translates into about fifty percent voting in the liberal direction.³⁹ The similarity between the two scores is hardly surprising since both use essentially the same data—votes on case dispositions. However, the MQ scores do not rely on Spaeth's sometimes awkward "liberal"/"conservative" coding of case dispositions; rather, they employ the raw disposition

34. See Joseph Bafumi et al., *Practical Issues In Implementing and Understanding Bayesian Ideal Point Estimation*, 13 POL. ANALYSIS 171, 171–87 (2005); Michael A. Bailey, *Comparable Preference Estimates Across Time and Institutions for the Court, Congress, and Presidency*, 51 AM. J. POL. SCI. 433 (2007); Grofman & Brazill, *supra* note 16, at 55–73; Andrew D. Martin & Kevin M. Quinn, *Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953–1999*, 10 POL. ANALYSIS 134 (2002). In fact, the scaling methods were originally developed by psychologists to infer latent variables like respondent ability (for example, IQ), based on test performance. See, e.g., R. Darrell Bock, *A Brief History of Item Response Theory*, 16 EDUC. MEASUREMENT: ISSUES AND PRACTICE 21, 21–33 (1997). From the perspective of so-called "item response theory," each case is equivalent to a test question, a dispositional vote is equivalent to an answer to the question, and the inferred Justice ideology is equivalent to the respondent's ability. See *id.* A given answer is not assumed to be correct or incorrect, but rather it is assumed that discriminating questions can differentiate liberal and conservative answers. See *id.*

35. See Bailey, *supra* note 34, at 434; Martin & Quinn, *supra* note 34, at 145–47.

36. See Farnsworth, *supra* note 15, *passim*.

37. See *id.* at 1892–94.

38. See Bailey, *supra* note 34, at 435 fig.2.

39. In similar fashion, the latent respondent ability measures recovered by item response theory typically correlate at .95 or better with the simple percentage of correct answers on the test.

votes themselves.⁴⁰ In addition, the MQ scores use only non-unanimous case dispositions, since unanimous disposition votes do not help distinguish the Justices ideologically.⁴¹ In essence, then, the MQ scores summarize each Justice's demonstrated propensity to vote for liberal dispositions in non-unanimous cases. In turn, under some rather strong additional assumptions, these propensities can be seen as proxies for "ideal points" or most-preferred policies or rules.⁴²

Justice	Lifetime MQ Score	Liberal Voting Disposition Burger 6 (1976–1981)	Liberal Voting Disposition Burger 7 (1981–1986)	Seat Rank Burger 6	Seat Rank Burger 7
Marshall	-2.000	.73	.72	1	1
Brennan	-1.294	.72	.70	2	2
Stevens	-0.440	.56	.55	3	3
Blackmun	-0.137	.45	.56	4	4
Stewart	0.140	.49	—	5 (median)	—
White	0.176	.44	.42	6	5 (median)
Powell	0.398	.39	.37	7	6
O'Connor	0.780	—	.37	—	7
Burger	0.813	.34	.34	8	8
Rehnquist	1.663	.23	.28	9	9

Table 1. Disposition Scores for Justices on Burger 6 and Burger 7. Shown are constant "ideal point" Martin-Quinn (MQ) scores for the Justices on Burger 6 and Burger 7, derived from their voting associations in case dispositions in non-unanimous disposition coalitions. Also shown is each Justice's "liberal voting" in dispositions in each Court, as scored by Harold Spaeth. Finally shown is the ordinal rank order of each Justice on the Court, based on the constant MQ scores.

Table 1 provides both the "liberal voting" and MQ scores for the Justices on Burger 6 and Burger 7. The liberal voting

40. See Farnsworth, *supra* note 15, at 1892–94 ("The Martin-Quinn method keeps track of only one thing: whether a Justice voted to affirm or reverse a case."); Martin & Quinn, *supra* note 34, at 137. One must make a few other assumptions to tie down the direction of the scale, for example, by assuming that a well-known liberal like William Douglas identifies the liberal end of the scale.

41. See Martin & Quinn, *supra* note 34, at 137.

42. See Bailey, *supra* note 34, at 434. These assumptions include: no strategic voting on case dispositions, an unchanging mix of cases on the docket, no response by the Justices to outside pressure such as court-curbing legislation, and invariance of the scale to the entry and exit of Justices, among others.

scores are on Burger 6 and 7 alone, respectively. The MQ score is each Justice's lifetime score.⁴³ It will be seen that the *ranking* generated by the measures is generally quite plausible, for example, Marshall and Brennan rank as the first and second most liberal Justices and Rehnquist and Burger rank as the most conservative and next most conservative Justices. Analysis of a variety of other measures (for example, voting in non-unanimous cases) suggests that the ordering of the three most liberal and three most conservative Justices on the two courts is very stable; the ordering in the middle can shift slightly depending on which measure is used. Putting a great deal of confidence in the MQ cardinal estimates requires more faith.⁴⁴ Again, though, the numbers appear fairly plausible. In some cases, several Justices have such similar scores that they seem almost interchangeable ideologically, for example, Stewart and White on Burger 6 and O'Connor and Burger on Burger 7.

B. AVERAGE OPINION LOCATIONS: THE JOIN TECHNOLOGY

Contemporary theories of the Supreme Court focus on policymaking rather than dispute resolution.⁴⁵ Consequently they highlight *opinion content* rather than *case dispositions* (whether the plaintiff or the defendant prevails). Determining which

43. Martin and Quinn have calculated yearly scores. See Martin & Quinn, *supra* note 34, at 146 tbl.1 (reporting posterior density of ideal points of U.S. Supreme Court Justices, 1953–1999, for the constant ideal point model). But these scores are extremely unstable, and we doubt they provide much useful information beyond the lifetime scores. Michael Bailey has estimated similar scores. See Bailey, *supra* note 34. The Bailey scores are stabilized through “bridging techniques” used to “link actors across time and institutions.” *Id.* at 433–34 (explaining data observations and measures used in the methodology). When Bailey's scores are averaged over the two natural courts, they present a picture similar to the lifetime MQ scores and the court-specific percent liberal voting scores. These averages can be calculated from data at <http://www.georgetown.edu/faculty/baileyma/Data.htm>.

44. Cardinal scores for extreme Justices (i.e., Rehnquist and Marshall) can be particularly problematic since by definition there is no more extreme Justice with which to contrast the extremists' voting behavior. As a result, the scaling methods have a hard time pinning down these Justices' scores very precisely.

45. See generally LEE EPSTEIN & JACK KNIGHT, *THE CHOICES JUSTICES MAKE* (1997) (providing a strategic model of judicial behavior premised on the theory that Justices' votes are shaped by external factors as well as policy preferences); SEGAL & SPAETH, *supra* note 22 (developing a behavioral model based on the presupposition that Justices' votes are the product of their policy preferences).

party prevailed is straightforward, but measuring opinion content is hard. So, what can be done?⁴⁶

Among political scientists, the most frequently employed method for measuring opinion content is fact-pattern analysis.⁴⁷ This approach uses statistical methods to infer legal doctrine based on case dispositions in cases with given fact patterns, for example, in search and seizure cases.⁴⁸ When case dispositions for a given fact pattern change after a landmark case or cases, one can infer that the content of those cases changed doctrine.⁴⁹ Unfortunately, it is not clear that typically employed statistical methods reliably detect doctrinal changes.⁵⁰ And, scholars have raised questions whether commonly employed statistical methods can actually recover the underlying doctrines used by judges.⁵¹

In an innovative paper, Tom Clark and Benjamin Lauderdale use patterns of favorable citations between cases to infer doctrinal similarity and dissimilarity between opinions, for example, in search and seizure or freedom of expression cases.⁵² Positing a formal model of citation practices, they structurally estimate the location of cases in a policy space as well as the ideal points or rules of the Justices.⁵³ They then test some of

46. Theories of Supreme Court decision making can be tested indirectly, for example, by examining predicted patterns of opinion assignment, see Jeffrey R. Lax & Charles M. Cameron, *Bargaining and Opinion Assignment on the Supreme Court*, 23 J.L. ECON. & ORG. 276 (2007), or by examining patterns in vote fluidity, Jeffrey R. Lax & Kelly T. Rader, *Legal Constraints on Supreme Court Decision Making: Do Jurisprudential Regimes Exist?*, 71 J. POL. (forthcoming 2009) (manuscript at 2–4), available at <http://www.columbia.edu/~jrl2124/Random%20Regimes.pdf>. We, however, emphasize opinion content because our focus is on policy content.

47. See, e.g., JEFFREY ALLAN SEGAL, *PREDICTING SUPREME COURT CASES PROBABILISTICALLY: THE SEARCH AND SEIZURE CASES, 1962–1981*, at 3–15 (1983).

48. *Id.*; Lax & Rader, *supra* note 46 (manuscript at 4, 20–21).

49. Mark J. Richards & Herbert M. Kritzer, *Jurisprudential Regimes in Supreme Court Decision Making*, 96 AM. POL. SCI. REV. 305, 305–06 (2002) (positing that changes in the law form different “jurisprudential regimes” that influence relevant decision-making processes).

50. See Lax & Rader, *supra* note 46 (manuscript at 3–5).

51. Jonathan P. Kastellec, *The Structure of Legal Rules and the Analysis of Judicial Decisions* 4–13 (Jan. 30, 2007) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=960190#.

52. Tom S. Clark & Benjamin Lauderdale, *Locating Supreme Court Opinions in Doctrine Space* (Mar. 23, 2009) (unpublished manuscript), available at <http://userwww.service.emory.edu/~tclark7/doctrine.pdf>.

53. *Id.* at 6–11.

the predictions of contemporary theories of the Court.⁵⁴ Using their estimates, they find little support for the Median Voter (MV) approach—opinions do not appear to be located at the ideal point of the median Justice.⁵⁵ Nor do they find much support for the Monopoly Author approach—majority opinion content does not appear to closely track the author’s preferences.⁵⁶ Instead, they find that majority opinions tend to cluster in the center of the disposition coalition.⁵⁷ This finding affords some support for the Majority Median approach and possibly for the Entry Blocking and Gravitational Attraction models.⁵⁸

An advantage of Clark and Lauderdale’s scaling method is that it recovers a majority opinion location for *individual* cases. Unfortunately, though, it requires large amounts of coded citation data for each case and many related cases. Eventually it may be possible to apply this method to many different types of cases, but this possibility lies in the future.

Here, we propose a new and extremely simple method, the “join technology,” for measuring the average opinion location for a group of majority opinions.⁵⁹ The join technology cannot provide a precise measure of individual opinion locations. Over a series of opinions, however, it often yields a reasonable measure of *average* locations. The critical maintained assumption of the join technology is that a Justice is more likely to join a majority opinion as its proximity to her preferred rule increases. Conversely, the more distant the opinion, the less likely she is to join (that is, she is more likely to concur or dissent). Cameron and Kornhauser provide explicit micro-foundations for this idea,⁶⁰ but it is so straightforward that it is compatible with all

54. *Id.* at 11–15; *see also infra* Part III.

55. Clark & Lauderdale, *supra* note 52, at 18–21.

56. *Id.*

57. *Id.* (“[The] results represent considerable evidence in support of the coalition median model, at least relative to the median justice and author monopoly models.”).

58. *See infra* Part III.

59. Precursor ideas can be found in Chad Westerland, Who Owns the Majority Opinion? An Examination of Policy Making on the U.S. Supreme Court (Aug. 29, 2003) (unpublished manuscript), *available at* http://www.allacademic.com/meta/p62042_index.html, and Cliff Carrubba et al., Does the Median Justice Control the Content of Supreme Court Opinions? (unpublished manuscript), *available at* http://www.law.nyu.edu/ecm_dlv/groups/public/@nyu_law_website_academics_colloquia_law_economics_and_politics/documents/documents/ecm_pro_059079.pdf. We do not fully pursue these precursor ideas in this Article.

60. Charles M. Cameron & Lewis A. Kornhauser, *Modeling Collegial*

five of the contemporary theories of Supreme Court decision making.

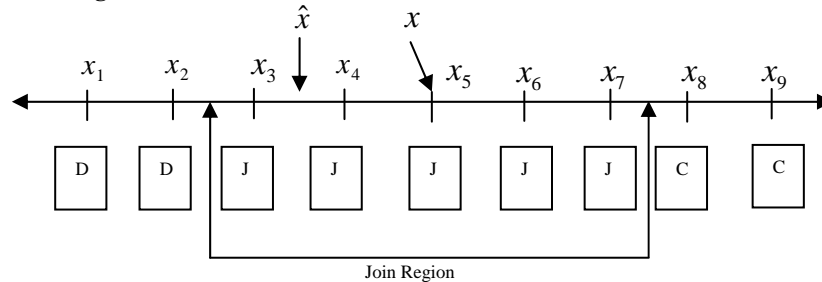
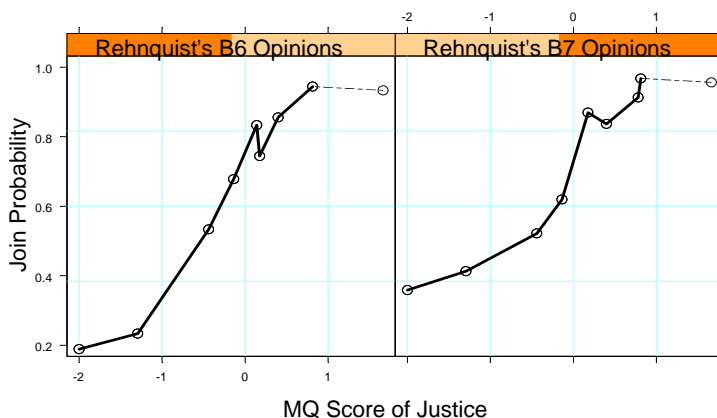


Figure 1. How Join Propensities Narrow Opinion Locations. In the figure, the case location (for example, the level of care exercised by Defendant) is shown by \hat{x} , the most-preferred opinion content of Justice i (for example, the standard of care) is shown by x_i , and the content of the majority opinion by x . Each Justice's dissent, join, or concur decision is indicated by the appropriate symbol—D, J, or C—in the boxes. Justices 3–7 are close enough to the opinion to endorse it via a join. Justices 8 and 9 are too distant. Justices 1 and 2 dissent (so, the case disposition is 2–7). The opinion must be located to the right of the mid-point between Justice 2 and 3's ideal rules, and to the left of the mid-point of Justices 7 and 8's ideal rules. Different cases may expand or shrink the edges of the join region due to different saliency or writing costs, but if opinions are consistently located closer to Justice 5 than any other Justice, she will display the greatest propensity to join them.

Figure 1 illustrates the basic idea. Suppose a theory indicates that majority opinions are located at Justice 5's ideal rule. If so, Justice 5 is extremely likely to join a given majority opinion while more distant Justices are less likely to do so. Over a series of majority opinions, the propensity of Justices to join opinions located at x_5 may vary somewhat. For example, cases addressing some subject-matter areas may be highly important to the Justices, so even Justices close to x_5 may refuse to join the opinion. Or, writing costs may be so high that even distant Justices may be inclined to join rather than write separately. But across a large number of cases, it will be Justice 5 who *consistently* shows the greatest propensity to join, since she is the Justice most proximate to the majority opinion.

At least three complications cause difficulties to this theory in practice. First, there are only nine Justices so the policy space is quite granular. For example, Justices 4 and 5 may both be highly inclined to join opinions written by a particular Jus-

tice, so we can say that opinions appear on average to be written somewhere between the two of them. Unfortunately, though, this distance may be rather large. Second, the Justice assigned to author an opinion is very likely to join her own majority opinion even though she may have placed it some distance from her ideal rule. This is because writing a concurrence to her own opinion would require an even greater expenditure of effort. Not surprisingly, authors almost always join their own majority opinions.⁶¹ Consequently, the join decisions of the opinion author are not particularly informative about the location of her opinion. Finally, the technology works much better for lopsided disposition coalitions (9–0, 8–1, 7–2) than narrow ones, especially the 5–4 disposition. This is because the join method uses the difference between joining and non-joining (concurring or dissenting) to identify the most likely location of the opinion. But in a 5–4 opinion, all the Justices in the disposition majority are likely to join the majority opinion to avoid a weaker judgment. Consequently, the join technology can only indicate “the opinion was somewhere on (say) the right side of the Court, not the left.”⁶²



61. But see, for example, *Bush v. Vera*, 517 U.S. 952, 956, 990 (1996), where Justice O'Connor announced the judgment of the Court, wrote a first opinion joined by Chief Justice Rehnquist and Justice Kennedy, and then wrote a second, unjoined concurring opinion.

62. The simple version of the join technology used here also assumes similar underlying join behavior by the Justices. If a particular Justice displayed idiosyncratic join tendencies—high or low—it would make detection of the most likely opinion location more difficult. Sophisticated statistical methods offer hope of a “fix-up” to this problem, but we do not pursue this point any further here.

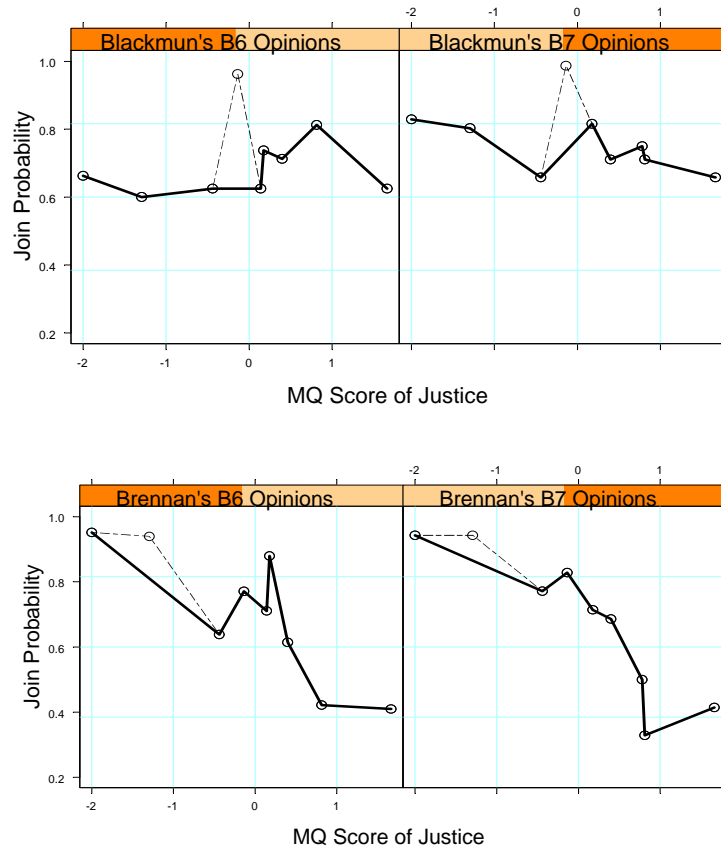


Figure 2. Empirical Joint Functions: Majority Opinions Authored by Rehnquist, Blackmun, and Brennan. The panels on the left show the empirical joint functions for the majority opinions of Justices Rehnquist, Blackmun, and Brennan on Burger 6. The panels on the right show the similar joint function for the same Justices on Burger 7. The dotted line indicates the propensity of the opinion author to join his own opinions. Observations are arrayed by the Martin-Quinn score of the joining Justice. For example, in Burger 6, Marshall (MQ Score = -2) joined Rehnquist's majority opinions about twenty percent of the time, while Burger (MQ Score=.81) joined Rehnquist's opinions over ninety percent of the time. The pattern of joins suggests Rehnquist placed his majority opinions near Burger's ideal rule.

Despite these limitations, the join technology often can be quite revealing. Figure 2 illustrates the join technology with actual data from the Burger 6 and Burger 7 natural courts. Each panel concerns the majority opinions written by a single Justice. For example, the top panel of Figure 2 examines the majority opinions authored by Justice Rehnquist. The y -axis in

each figure is the probability of joining that author's opinions, where a score of 1.0 means a 100% probability of joining. The *x*-axis shows the estimated ideology of the Justices on the natural court other than the author, using the constant MQ scores. For example, in Burger 6, Justice Marshall (MQ Score = -2) joined Rehnquist's opinions about twenty percent of the time, while Chief Justice Burger (MQ Score = .81) joined Rehnquist's opinions over ninety percent of the time. The inference is that, on average, Rehnquist placed his opinions near Burger's most-preferred policy and far from Marshall's. This appears to be true in both Burger 6 and Burger 7.

Estimating the mostly likely average placement of Blackmun's majority opinions in Burger 6 is also easy: they also seem to have been located near Burger. The pattern in Blackmun's Burger 7 majority opinions is somewhat more complicated since two distinct locations display nearly identical high percentages of joins. But a reasonable supposition is that Blackmun's opinions were located between Justice White (MQ Score = .176) and Blackmun himself (MQ Score = -.137). Thus, Blackmun's majority opinions seem to shift left, between the two courts.

The pattern for Brennan's opinions in Burger 6 suggests he wrote two rather distinct sets of majority opinions, one quite liberal, the other calculated to appeal to moderates. But most seem to have been quite liberal. The location of his opinions in Burger 7 is more clear-cut: to the left, near Justice Marshall.

To understand the broader applicability of this new join technology, it is first useful to lay out the structure of existing Supreme Court predictive theories.

III. NOMINEE IMPACT: WHAT THE THEORIES PREDICT

Until recently, neither political scientists nor legal scholars considered the relationship between the Court's ideological make-up and the content of its majority opinions carefully enough to specify plausible links between the two. Instead, political scientists focused on empirical studies of individual Justices' voting behavior and, as a result, almost exclusively on voting over case dispositions.⁶³ While interesting, this line of inquiry by its very nature cannot provide a foundation for analyzing what difference a new Justice makes for the Court's poli-

63. See generally EPSTEIN ET AL., *supra* note 19 (calculating many voting indices based on dispositional votes).

cies. Just to be clear: such studies can indicate, for instance, that Justice *i* votes liberally sixty percent of the time on case dispositions and her replacement, Justice *i'*, votes liberally twenty percent of the time. Or, that Justice *i*'s voting on case dispositions suggests an "ideal point" of .14 while that of his replacement suggests one of .78. But *this tells us nothing about the content of the Court's majority opinions*. For that, we need a theory about how voting predilections on case dispositions or the inferred "ideal points" map into majority opinion content.

Fortunately, the theoretical landscape of judicial politics has changed dramatically, and in a remarkably brief time (basically since 2005).⁶⁴ At present there are five distinct theories or approaches to Supreme Court decision making, each based on an explicitly formalized or semi-formalized game-theoretic model of decision making on a collegial court. Each of these theories predicts quite clearly how the make-up of the Court translates into the (general) content of plurality opinions, given case characteristics and relevant decision contexts like opinion assignment or disposition coalition. The five theories are: (1) the Median Voter (MV) approach;⁶⁵ (2) the Majority Median (MM) model;⁶⁶ (3) the Monopoly Author (MA) approach;⁶⁷ (4) the Entry Blocking (EB) model;⁶⁸ and (5) the Gravitational Attraction (GA) model.⁶⁹

64. An important precursor to contemporary theory is Edward P. Schwartz, *Policy, Precedent, and Power: A Positive Theory of Supreme Court Decision-Making*, 8 J.L. ECON. & ORG. 219 (1992), which first attempted to adapt median voter models to collegial courts, *id.* at 219–21. Another important precursor is Lewis A. Kornhauser, *Modeling Collegial Courts. II. Legal Doctrine*, 8 J.L. ECON. & ORG. 441 (1992), which created a framework, adopted in much recent work, that allows one to distinguish case locations, case dispositions, and opinion content. *See id.* at 443–59.

65. *See* HAMMOND ET AL., *supra* note 24; Lax & Cameron, *supra* note 46. In essence, the theory argues that the Supreme Court is like the floor of Congress (open-rule). *Id.* at 276.

66. *See* Carrubba et al., *supra* note 59. This theory argues that voting on dispositions is always sincere, and that the majority is something like an open-rule Congress, where there is free debate and amendments can be proposed from the floor. *Id.* at 15–18.

67. *See* HAMMOND ET AL., *supra* note 24; Cameron & Kornhauser, *supra* note 60; Lax & Cameron, *supra* note 46. In this model, the Supreme Court is like the closed-rule floor of Congress, where time limits are set on debate and no amendments may be made from the floor. *Id.* at 276–77.

68. *See* Lax & Cameron, *supra* note 46. Here, writing costs afford the author some monopoly power. *Id.* at 276–80.

69. *See* Cameron & Kornhauser, *supra* note 60. In this model, authors like proximate opinions but seek joins. *Id.* at 13.

As we have emphasized, however, if one wants to evaluate the policy impact of a new appointee, one cannot take case characteristics or decision contexts like opinion assignment and disposition coalition as fixed, since they themselves are likely to reflect the composition of the Court and thus change as the Court's makeup changes. Unfortunately (but probably not surprisingly) much less progress has been made in theorizing how the make-up of the Court affects case selection, opinion assignment, and disposition coalitions. In some cases, though, the new theories make such strong predictions that we can perceive their implications in these areas too.

A. MEDIAN VOTER APPROACH

Suppose there is a potential candidate opinion that would beat or tie any other conceivable candidate opinion in a pair-wise majority vote. In voting theory, such a candidate is known as a "Condorcet winner."⁷⁰ The Median Voter (MV) approach assumes the Court's decision context is such that a Condorcet-winning opinion always exists, and that the Court employs a decision process that actually selects this Condorcet-winning proposal.⁷¹ Scholars often assume that Congress's "open rule" procedure, in which a given proposal may be amended through majority vote thereby yielding pair-wise votes between competing proposals that continue until finally a proposal emerges that cannot be beaten by another proposal (a Condorcet winner), is applicable in the judicial context.⁷² The circumstances under which a Condorcet winner is guaranteed to exist are very well understood, and the authors of MV models are careful to assume those conditions. As it happens, the Condorcet winner is typically the ideal point of the MV, when conditions are such

70. See PETER C. ORDESHOOK, A POLITICAL THEORY PRIMER 80-86 (1992) (providing a description of the conditions under which voting rules select a Condorcet winner).

71. See HAMMOND ET AL., *supra* note 24 (applying the MV model directly to the study of judicial decision making). The MV approach also emerges as a special case in several other models of the Supreme Court. See Carrubba et al., *supra* note 59, at 26-28 (explaining that the MV model emerges when the case disposition is unanimous); Lax & Cameron, *supra* note 46, at 279-83 (recognizing that the MV model emerges when authoring costs are zero).

72. See Carrubba et al., *supra* note 59, at 3 ("[C]onsiderable empirical evidence reveals the influential position of the median in legislative settings."). The MV theorem does not require an actual dynamic process, as the players may be able to identify the Condorcet proposal and offer it immediately. See David P. Baron, *A Dynamic Theory of Collective Goods Programs*, 90 AM. POL. SCI. REV. 316, 316-30 (1996) (detailing a dynamic version of the MV model).

that it is meaningful to speak of a MV (for example, the ideal points of the Justices can be arrayed left-to-right on a line, as in Figure 1, and preferences are “single-peaked” so that a policy closer to one’s ideal point is more attractive than one farther away).

The MV approach makes several extraordinary predictions about the location of majority opinions.⁷³ First, the model predicts that on a natural court every majority opinion has the same location: the ideal policy of the median Justice (the *median prediction*).⁷⁴ As a corollary, the model predicts that majority opinion locations on a natural court do not vary irrespective of which Justice authored the opinion (the *author-independence prediction*).⁷⁵ In addition, the model predicts that opinion locations do not vary regardless of which Justices comprised the dispositional majority in the case, what disposition the case received, or the type of case under consideration.⁷⁶

The impact of a new Justice is thus straightforward: it is simply the change (if any) in the location of the ideal point of the Court’s median Justice.⁷⁷ In fact, one can say a good deal more, because of the nature of medians. If a Justice to the left of the old median is replaced by one to the right of the old median, then the new median shifts right, but only as far as the ideal point of the Justice on the right most proximate to the old median.⁷⁸ Similarly, if a Justice to the right of the median is

73. Indeed, the MV approach laid out by Hammond et al. does not distinguish between joins and concurrences; case location likewise plays no role in the model. See HAMMOND ET AL., *supra* note 24, at 260. This is not surprising as the standard MV model was originally developed to study settings like committees or legislatures, in which policymaking does not involve dispute resolution. See *id.* at 75 (recognizing that much of the original research “involve[d] research on committee decision-making by majority rule”); Carrubba et al., *supra* note 59, at 1 (“[C]onsiderable empirical evidence reveals the influential position of the median voter in legislative settings.”). The MV approach emerges as a special case in the Entry Blocking model, which does generate case dispositions. See Lax & Cameron, *supra* note 46, at 279–83. But that model portrays dispositions as wholly incidental to opinion location; opinion location is taken as central. *Id.*

74. See Carrubba et al., *supra* note 59, at 15–20 (“If judicial decisions . . . involve a single, dominant dimension, a straightforward application of the median-voter theorem suggests that the median justice should exercise decisive influence over the content of opinions.”).

75. See Grofman & Brazill, *supra* note 16, at 58–63 (stating that the “identity of the median justice is frequently shifting”).

76. See *id.*

77. See Krehbiel, *supra* note 16, at 233 (describing the effect of a new member on the location of the median voter).

78. See *id.* at 233–34 (explaining that assumption of a MV theory of the

replaced by one to the left, then the median shifts left, but only as far as the ideal point of the Justice on the left most proximate to the old median. Same-side departures and arrivals do not affect the location of the median at all.⁷⁹ In general, shifts in the median are apt to be rather small even if the ideal points of the exiting Justice and entering Justice are dramatically different. The sole exception is a highly polarized court when a departure and arrival flips the median from one extreme block to the other.⁸⁰

This aspect of the MV approach has strong implications for the peer effects arising from a new Justice: the movement in the median (if any) will be reflected *exactly and identically* in every Justice's majority opinions and the majority opinions arising from every disposition coalition, case disposition, case type, or case location (the *uniform-shift prediction*).⁸¹

If the MV model is correct, the median, author-independence, and uniform shift predictions should all be on display in empirical joint functions like those in Figure 2. However, a somewhat more convenient way to evaluate these hypotheses involves an "author-opinion" diagram, as shown in Figure 3.

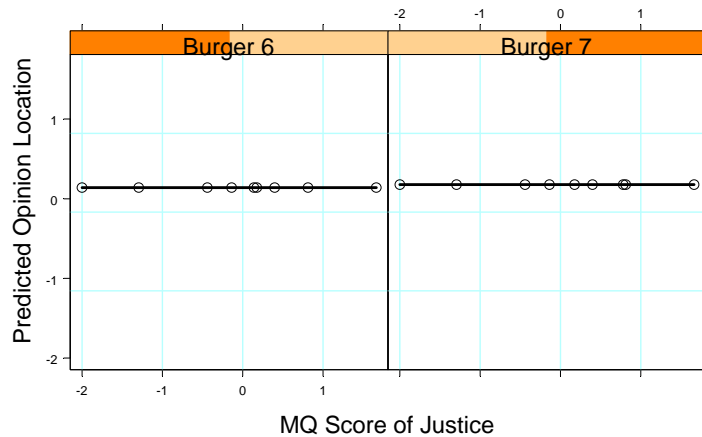


Figure 3. Median Voter Approach: The Predicted Author-Opinion Diagrams for Burger 6 and Burger 7. Opinions are predicted to lie at the

Court is at the heart of the nominations theories).

79. See Grofman & Brazill, *supra* note 16, at 58–63.

80. See *id.*

81. See Krehbiel, *supra* note 16, at 234 (noting that a new Justice on the Court will often not change the Court's median).

same location, the ideal point of the median Justice, regardless of the author. Thus, the predicted line in the figure is the horizontal line located at the median ideal point. Because the median shifts negligibly between the two courts, the horizontal lines in the two figures are almost identical.

The author-opinion diagram arrays the best estimate of a Justice's average majority opinion location (derived from an analysis of the empirical join function for his majority opinions) against his ideology score. If the author-independence hypothesis is correct, all the Justices on a natural court will place their majority opinions at the same location, so the hypothesis predicts a flat line in the diagram. If the MV hypothesis is correct, that flat line will be located at the ideal point of natural court's median Justice. If the uniform-shift prediction is correct, the location of each and every continuing Justice's average opinion location will shift in exactly the same way across two adjacent natural courts, which will be approximately zero in the case of Burger 6 and Burger 7 (since the median changes only negligibly). The resulting predictions for Burger 6 and Burger 7 are shown in Figure 3.

B. MAJORITY MEDIAN APPROACH

The Majority Median (MM) approach creates an intriguing variant on the MV approach by adding case locations and dispositions to the MV approach.⁸² The basic idea is as follows: suppose a Justice faces a utility loss from supporting a case disposition she sees as "wrong." For example, in Figure 1, a Justice with an ideal rule lying to the left of the case location should favor one disposition in the indicated case; a Justice with ideal point lying to the right of the case location should favor the other. If a Justice instead joins or concurs in an opinion requiring the "incorrect" disposition, she might feel uneasy because justice has not been fully served in the instant case—she would suffer a "dispositional loss."⁸³ Some scholars posit that dispositional losses are so high *in every instance* that a Justice will *never* support an opinion yielding the wrong disposition no

82. See Carrubba et al., *supra* note 59, at 2, 15–20 (laying out the foundational analysis for the MM approach); Westerland, *supra* note 59, at 8 (speculating prior to Carrubba et al.'s work that such a theory could exist and might be useful in studying the Court).

83. See Carrubba et al., *supra* note 59, at 9 (recognizing that the MM model "assume[s] that the justices care about the disposition of the case").

matter how attractive the opinion might otherwise be in terms of its content.⁸⁴

If this assumption is correct, Justices whose ideal rules lie on the “minority side” of the case location (that is, those in the minority of a disposition coalition) are effectively removed from the Court, at least with respect to bargaining over the content of the majority opinion.⁸⁵ This is because no compromises or modifications of the majority opinion will ever induce them to switch their dispositional vote.⁸⁶ If one further assumes the Justices in the majority coalition employ some Condorcet-compatible procedure, one is led to the MM approach.

The predictions of the MM approach are almost as remarkable as those of the MV theory. First, opinions are predicted to lie at the ideal point of the MM of the majority disposition coalition in a case (the *majority median prediction*).⁸⁷ So, for example, in a 5–4 disposition, the opinion is predicted to lie at the ideal point of Justice 3 (the median of Justices 1–5), while in a 4–5 disposition, the opinion is predicted to lie at the ideal point of Justice 7 (the median of Justices 5–9). Similarly, opinions in a 7–2 disposition should lie at the ideal point of Justice 4, while those in a 2–7 opinion should lie at the ideal point of Justice 6. The difference in the locations of these medians implies a *swing prediction* across disposition coalitions. Figure 4 indicates the MM approach’s swing predictions in Burger 6 and Burger 7. Although time and space limitations preclude much investigation of the swing predictions here, note the special role of the unanimous coalition (0–9 or 9–0): the median of this coalition is the Court’s overall median, Justice 5.

84. See, e.g., *id.* at 5 (“[A] justice will *not* be indifferent as to a rule that is a bit more conservative . . . [or] liberal than she would like but yields the opposite outcome in that particular case.”).

85. See *id.* at 15 (“[B]argaining over the majority opinion proceeds only among the justices who prefer the disposition adopted by the majority.”).

86. See *id.* at 12 (“Switching sides would require the justices to support a disposition with which they disagree, and they are not willing to do so if they care enough about the disposition.” (citation omitted)).

87. See *id.* at 7 (“[O]ur model predicts that median members of the *majority coalition* will have disproportional influence over the content of opinions.”); see also Westerland, *supra* note 59, at 14 (“Disagreements about the outcome of a case preclude agreement on the majority opinion, which means the majority coalition could be an autonomous bargaining unit.”).

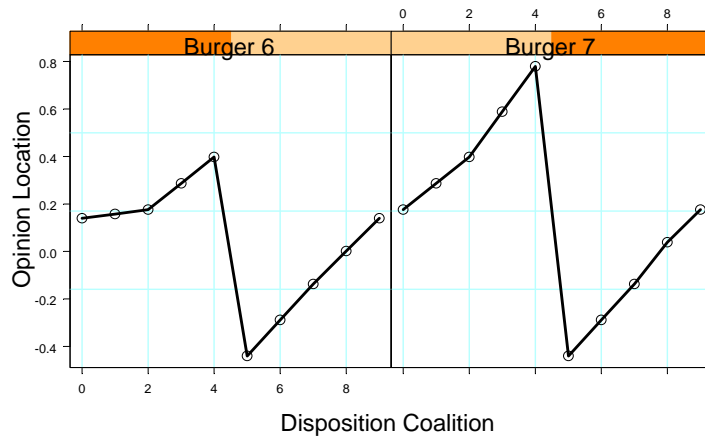


Figure 4. The Majority Median Model’s “Swing Predictions” in Burger 6 and Burger 7. Shown on the x-axis are the 10 possible disposition coalitions, 0–9, 1–8, and so on, to 9–0. The y-axis shows the predicted opinion location in MQ space for each disposition coalition in the respective natural court. Note that in the unanimous coalition (9–0 and 0–9) the predicted location is the median Justice’s ideal point.

A third remarkable prediction of the MM model is analogous to the author-independence prediction of the MV model: within a given disposition coalition, opinion locations are predicted to be independent of the identity of the opinion’s author. Call this the *disposition-author independence prediction*.⁸⁸ Again, a particularly important instance of the disposition-author independence prediction occurs in the unanimous coalition where all opinions are predicted to be located at the ideal point of Justice 5 irrespective of the author of the opinion, exactly as in the MV model.

A fourth prediction of the MM approach is analogous to the uniform-shift prediction in the MV approach: within a given disposition across two courts, the opinions of all Justices are predicted to shift identically, with that shift governed by the change in the median of the disposition coalition. Call this peer effect prediction the *disposition uniform-shift prediction*.⁸⁹

88. See Carrubba et al., *supra* note 59, at 1 (“[T]he median justice typically does not determine the content of Supreme Court decisions.”); Grofman & Brazill, *supra* note 16, at 58–63 (noting that the “identity of the median justice is frequently shifting”).

89. See Westerland, *supra* note 59, at 16 (“The only way an opinion author can protect against an opinion from within the majority coalition that is more

Again, an important example occurs in the unanimous disposition, in which the MM model's prediction is exactly the same as the MV approach's prediction. In other words, in Burger 6 and Burger 7, the MM approach predicts (near) zero peer effects for all continuing Justices.

MM model predictions can be summarized in author-opinion diagrams similar to Figure 3, with one for each distinctive disposition coalition (e.g., 5-4 or 4-5). A critical disposition coalition is the unanimous disposition, which is typically the most prevalent disposition coalition in a natural court. The predictions are in fact identical to those of the MV approach, exactly as summarized in Figure 3.⁹⁰

Table 2A (Burger 6)

	9-0	8-1	7-2	6-3	5-4	Total
Marshall	33	6	9	6	4	58
Brennan	18	4	13	14	11	60
Stevens	16	4	11	20	11	62
Blackmun	16	2	13	12	21	64
Stewart	13	6	13	14	17	62
White	10	11	11	16	17	65
Powell	14	7	15	19	13	68
Burger	22	3	11	17	6	59
Rehnquist	19	5	13	18	15	70
Total	161	48	109	136	115	569

Table 2B (Burger 7)

	9-0	8-1	7-2	6-3	5-4	Total
Marshall	37	4	1	12	8	62
Brennan	19	5	4	10	22	60
Stevens	28	4	8	14	10	64
Blackmun	28	7	3	13	14	65
White	25	4	9	20	22	80
Powell	21	13	6	14	25	79
O'Connor	13	15	12	13	12	65
Burger	29	9	10	12	7	67
Rehnquist	32	7	12	13	18	82
Total	232	68	65	121	138	624

Table 2. Number and Distribution of Majority Opinions by Justice and by Disposition Coalition in Burger 6 and Burger 7. Table 2A shows as-

preferable to a majority of justices in the coalition is to write the opinion at the median of the majority coalition.”)

90. The author-opinion diagram for any other “connected” disposition coalition (say, 7-2, composed of the first seven Justices in the majority and Burger and Rehnquist in the minority) would be a horizontal line, as in Figure 3, but located at the predicted location for that coalition shown in Figure 4.

signments in Burger 6; table 2B displays those from Burger 7. Included are only cases in which all nine Justices participated and that resulted in a signed opinion.

Table 2 provides helpful context in thinking about disposition coalitions on Burger 6 and Burger 7. The table displays the frequency of each of the five standard dispositions as well as opinion assignments within each disposition, for Burgers 6 and 7.⁹¹ The unanimous disposition was by far the most prominent in both Courts, comprising twenty-eight percent of the disposition coalitions in Burger 6 and thirty-seven percent in Burger 7.

A final implication of the MM approach bears mention. Because opinion locations are determined by the medians in the disposition coalitions, the net impact of a new Justice depends not only on her impact on the location of those disposition medians but also on her impact on the frequency with which different dispositions occur. In fact, even if a new Justice altered no disposition medians at all, her presence could substantially change average opinion locations if some disposition coalitions became less frequent and others become more frequent. For example, the unanimous disposition became more frequent in Burger 7 than in Burger 6. If the MM approach is correct, such context distribution effects can be extremely important.

C. MONOPOLY AUTHOR APPROACH

The Monopoly Author (MA) approach, as well as the two remaining approaches, are *author-influence* theories: they predict that majority opinions reflect the preferences of the opinion author.⁹² Of the three author-influence theories, the Monopoly Author (MA) approach is conceptually the simplest. It asserts that the majority opinion author writes an opinion at her own ideal policy (the *author-ideal point prediction*).⁹³ The author-

91. The data in the table do not distinguish between a 7-2 and 2-7 coalition, and concern only those cases in which all nine Justices participated.

92. See HAMMOND ET AL., *supra* note 24, at 110.

93. See Cameron & Kornhauser, *supra* note 60, at 23. The MA approach has a historic connection with the so-called attitudinal model of Segal and Spaeth, which asserts that Justices are free to vote or write opinions as they please. See generally SEGAL & SPAETH, *supra* note 22. Unlike the attitudinal model, however, the MA approach is a theory of Supreme Court decision making. Consequently, the individual behavior asserted by Segal and Spaeth must emerge endogenously in a bargaining game played by the Justices. Hammond et al. root one version of the MA approach in a well-known model of take-it-or-leave-it bargaining. See HAMMOND ET AL., *supra* note 24, at 111; see also Tho-

ideal point prediction implies that the direct effect from the new arrival is exactly equal to the distance between the ideal points of the arriving and departing Justices.⁹⁴ Call this the *ideal point-difference prediction*. The author-ideal point prediction also implies a zero peer effect for all the continuing Justices. Thus, Justice Powell, for example, should locate his opinions in the same place in both Burger 6 and Burger 7. Call this the *turnover invariance prediction*. Figure 5 displays the distinctive Monopoly Author predictions, using an author-opinion diagram. As shown, opinions should lie on a 45-degree line.



Figure 5. Monopoly Author Approach: The Predicted Author-Opinion Diagrams for Burger 6 and Burger 7. Opinions are predicted to lie at the author's ideal point. Thus, the predicted line in each figure is a 45-degree line. Each continuing author is predicted to write opinions at the same location in both courts. Stewart and O'Connor are predicted to write at different locations (their ideal points), and the difference in the locations of their opinions is predicted to be the difference in their ideal points (about .64 in the Martin-Quinn space).

Because of the author ideal-point prediction, opinion assignment is absolutely vital in the MA approach. Even if a Justice with a given ideal point were replaced by a Justice with exactly the same ideal point, average opinion locations could still

mas Romer & Howard Rosenthal, *Political Resource Allocation, Controlled Agendas, and the Status Quo*, 33 PUB. CHOICE 27, 27–29 (1978). The Entry Blocking model contains the MA approach as a special case, when entry costs for authors other than the designated author are very high. See *infra* Part III.D. The Gravitational Attraction model also yields an MA result as a special case, when an opinion author is centrally located within a dense cluster of ideal points. See *infra* Part III.E.

94. Cf. Cameron & Kornhauser, *supra* note 60, at 23.

shift if assignment patterns altered. Because the Chief Justice has such authority in opinion assignment,⁹⁵ the MA approach implies that the Chief might systematically bend the content of cases he cares about by assigning them to ideological allies. However, the data in Table 2 seem to suggest evenly distributed case disposition in Burger 6, with a slight conservative bias in Burger 7.

D. ENTRY BLOCKING APPROACH

As positive political theorists have struggled to model collegial courts, they have become much more sensitive to features of adjudication that distinguish courts from other institutions. Increasingly, theorists try to incorporate these features into formal models. The Entry Blocking (EB) model is one such approach.⁹⁶ The EB model incorporates legal quality⁹⁷ and writing costs⁹⁸ into a median voter-style model of adjudication.⁹⁹ In the model, writing a high quality opinion is costly of time and effort. This writing cost affords the assigned author some slack in positioning the opinion; as a result, he can pull an opinion away from the median Justice toward his own ideal point.¹⁰⁰ However, if it goes too far, an opponent on the opposite side of the Court will be willing to bear counter-writing costs, enter with an attractive opinion, and flip the median Justice's vote.¹⁰¹ We dub this model the Entry Blocking approach because the content of the majority opinion is shaped largely by the need to block entry by winning counter-opinions from the opposite side

95. See Lax & Cameron, *supra* note 46, at 292 ("If the Chief Justice is a member of the initial majority coalition (empirically, this is by far the most common occurrence), he/she assigns the opinion; if not, the senior justice in the majority does so.")

96. See HAMMOND ET AL., *supra* note 24, at 66–67; Lax & Cameron, *supra* note 46, at 278–80.

97. See Lax & Cameron, *supra* note 46, at 279 (defining legal quality as "clarity, persuasiveness, completeness, or craftsmanship").

98. See *id.* at 295 ("[E]ach justice must decide how to allocate effort across all the cases in his/her current portfolio of cases, and the Chief or other justice who assigns an opinion must consider the consequences of a heavier workload not only for the resolution of the instant case but also for all the others in the assignee's portfolio.")

99. See *id.* at 276. *But see* Carrubba et al., *supra* note 59, at 5 (arguing that the requirement that the Court produce not only a judgment affirming or rejecting the lower court's position but also a new judicial rule, will "drive a wedge between the content of opinions and the preferred position of the median justice").

100. See Lax & Cameron, *supra* note 46, at 276.

101. See *id.* at 288.

of the Court.

The MV and MA models emerge as special cases in the EB model, given extreme values of parameters. In general, however, the results in the EB model are intermediate between those polar extremes. For example, the model predicts opinion authors can pull opinions somewhat away from the median toward their ideal point.¹⁰² Consequently if the ideal points of the departing and arriving Justices are different, the opinions authored by the two are apt to take different locations, resulting in a *modest direct effect* prediction.¹⁰³ At the same time, the median voter exerts a pull on opinions so that shifts in the median are apt to be reflected somewhat in the opinions of the continuing Justices. We call this the *modest peer effect prediction*.

Perhaps the most striking prediction, however, is that all opinions will lie in the interval between the opinion author and (approximately) the median Justice—the *critical interval prediction*.¹⁰⁴

102. The EB model makes particularly clear predictions about the quality of opinions, as a function of the author's ideal point and other variables. See *id.* at 282. We cannot address these predictions here, however.

103. For example, Segal and Spaeth demonstrated how the appointment of Thurgood Marshall solidified the liberal cohesion of the Warren Court. See Harold J. Spaeth & Jeffrey A. Segal, *Decisional Trends on the Warren and Burger Courts: Results from the Supreme Court Data Base Project*, 73 JUDICATURE 103, 107 (1989). Conversely, “the substitution of Clarence Thomas for Thurgood Marshall moved the Rehnquist Court to the right—but not enough to make it a coherent Court.” Neal Devins, *Ideological Cohesion and Precedent (or Why the Court Only Cares About Precedent When Most Justices Agree with Each Other)*, 86 N.C. L. REV. 1399, 1404 (2008).

104. See Lax & Cameron, *supra* note 46, at 287 (postulating that since “[e]very nonmedian opinion is vulnerable to some counteroffer,” an opinion writer must be as concerned with the stability of his or her opinion—that is, its proximity to the median—as with quality and precedent).



Figure 6. Entry Blocking Approach: The Predicted Author-Opinion Diagrams for Burger 6 and Burger 7. Exact opinion locations depend sensitively on parameters such as the author’s expertise and the case’s difficulty. But opinions should lie between the author’s ideal point and (approximately) that of the median Justice. This region, the “critical region,” is shown by the hatched area in the figure. For similar cases, the model predicts a moderate direct effect and zero peer effects, since the median and extreme opposition Justices change so little.

Figure 6 indicates the critical interval prediction. The critical interval (indicated in the figure by the hatched region) is defined by the distance between a 45-degree line and a horizontal line at the median Justice’s location: all opinions should lie in this region. In particular, an author has no incentive to place an opinion farther from his ideal point, away from the median Justice. While the prediction is apt to be satisfied very easily for authors on the extremes of the Court, it may have bite for those more interior. Because opinion authors influence case locations so strongly, opinion assignment is critical in the EB model.¹⁰⁵ Consequently, context effects can be important. In the context of Burger 6 and Burger 7, the EB model implies a modest direct effect, zero or near-zero peer effects, and opinions lying within the critical region.

E. GRAVITATIONAL ATTRACTION APPROACH

The Gravitational Attraction (GA) model examines the trade-off facing a majority opinion writer: craft an ideologically appealing opinion or craft one that can command more joins

105. *See id.* at 277.

and hence offer greater clarity or precedential value.¹⁰⁶ In the model, opinion authors may move their opinion away from their most preferred rule toward dense, nearby clusters of ideal points to secure more joins. They may even be forced to do this to secure enough joins to form a majority opinion. Because nearby clusters of ideal points exert this “pull” on opinions, we call this approach the gravitational attraction model.¹⁰⁷

The location of majority opinions in the GA model depends on many factors, including the exact distribution of ideal points, the location of the case (if dispositional value is important), and the importance to the author of garnering joins in the particular case. Thus, it is difficult to summarize the predictions of the model as neatly as some of the other approaches. However, it is easy to calculate predicted opinion locations given specific parameter values. Figure 7 displays predicted opinion locations in Burger 6 and Burger 7 for “moderate” parameter values.¹⁰⁸

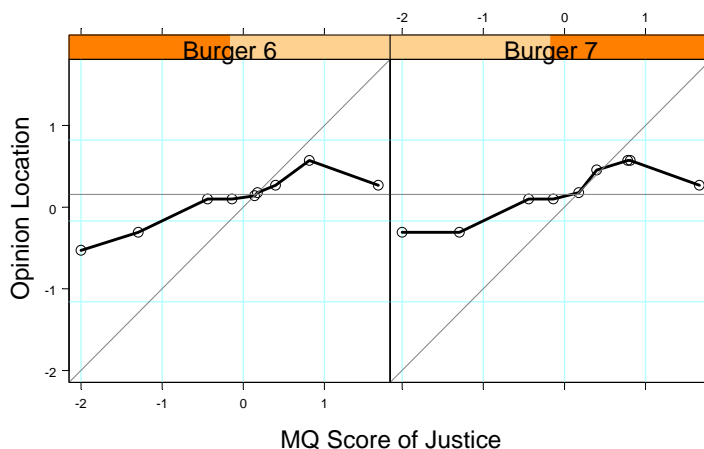


Figure 7. Gravitational Attraction Approach: The Predicted Author-Opinion Diagrams for Burger 6 and Burger 7. For “moderate” parameter values, liberal authors write somewhat liberal opinions; moderates offer opi-

106. See Cameron & Kornhauser, *supra* note 60, at 11.

107. See *id.* at 30.

108. The Mathematica computer code used to generate these estimates is available on request from the authors. By “moderate” values we mean non-zero but not huge writing costs, and non-zero but not overwhelming importance of case clarity. In the example, case disposition value is set to zero, as would hold not only for extreme case locations resulting in a unanimous disposition, but presumably for many or even most cases heard by the Supreme Court.

nions near the center of the Court; and conservatives offer somewhat conservative opinions. Very extreme authors locate their opinions surprisingly centrally, as they pursue joins. The direct effect is predicted to be moderately large, while peer effects can be non-zero for some Justices. Shown for reference are 45-degree and median lines.

In Figure 7, very extreme Justices locate their opinions strongly toward the center, seeking joins. This is a typical result in the GA model. Slightly less-extreme Justices need not move so far, since they can attract joins from the extremists. More centrally located Justices can write at or near their ideal point since they can receive joins from nearby neighbors. Thus, the model predicts a substantial direct effect and—rather distinctively—*non-uniform* peer effects. Again, opinion assignment is quite important since different opinion authors craft distinctly different opinions.

F. SUMMARY AND TESTING STRATEGY

Part III gathers together the predictions of the five approaches, noting each one's predictions about direct effects, peer effects, and other predictions. A careful examination of the predictions suggests the following testing strategy as a way to parse the evidence so as to discriminate among the theories, at least as applied to the case study:

First: Examine the *direct effect* of the Stewart-O'Connor switch overall and in the unanimous disposition. A zero direct effect points strongly in favor of the Median Voter and Majority Median approach. A non-zero effect points toward the three "author influence" models.

Second: Examine the *peer effects*, contingent on the finding about the direct effect. Given a non-zero direct effect, zero peer effects point strongly to the Monopoly Author model. Non-zero but approximately uniform peer effects point to the Entry Blocking approach. Non-zero and non-uniform peer effects point to the Gravitational Attraction approach.

Third: Seek corroboration from the *other effects*. In particular, using author-opinion diagrams, does the apparent location of the majority opinions tend to corroborate the conclusions from the first two steps?

IV. CASE STUDY: O'CONNOR REPLACES STEWART

A. THE CHANGE

In June 1981, Justice Potter Stewart announced his intention to retire from the High Court.¹⁰⁹ Stewart had served on the Court since his appointment by Dwight Eisenhower in 1958.¹¹⁰ During his tenure he established himself as a moderate or moderate conservative on the Court.¹¹¹ On the last natural court on which he served, Burger 6 (1975–1981), Stewart was probably the median Justice, as shown in Figure 8.¹¹² To Justice Stewart's left were (moving from left to right), Thurgood Marshall, William Brennan, John Paul Stevens, and Harry Blackmun. To his right were (continuing from left to right) Byron White, Lewis Powell, Warren Burger, and William Rehnquist.¹¹³

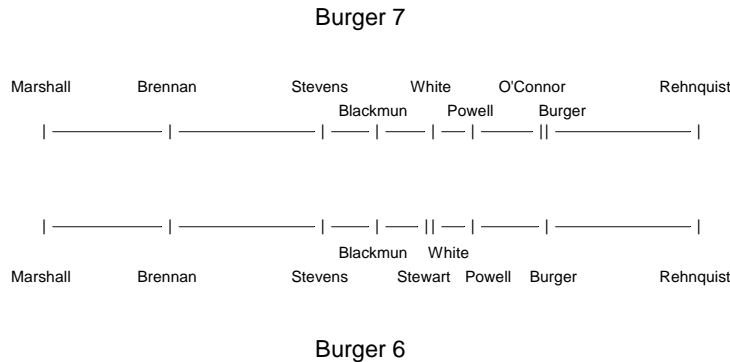


Figure 8. Relative Configurations of Preferences on Burger 6 and Burger 7. The Justices are arrayed by their constant Martin-Quinn “ideal points.” Justices who are shown as proximate tend to vote similarly on case dispositions; those far apart tend to vote differently on case dispositions. Those on the left are conventionally liberal; those on the right conventionally conservative. The median Justice in Burger 6 was probably Justice Stewart (but may have been Justice White); the median Justice on Burger 7 was Justice White.

109. See Steven R. Weisman, *Stewart Will Quit High Court July 3; Reasons Not Given*, N.Y. TIMES, June 19, 1981, at A1.

110. See Terrance Sandalow, *Potter Stewart*, 95 HARV. L. REV. 6, 6 (1981).

111. See *id.* at 8–9.

112. See also *supra* tbl.1.

113. See 453 U.S. III (1981); fig.8.

Newly elected President Ronald Reagan redeemed his campaign pledge to nominate the first woman to the high court¹¹⁴ by selecting Sandra Day O'Connor, a former Arizona state legislator and law school classmate of Justice Rehnquist.¹¹⁵ Her arrival marked the beginning of the Burger 7 natural court, which lasted from 1981 to 1986. O'Connor's voting on case dispositions suggested a solid though not extreme conservative. Thus, most of the Justices on Burger 7 were to her left, including moderate conservative Lewis Powell; Justice Rehnquist was clearly to her right, while she and Chief Justice Burger appeared similar in overall ideological orientation.

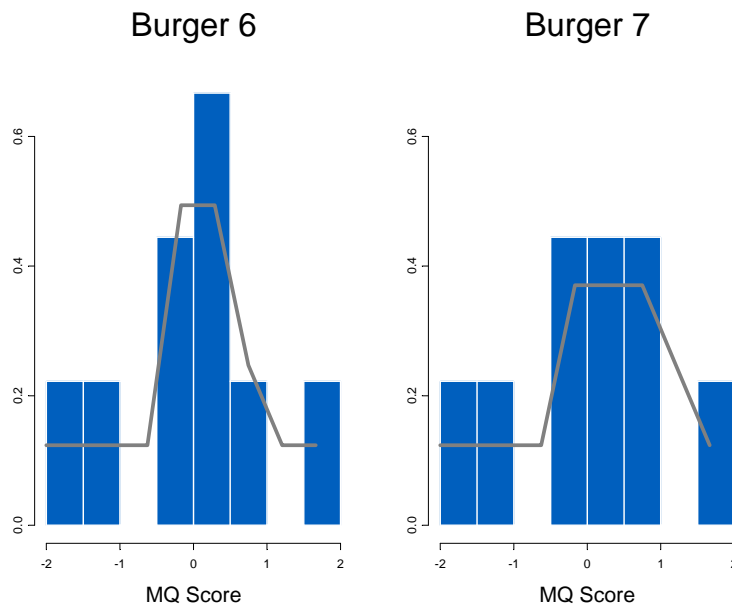


Figure 9. The Distribution of Ideal Points Before and After the Stewart-O'Connor Switch. Bar height shows the percentage of Justices in the indicated MQ intervals. Stewart's departure and O'Connor's arrival weakened the moderates and strengthened the conservatives, without altering the liberals' strength. Ideal policies are proxied by MQ Scores, based on similarities in disposition voting. The line is the fit from a kernel density smoother; it suggests a centrist Court transformed into a center-right Court.

114. See HENRY J. ABRAHAM, *JUSTICES, PRESIDENTS, AND SENATORS: A HISTORY OF THE U.S. SUPREME COURT APPOINTMENTS FROM WASHINGTON TO CLINTON* 256 (1999).

115. See *id.* at 255.

What impact did Stewart's departure and O'Connor's arrival have on the distribution of preferences on the Court? In terms of the location of the median Justice, probably very little, if any.¹¹⁶ Because Stewart's and White's dispositional voting scores were so similar (.14 versus .18), the personnel change probably moved the median almost indiscernibly to the right. However, in terms of the Court's entire distribution, the switch did have an impact, as shown in Figure 9. If we call Justices with MQ scores below -.33 "liberal," those between -.33 and .33 "moderate," and those above .33 as "conservative," the effect of the switch was to decrease the moderate faction from one-third of the Court to twenty-two percent (or two-ninths), and increase the conservative block from one-third to forty-four percent (four-ninths). Stewart's departure and O'Connor's arrival thus strengthened the conservative side of the Court without weakening the left. A centrist Court became a center-right Court with a left wing, a step toward polarized left-right blocs.

B. THE DIRECT EFFECT: O'CONNOR'S OPINIONS VERSUS STEWART'S OPINIONS

Figure 10 compares the empirical join function for majority opinions authored by Stewart with that of O'Connor's majority opinions, based upon the sixty-two and sixty-five majority opinions they penned in Burger 6 and Burger 7, respectively. In Burger 6, Justice Powell was more likely to join to Stewart's majority opinions than any other Justice. This suggests that Stewart located his majority opinions near Justice Powell's ideal point, about .40 on the MQ scale. This location was considerably more conservative than Stewart's own ideal point (.14), which was also the median ideal point. On the Burger 7 Court, Chief Justice Burger was more likely than any other Justice to join O'Connor's majority opinions. This suggests she placed her opinions near Burger's ideal point (.81), perhaps at her own ideal point (.78). Her opinions were quite far from the median (.18). In short, the empirical join functions suggest that *O'Connor's opinions were considerably more conservative than those of Stewart and neither set of opinions were near the ideal point of the median Justice.* These results flatly contradict the predictions of the Median Voter approach.¹¹⁷

116. See *supra* fig.8.

117. See *infra* tbl.3.

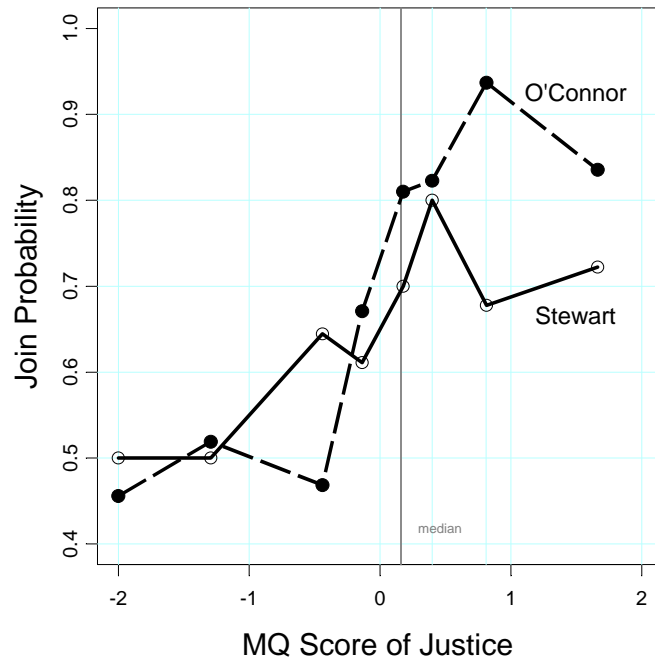


Figure 10. Empirical Join Functions for Stewart's Opinions in Burger 6 and O'Connor's Opinions in Burger 7. Each point indicates the probability a Justice with that ideal rule joined majority opinions authored by Stewart (open circles and solid line) or O'Connor (dark circles and dashed line). For example, Justice Rehnquist (MQ score of 1.66) joined about seventy-two percent of Stewart's opinions; he joined over eighty percent of O'Connor's. The patterns suggest Stewart located his opinions near Justice Powell's ideal point, about .40. O'Connor seems to have authored more conservative opinions located on average near Justice Burger's ideal point, .81, perhaps at her own ideal point, .78. Neither is near the Court's median (indicated with a vertical gray line). The figure thus suggests a direct effect of about .4 MQ points.

What about Stewart and O'Connor's majority opinion placements controlling for dispositional coalition, for example in the unanimous disposition? Figure 11 displays the relevant empirical join functions, based on the thirteen majority opinions Stewart and O'Connor authored in the unanimous disposition configurations in Burger 6 and 7. The Majority Median approach predicts that the two Justices will locate their opinions at the two Courts' respective medians (.14 in Burger 6 and .18 in Burger 7). Consequently, the MM approach also predicts little difference in the locations of the two opinions.

But this is not the pattern on display in Figure 11. Instead, the data suggest that neither Justice located opinions near the medians. Nor did the two sets of opinions share the same location. Instead, O'Connor's empirical join function peaked between Powell's and Burger's ideal points (.40 and .81, respectively) while Stewart's peaked at Stevens's ideal point (-.44). O'Connor's unanimous disposition opinions seem to have been much more conservative than Stewart's. Absent serious measurement error, these results are difficult to reconcile with the MM approach.



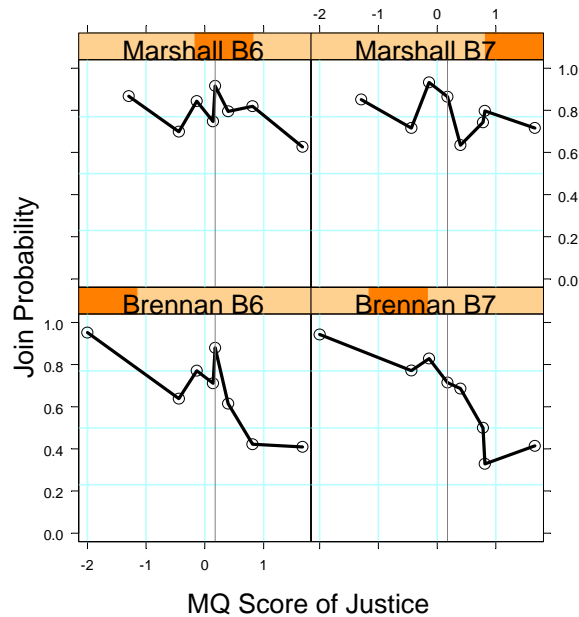
Figure 11. Empirical Join Functions for Majority Opinions in the Unanimous Disposition Coalition Authored by Stewart in Burger 6 and O'Connor in Burger 7. Stewart's empirical join function (open circles, solid line) peaked at Stevens's ideal point (-.44) while O'Connor's empirical join function (dark circles, dashed line) peaked between Powell and Burger's ideal points (.40 and .81). Again, neither set of opinions seems located near the median, and O'Connor's opinions appear more conservative than Stewart's.

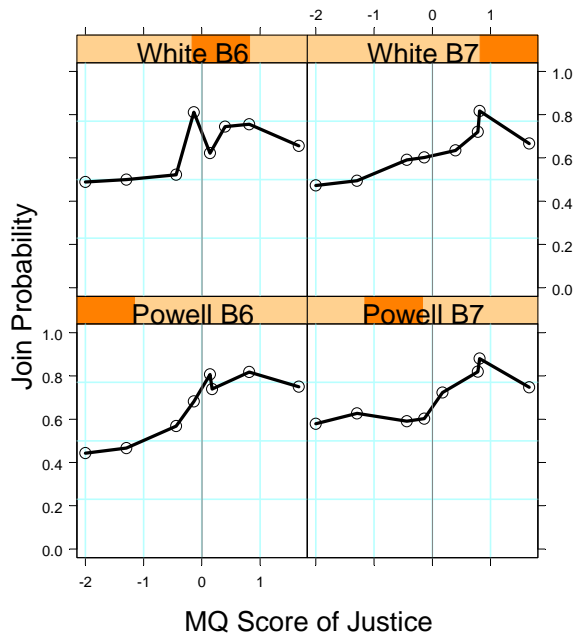
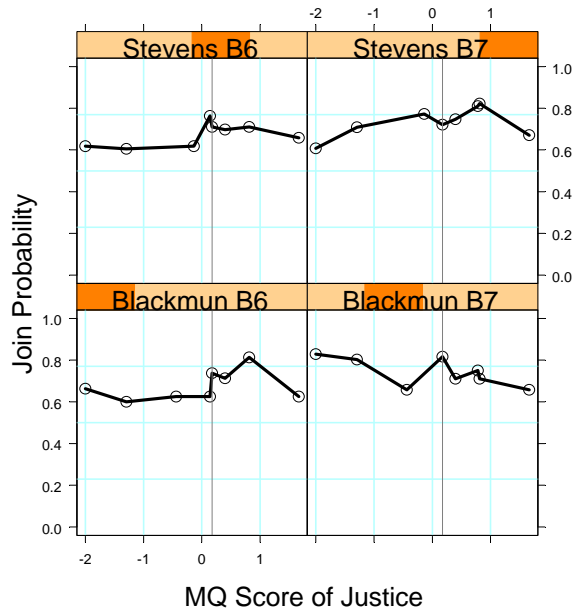
In sum, O'Connor's presence on the Court directly increased the volume of conservative opinions. While this seems like common sense, it is not what the most prevalent theory of

the Court—the Median Voter approach—predicts. The data also provide little support for the recent variant on the Median Voter approach, the Majority Median approach. Instead, the direct effect points to *author influence*, as suggested by the other three approaches.

C. PEER EFFECTS: EFFECTS ON THE CONTINUING JUSTICES' OPINIONS

The following four panels represent the MQ scores of the eight Justices who participated on both Burger 6 and Burger 7. More liberal Justices are grouped together as are moderate and conservative Justices. Each Justice's probability of joining a colleague's opinion is shown with an open circle. Each panel also shows the location of the median Justice and the average location of that Justice's opinion.





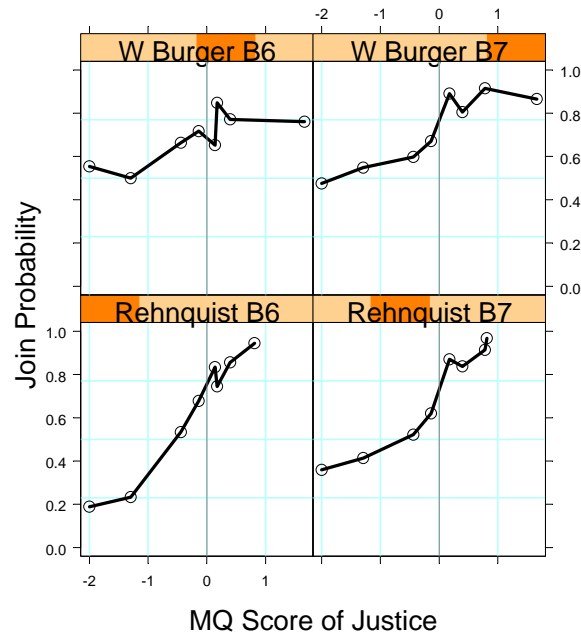


Figure 12. Empirical Join Functions for the Continuing Justices on Burgers 6 and 7. Open circles show the probability a Justice at the indicated MQ Score joined the indicated author's majority opinions (joins from the opinion author excluded). The vertical line indicates the position of the Court's median Justice. The peak of each join function presumably corresponds to the average location of that Justice's opinions.

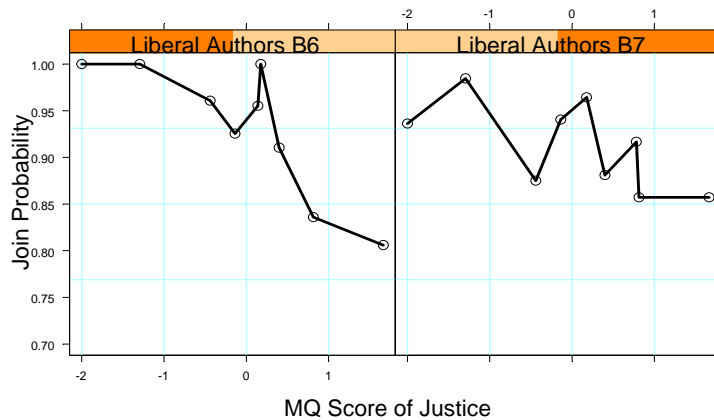
The four panels in figure 12 display empirical join functions for the opinions authored by the eight Justices who served on both Burgers 6 and 7. Strikingly, the join functions for Justices on the left tend to slope downward; those for Justices in the middle are relatively flat; and those for Justices on the right slope upwards. These patterns suggest that Justices tend to write opinions located near their own part of the ideological space, confirming the finding in the previous section.¹¹⁸ Also striking, however, is the change in the peaks and shapes of the empirical join functions for many of the Justices. Seemingly, majority opinion locations shifted between Burger 6 and Burger 7 for Justices Marshall, Stevens, Blackmun, White, and Burger. In other words, at least for these Justices, there appear to

118. See *supra* Part III.C and fig.5.

be non-zero peer effects. Non-zero peer effects are difficult to reconcile with the Median Voter or Monopoly Author approaches.

Model	Direct Effect (Stewart vs. O'Connor)	Peer Effects on the Eight Continuing Justices	Other Location Predictions
Median Voter (MV)	Zero or near-zero effect	Uniform effects; approximately zero in size	All opinions located at about .15 (medians)
Majority Median (MM)	Equal to median shifts disposition by disposition; approximately zero in the unanimous disposition	Uniform and equal to median shifts disposition by disposition; Approximately zero in the unanimous disposition	Swing prediction: large 4-5 to 5-4 shift in Burger 7 (about .78 to -.44) (not tested in this Article)
Monopoly Author (MA)	Shift from approximately .14 to approximately .78	Zero effects	Each author's opinion at author's ideal point
Entry Blocking (EB)	Large (but not as large at MA)	Approximately zero effects	Each author's opinions in "critical interval"
Gravitational Attraction (GA)	Large (but not as large at MA)	Non-uniform effects	Considerable moderation by Marshall and Rehnquist

Table 3. Predictions about Direct Effects, Peer Effects, and Other Location Effects in Burger 6 and Burger 7. Changes in opinion assignment can be consequential in the MA, EB and the GA approaches and can affect estimates of direct and peer effects. The frequency of disposition coalitions can be consequential in the MM approach and affect estimates of direct and peer effects.



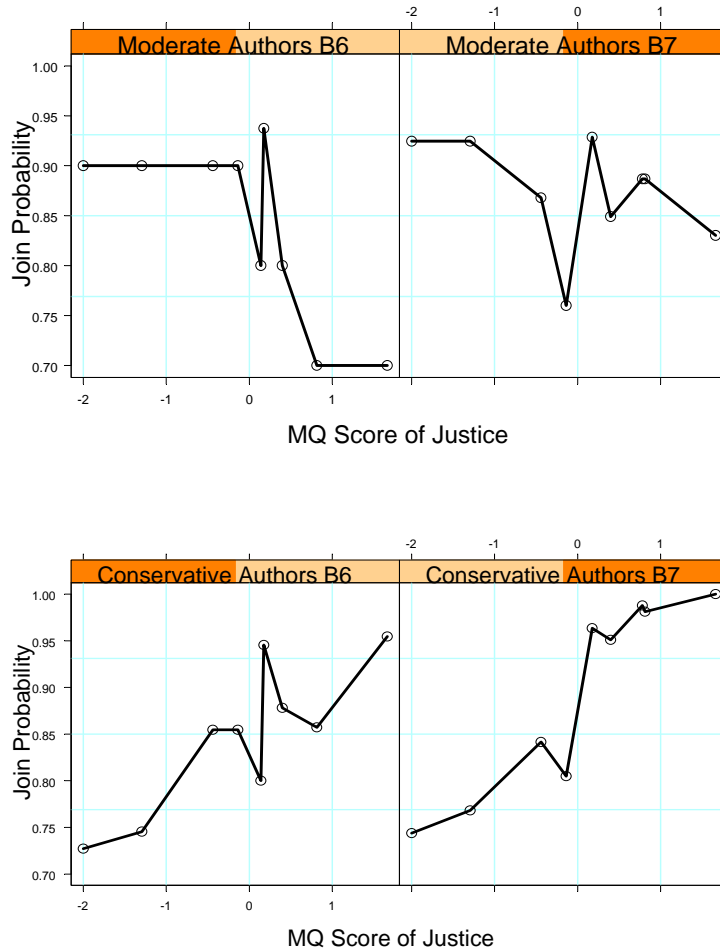


Figure 13. Peer Effects in the Unanimous Disposition. Shown are the empirical join functions to opinions by the eight continuing Justices in Burger 6 and Burger 7, grouped into three ideological categories. Joins to own opinions are excluded. The empirical join functions suggest the moderates (Blackmun and White) may have written slightly more conservative opinions in Burger 7 than in Burger 6. The conservatives (Powell, Burger, and Rehnquist) may have shifted their opinions slightly to the right as well. The liberals (Marshall, Brennan, and Stevens) may or may not have shifted their opinions.

If the Majority Median approach is correct, what appear to be non-zero peer effects in Figure 12 may result from mixing the opinions written by the same author in different disposition coalitions, since the medians in those coalitions would be different. Figure 13 addresses this possibility by examining the

empirical join functions of the continuing Justices restricted to a single disposition coalition—the unanimous disposition. To increase sample size, we pool the majority opinions from the continuing liberals, moderates, and conservatives.¹¹⁹ Although the empirical join functions for each cluster of Justices are broadly similar across the two courts, there are some notable changes. In particular, the shift upward in the right side of the join function for conservative authors suggests that conservative majority opinions shifted to the right (in other words, conservatives were more inclined to join opinions written by other conservatives, even excluding O'Connor's opinions). The greater willingness of conservatives to join majority opinions penned by moderates hints at a rightward shift in at least some of their opinions as well. Although this evidence cannot be definitive, the apparent presence of peer effects in the unanimous disposition raises doubts about the applicability of the Majority Median approach.

Of the peer effects on display in Figure 12, some indicate leftward shifts of opinions (for Justices Marshall and Blackmun) while others indicate rightward shifts (for Stevens, White, and Burger). Among the contemporary approaches to Supreme Court decision making, non-uniform shifts point to the GA approach.¹²⁰ However, proponents of the Entry Blocking model might suggest that these effects represent the impact of unmeasured variables on the varying Justices' opinion locations,¹²¹ a possibility difficult to reject.

In sum, the peer effects seem to reject the Median Voter and Monopoly Author approaches. The peer effects in the unanimous disposition seem somewhat at odds with the Majority Median approach. The peer effects appear reasonably compatible with the GA model, but one cannot conclusively rule out Entry Blocking behavior.

119. We score liberals as those with MQ scores less than -.33 (Marshall, Brennan, and Stevens); moderates as those with MQ scores between -.33 and .33 (Blackmun and White); and conservatives as those with scores greater than .33 (Powell, Burger, and Rehnquist).

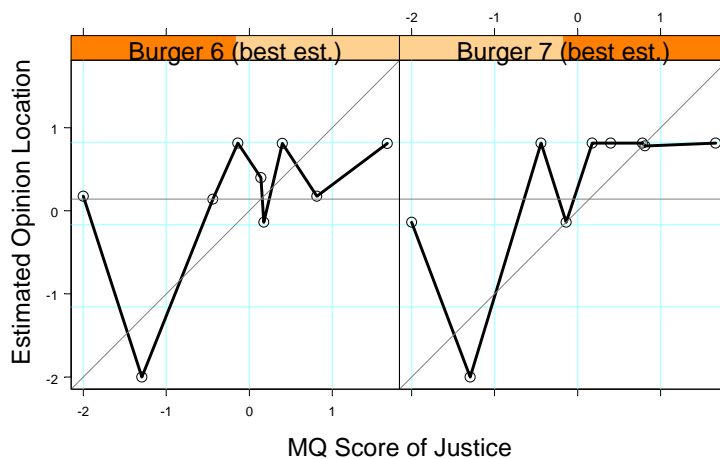
120. See Cameron & Kornhauser, *supra* note 60, at 30.

121. See generally Lax & Cameron, *supra* note 46 (hypothesizing that subtle variables such as policy content, writing costs, legal quality, and agenda-setting are crucial considerations in the bargaining and opinion assignment process).

D. AUTHOR-OPINION DIAGRAMS

Author-opinion diagrams combine the direct effects and peer effects with other location information and allow a straightforward comparison between the observed patterns and those predicted by the theories.

Figure 14 presents empirical author-opinion diagrams for the two natural courts, showing our best estimates of the average majority opinion locations for each Justice. The first pair of panels score each Justice's average opinion location as the location with the maximum probability of joins, as revealed in Figure 12.¹²² The second pair of panels employs the three locations corresponding to the three highest points in each Justice's empirical join function, if those points were within ten percent of the maximum.¹²³ Then, a highly flexible nonparametric regression is fit to those locations to show the shape of the data.¹²⁴



122. We score Justice Blackmun's locations according to the discussion in Part II.

123. For example, in the upper right-hand panel, three points are shown for Marshall's opinions. These correspond to the three highest points on his empirical join function, as the second and third highest points gained almost as many joins as the highest one. If no other locations gained as many joins as the maximum-gaining location, the maximum is triply weighed, to assure equal observations for each Justice.

124. This is a "loess" regression with spans of one-half and two-thirds for Burger 6 and Burger 7, respectively. These spans somewhat smooth the data but allow their local shapes to remain. For an explanation of nonparametric regression, loess regression, and weighted regression, see DAVID HAND ET AL., PRINCIPLES OF DATA MINING 175–77 (2001).



Figure 14. Empirical Author-Opinion Diagrams for Burger 6 and Burger 7. In the top panels, the estimated average opinion location corresponds to the maximum of the associated empirical joint function shown in Figure 12. In the bottom panels, the three locations with the highest join rate to the author's opinions are shown, along with the fit from a locally weighted regression. 45-degree and median lines are shown for reference.

In our view, five features stand out in the figures. First, the curves in the figures are clearly not horizontal lines lying at the median Justice's ideology. Second, the curves slope upward. Third, some of the opinions seem to fall outside the critical region. Fourth, the most extreme Justices appear to locate their opinions somewhat centrally, given their ideal points. Finally, the right-hand side of the curve in Burger 7 appears to be a flat line, or nearly flat line, located at about O'Connor's location.

If, tentatively, one takes these patterns at their face value, they have strong implications for the theories. First, it is hard to see how these data could have been generated by Justices who behave as the Median Voter approach suggests. Instead, the rising curves strongly suggest a degree of author influence. But, the opinion locations are not tightly fixed on the 45-degree line. Although measurement error may be the culprit, the departures from the 45-degree line suggest more is going on than the Monopoly Author approach allows. Most of the opinions lie in the critical region, but some do not. Again, measurement error may account for these seemingly errant observations, but they raise questions about the Entry Blocking approach. The tendency of Justices Marshall and Rehnquist to locate some-

what centrally is consistent with join-seeking behavior indicative of the Gravitational Attraction approach.

The peer effects among the Court's conservatives present a puzzle. Why does O'Connor's presence seem to stabilize the opinions of conservative Justices around her ideal point? Perhaps the apparent pattern is simply a coincidence. But it appears as if the O'Connor-Burger-Powell locus created a powerful center of gravity that attracted the opinions of right-side authors as they sought joins. In effect, O'Connor's presence allowed conservatives to author more assertive opinions without sacrificing joins. In contrast, Stewart's departure made chasing joins in the center somewhat less attractive.

E. SUMMING UP

We should be cautious in drawing overly strong conclusions from a single case study. Nonetheless, let us be bold in interpreting the results if only to stimulate thought and, perhaps, refutation.

First, the data are quite harsh to the Median Voter approach. The data are sufficiently unfavorable as to make one skeptical about the utility of viewing Supreme Court nominations as a move-the-median game. The data from the unanimous disposition coalition also appear relatively unfavorable to the Majority Median approach. Still, this perspective may well offer a convenient approximation of average Supreme Court outcomes disposition by disposition. But thinking about Supreme Court nominations as a move-the-median-in-important-dispositions game seems unlikely to be terribly helpful.

The data appear much more favorable to the author-influence approaches. If the findings from the case study hold up, one should expect sizeable direct policy effects from a new Justice. However, the presence of notable peer effects is hard to reconcile with the Monopoly Author approach and suggests that the impact of a nominee can extend much farther than that particular theory would allow. The data we have examined do not allow a clean adjudication between the Entry Blocking and Gravitational Attraction approaches—or a rejection of both in favor of some yet-to-be-developed approach. However, the non-zero and varying peer effects that apparently occurred offer some support for the Gravitational Attraction model.

V. PRESIDENTIAL STRATEGY AND
PRESIDENTIAL POWER

If our assessment of the evidence is correct and something like the Gravitational Attraction model is at work in the Justices' decision making, what are the implications for the President's ability to shape legal doctrine through Supreme Court appointments?

The first implication is critical: *every nomination matters*. Even nominations that do not move the median can weaken one gravitational center and strengthen another. Doing so can shift opinions. Presidents who care about judicial policy cannot afford to "let one go"; they need to exercise discipline and maintain their focus in every nomination.

Second, much of the impact of a new Justice may lie not in her own opinions but in the *influence she exerts on the opinions of others*. For example O'Connor's availability for joins seems to have emboldened opinion authors on the right and acted as a magnet for those in the center. Thus, opportunities to shift centers of gravity can have a large payoff, much greater than simply placing a new source of congenial opinions on the Court.

Third, *presidents should strive to strengthen ideological centers on the Court at the President's own ideology*. Putting a Justice in the wrong location—too liberal or too conservative—will just pull opinions to the wrong place. Over a series of appointments, presidents should aim at building or strengthening a gravitational center that is neither too extreme nor too moderate, from their own perspective.

The author-influence approaches have another very clear implication: *opinion assignment matters*. Even within the same disposition coalition, assignment to a Justice on one end of the coalition can result in policy content very different from that following assignment to a Justice on the opposite end of the disposition coalition. The Chief Justice, of course, plays a vital role in the assignment process.¹²⁵

Fourth, *the Chief Justice position is a valuable prize*. The Chief's ability to steer opinions to "friends" may make a big difference in doctrinal content, especially in important cases.

Fifth, *appointments that strengthen the hand of the Chief or are compatible with his ideology are likely to carry an extra punch*. If the Chief has more nearby targets for receiving assignments in important cases, he can use them to alter doc-

125. See Lax & Cameron, *supra* note 46, at 292.

trine. Conversely, *appointments that weaken the hand of the Chief may also be important*. Thinning the density of Justices near a hostile Chief may force him to assign even important cases farther away than he would wish, again with consequences for doctrine.

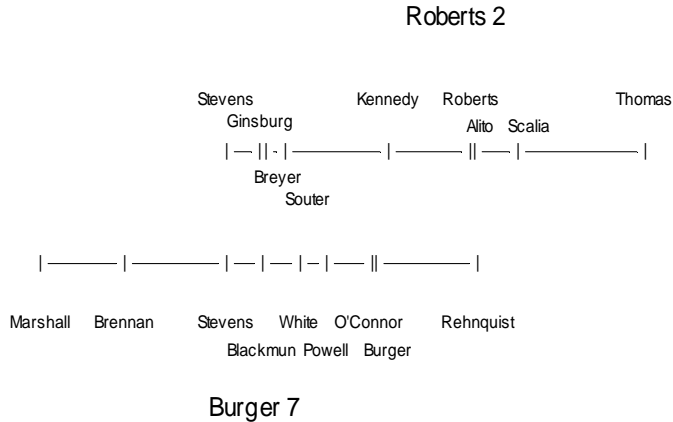


Figure 15. Ideological Distribution of the Contemporary Supreme Court Relative to Burger 7. The contemporary Court has two centers of gravity: a moderate center around Justices Ginsburg and Breyer, and a conservative center around Justices Alito and Roberts. A new appointment can either strengthen an existing center or begin to build a new center of gravity elsewhere.

Simply to make matters more concrete, consider the contemporary Supreme Court, Roberts 2, whose ideological distribution is shown in Figure 15. As indicated, the contemporary Court has two centers of gravity: a moderate center located around Justices Ginsburg and Breyer and a conservative center located around Justices Alito and Roberts. Facing such a Court, what appointment strategies might Republican and Democratic presidents wish to pursue?¹²⁶

Republican presidents have an obvious and straightforward strategy: further strengthen the Roberts-Alito-Scalia cluster. Doing so would bolster the attractive power of the cluster; it would also supply the Chief with additional targets for important assignments.

Democratic presidents face more difficult decisions. One interesting possibility, however, is re-establishing a liberal center

126. We write following the election of Democratic President Barack Obama but before he has had an opportunity to nominate any Justices.

of gravity, say, at the Brennan location. The evidence from the Burger 6 and 7 natural courts suggests the direct effect from a single liberal appointment would be quite modest, because such a Justice would be compelled to seek joins from moderates. Thus, she would need to locate her opinions rather centrally, as did Marshall in Burger 6. But the presence of a Brennan-style Justice might exert a peer effect on the moderates, consolidating their opinions more solidly at the moderate position and partially off-setting the pull of the right. Of course, strategic assignments by the Chief would tend to limit the impact of a single liberal appointment. But several such appointments would have greater impact, not only by establishing a more powerful basin of attraction on the left, but by restricting the nearer assignment targets for the Chief.

In some sense, the lessons that emerge from theory and data have already been absorbed. Presidents select nominees carefully, work hard to manage the entire process, and strive diligently to build favorable centers of gravity on the Court. Our analysis suggests why these efforts make sense and why and how they can succeed.