

Bargaining Power in the Supreme Court

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Abstract

How can we assess bargaining power within the Supreme Court? Do authorship and opinion assignment affect legal policy? We argue that fluidity, differences between a justice's initial vote and final vote, can indicate the location of the Court's majority opinion. Justices should be less likely to defect the happier they are with the majority opinion, and bargaining models make differing predictions for opinion location and the influences thereon. Therefore, these models can make different predictions for how opinion assignment will affect whether justices change their votes. We derive theoretical hypotheses from each model. Using multilevel probit regression and Supreme Court vote data, we show that power within the Court lies in the hands of opinion authors, and thus of the Chief Justices who pick them, as constrained by the need to maintain a majority coalition. We find evidence against three other major models of judicial bargaining (median monopoly, majority-median monopoly, and author monopoly).

At the end of each Supreme Court term, there is much talk in the popular media of swing justices and whose “Court” it is, particular when the locus of power seems to have changed. After an unusually extended period of stability, the ideological makeup of the Court has indeed shifted in recent years. Once Justice O’Connor retired in 2006 and Justice Alito took her place, the label of pivotal swing vote shifted from O’Connor to Justice Kennedy. In the 2006-7 term, Kennedy was in the majority in all 24 of the Court’s 5-to-4 decisions, and the media proclaimed the beginning of the “Kennedy Court.” Despite a precipitous drop in 5-to-4 decisions in the 2007-08 term (from 24 to 11), the New York Times insisted, “It was, once again, Justice Kennedy’s Court” (Greenhouse 2008).

Meanwhile, Roberts replaced Rehnquist as Chief Justice, a change in the most procedurally powerful Court position. Does Kennedy’s influence as swing justice trump Roberts’s power to assign who writes the majority opinion? Or, now that Roberts has been at it for a few years, has he learned to use procedure to his advantage? Is it still the “Kennedy Court,” or is it now the “Roberts Court”? At the close of the 2009-10 term, the New York Times decided this contest in favor of Roberts—“The Roberts Court comes of age”—citing the fact that the Chief was in the majority 92% of the time, more than any other justice, including Kennedy (Liptak 2010).

Overall, the Court’s right wing has been strengthened as two conservatives were replaced by two even more conservative justices, the center has been stable or perhaps shifted a bit to the right (from O’Connor to Kennedy), and the left wing (relatively moderate in comparison to the Warren Court) has seen Souter replaced by Sotomayor and Stevens by Kagan. Even setting aside the struggle between the Chief and the pivotal justice, do these broader shifts matter? How does this pattern of ideology and polarization affect legal policy?

The judicial opinion is the main policy-making tool of Supreme Court justices. While the authorship of this opinion is usually officially attributed to a single justice, it is actually the product of the interactions between the justices seeking to influence its content. A large body of work, ranging from behind-the-scenes accounts to scholarship using the justices’ own private papers, has established that the justices interact, sometimes strategically, with an eye towards affecting

legal policy through the language of court opinions. But how do these attempts to influence the majority opinion play out? This question motivates one of the most active debates in judicial politics today (e.g., Schwartz 1992; Epstein and Knight 1998; Maltzman, Spriggs and Wahlbeck 2000; Westerland 2003; Hammond, Bonneau and Sheehan 2005; Bonneau et al. 2007; Lax and Cameron 2007; Staudt, Friedman and Epstein 2007; Cameron and Clark 2007; Carrubba et al. 2007; Epstein and Jacobi 2008; Clark and Lauderdale 2009).

It is not obvious that bargaining and opinion assignment should matter. If bargaining inevitably drives the policy choice to the ideal point of the median voter (per the Median Voter Theorem), it does not matter who writes the initial opinion, and thus it does not matter who makes the assignment. If all policy-making in the Supreme Court comes down to the preferences of the median justice, then the choices made along the way are simply noise, a meandering path to a predetermined end. If the price of forming a majority coalition is always the same, why should it matter who writes the check? Call this the Median Justice Puzzle—we must either accept that judicial bargaining is “noise,” or we must explain why the median justice does not monopolize control of legal policy.

Different resolutions of this puzzle make varying predictions about which justices will be able to influence the policy content, or ideological “location,” of the opinion in a given case and to what extent. According to some theories, opinion assignment matters little or not at all because one particular pivotal justice is dominant. In other theories, however, policy is the result of a nuanced bargaining game. The former family of theories attributes power over opinion content to an individual justice—specifically, the median member of the Court (given the Median Voter Theorem), the median member of the majority coalition within the Court, or the majority opinion author—and so we classify these as “Monopoly Theories.” The second family of theories, “Author Influence Theories,” say that the degree of author power will vary with the author’s bargaining leverage.

In order to empirically adjudicate between these theories of relative bargaining power, we resuscitate an old topic in judicial studies, the study of vote fluidity, and connect it for the first

time to this theoretical debate. We argue that fluidity, an instance in which a justice switches her vote between the initial internal conference vote and the final reported vote in a case, can reveal the likely location of the majority opinion—because, all else equal, justices in the initial majority should be less likely to defect the happier they are with the majority opinion.

Each theory we consider makes a prediction for the opinion location that results from the bargaining process. Given these predictions, we draw out the implications for how happy the Chief Justice’s initial choice of opinion author should make each justice in the majority.¹ We assume that unhappiness with the (expected) opinion should correlate with the probability that a given justice will switch from his or her initial vote. At a minimum, this research design will allow us to test whether bargaining matters at all and to rule out some of the theories we consider.

This research design has an advantage unique among those that seek to adjudicate among these bargaining theories. Taking the initial vote as pre-test, the final vote as post-test, and assignment of the majority opinion as the key treatment temporally between the two, we have a test of assignment effects far closer to causal inference ideals than is usually possible in observational studies.

We make use of multilevel probit regression and roughly 40 years of Supreme Court vote data. Theoretically, we draw out the implications of various theories of bargaining, laying out a framework for comparative statics that informs this project but also might serve to guide future work.

To foreshadow our results, theories that do not allow for some degree of author influence cannot explain our findings. We find that the evidence from fluidity supports the conclusion that opinion authorship does indeed matter, contra two of the theories we consider. Most of our findings are broadly compatible with the family of author influence theories, which one can interpret as mutually complementary in their resolution of the Median Justice puzzle. The strongest reading of our empirical evidence supports effects explicitly predicted only by the author influence model in Lax and Cameron (2007), which we formally extend here.

¹ Throughout, we refer to the Chief Justice as the opinion assignor. However, if the Chief is not in the initial majority, the senior justice in the majority assigns the opinion.

Bargaining in the Supreme Court

The bargaining models we describe below generally make the standard assumption of single-peaked preferences in a unidimensional policy space (so that, *inter alia*, there is a most preferred policy point along the line from liberal to conservative). There are two main families of models or, more simply, two types of hypotheses about final opinion location. The first is the set of models in which some justice within the majority, who we shall call the monopolist, has monopoly power over opinion content: the opinion is placed precisely at his or her ideal point. The second family of theories predicts that the majority author will have influence over the opinion as mediated by the bargaining process, but that no single justice will have monopoly power. By the simplest reading of these assorted theories, each is a complete and competitive account of judicial bargaining. It may, however, be more reasonable to see them as partial models, each of which highlights a particular incentive or force at work in collegial court bargaining. Thus, the evidence we present rules out some theories in their purest sense, and, more generally, assesses relative influence on opinion content of those justices cast as important by various theories.

Monopoly Theories. There are three contending monopolists: the median justice, the majority-median justice, and the author. The median can be the monopolist when bargaining is costless and governed by the Median Voter Theorem (Black 1958). In the judicial politics setting, this is the “open-bidding” model in Hammond, Bonneau and Sheehan (2005). A variant of that model with the same bottom line is their “median-holdout” model, in which the median justice refuses to vote for any opinion other than her own ideal point by assumption, and so she automatically gets her way. The majority-median hypothesis is discussed in Westerland (2003) and can arise in a more nuanced form in the more general model in Carrubba et al. (2007), in which no justice in the initial majority will accept an offer from the opposing side (doing so is either ruled out by assumption or is prohibitively unattractive). Then, we get, in effect, the Median Voter Theorem applied only within the initial majority coalition and not the Court as a whole. Finally, the author himself might have total control over opinion location, if she is free to choose anywhere within the

initial majority coalition to place it (this can happen in some configurations of the “agenda-control” model in Hammond, Bonneau and Sheehan (2005)).

The opinion location predictions from these three theories can be represented on the line at the top of Figure 1, which depicts a recent set of Supreme Court justices in ideological order. If Justice Scalia is the opinion author for a straightforward 5-justice conservative majority, then the median-monopoly hypothesis predicts the opinion will be located at Justice Kennedy’s ideal point, the majority-median hypothesis predicts Chief Justice Roberts’s ideal point, and the author-monopoly hypothesis predicts Scalia’s ideal point. If, on the other hand, the Chief Justice were writing the majority opinion, then the author-monopoly prediction would now be an opinion at his ideal point. The median and majority-median hypotheses, however, would lead to the very same predictions as before. In the median and majority-median theories, opinion location does not respond to authorship and so the identity of the opinion author is irrelevant. In the author-monopoly theory, opinion location does respond to authorship (and only to authorship), and so assignment obviously matters. In a case with a a 7-vote majority excluding only Breyer and Stevens, the median hypothesis would still put the opinion at Kennedy but the majority-median would now put it at Alito instead of Scalia.

Author Influence Theories. In the second family of hypotheses, the content of the final opinion is a function of the preferences of the various justices and does not fall under the complete dominance of any one justice. Typically, scholars associated with this position argue that the author is constrained in fulfilling her own ideological preferences and must take into account the preferences of the other justices, but not to such an extent that one other justice dominates the bargaining process. Below we describe models that fall into this category and, to the extent the models allow, how responsive the opinion content will be to the preferences of the author.

In one such model, that in Schwartz (1992), the policy alternatives available to the author are exogenously fixed, and the author can only control the level of precedent written into the majority opinion. The level of precedent desired by a justice varies with his or her ideal point (225), and

different authors would choose different levels of precedent subject to the need to get a majority. Each justice prefers an author as close as possible to her own ideal point (237). It is possible that, because of a limit to how far the opinion can be moved in equilibrium, shifting author ideology might not change the equilibrium opinion location once this limit is reached (237). Past this limit, there will be no effect of author location on opinion location. Below it, opinion location should vary with author's ideology, as it does in the author-monopoly hypothesis.

Maltzman, Spriggs and Wahlbeck (2000) argue that the author must deal with both the policy goals of the other justices in the majority (and only those in the majority) and with organizational needs. They predict that the author and the other justices will have influence over its location and that the author will favor, in opinion writing, accommodation, and response, other justices who are as close as possible to his or her own ideal point. Like Schwartz (1992), they do not make an explicit prediction as to where, within the majority, the opinion will fall, but its location is positively related to author ideology. Further, they argue that opinion assignors will all else equal prefer to assign opinions to justices with the same ideological location.

In the "agenda-control" variant in Hammond, Bonneau and Sheehan (2005), the opinion author makes a take-it-or-leave-it offer against an exogenous status quo (this is in effect the familiar model from Romer and Rosenthal 1978, 1979). The only offers that can win are those between the status quo and the reflection point of the status quo on the other side of the median. To win, the opinion author must pick some point in this region. If the opinion author's ideal point is in this region, she can pick her own ideal point. If the author is outside of that region, she cannot do better than the endpoint of that region that is closest to her. Thus, as authorship moves outside of this region, the opinion location does not continue to shift with the author. Bonneau et al. (2007, 896-7) assume that the status quo will be in between the coalition of justices who grant cert and the coalition of justices who vote to deny cert. If this means the status quo tends to fall near the median justice, then the bargaining range is small, which limits the effects of author ideology on the opinion (since most opinion authors would be outside the bargaining region and so would locate the opinion at the endpoint of the region).

Lax and Cameron (2007) argue that opinions have a second dimension, in addition to policy content, so that bargaining does not devolve to the Median Voter Theorem. As in each of the models described above, justices are ultimately motivated by a concern for judicial policy, but, in this case, the policy impact of an opinion is assumed to depend also on its persuasiveness, clarity, and craftsmanship—its legal quality. Because an opinion's legal quality affects its reception, justices are induced to care about legal quality, even if policy is ultimately their real concern. Higher quality means lower policy variance (equivalently, one can care directly about quality). The next key assumption in this model is that producing higher quality opinions requires costly time and effort both for the opinion writer and the counter-writers who contest the opinion. This costly effort creates a wedge that the assignee can exploit to move an opinion away from the median justice's most preferred policy without provoking a winning counter-opinion. The Chief Justice (or other assigner) anticipates the outcomes of the bargaining game and strategically assigns opinion authorship in order to best achieve his/her policy goals. The degree of author power in this model varies with bargaining leverage (which depends on various model parameters); the policy location of the opinion will fall between the median and the author. The quality of the opinion will be increasing in author extremism (in equilibrium, more extreme authors must compensate with higher quality).

Returning to Figure 1, if Scalia is the initial majority author, the opinion's policy will lie somewhere between Kennedy and Scalia. If the Chief Justice self-assigns, then, all else equal, the opinion would be less extreme, closer to Kennedy's ideal point, and may be of lower quality. The movement relative to Alito would be ambiguous; depending on bargaining leverage, the opinion author might pull the opinion away from Kennedy towards Alito or even past him.

Finally, in Carrubba et al. (2007), bargaining may not reduce to the majority median, as in the monopoly configuration discussed in the previous section, if the author is concerned that other justices might choose to write separate concurrences. The opinion author can, for some configurations, get some freedom to place policy closer to her ideal point, given that justices will not be willing to vote a case disposition with which they disagree. Thus, opinion content may respond

positively to authorship.

Bargaining and Fluidity

Testing the predictions of the monopolist and author influence models described above requires measures of both ideology and opinion content. Most bargaining theories portray judicial preferences in the standard one-dimensional ideological policy space, with each justice having an ideal point along the line from liberal to conservative. There exist several empirical estimates of these preferences (e.g., Segal and Cover 1989; Martin and Quinn 2002; Bailey and Maltzman 2008). However, we currently lack direct measures of opinion content, and so various scholars have devised clever indirect means of getting at the relative influence of key justices in the “collegial game” over opinion content, as Maltzman, Spriggs and Wahlbeck (2000) name the Court’s bargaining process. Using data from the Court’s internal memoranda, they find that the author of the majority opinion draft does respond to and accommodate suggestions and threats from the other justices in the majority. Two other empirical studies show evidence that opinions tend to fall somewhere within the initial majority, and that the majority median is a more likely final opinion location than the court median. One, Carrubba et al. (2007), does this through concurrence patterns, while the other, Clark and Lauderdale (2009), does so by using case citations to estimate opinion locations.

We add to this growing body of evidence by devising a test that we would argue has unique advantages for causal inference over those in the existing literature. Before we discuss the logic of our test, we explain the concept underlying it: vote “fluidity,” the shifting of a justice’s vote between the initial conference vote on the merits and the final vote on the merits in a given case (Howard 1968).

Previous scholars studied fluidity because of their interest in ideological patterns or because such voting “mistakes” might hurt productivity. Fluidity is often broken down into defection (justices in the initial majority who change their votes) and conformity (switches by minority justices). This research indicates that assorted factors at the level of the individual justice, the level of the conference coalition, and level of the case are correlated with fluidity. For example, defection are

higher among justices who are marginal members of the initial majority;² higher among justices who are closer to the initial minority than to the majority (e.g., Brenner, Hagle and Spaeth 1989; Hagle and Spaeth 1991; Brenner and Dorff 1992); and lower by justices in important cases (e.g., Brenner, Hagle and Spaeth 1989). Defection does seem to vary by justice (Brenner, Hagle and Spaeth 1989), but not due to “freshman” status (Hagle and Spaeth 1991). Justices are more likely to conform to larger initial majority coalitions and in less important cases, with conformity tending to lead to more ideologically consistent coalitions (Dorff and Brenner 1992; Brenner 1980, 1989). Some scholarship has looked at opinion assignment in combination with fluidity, starting with Brenner (1982a). Both Brenner (1982b) and Brenner and Spaeth (1988) show that justices who are ideologically marginal relative to the other justices in the coalition receive disproportionate shares of opinion assignments. However, perhaps counterintuitively, Brenner and Spaeth (1988) and Brenner, Hagle and Spaeth (1990) find no effect from marginal authorship on the maintenance of the initial majority coalition or on coalition size. Finally, Maltzman and Wahlbeck (1996) integrate and improve upon the earlier fluidity work, connecting fluidity to uncertainty, coalition-building, strategic policy considerations, and institutional considerations.

Here, we shift the focus from what accounts for fluidity itself to what fluidity can reveal about bargaining influence. We argue that *fluidity can suggest opinion location* because, all else equal, the happier a justice is with the majority opinion produced by or expected to be produced by such bargaining, the less likely she is to switch from her initial vote with the majority. Even given rational forward-looking behavior on behalf of the majority-seeking opinion writer and other justices, informational shocks and uncertainty can lead to mistakes in opinion placement, so that the choice to switch or not will depend on how happy the justice is with a given opinion. Since different theories of opinion production posit different ultimate opinion locations, we can adjudicate among these theories by examining empirical patterns of fluidity, or, more specifically, patterns of defection from the majority.

² Marginality is defined variously but usually means the most liberal member of a conservative coalition or vice versa, sometimes restricted to minimum winning coalitions.

Why Use Fluidity? We are interested in fluidity because of the opportunity it presents, unlike previous methods, to assess power dynamics within the Court, as a quasi-experimental design. The initial vote can be seen as a pre-test, the assignment as treatment, and final vote as post-test. In this way, preliminary votes serve as controls for the predisposition to cast a vote in a particular direction, so that vote switching reveals the effects of opinion assignment. Formally, this is a “pre-post nonequivalent groups quasi-experiment” (Trochim 2001), as assignment itself is not random, and so we must include controls for other predictors of assignment that may also be correlated with defection. Since the case at hand has not changed between the conference and final votes, and since we control for what we would argue to be other predictors of fluidity, including the justices own ideology and location relative to other justices, only authorship acts as a treatment. To the best of our knowledge, this paper is the only one to test bargaining influence using such a pre-post research design, which allows for causal inference through multiple observations of the same unit of analysis (a specific justice-case unit) and not only across units of analysis (the same justice across cases, or across different justices in the same case).

Of course, vote switching is not the only way for a justice to show dislike for the majority opinion. Concurring separately rather than joining the majority opinion is another option. Indeed, switching one’s vote on the merits is obviously a very extreme response to opinion assignment or content given the option to concur. One may reasonably expect that the actual disposition of the case should only be about the case itself and not more the general policy language in the opinion. To the extent that this is true, it cuts against our finding an effect of assignment on defection. Fluidity is a very extreme response to disagreement with the majority—and yet we find clear evidence that authorship causes defection. That the fluidity test is a rather strict test of authorship impact is a strength of the test, not a weakness. Had we found null results, we would have not jumped to the conclusion that assignment did not matter. But finding such effects using this research design is rather striking, given both the extremity of the test and the clean pretest-posttest setup.

Further, we can only exploit this pre-test/post-test setup for the vote on the merits and not for

any other indicator of a justice's unhappiness with the opinion. We cannot test concurrences in this particular type of research design because we do not have anything like a measure of concurrence in the opinion before the authorship is announced.

Finally, our argument does not depend on the assumption that justices will always or even usually switch their votes when they do not like the opinion (rather than, say, just concurring separately). It only depends on the argument that, all else equal, unhappiness with the opinion should lead to greater, not lesser fluidity. One might find no relationship, but we cannot think of an argument for why greater unhappiness with the majority opinion should lead to less switching. Only that perverse relationship would undercut our findings. Of course, there is the possibility that it is not unhappiness per se that leads to fluidity but instead something else we have not captured, and so we state our conclusions in two ways. Without this assumption, we can still state that there is a treatment effect of assignment on fluidity. And if the fluidity-bargaining assumption is granted in full, we can actually test relative bargaining power.

Given that we see many of the bargaining theories as complementary, or at least informally compatible with each other, the optimal theoretical path may be to formally model a bargaining process in which all the various forces (e.g., those suggested in Hammond, et al.; Carrubba, et al., Lax-Cameron; etc.) come into play. The ideal would be a model that analyzes bargaining in context of the state of the current law; allows for concurrences, defection, and the like; incorporates uncertainty and incomplete information of various types; includes concerns for hierarchical control; includes utility for both disposition and opinion; and derives fluidity predictions. Since recent bargaining models treating each of these in isolation seem to be the cutting edge of theoretical development, such a unified attack is beyond the scope of what we can accomplish here. That said, just as the various models each capture distinct aspects of judicial bargaining and are treated as mutually compatible for our purposes without being formally solved as a mega-model, we adopt the second-best solution of tacking on the assumption that fluidity would not be perversely related to opinion satisfaction.

In short, we advance the following claims: 1. There has to be some informational problem or

uncertainty among justices in order for us to observe any fluidity, and, of course, we do indeed observe some fluidity; 2. If we were to add such uncertainty to a formal model (and were it possible to derive predictions from such a model), the model either would or would not predict vote switching; but 3. if it did predict vote switching, then it would have to be in the direction we assume: that a justice is more likely to defect from an opinion the less she likes it. Given this assumption, we derive fluidity predictions from the monopolistic and author influence models.

Monopoly Hypotheses for Fluidity. Recall that the monopoly theories of judicial bargaining each predict that one specific justice is able to locate the final opinion at her ideal point. The implications of these models' for fluidity, then, are straightforward—a justice will be more likely to defect the further away he or she is from the monopolistic justice.

Consider a justice in the initial majority coalition who is (re)considering his or her vote in the case at hand, given that another justice was assigned to write the opinion. Under the median and majority-median hypotheses, the probability he or she will indeed defect should not vary with respect to the particular opinion assignee, since the author has no effect on the final opinion location.

Under the author-monopoly hypothesis, choice of opinion assignee should affect the justice's probability of defection because authorship (and only authorship) affects opinion location. To be specific, all else equal, defection probability should rise as the assignee's distance from the justice in question increases.

Finding that opinion assignment affects defection is evidence against the median and majority-median hypotheses. If defection increases as assignee-to-justice distance increases, then that would lend affirmative support for the author-monopoly hypothesis. The latter is a *symmetric* distance effect, as movement of the author away from the justice hurts the justice whether such movement is toward the more extreme wing or toward the more moderate wing of the majority. The bottom section of figure 1 summarizes these hypotheses.

Influence Hypotheses for Fluidity. The author influence family of theories posits that the opinion author is able to exert some control over the final opinion location but that this power is

mediated by other factors, including exogenously-fixed policy alternatives (Schwartz 1992), the ideology of other justices in the majority (Maltzman, Spriggs and Wahlbeck 2000), the location of the status quo (Hammond, Bonneau and Sheehan 2005), and the author's bargaining leverage (Lax and Cameron 2007). Thus, unlike with the monopoly theories, it is not possible to pinpoint exactly where the final opinion will be located without further information. The opinion should be somewhere in between the median and the author, but we cannot say whether it would be to the left or to the right of a majority justice more moderate than the author. And so we cannot predict, for example, whether Justice Alito would be more or less likely to defect from the initial majority if Scalia were assigned to write the opinion instead of Roberts (see Figure 1).

However, in Lax and Cameron's author-influence model, the predictions for such a justice's utility from the equilibrium opinion are not so ambiguous. In that model, the utility from an opinion depends on more than just its ideological location. It also depends on legal quality. The opinion author writes the opinion to achieve a particular ideological target in the policy space and chooses the extent to which she will invest in the legal quality of the opinion. Legal quality requires costly effort, but the greater the legal quality, the greater the chances that the application of the opinion will yield an outcome close to this ideological target (that is, higher quality implies lower variance around the target, and thus a higher expected payoff, all else equal) (p282).

To maintain a majority while pulling policy away from the median, the opinion author must write an opinion with ideological and legal content sufficiently attractive such that no other justice will pay the cost to beat it with an opinion closer to the median and/or of higher quality. In equilibrium, the more extreme the assignee, the more extreme the opinion ideology, but the higher the opinion quality, creating a trade-off for justices evaluating this opinion (p290).

In Appendix A, we extend the Lax-Cameron analysis so as to derive the implications of this trade-off. We predict that, under reasonable assumptions, more extreme authors should make justices close to the median more happy, because either (1) opinion location, as it is pulled further from the median, will still actually be moving towards them *and* quality will increase, which will also improve utility, or (2) policy will move somewhat past them but this will be more than

compensated for by higher opinion quality. That is, the distance-to-assignee effect on defection will be *asymmetric*, with most or all justices more likely to stick with the initial majority when authors are more extreme given the extra investment in quality/certainty by such authors.³ Figure 1 depicts this hypothesis graphically.

Data and Methods

Data. The data we use on conference vote, final vote, and case characteristics are from Spaeth's Vinson-Warren Supreme Court Judicial Database and Expanded Burger Court Judicial Database, which collectively cover Supreme Court activity from 1946 to 1985.⁴ In order to examine individual justice voting behavior, we expanded the case-level data to the justice-case level (limited to initial majority coalitions of sizes four through eight). Each of the resulting 30,899 observations represents the vote of one particular justice in one particular case (22,793 majority observations across 4,171 cases). We also use Martin-Quinn year-specific aggregate ideology scores ("MQ

³ While it may seem counterintuitive that a justice should prefer a more extreme opinion assignee, consider how much the extreme author has to lose in terms of policy if he cannot hold a majority relative to a more moderate author. Thus, the extreme author is more willing to invest in opinion quality than is a moderate author.

⁴ We dropped cases with six or more missing conference votes, with fewer than four majority justices coded, or with an unclear ideological direction due to missing data or issue area (per Spaeth). If the conference vote of the opinion assignor or the opinion assignee was missing from the data or was obviously incorrect, then we coded the justice as being in the conference majority. This correction affected 305 cases (mostly from the Burger court). If the overall conference was tied (due to missing data or when the court had only eight members) and the opinion assignor and the opinion assignee were incorrectly coded as being in the minority, then we changed what was incorrectly identified by Spaeth's default coding as the minority coalition to the majority coalition. This correction affected 55 cases. Where there are combination votes, such as reverse in part/affirm in part, we use the primary vote as indicated by Spaeth.

scores”) to measure additional case and justice characteristics(Martin and Quinn 2002).⁵

Our dependent variable, vote *Switch*, is a dichotomous variable that equals one when a justice’s conference vote and final vote differ and zero when a justice does not change his vote.⁶ In the raw data, defection from the majority occurs roughly 7.5% of the time.

The previous literature on vote fluidity indicates that a justice may switch his vote for reasons unrelated to his distance from the opinion assignee. Based on these findings, we code the following control variables. At the case-level, we code *Salience* using the measure in Epstein and Segal (2000), which indicates whether a case was covered on the front page of the *New York Times* (as noted below, results are the same or stronger if we use the number of amicus briefs filed as another indicator of case importance). To capture case complexity, we use the *Laws* variable from the Spaeth database, indicating those cases with more than one legal provision. We expect less defection in salient cases and more in complex cases. We also use the eleven major case *Issue* areas in the Spaeth database that are coded as having a liberal-conservative direction (these issue effects will capture differential salience and complexity, as well as other idiosyncratic differences).

At the coalition level, *Coalition Size* is simply the number of justices in the initial majority with known votes. *Contiguous* majority coalitions are those in which the initial majority is not ideologically scattered, i.e., perfect spatial voting in which the justices in the majority line up according to MQ score without interruption by a minority justice. We expect less defection when voting is more “normal,” in this sense. Natural courts (*Natcourt*) are continuously serving sets of justices (20 in our data), which begin when a justice is appointed, and end when a justice leaves the Court (as coded by Spaeth).

At the justice level, *Ideology* is a justice’s MQ score recoded relative to the direction of the conference vote—the higher the score, the more liberal (conservative) a justice is in a case in which

⁵ We have checked our results using alternative measures, as discussed in Appendix B.

⁶ When multiple conference votes occurred, we use the first vote, except in cases when re-votes took place before the majority opinion-writing duty was assigned. In these cases, we use the conference vote closest in time to the assignment.

the conference decision was liberal (conservative). A justice is *Marginal* if she is the most liberal (conservative) justice, by MQ score, in a conservative (liberal) conference majority. A justice is *Closer to the Minority* if her MQ score is closer to the average score of the initial minority coalition than to the average score of the initial majority coalition, excluding her own score from either of them. Either of these relative positions would be expected to lead to greater defection, dampened perhaps by equilibrium behavior aimed at keeping such wavering justices on board.

Uncertain votes are those coded as such in Spaeth's records (e.g., "?" or "Q"), either because of actual uncertainty on the part of the justice or because of vagueness in the record-keeping.⁷ This too is expected to associate with higher defection. *Assigned* indicates that a justice herself was assigned to write the majority opinion, which should lead to a lower defection probability.⁸ *Expertise* is the natural log of the number of opinions (+1) that the justice has written (whether majority, concurring, or dissenting) on the relevant case issue up to the date of opinion assignment. Finally, *Freshmen* are justices serving their first term on the Court (our main results are the same if the period is two terms).

Our primary variable of interest, the one which will allow us to differentiate among the predictions made by different bargaining models, is *Distance to Assignee* (DA). DA is simply the absolute difference between a justice's MQ score and the assignee's MQ score. In addition to DA, we also create a variable for *Side*. A justice is coded as facing an assignee on her extreme *Side* if the assignee's MQ score is more conservative (liberal) than the justice's and the initial conference vote is conservative (liberal) (equivalently, $Side = 1$ if the justice is on the moderate side of the assignee). See Figure 1.

We interact *Side* with DA. This allows the marginal effects (slopes) of DA to vary on either side of the justice. The bottom part of Figure 1 shows two possible effects of assignee ideology. The

⁷ Even if "uncertain" votes are entirely due to vagueness in record-keeping, including this is still important because it will control for non-random error in our dependent variable.

⁸ We include all assignments, whether made by the Chief Justice or senior justice in the majority. Where multiple assignments occurred, we code the justice assigned first.

v-shaped line shows a defection probability that increases with assignee distance from the justice in question (symmetric distance effects), as predicted by author-monopoly models of bargaining. The downward-sloping line shows a defection probability that increases with assignee moderation, not distance (asymmetric distance effects), as predicted by Lax and Cameron (2007). The effect for assignees on the moderate side of a justice are the same, while the effects for assignees on the extreme side of the justice diverge. We assume that the defection probability curve is continuous, so that the coefficient on *Side* itself has to be zero (it is statistically indistinguishable from zero if included). Later, we will show that our results are robust to other specifications of justice locations and distances.

Methods. We estimate multilevel probit models using the GLMER function in R. The data are individual justice votes in individual cases. Since the same justice casts many votes, cases are related by issue area, a natural court fixes a set of justices, and coalition sizes repeat, we group votes by justice, by natural court, by issue, and by coalition size. We use multilevel probit models and modeled (or “random”) effects, instead of unmodeled (or “fixed”) effects, for these groups of predictors. The model partially pools information about data across groups, to an extent warranted by the data. Each grouping is a set of modeled random effects, assumed to be drawn from a normal distribution with estimated variance, centered at zero. In addition to accounting for the grouped structure of the data, using this specification allows us to answer interesting substantive questions: Are some natural courts simply less stable than others? Do certain justices defect more than others? Are some issues more prone to defection than others?

While there is more than one way to express a multilevel model, the following is the most intuitive. In our defection model, we model the decision of justice j to switch his or her vote away

from the initial majority in case c of issue i given natural court n with coalition size s as follows:

$$\begin{aligned} \Pr(Defect_{j,c} = 1) = & \Phi(\beta_0 + \beta_1 \cdot Ideology_{j,c} + \beta_2 \cdot Expertise_{j,c} + \beta_3 \cdot Salience_c \\ & + \beta_4 \cdot Laws_c + \beta_5 \cdot Noncontiguous_c + \beta_6 \cdot Assigned_{j,c} \\ & + \beta_7 \cdot Marginal_{j,c} + \beta_8 \cdot Uncertain_{j,c} + \beta_9 \cdot Freshman_{j,c} \\ & + \beta_{10} \cdot Closer_{j,c} + \beta_{11} \cdot DA_{j,c} + \beta_{12} \cdot Side_{j,c} \cdot DA_{j,c} \\ & + \alpha_j^{Justice} + \alpha_{n[c]}^{Natcourt} + \alpha_{s[c]}^{Size} + \alpha_{i[c]}^{Issue}) \end{aligned}$$

The group effects are modeled as follows:

$$\begin{aligned} \alpha_j^{Justice} & \sim N(0, \sigma_{Justice}^2), \text{ for } j = 1, \dots, 26; \alpha_n^{Natcourt} \sim N(0, \sigma_{Natcourt}^2), \text{ for } n = 1, \dots, 20 \\ \alpha_s^{Size} & \sim N(0, \sigma_{Size}^2), \text{ for } s = 4, \dots, 8; \alpha_i^{Issue} \sim N(0, \sigma_{Issue}^2), \text{ for } i = 1, \dots, 11 \end{aligned}$$

Evidence from Defection

All results are presented graphically. Figure 2 shows probit coefficients from the defection model, with confidence intervals at 90% and 95%.^{9,10} We refer to Figure 3 for substantive effects. It shows predicted probabilities of defection for various justice types or cases, calculated using the values in the actual data and averaged over all observations. The range of these predicted probabilities are represented by the intervals, which cover one standard deviation around the average.¹¹

Bargaining and Defection. We first unpack our main result, the effect of a justice’s ideological distance to the opinion assignee on propensity to defect. What happens when the Chief picks a moderate justice to write the majority opinion? What happens when the assignee is ideologi-

⁹ Graphs of the grouped modeled effects are available upon request.

¹⁰ The marginal effect of distance for an extreme assignee is $\beta_{11} + \beta_{12}$.

¹¹ Note: these intervals are not measures of uncertainty but of the range of the estimated defection probabilities.

cally distant from a justice? What are the implications for bargaining over opinion content on the Supreme Court?

Because we model an interaction between a justice's location relative to the assignee (*Side*) and her distance to the assignee (*DA*), we can consider multiple possibilities to sort out the predictions of the various bargaining theories, represented in the lower section of Figure 1. As predicted by the author-monopoly model, defection could always be increasing in absolute ideological distance, so that justices stick with assignees who are similar ideologically, even if the degree to which this matters may vary in strength from one side of the author to the other. Or, as in the Lax-Cameron model, we could find that absolute ideological distance has opposing effects on either side of the assignee, so that all justices are less likely to defect from one particular type of assignee, in this case, an extreme one. Finally, of course, distance could have no effect at all, as predicted by the median and majority-median monopoly theories.

As shown in Figure 2, we find that distance to the opinion assignee does indeed have an effect on a justice's propensity to defect from the initial majority coalition. Distance has a significant effect for given assignees on both the moderate side and the extreme side of the justice. Thus, we can reject the null predictions of the median monopoly and majority-median monopoly theories. Distance to the assignee has the opposite effect on a justice's propensity to switch given an assignee on the justice's moderate side than it does given an assignee on the justice's extreme side. Thus, we can reject the symmetric distance prediction of the author-monopoly model. Further, increasing distance makes a justice more likely to defect if the assignee is on the justice's moderate side, but less likely to defect if the assignee is on the justice's extreme side. This pattern is consistent with the asymmetric distance prediction we derived from the Lax-Cameron bargaining model in Appendix A below.

To elaborate, for extreme assignees ($Side = 1$), and thus relatively moderate justices, there is a significant decrease in defection from an additional MQ unit in distance. But, for moderate assignees, and thus relatively extreme justices, ($Side = 0$), there is a significant *increase* in defection from even a single MQ shift in absolute distance (the raw probit coefficient in Figure 2). That is,

fixing a justice on the extreme side of the assignee, the more extreme the assignee, the less likely defection is. Fixing a justice on the moderate side of the assignee, the more extreme the assignee is, the less likely defection is. *All* justices defect less from extreme assignees. These probability changes can seem small, but are quite large relative to the average probability of defection and are statistically significant as well. That is, with defection probabilities centering around 8%, an increase or decrease of a couple of percentage points represents a 25% increase or decrease from the base level of vote switching.

A set of predicted probabilities will illustrate the rough magnitude of this effect (see the bottom of Figure 3 or the full spread of predictions in Figure 4). Consider a Justice Smith.¹² If the Chief assigns to a justice 10 MQs more extreme than Smith, so Smith falls on the moderate side of the assignee, then Smith defects from the initial majority coalition only 5% of the time. But, if the Chief assigns to a justice only 1 MQ more extreme than Smith, he defects 8% of the time, a 60 percent increase in defection probability. If the Chief were to assign to a justice 1 MQ more moderate than Smith (so that Smith falls on the extreme side of the author), the chance of switching is still 9%. But, if the assignee is 10 MQs more moderate than Smith, Smith's chance of switching increases to 16%, a 78 percent increase in defection probability.¹³ Smith is more likely to stick with the initial majority vote the more ideologically extreme the opinion author is. All of this is true even though we control for Smith's ideological compatibility with the conference vote and for his idiosyncratic propensity to switch. Thus these findings are *not* due to the relative ideological position of Smith himself but are due solely to the assignee's ideological position.

Our other results are broken down into case-, coalition-, and justice-level effects. We find effects across all three levels of analysis, which supports doing this analysis at the individual level, so that all three can be included.

¹² For both of these sets of calculations, *Assigned* is set to zero.

¹³ 10 MQ units is close to the maximum ideological distance between any two justices in our data, or approximately the distance between Douglas and Rehnquist in 1974.

Case-Level Effects. We do not find an effect of case salience on defection rate. We do find that more complicated cases as indicated by induce greater defection: compared to justices voting in cases with a single legal provision, justices in cases with more than one provision at stake are 3 percentage points more likely to switch on average. Defection also varies across issue areas. Defection by is, all else equal, lowest in first amendment cases and highest in federal tax cases (the standard deviation in such issue-level intercept shifts is around 4 percentage points).¹⁴

Coalition-Level Effects. The configuration of the initial majority coalition also affects defection. Justices are less likely to defect when the coalition is larger. Coalitions of five have the greatest defection rate (4 to 5% above average); those of eight the least (4 to 5% below average). Each of these extremes is significant compared to the average defection rate across coalition sizes. That minimum winning coalitions have higher defection probabilities suggests that the effects of opinion assignment on defection can be particular important for such coalitions. Whether or not the initial coalition is contiguous is also significant. As shown in Figure 3, non-contiguity increases the likelihood of defection by 1.4 percentage points, close to a 25% increase from the base level of defection. Finally, some natural courts simply have more defection than others. The early years of the Warren Court have some of the lowest levels of defection, all else equal, and the early years of the Burger Court have some of the highest. That natural courts differ, holding constant a justice and distance to author and the like, means that the precise configuration of justices matter for defection. This too might point against hypotheses that reduce bargaining to the median justice.

Justice-Level Effects. Next, we consider effects that operate at the level of a single justice. First, there is variation across the modeled effects by justice, with Justices Burton and Goldberg the least and most likely to defect, with coefficients $-.19$ and $+.19$ respectively. Justices Stevens and Frankfurter are roughly dead center among the other justices in their propensities to defect, after controlling for all other effects, including ideology. The standard deviation in such justice-intercept-shifts is about a 6 point swing in defection probability. These effects and the natural court

¹⁴ Full results for these and other modeled effects available upon request.

effects all suggest that there are subtle differences in bargaining context across cases, justices, and courts, a more complicated picture than a simple median voter model might lead one to expect.

Where a justice sits within the initial majority coalition also affects defection rate, as does how close the justice is to the minority justices. A non-marginal justice defects at a rate of 8% compared to 9% for marginal justices. A justice ideologically closer to the majority than to the minority defects in only 7 percent of cases, while a justice closer to the minority coalition defects in 10 percent.

Not surprisingly, a justice's ideological compatibility with the initial majority conference vote direction has a large effect on defection likelihood. Recall that the higher the ideology measure is, the more liberal a justice is in a case with a liberal conference decision, and vice versa. A justice with an ideology score one standard deviation above the mean (e.g., a quite liberal justice in a case with a liberal conference vote) has only a 4% probability of defecting from the initial majority coalition. By contrast, a justice with an ideology score one standard deviation below the mean (e.g., a quite conservative justice in a case with a liberal conference decision) has a 13% probability of defecting from the coalition.

Justices that cast uncertain initial votes are indeed much more likely to switch. Uncertainty has an average marginal effect of 9 percentage points on defection probability. Issue-specific expertise does not seem to matter. Freshman are less likely to switch, but this effect is not statistically significant.

Finally, being assigned to write the majority opinion has a small negative effect on defection. A justice who is assigned to write the opinion has an 7% probability of switching. If, instead, the opinion is assigned to another justice who is an "ideological twin" (i.e., who has the exact same ideology score), then the unassigned justice is 8% likely to defect.

The results above demonstrate just how important it is to control for propensity to switch when testing bargaining hypotheses, given that many factors across all three levels are shown to affect the likelihood of defection from the initial majority.

To restate our main result, we find no support for the median monopoly, majority-median

monopoly, or author monopoly bargaining models. We find clear evidence of author influence over opinion content using the fluidity research design. Consistent with the Lax-Cameron bargaining model as extended in Appendix A, we find that assignment to more extreme members of the majority coalition makes all justices less likely to defect.

Indeed, to the best of our knowledge, no other author-influence model makes this particular prediction. That is, the existence of author influence is indeed compatible with various models, including the author-influence sub-model in Hammond, et al., Carrubba, et al., etc., but these models alone would not explain the *asymmetric* distance finding, which suggests that a justice can actually prefer the opinion author to be relatively more extreme, rather than closer to her own ideal point.¹⁵ We would not wish to overstate this point. It only means that one might hesitate before asserting these models as capturing everything of importance in judicial bargaining, something no one model can likely do. Rather, it is likely the contributions of these models would remain if modified to include the bargaining costs and associated assumptions from the Lax-Cameron model that induce this particular implication—whereby the author pulls policy away from the median, and so a justice can want someone pulling from even further away, to get the opinion itself closer (which is actually what the justice cares about, not the author’s ideology per se).

Evidence from Conformity

If opinion assignment can compel a justice to defect from the majority coalition, then it must also be the case that it can induce a justice to join the majority coalition, or to “conform.” We next show that assignment does indeed have an effect on conformity, changing our dependent variable to indicate when a justice voting in the initial minority switches her vote to the position of the initial majority.

Again, if the Court median or majority median has monopoly control, there should be no effect of assignment on conformity. If the author completely controls the opinion, as in the author monopoly model, or can influence the opinion, as in the author influence models, then we would

¹⁵To be sure, this particular finding is somewhat less robust than the main result (see Table 1).

see conformity responding to opinion assignment. Given that the author will usually be on the so-called “extreme side” of a minority justice (this must be the case in normal coalitions), we would expect that more extreme authors will have lesser pull on votes from the minority, or a symmetric (v-shaped) distance effect. In Lax-Cameron, only minority justices very close to the median might feel compensated for further policy extremism by greater opinion quality, so we would generally expect a symmetric effect in that model as well (as opposed to the asymmetric effect on majority justices). Thus, our conformity test is less informative in differentiating among author influence models, but it does allow us to reject models that include no amount of author influence. Running a model parallel to that for defection, we find the following:

$$\begin{aligned} \Pr(\text{Conform}_{j,c} = 1) = & \Phi(-.16(.15) + .04(.01) \cdot \text{Ideology}_{j,c} - .08(.02) \cdot \text{Expertise}_{j,c} \\ & - .17(.05) \text{Salience}_c - .12(.04) \cdot \text{Laws}_c + .14(.04) \cdot \text{Noncontiguous}_c \\ & + .41(.07) \cdot \text{Uncertain}_{j,c} + .14(.10) \cdot \text{Freshman}_{j,c} \\ & + .06(.02) \cdot \text{DA}_{j,c} - .10(.02) \cdot \text{Side}_{j,c} \cdot \text{DA}_{j,c} - .10(.04) \cdot \text{Closer}_{j,c} \\ & + \alpha_j^{\text{Justice}} + \alpha_{n[c]}^{\text{Natcourt}} + \alpha_{s[c]}^{\text{Size}} + \alpha_{i[c]}^{\text{Issue}}) \end{aligned}$$

The group effects are modeled with zero means and estimated variances:

$$\begin{aligned} \alpha_j^{\text{Justice}} & \sim N(0, .02), \text{ for } j = 1, \dots, 26; \alpha_n^{\text{Natcourt}} \sim N(0, .02), \text{ for } n = 1, \dots, 20 \\ \alpha_s^{\text{Size}} & \sim N(0, .06), \text{ for } s = 4, \dots, 8; \alpha_i^{\text{Issue}} \sim N(0, .01), \text{ for } i = 1, \dots, 11 \end{aligned}$$

Justices are more likely to conform when of lesser expertise, in less salient cases, in less complex cases (more precisely, those with more than one law cited), from initially noncontiguous coalitions, when uncertain in their initial vote, when they first join the Court, and when they are closer to the majority justices than the other minority justices. Even more importantly, there are significant assignment effects. When the assignee is more extreme (to the side of the initial majority), the justice is significantly less likely to switch her vote, with coefficient = $-.04(.01)$. The

result is the same if we use a location, rather than a distance specification. Assignment effects are even stronger in contiguous coalitions (in normal coalitions, with a much smaller number of observations, the effect is still negative, but short of statistically significance).

Conclusion

Various features of cases before the Court, the ideological configuration of the initial majority coalition, and judicial characteristics all affect fluidity. Some of our findings are completely new, while others provide considerable support for prior findings and the conventional wisdom. Most importantly, using the initial conference vote as a pre-test, and controlling for other influences on assignment, we showed that defection from and conformity to the initial voting majority on the Supreme Court is affected by the Chief Justice's choice of opinion assignee. This choice has a striking effect on whether justices stick to their initial positions on a case or flip to the other side, a finding which represents the cleanest and strongest evidence to date that opinion assignment matters for opinion content, that something more complex than a simple Median Voter bargaining story must be at work.

Moreover, it is clear evidence in favor of the author-influence family of models, and against the median-monopoly and majority-median family. The asymmetric distance effect we find in our defection analysis is evidence against the author-monopoly model and in favor of the specific author-influence model in Lax and Cameron (2007).

That assignment effects extend even to this most visible choice, the ultimate vote to reverse or affirm, suggests that there will also be effects that do not go so far as to swing a justice to the other side, but rather "only" affect opinion content. That is, we have set a very high bar by only exploring changes that actually push a justice to vote for the opposite case disposition. It seems uncontroversial to suggest that if these votes can be affected, so can opinion content. If assignment affects the justices' final votes on the merits, it must be because the justices care a great deal about opinions and authorship.

While it is unlikely one could decisively *confirm* any one theory of bargaining, and while we

certainly do not expect this paper to be the last word on the subject, our main result is clear—collegial interaction on the Supreme Court is not just noise leading to a predetermined end or merely grist for Court watchers. Interactions explain policy outcomes. Scholars have long documented such interactions (most notably Epstein and Knight 1998; Maltzman, Spriggs and Wahlbeck 2000), but it has been difficult to show that the choices made by the justices had significant effects on judicial policy.

Our findings mean that even “lesser” judicial appointments can affect legal policy, more than conventional wisdom would suggest. All changes in Court personnel are relevant—not just those that move the median or those that put a new Chief Justice in place. Opinion authors have power. The Chief Justice, as the most frequent opinion assignor, obtains additional control over case outcomes. And, while replacing Justice Souter with Justice Sotomayor may not have moved the median, it can change play of the Court’s collegial game.

Some have called this the Kennedy Court, but our findings suggest that Chief Justice Roberts and Justice Stevens, as the most recent heads of their respective wings of the Court, have been key strategic players in the judicial policymaking game. In considering such opinion assignment tactics, Murphy (1964) suggests that the Chief might assign to the most moderate member of the conference coalition (the marginal justice) to prevent defections, perhaps because a moderate author will write a mild or narrow opinion. However, our asymmetric distance finding—that justices defect less often on average with more ideologically extreme assignees—suggests a tradeoff. While the moderate member is likely to write a moderate opinion, in the Lax-Cameron model, she is also less likely to be willing to invest the time to write a quality opinion. More extreme authors, on the other hand, know they have to compensate other justices in the majority and so tend to keep the majority together more often than moderate writers.

This finding highlights a problem with the first-cut intuitions that dominate many Strategic Model arguments within the courts literature—that they can be undercut by strategic anticipation. In the context of this paper, we should not jump to the conclusion that an extreme justice (Scalia, say) is less likely to hold onto the majority by virtue of being extreme when he knows very well that

he must write his opinion so as to hold onto the majority. We should not assume that justices who have extreme preferences will automatically let their preferences run wild. To expect Scalia to be more likely to lose votes than Kennedy is to assume him to be rather myopic (or, more reasonably, perhaps “stubborn”). If Kennedy can figure out what to do to hold onto a majority, why cannot Scalia? Indeed, the latter has an even greater incentive to hold onto the initial majority, as a liberal victory will be all the more painful to a Scalia than to a Kennedy.

Contra Murphy (1964), a relatively extreme Chief Justice (as all have been since Warren) may have a double incentive, all else equal, to assign the opinion to a more conservative justice. He can thus achieve a more extreme ideological outcome *and*, given our findings, increase the chances that the original majority coalition would stick together. Similarly, a relatively extreme senior justice of the opposite ideological wing (such as when Justice Brennan led the liberal wing), when in the majority, will assign to the extreme of his own wing. This would lead to greater polarization of legal policy outcomes than if the Median Monopoly model held sway. Of course, this dynamic may change again in the 2010-11 term. With the retirement of Stevens, Kennedy is now the most senior justice likely to be in a “liberal” coalition. As a moderate, Kennedy will face a tradeoff between an opinion ideologically close to him and an opinion of high quality when he assigns the opinion writer. If he uses this power to his advantage, however, we may see the return of the Kennedy Court after all.

While our focus has largely been on differentiating positive political theories of judicial bargaining, there are clear normative concerns as well. If assignment and anticipated opinion content affect voting in the particular case before the Court, as our results suggest, the justices are in effect trading off case votes for opinion language—a disconcerting compromise of legal philosophy for the litigants at hand. That the justices have to compromise their preferred legal positions in pursuit of a majority coalition might be troubling to legal scholars; that actual litigants might win or lose based on strategic behavior aimed at affecting future legal policy might give pause to even a political scientist.

So, whose Court is it? The answer is not simple. Our results suggest that one cannot point to

any one particular justice. If defection and conformity rates are, as we argue, affected by (expected or actual) opinion location, and given the predictions we extracted from the competing theories of judicial bargaining, then opinion authors do *influence* opinion policy content, but do not have monopoly control thereof. Rather, influence is mediated by the need for a majority. Further, since majority opinion authors are chosen most often by the Chief Justice, he too influences opinion content. And so we find that legal policy is indeed a strategic collegial product. One might say it is no-one's Court in particular. Or everyone's.

Appendix A: Lax-Cameron model derivations

We borrow the following notation and definitions from Lax and Cameron (2007, 280-284) to extend the results therein. Justice i has ideal point j_i in a one-dimensional policy space (the point at which the justice would most prefer to place the legal doctrine as set down by the opinion). Let j_R be the ideal point of the majority author (the right wing of the Court has the initial majority); j_L be that of the potential minority counter-writer who seeks to steal the majority; and normalize the median justice's ideal point to $j_M = 0$. The issue area has a general salience weight of s and each justice has an idiosyncratic salience weight of s_i that modifies it. The marginal cost for justice i to increase quality is $c_i c$ where c is common across the justices (reflecting general issue complexity) and c_i reflects idiosyncratic ability and expertise. Let $t_i = c_i/s_i$ and $t = c/s$. The utility to justice i from an opinion with policy position p and quality q is then $u_i = s_i s (-(j_i - p)^2 + (q - 1))$ and the equilibrium values p^* and q^* are

$$p^* = \frac{j_R}{t_R t} + \left(\frac{j_L}{t_L t} \right) \left(1 - \frac{1}{t_R t} \right) \quad q^* = \left(\frac{j_R}{t_R t} - \frac{j_L}{t_R t_L t^2} \right)^2 - 1$$

Then, the utility from the expected equilibrium opinion to justice i is

$$u_i = s_i s \left(\left(\frac{j_R}{t_R t} - \frac{j_L}{t_R t_L t^2} \right)^2 - \left(j_i - \frac{j_L \left(1 - \frac{1}{t_R t} \right)}{t_L t} - \frac{j_R}{t_R t} \right)^2 - 2 \right)$$

We take the partial derivative with respect to the extremism of the majority author:

$$\frac{\partial u_i}{\partial j_R} = \frac{2s_i s (j_i t_{Lt} - j_L)}{t_R t_{Lt}^2}$$

which is greater than zero if and only if $j_i > \frac{j_L}{t_{Lt}}$ (This is the condition for the marginal utility of justice i to be increasing with the ideal point of the majority author j_R). For any justice i on the majority side of the median ($j_i > 0$), this is always true. For any justice to the left of the median ($j_i < 0$), this is true if and only if j_i is still to the right of the point $\frac{j_L}{t_{Lt}}$. In Figure 1, for example, this would suggest that there exists some point to the left of Justice Kennedy, such that, for any Justice to the right of this point, the utility from the equilibrium opinion actually rises as authorship shifts from Justice Kennedy rightward. (The justices to the right of this point would include Justices Kennedy through Thomas with certainty, and possibly Souter and so on.)

Appendix B: Alternate Specifications & Robustness Checks

Our main results show that assignment has a substantive and statistically significant effect on the probability of defection, given the model specification. While the model structure does allow us to capture either the symmetric (v-shaped) or asymmetric (linear) effects shown in Figure 1, or a linear effect flipped in the other direction, we can also assess this specification relative to other nested and non-nested models. The nested comparisons can show whether adding in the assignment treatment effect improves model fit significantly; the non-nested comparisons can show that the assignment relationship we have found better explains the data than other relationships and other models would. We also show that our results are robust to other ways of operationalizing and measuring the key variables, most notably, when we use the locations of the various key justices rather than distances between them.

Table 1 shows these alternative models.¹⁶ Model 1 is the main model as reported above (with

¹⁶ Columns 5 and 6 display the probit coefficients for distance-to-author on the moderate side (DA) and distance on the extreme side ($DA + Side \cdot DA$). Column 7 shows the probit coefficients

the distance effects to the center and to the extreme shown in columns 5 and 6). Model 2 replaces our flexible distance specification (which allows for asymmetric effects through the interaction of *Side* and *DA*) with a simple distance-to-assignee variable, forcing a symmetric v-shape (or inverted v-shape) effect. The higher DIC value for Model 2 shows that this distance specification reduces model fit, and the distance variable itself is not significant. Thus, it is better to allow for a more flexible distance effect both theoretically, as it enables us to distinguish between the different predictions for extreme assignees derived from the models, and empirically, as it fits the data better.

Next, we present results from models with distance measures to other key justices to see if these explain the vote switching better than distance to assignee. Model 3 drops the distance to assignee measure altogether and replaces it with distance to the Court median. (Note this is not, strictly speaking, a treatment effect in our causal setup since the median's location is not chosen between the two votes.) This change reduces model fit. The coefficients on distance to the median mean that the more moderate the median is relative to a justice on the extreme side of the majority (and the more relatively extreme the justice is), the less likely the justice is to switch; the more moderate the justice is relative to the median (on the minority side of the median), the more likely switching is. Adding distance to the assignee back in, as in Model 4, increases model fit, and we find the same asymmetric assignment effects as in our main model, which does not control for the median. Models 5 and 6 are parallel to Models 3 and 4, using the conference majority median instead of the Court median. Assignment effects persist and fit is improved by including assignment distance. Thus, distance to median and distance to majority median do explain vote switching (as predicted by the median monopoly and majority median monopoly models respectively). But they alone do worse than distance to author alone, and our asymmetric distance to author effects persist even after controlling for the other ideological distances.

To check for v-shaped distance effects (symmetric effects), one must use a flexible parameterization of distance to either side. However, since our main finding is that distance to the extreme has

for an additional distance effect (described in column 8) if one is included. Standard errors are in parentheses. An asterisk indicates significance at the 95% level or higher.

a negative effect on defection and distance to the center a positive one, this means that the sign of the slope remains constant, so that a simpler parameterization can suffice (though it does force the slopes to be not only similarly signed but constant). Rather than having the justices' ideological positions enter as positions relative to each other then, we can simply include their ideology scores directly. We thus hold constant the position of the justice and show the effects of, for example, assignee location (extremeness) on defection.

Models 7 through 14 replace measures of ideological distance with the ideological locations of key justices. Model 7 only controls for the ideology of the potential switcher. The rest of the models add in various combinations of the median justice, the conference majority median justice, and the assignee. When there is an assignee effect in this specification it is assumed to be linear (either more moderate assignees increase switching or more extreme ones do, ruling out a symmetric (v-shape) effect). For any combination of non-assignee justice locations included, adding the location of the assignee significantly increases model fit and the assignee effect stays roughly the same magnitude as in the main model.¹⁷ The bottom line is that there is very strong evidence of an assignee effect, and somewhat weaker evidence of an asymmetric distance effect (which could also be called an extreme assignee effect).

Table 1 also shows the results of various other robustness checks. The results are largely similar using other measures of judicial preference: 1) statistical significance varies, particularly for the

¹⁷ Adding in the conference median or Court median to models in which they are omitted also improves model fit. One possibility is that these justices too have influence over the majority opinion; another is that they are capturing information about justice locations more broadly. One might wonder if the assignee effect we find is simply do to the inclusion of ideological information about any justice in the majority, rather than the assignee in particular. To check this, we randomly chose a justice in the initial majority in each case (using this justice's ideology score instead of the actual assignee's, though the assignee herself, could have been randomly chosen) and re-ran model 11, location of justice and assignee, 500 times. Model fit was reduced by substituting the random justice in 85% of such simulations. If the assignee had the same effect as any random justice in the majority, then the fit would improve on average 50% of the time.

distance effect towards the extreme side of the justice; 2) when the assignee is on the moderate side of the justice, the large majority of models show that picking an assignee closer to the justice increases the chances his or her initial vote will stick; and 3) results using the standard Martin-Quinn scores are even stronger for subsets of the data using additional control variables or where the majority and minority coalitions are more normally ordered (e.g., continuous and one wing voting against the other).

More specifically, Models 15 through 24 in Table 1 show additional robustness checks using the Martin-Quinn (MQ) scores. In models 15-17, we added additional random effects for the assignee (capturing if some justices are worse all else equal at maintaining the votes of other justices); for each combination of assignee and justice (capturing idiosyncratic interactions); and/or a random effect for each case. Distance effects on the moderate side were still positive (higher chance of defection) and even stronger. Distance effects on the extreme side were still negative, but not significantly so in two of these three alternative models.

Models 18 through 24 analyze only subsets of the vote switch data, limited to contiguous coalitions only; “normal” coalitions only (those that are contiguous with one wing of the Court voting against the other, ruling out contiguous centrist initial majorities with the extremes in the minority); salient cases only as measures by Epstein-Segal; those assigned by the Chief Justice; and/or those for which we also could control for the number of amici briefs. Results were almost universally stronger in these subsets, with only one result falling just outside of statistical significance.

Models 25 through 46 replicate various models above using the Bailey ideology scores, Segal-Cover scores, and raw Percent Liberal (as in Segal-Spaeth). Replicating the main model, while the units differ across scores, we do still find that increased distance towards the center significantly increases the likelihood of defection. Justices defect less when the assignee moves towards them from the middle, an effect we would not see if opinion assignment were irrelevant. The effects on the extreme side vary somewhat in significance across models and scores. Overall, there is room for caution, but we find these results supportive of our main conclusions at best, and not inconsistent, at worst. That the effects we show elsewhere are less robust using cruder ideology

scores is not particularly surprising, particularly since they are quite similar using the higher quality Bailey scores.

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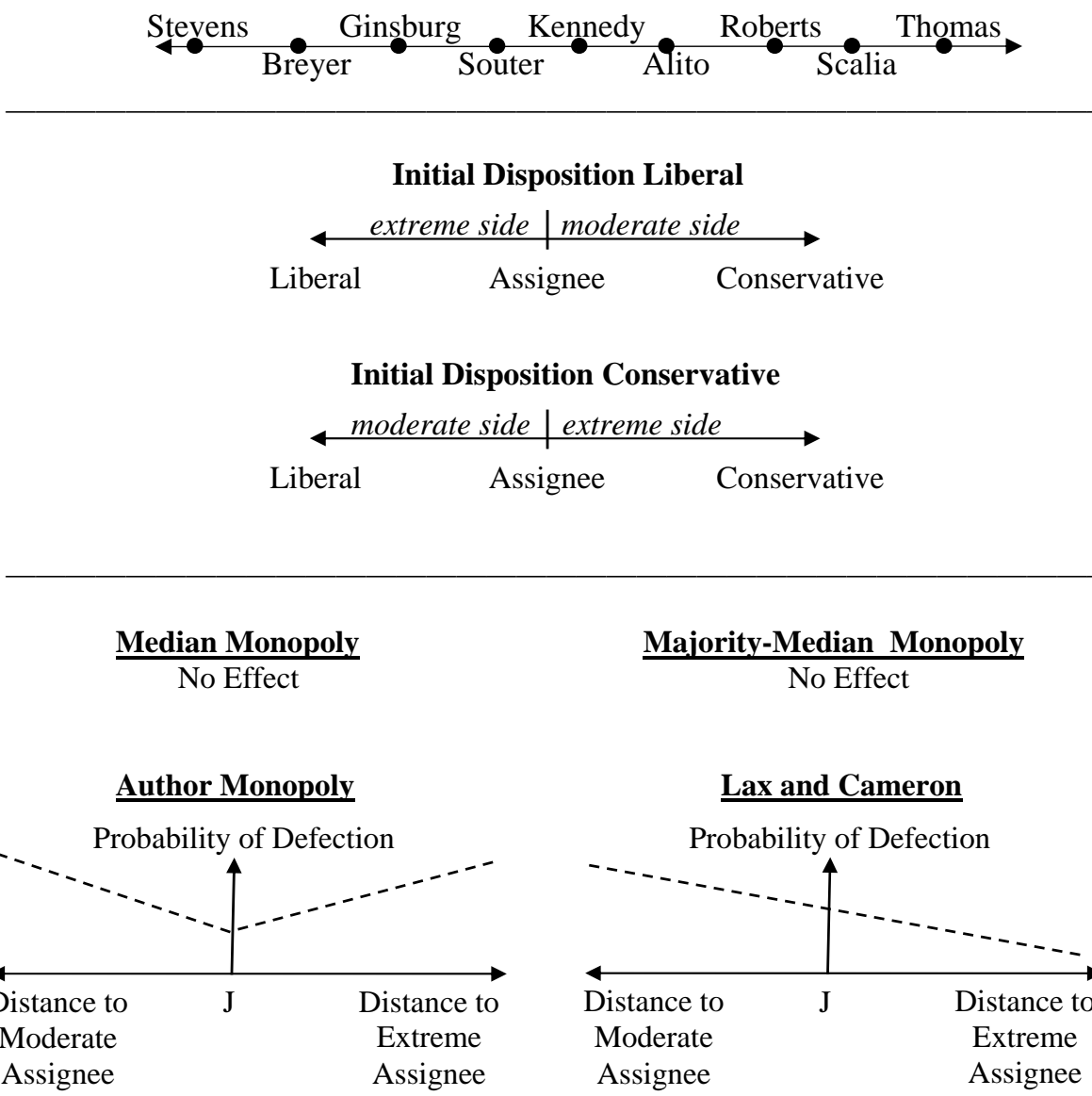


Figure 1: Predictions of Defection Probability by Bargaining Model. *The top shows the most recent full set of justices, in order of ideology as measured by Martin-Quinn scores. The middle section shows how assignees are labeled as on the moderate or extreme side of a justice (J), with initial liberal dispositions shown in the first configuration and initial conservative dispositions in the second configuration. The bottom of the figure has four panels showing the predicted effects on defection probability given the equilibrium opinion location in each model of intra-Court bargaining. The first two models predict that defection rates will not vary with assignee. The author monopoly model predicts that defection probabilities will increase as assignees become more distant (symmetric with distance). The Lax and Cameron model predicts decreasing defection as assignees become more extreme (asymmetric with distance).*

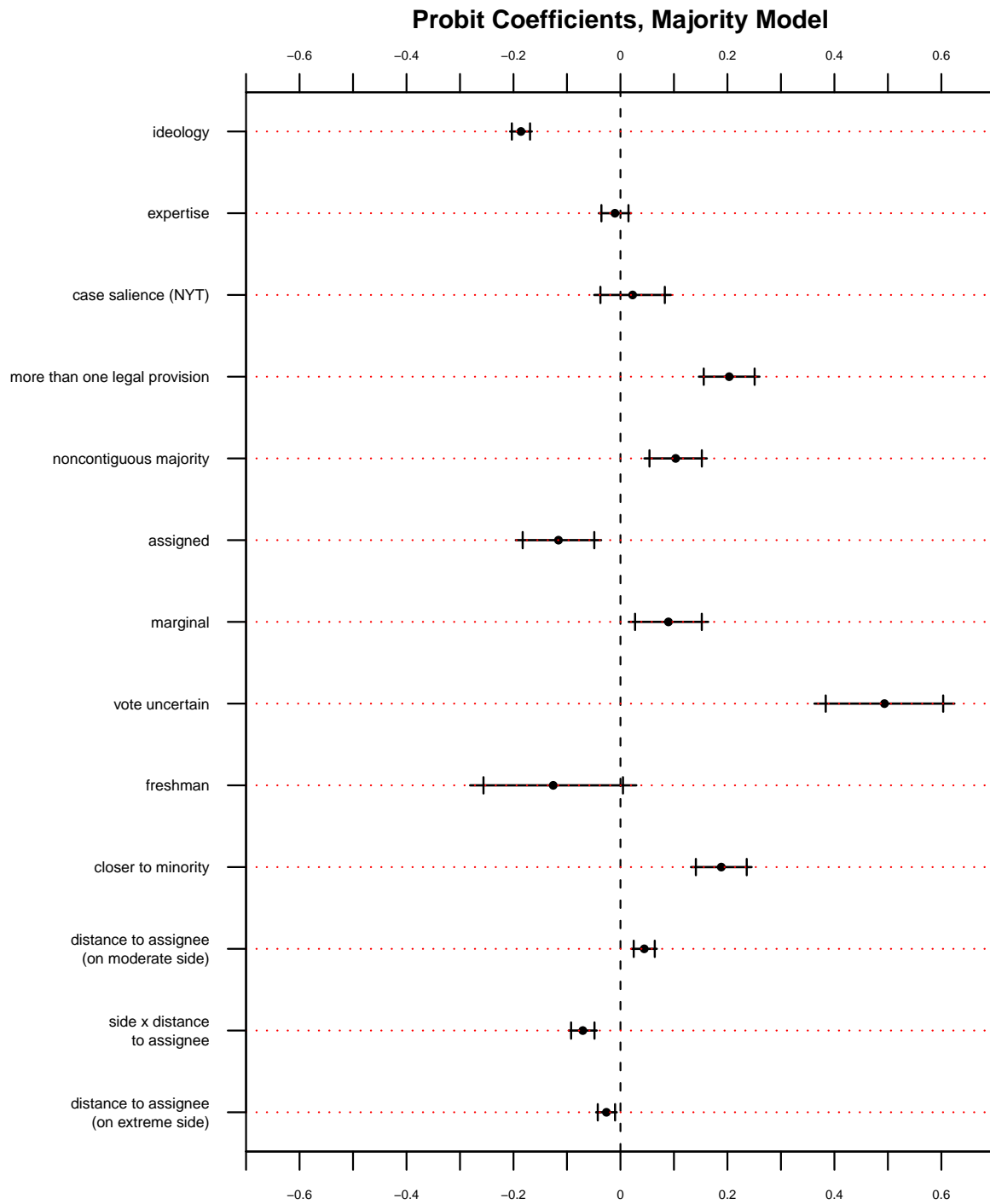


Figure 2: Defection from Majority. We show the probit coefficients (other than group effects) for the basic model, along with 90% (tick marks) and 95% confidence intervals (line segments). The dotted line at zero shows which are statistically significant. “Distance to assignee (on extreme side)” is calculated using the raw coefficients for distance and side x distance.

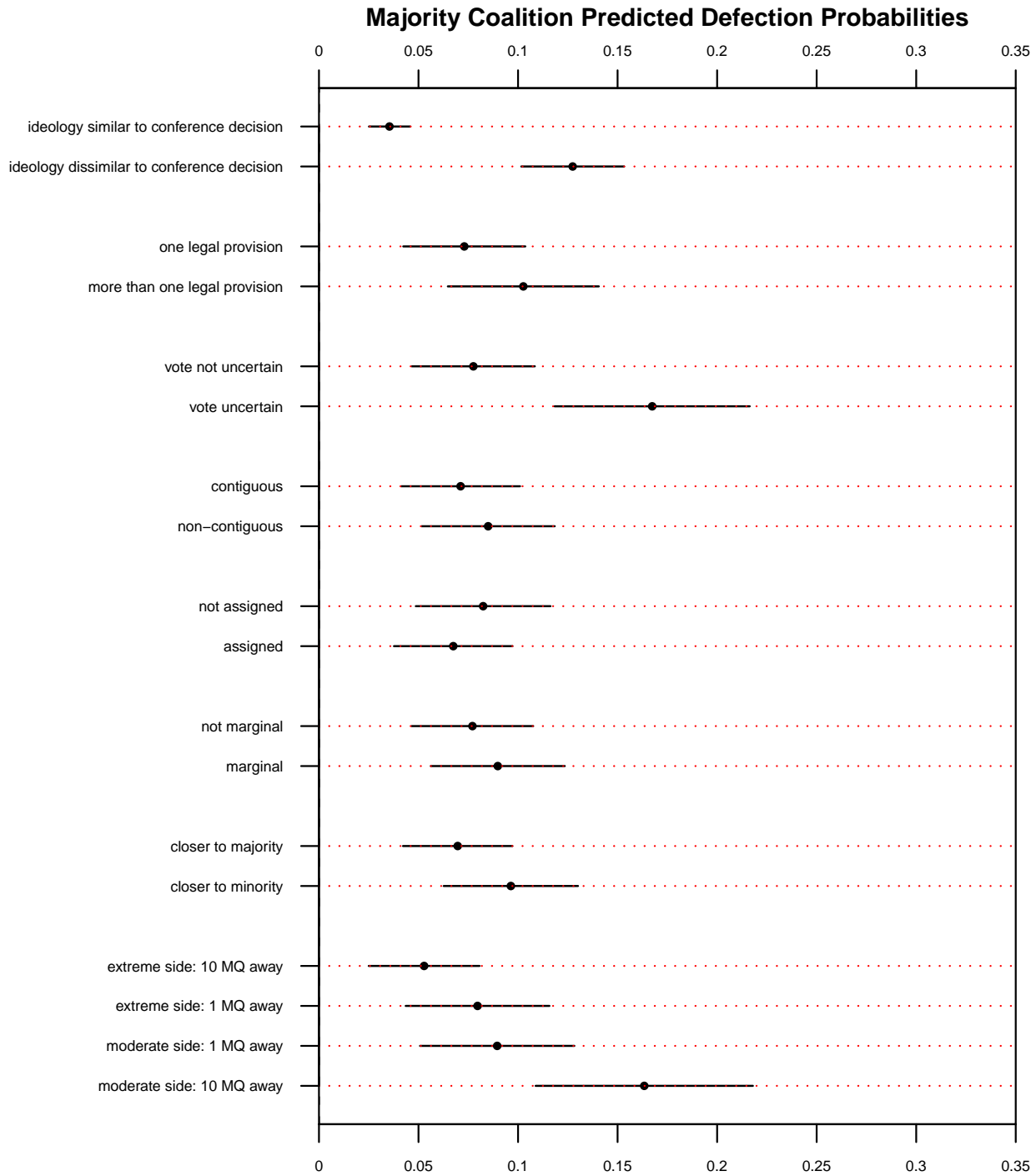


Figure 3: Predictions from Defection Model. We show predicted probabilities calculated using the actual data and averaged over all observations (leaving all predictors as in the actual data except for the predictor at hand). The treatment effect is the shift between paired rows. Specifically, the average treatment effect is the shift in the solid circle. The intervals show one standard deviation around these predictions (so that these intervals are not measures of uncertainty but rather indicate the distribution of defection probabilities and effect sizes using the actual data as representative.)

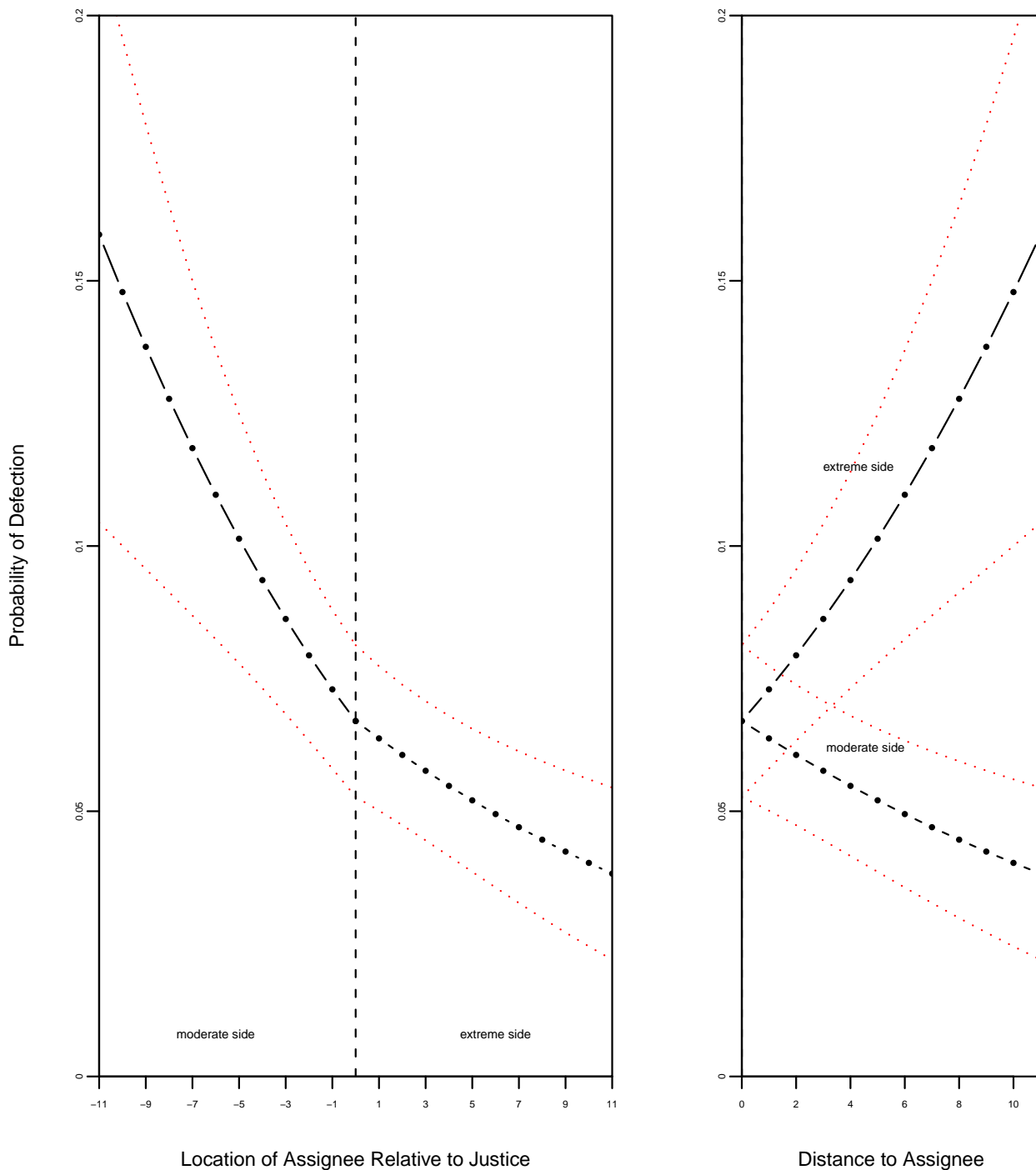


Figure 4: Predictions for Distance Effects in Defection Model. *In the left-hand panel, we show predicted defection probabilities, fixing the justice in question at zero, given relatively moderate or relatively extreme assignees. The right-hand panel measures only distance (in effect, folding the figure in half), showing clearly that distance effects are asymmetric—specifically, that assignee extremism matters, not distance to the assignee. 95% confidence intervals are shown.*

	Model Variation	Preference Measure	N	DIC	Distance Effect to Center	Distance Effect to Extreme	Distance Effect, Other	Notes on Other
1	Asymm. (main model)	MQ	22793	11698	+04(.01)*	-03(.01)*	+00(.01)	Distance to assignee
2	Symmetric v-shape	MQ	22793	11725				
3	Asymm. median distance	MQ	22793	11703			-07(.03)*+13(.03)*	Distance to moderate/extreme median
4	Asymm. median and assignee distances	MQ	22793	11672	+04(.01)*	-03(.01)*	-09(.03)*+13(.03)*	Distance to moderate/extreme median
5	Asymm. conf. median distance	MQ	22793	11713			+00(.02)/+10(.02)*	Distance to moderate/extreme conf. median
6	Asymm. conf. median and assignee distances	MQ	22793	11688	+03(.01)*	-03(.01)*	+07(.03)*+02(.02)	Distance to moderate/extreme conf. median
7	Location of justice	MQ	22793	11728				
8	-and median	MQ	22793	11706			+10(.02)*	Extremism of median
9	-and conf. median	MQ	22793	11726			-02(.02)	Extremism of conf. median
10	-and median, conf. median	MQ	22793	11694			+20(.04)*+11(.03)*	Extremism of conf. median/median
11	-and assignee	MQ	22793	11699			-03(.01)*	Extremism of assignee
12	-and assignee, median	MQ	22793	11675			-04(.01)*+11(.02)*	Extremism of assignee/median
13	-and assignee, median, conf. median	MQ	22793	11665			-03(.01)*+20(.04)*+10(.03)*	Extremism of assignee/median/conf. median
14	-and assignee, conf. median	MQ	22793	11696			-03(.01)*+03(.02)	Extremism of assignee/conf. median
15	Asymm., ran. eff.: assignee	MQ	22793	11620	+06(.01)*	-01(.01)		
16	Asymm., ran. eff.: assignee, combination	MQ	22793	11699	+06(.01)*	-01(.01)		
17	Asymm., ran. eff.: assignee, case	MQ	22793	8780	+07(.03)*	-05(.02)*		
18	Asymm. amici subset	MQ	19024		+06(.01)*	-03(.01)*		
19	Asymm. contiguous subset	MQ	8990		+07(.02)*	-06(.02)*		
20	Asymm. contiguous amici subset	MQ	7799		+08(.02)*	-06(.02)*		
21	Asymm. normal subset	MQ	5360		+15(.05)*	-08(.03)*		
22	Asymm. salient subset	MQ	3447		+17(.03)*	-05(.03)		
23	Asymm. chief-assignor subset	MQ	18777		+04(.01)*	-04(.01)*		
24	Location of justice and assignee, normal subset	MQ	5360				-08(.02)*	Extremism of assignee
25	Asymm.	B	20255	10349	+11(.03)*	-02(.02)		
26	Symmetric v-shape	B	20255	10367			+03(.02)	Distance to assignee
27	Location of justice and assignee	B	20255	10353			-06(.01)*	Extremism of assignee
28	Asymm. amici subset	B	18789		+13(.02)*	-01(.02)		
29	Asymm. contiguous subset	B	7703		+14(.05)*	-11(.05)*		
30	Asymm. contiguous amici subset	B	7351		+16(.05)*	-13(.04)*		
31	Asymm. normal subset	B	4589	1543	+13(.08)	-11(.07)		
32	Location of justice and assignee, normal subset	B	4589	1543			-12(.04)*	Extremism of assignee
33	Asymm.	PL	22793	11647	+47(.15)*	-12(.13)		
34	Symmetric v-shape	PL	22793	11660			+11(.12)	Distance to assignee
35	Location of justice and assignee	PL	22793	11649			-28(.08)*	Extremism of assignee
36	Asymm. amici subset	PL	19024		+67(.17)*	-05(.15)		
37	Asymm. contiguous subset	PL	8241		+16(.29)	-39(.22)		
38	Asymm. contiguous amici subset	PL	7177		+25(.32)	-55(.25)*		
39	Asymm. normal subset	PL	4675		+25(.44)	-41(.38)		
40	Asymm.	SC	22793	12136	+21(.07)*	+04(.07)		
41	Symmetric v-shape	SC	22793	12141			+11(.06)*	Distance to assignee
42	Location of justice and assignee	SC	22793	12144			-08(.04)*	Extremism of assignee
43	Asymm. amici subset	SC	19024		+24(.08)*	+00(.07)		
44	Asymm. contiguous subset	SC	5181		-05(.16)	-39(.15)*		
45	Asymm. contiguous amici subset	SC	4532		-10(.18)	-34(.15)*		
46	Asymm. normal subset	SC	2052		-00(.30)	-61(.27)*		

Table 1: Alternate Models Specifications and Robustness Checks