Are Supreme Court Nominations a Move-the-Median Game?

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Abstract

We conduct a theoretical and empirical re-evaluation of move-the-median (MTM) models of Supreme Court nominations—the one theory of appointment politics that connects presidential selection and senatorial confirmation decisions. We develop a theoretical framework that encompasses the major extant models, formalizing the tradeoff between concerns about the location of the new median justice versus concerns about ideology of the nominee herself. We then use advances in measurement and scaling to place presidents, senators, justices and nominees on the same scale, allowing us to test predictions that hold across all model variants. We find very little support for MTM-theory. Senators have been much more accommodating of the president’s nominees than MTM-theory would suggest—many have been confirmed when the theory predicted they should have been rejected. These errors have been consequential: presidents have selected many nominees who are much more extreme than MTM-theory would predict. These results raise serious questions about the adequacy of MTM-theory for explaining confirmation politics and have important implications for assessing the ideological composition of the Court.

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1 Introduction

While the judicialization of politics in recent decades has seen the powers of courts increase significantly around the world, the United States Supreme Court remains arguably the most powerful judicial body in the world. A variety of constitutional protections, including life tenure, afford the justices considerable independence from the elected branches. As a result, the justices have wide latitude to craft legal policy as they best see fit. Accordingly, a vacancy on the nation’s highest court necessarily creates a political event of great importance for both the president who must choose the exiting justice’s replacement, and for senators who must decide whether to affirm or reject this choice. Understanding the selection process is critical for understanding any judicial institution. The stakes, however, are particularly high when we consider powerful and policy-making courts at the top of a judicial hierarchy, such as the U.S. Supreme Court.

What, then, actually drives the politics of Supreme Court appointments? In particular, what determines the president’s choice of a nominee and what determines senators’ subsequent voting, including the Senate’s confirmation or rejection of the nominee? Scholars have produced a wealth of empirical studies of the Supreme Court’s appointment and confirmation process. But it seems fair to say that political scientists have produced only one integrated theory of appointment politics that connects both the nomination and confirmation decisions: move-the-median (MTM) theory.

The core idea of MTM-theory is extremely simple, indeed elegant: if a multi-member body uses a Condorcet-compatible procedure when making policy, the key attribute of the body is the ideological location of its median member. Therefore, the politics of appointments to the
body should turn on altering (or preserving) the ideology of the median member—“moving
the median.” In the context of Supreme Court nominations, MTM-theory suggests that a
senator should vote against a nominee who moves the Court’s new median justice farther
from the ideal point of the senator than the reversion “status quo.” And if this is true for
a majority of senators, the Senate should reject the nominee. Finally, the president should
nominate a confirmable individual who moves the new median justice as close as possible to
the president’s own ideal point. This means that, when facing a distant Senate, the president
should be constrained in his choice of nominee—which, in turns, limits the ideological range
of nominees that will serve on the nation’s highest court.

To the best of our knowledge, MTM-theory was first formulated and applied to Supreme
Court nominations in the late 1980s in two unpublished papers by Lemieux and Stewart
(1990a, 1990b). Since then, several attempts have been made to evaluate whether this stark
framework can actually account for Supreme Court appointment politics. Most notable of
these efforts was Moraski and Shipan (1999), who developed a MTM-theory of nominations
and found support for its predictions regarding the type of the nominee the president should
appoint. More recently Krehbiel (2007) developed a different variant of MTM-theory and
found support for its predictions about how the Court should move ideologically following
different types of nominations. Finally, Rohde and Shepsle (2007) presented a formal model
that focuses on the role of possible filibusters in a MTM game—they conclude that failed
nominations should be common (even though empirically they are rare).  

2There is additional research that is somewhat outside the framework of these articles, but is nevertheless
important. First, whereas we focus on a one-period MTM-game, Jo, Primo and Sekiya (2013) present a
two-period model, and find that presidents may have to compromise more than indicated in the one-shot
game because of the probability that a successor of the opposite party will make a nomination in the second
period, should a nominee be rejected in the first period. Second, whereas we assume complete and perfect
information, Bailey and Spitzer (2015) consider MTM-games in which the nominee is a random variable.
In these models, presidents have an incentive to nominate very extreme nominees to minimize the chance
of moving the median in the wrong direction. Finally, Snyder and Weingast (2000) apply ideas from MTM
games to appointments to independent regulatory agencies (specifically the National Labor Relations Board),
though without fully deriving the predictions in a game-theoretic model.

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Despite these valuable efforts, the extent to which we should consider Supreme Court confirmations a move-the-median game remains unclear. First, existing models have implicitly assumed different preferences for the president and senators, resulting in distinct models that make different predictions about selection and voting. As it turns out, all of these models are special cases in a more generalized framework that can encompass a range of different versions of MTM-theory. Second, it is not clear how broad-based the empirical support for the move-the median models really is. For one, the theory’s predictions with respect to senators’ voting choices have never been directly tested. In addition, with respect to presidential choice, Moraski and Shipan (1999) test only one version of the theory and employ now-outdated measures of inter-institutional preferences.

In this paper, we conduct a new and more complete theoretical and empirical re-evaluation of MTM-models of Supreme Court nominations, assessing how well they capture the dynamics of nomination and confirmation politics during the last 80 years. We develop a generalized framework that encompasses all of the models in the literature. Although the key idea of MTM-theory is extraordinarily simple, its implementation in a well-specified game can be surprisingly complex. Our key theoretical contribution is that we formalize the extent to which presidents and senators care about the ideology of the median of the Supreme Court versus the ideology of the nominee. This distinction is critical, since the confirmation of many nominees would result in no change in the median. We develop four variants of the models, which produce substantively different predictions about the types of nominees that presidents should select and the range of nominees that senators (and the overall Senate) should confirm or reject.

We then take advantage of advances in scaling and measurement, which now make it possible to place presidents, senators, justices, and Supreme Court nominees in the same ideological space. Using these measures, we conduct extensive tests of the theory’s predictions regarding the selection of nominees by the president and the voting behavior of
senators. We go beyond the existing literature in several ways. First, we conduct extensive
tests of the theory’s predictions regarding both individual senatorial voting decisions \textit{and} confirmation decisions. Second, we conduct \textit{direct tests} of the theory, arraying its crisp point predictions against the actual choices of senators and presidents. Such tests have never been undertaken, due presumably to the difficulty of placing presidents, senators, justices, and Supreme Court nominees in the same ideological space. Third, we conduct tests of “robust” predictions—those that hold up across all variants of MTM-theory. Thus we can test how well MTM-theory as an overarching theory (and not just particular variants) explains confirmation politics. Finally, unlike almost all existing work (Anderson, Cottrell and Shipan (2015) is an exception), we incorporate uncertainty into our empirical evaluations whenever feasible.

We evaluate all 46 Supreme Court nominations from 1937 to 2010. We find very little support for MTM-theory. First, senators often voted for nominees the theory predicts they should have rejected, and concomitantly the Senate as a whole confirmed many nominees the theory predicts should have been rejected. We find two kinds of errors with respect to presidential selection. First, presidents have sometimes nominated individuals who moved the median on the Court \textit{away} from the president’s ideal point. Second, and more prevalently, presidents have nominated individuals who were much more extreme than predicted by the theory, given the location of the Senate median. Moreover, these nominees have usually been confirmed by the Senate, contra the theory’s predictions. Thus, the president has been far less constrained in his choice of nominees than MTM-theory would predict. Our findings thus dovetail with those of Anderson, Cottrell and Shipan (2015), who find that the location of the median justice (in terms of the Court’s voting behavior) moves in the direction of the president even following nominations where the president should be constrained. Taken together, our results raise serious questions about the adequacy of MTM-theory for explaining confirmation politics and have important implications for assessing the ideological
composition of the Supreme Court.

2 A Generalized Move-the-Median Framework

In this section we develop a generalized move-the-median framework, which allows us to present an overview of MTM-theory and its empirical predictions. In the interest of clarity, we present a relatively non-technical version of the theory here. In Appendix B, we provide a complete description of the game; all proofs are gathered there.

The players in the game are the president and \( k \) senators. It is convenient to index the players and members of the Court by their ideal points, which are simply points on the real line. (For all actors, larger values indicate increasing conservatism.) Thus, the president has an ideal point \( p \in \mathbb{R} \). Similarly senator \( i \) has ideal point \( s_i \), \( i = 1, \ldots, k \). Denote the ideal point of the median senator as \( s_m \) (i.e. the “Senate median”).\(^3\) In addition to the president and the senators, there is an “original” (or “old”) Court comprising nine justices. Denote the ideal points of the justices on the original court as \( j^0_i \), \( i = 1, 2, \ldots, 9 \), with \( j^0_i \in \mathbb{R} \). Following a confirmation, a new 9-member natural Court forms; denote the ideal points of the members of the new Court by \( j^1_i \), \( i = 1, 2, \ldots, 9 \). That is, superscripts distinguish the old and new courts. Order the justices by the value of their ideal points; for example \( j^0_1 < j^0_2 < \ldots < j^0_9 \). The ideal point of Justice 5 (\( j^0_5 \)) is the ideal point of the median justice on the original Court; the ideal point of the median justice on the new Court is thus \( j^1_5 \). The appointment moves the median justice if and only if \( j^0_5 \neq j^1_5 \).

The sequence of play is simple, as we focus on a one-shot version of the model. First, Nature selects an exiting justice, meaning a vacancy or opening occurs on the 9-member court.\(^3\) An important question here is which senator is pivotal: the Senate median, or the filibuster pivot? Lemieux and Stewart (1990a; b) and Moraski and Shapls (1999) assume the former, Rohde and Shepsle (2007) and Krebille (2007) the latter. All of these theories (as well as ours) can easily accommodate either assumption. Our reading of the historical record on Supreme Court nominations is that the Senate median has been pivotal in the vast majority of nominations for reasons we articulate in Appendix Section A.6. However, as a robustness check, we replicated all our analyses, assuming the filibuster pivot was the pivotal senator rather than the Senate median. All of our results were substantively unchanged—see Appendix A.6 for further details.
Court; let $e$ denote the ideal point of the exiting justice. Second, the president proposes a nominee with ideal point $n$. Third, the senators vote to accept or reject the nominee; let $v_i \in \{0, 1\}$ denote the confirmation vote of the $i$th senator. If $\sum v_i \geq \frac{k+1}{2}$ the Senate accepts the nominee; otherwise, it rejects the nominee. Denote the “reversion policy” for the Court as $q$. Following Krehbiel (2007), we assume the reversion policy is the ideal point of the old median justice on the Court, $j_0^5$. Thus, the outcome of the game is as follows. If the nominee is rejected, policy remains at the location of the old median justice. If the nominee is confirmed but the nominee does not move the median, policy also remains at the location of the old median justice; policy moves to the location of the new median justice if a confirmed nominee does move the median.

**Median-equivalent nominees versus utility-equivalent nominees** Crucial to understanding the outcomes of MTM games is the relationship between three quantities: first, the ideal point of the exiting justice ($e$); second, the ideology of the nominee ($n$); and third, the resulting ideal point of the new median justice ($j_1^5$), conditional on confirmation. Importantly, the location of the new median justice $j_1^5$ can only be $j_1^5$, $j_0^5$ (the old median justice), $j_0^0$, or $n$ itself, with $n$ bounded within $[j_0^4, j_0^6]$. The nominee can become the median justice only when the opening and the nominee lie on opposite sides of the old median justice and $n$ lies between $j_4^0$ and $j_6^0$.

Because the new median justice is restricted to just a few values, many different appointees can have the same impact on the Court’s median. For example, if the opening is between $j_4^0$ and $j_6^0$ then all nominees $n \leq j_5^0$ induce no change in the median. Thus, these nominees are median-equivalent. A critical question then is: should senators and the pres-

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4Krehbiel argues that all policies set by the old natural court presumably were set to the median $j_5^0$, a point which now lies within a gridlock interval on the 8-member Court and hence cannot be moved. Consequently, rejection of the nominee effectively retains existing policy at the old median justice. While this approach abstracts from new policy set by the 8-member Court, it has the virtue of both being simple and logical. One alternative would be to model the status quo as being located at the median of the 8-member court (as in Moraski and Shipp (1999) and Rohde and Shepsle (2007)), which significantly complicates the analysis. See Appendix Section B.1 for further discussion of this point.
ident view median-equivalent nominees as utility-equivalent? Or, should they distinguish among otherwise median-equivalent nominees? To put it another way, do senators and the president care at least somewhat about the nominee’s ideology per se, irrespective of her immediate impact on the Court’s median?

The answer to this question is surely yes, for several reasons. First, nominee ideology may have direct political import. For example, a conservative senator may find it distasteful or politically inexpedient to vote for a liberal nominee even if the nominee would not move the Court’s median. Similarly, the president may gratify ideological allies by selecting the most proximate nominee from among a large group of median-equivalent ones (Nemacheck 2008, Yalof 2001). Second, a nominee who may not be the median today may become the median in the future. Hence, future-oriented actors may see more-proximate nominees as more attractive. Finally, the Court may not be a fully median-oriented body; rather, non-median justices may have some impact on policy (Carrubba et al. 2012, Lauderdale and Clark 2012). If so, presidents and senators may prefer more proximate nominees even if they are median-equivalent. Indeed, with respect to the Senate, the literature on Supreme Court nominations has demonstrated a strong and persistent relationship between the likelihood of a vote for confirmation and the ideological distance between a senator and the nominee (Cameron, Cover and Segal 1990, Epstein et al. 2006). 

To capture the tradeoffs between the nominee’s ideology versus the median justice, we assume that the president and senators’ evaluation of the impact of a nominee (if confirmed) reflects a weighted sum of two quantities. The first is the ideological distance between each actor’s ideal point and the location of the new median justice. The second is the distance between each actor’s ideal point and the confirmed nominee’s ideal point. Formally, let $\lambda_p$ and $\lambda_s$ respectively denote this weight for the president and senators, with $0 \leq \lambda_p \leq 1$ and $0 \leq \lambda_s \leq 1$. For simplicity, we assume that all senators share the same value of $\lambda$. While this assumption is surely false, and relaxing it would be a worthy endeavor for future work, for
our purposes its costs are not great since we can observe neither \( \lambda_p \) or \( \lambda_s \). (We do, however, conduct tests for senator voting that are robust to any value of \( \lambda_s \) for a given senator).

What are the substantive implications of differing values of \( \lambda_p \) and \( \lambda_s \)? If \( \lambda_p = 1 \), the president is purely median-oriented (that is, oriented around the outcome of the Court’s collective decision making). If \( \lambda_p = 0 \), the president is purely nominee-oriented—not, however, that he compares his utility with the appointment against his utility without the appointment. The same holds true for a senator; when \( \lambda_s < 1 \) she is also interested in the nominee’s ideology per se, perhaps because of position-taking or an orientation toward the future. Alternatively, one may see \( \lambda_s < 1 \) as reflecting a belief that, with some probability, the nominee will prove pivotal on some issues.

Thus, if the nominee is confirmed, the president receives \(-\lambda_p|p - \frac{j_5}{5}| - (1 - \lambda_p)|p - n|\) in utility. If the nominee is rejected, he receives \(-|p - q| - \epsilon\), where \( \epsilon > 0 \) is a turn-down cost (this may reflect public evaluation of the president.) For senators, we adopt the standard convention that voting over two one-shot alternatives is sincere, so each senator evaluates her vote as if she were pivotal. If a senator votes to confirm, she receives \(-\lambda_s|s_i - \frac{j_6}{6}| - (1 - \lambda_s)|s_i - n|\). If she votes no, she receives \(-|s_i - q|\).

**Varieties of move-the-median models** The values of the parameters \( \lambda_p \) and \( \lambda_s \) create different variants of MTM models. We display the four key model variants in Table 1:

- **Court-outcome based** In this variant, considered in Rohde and Shepsle (2007), the
president and senators care only about the impact of the nominee on the ideological position of the new median justice (both $\lambda_p$ and $\lambda_s = 1$); i.e. presidents and senators only care about the outcome of the Court’s policy. Given the median equivalence of many nominees noted above, presidents are often indifferent over a wide range of possible nominees.

- **Nearly court-outcome based** This variant, considered in Moraski and Shipan (1999), is almost identical to the court-outcome based model, but allows the president to put at least some weight on nominee ideology *per se* ($\lambda_s = 1$, but $\lambda_p < 1$). Even a small such weight, however, has significant consequences on the president’s nominating strategy, as it prescribes a specific nominee for the president rather than a range of nominees.

- **Position-taking senators** In this variant, considered in Krehbiel (2007), senators (and possibly the president) care only about the nominee’s ideology, and not her impact on the median justice ($\lambda_s = 0$). Thus, we characterize the senators as being purely interested in *position taking* with respect to the confirmation of the nominee himself, and not on the outcome of the Court’s policy following a successful nomination. However, the players continue to use the reversion policy $q$ in their evaluation of the nominee. The strategies in the game are isomorphic to the standard one-shot take-it-or-leave-it Romer-Rosenthal (1978) game.

- **Mixed-motivations model** In this variant, which is original to this paper, senators and the president put some weight on both nominee ideology and nominee impact on the median justice ($0 < \lambda_p < 1, 0 < \lambda_s < 1$).

While our focus is squarely on the context of the Supreme Court, the theoretical step of allowing $\lambda$ to vary in $[0, 1]$ is quite general—it can encompass a wide variety of theories in several literatures that allow for tradeoffs between purely *policy-outcome-oriented behavior* ($\lambda = 1$) and purely *position-taking behavior* ($\lambda = 0$). Such theories include voter selection of candidate in multiparty elections (see e.g. Austen-Smith 1992) and theories of representation.

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5One additional possibility would be to develop a model variant where senators consider the location of the nominee against the *departing justice*—in fact, Zigerell (2010) finds support for the hypothesis that a senator is more likely to supports who are closer to the senator, relative to the exiting justice. However, to adopt this approach would be to completely abandon the move-the-median framework, since even nominees who are distant from a departing justice may not affect the location of the new median justice at all. (Notably, Zigerell (2010) advances a psychological mechanism for his theory, rather than one grounded in the spatial theory of voting; moreover, he argues (and shows some evidence in support of the claim) that the “departing justice” effect is an *alternative* story to MTM-theory.) In addition, to implicitly assume that the departing justice is the reversion point would abandon the use of a single reversion point to unify all the model variants, which is highly desirable from a theoretical standpoint.
and elections in which members benefit from both policy information conveyed through party labels and position taking in individual roll call votes (Snyder and Ting 2003).

2.1 Model Results and Predictions

We now turn to empirical predictions about the choice of nominee made by presidents and the voting decisions of individual senators and the Senate as the whole. In doing so, we focus on two types of tests. First, we present “direct test” predictions, which compare the choices predicted by a model (i.e. point predictions) with the actual, observed choices made by the relevant actors. For example, was a senator’s actual vote on a nominee predicted by a given model?

Second, our generalized framework allows us to make “robust” predictions (see e.g. Banks 1990): those that hold across all variants of the model, under any particular values of $\lambda_p$ and $\lambda_s$. These predictions are not specific to a particular family of models, but emerge from all extant versions of MTM-theory. Therefore, lack of support for robust predictions would reject all versions of the theory. We derive such predictions for both senators’ voting and the president’s choice of nominees.⁶

2.2 Model Predictions: Senators’ vote choice

We begin with predictions about the voting behavior of individual senators and the Senate as a whole, before turning to the president. We separately describe the predictions of each model variant, before turning to the robust predictions.

Court-outcome based and nearly court-outcome based models  In the court-outcome based and nearly court-outcome based models, senators compare the ideology of the new me-

⁶The location of the median justice following a nomination is also a prediction of MTM-theory. Because both Krehbiel (2007) and Anderson, Cottrell and Shipan (2015) test these predictions, and in the interests of brevity, we focus exclusively on testing the selecting and voting portions of the game. It is worth noting, however, that all variants of MTM-theory lead to the same predictions in terms of court outcomes—i.e. the location of the median justice—a result we prove in Appendix Section B.3. Accordingly, the theoretical predictions about the location of the median developed in Krehbiel (2007) (as opposed to the location of the nominee) are general, and thus Krehbiel (2007) and Anderson, Cottrell and Shipan (2015) implicitly conduct robust tests of MTM-theory with respect to court outcomes.
median justice on the Court induced by the appointment of the nominee with the ideological position of the old median justice. Thus, under these models a senator should vote for the nominee if and only if $|s_i - j_0^s| \leq |s_i - j_0^g|$; that is, if the new median justice’s ideal point is as close or closer to the senator’s ideal point than is the ideal point of the old median justice. To conduct a direct test of this prediction, we calculate the cutpoint $\frac{j_0^g + j_1^g}{2}$. All senators with ideal points at or on the new median justice’s side of this cutpoint are predicted to vote “yea;” all senators with ideal points on the old median justice’s side of this cutpoint are predicted to vote “nay.”

**Position-taking senators model**  In the position-taking senators model, senators compare the ideology of the nominee with the reversion policy (the old median justice) and vote for nominee if and only if $|s_i - n| \leq |s_i - j_0^g|$; that is, if the nominee’s ideal point is closer to the senator’s ideal point than that of the old median justice. For conducting a direct test of the position-taking senators model, the relevant cutpoint is the mid-point between the old median justice and nominee $\frac{n + j_0^g}{2}$. Under the position-taking senators model, the Senate’s acceptance region will always be (weakly) smaller compared to in the court-outcome based model, as the former model predicts rejection even in some instances where the median justice either does not move or is in the Senate’s acceptance region. If, for example, $j_0^g < s_m$, under the position-taking senators mode the Senate should reject any nominee who is more conservative than $2s_m - j_0^g$, even if such a nominee does not move-the-median.

**Mixed-motivations model**  In the mixed-motivations model, senators compare a weighted average of the distances to the nominee and the new median justice, with the distance to the old median justice. They vote for the nominee if and only if $\lambda_s|s_i - j_1^g| + (1 - \lambda_s)|s_i - n| \leq |s_i - j_0^g|$. That is, if the weighted average of the two distances (to the nominee and the new median justice) is less than the distance to the old median justice.

We cannot observe the weight ($\lambda_s$) in each senator’s evaluation of the new median justice.
and the nominee, which complicates the creation of direct tests. However, because \( \lambda_s \) is bounded by zero and one, some votes are necessarily incorrect for some ranges of senators’ ideal points. Consider Figure 1, which considers the case when \( j_5^0 \leq j_5^1 < n \) (there is a similar mirror case, \( j_5^0 \geq j_5^1 \geq n \)). Senators with ideal points between the cutpoints \( \frac{j_5^0 + j_5^1}{2} \) and \( \frac{n + j_5^0}{2} \) could vote either yea or nay, depending on their value of \( \lambda_s \). But all senators with ideal points less than \( \frac{j_5^0 + j_5^1}{2} \) must vote “nay” while all those with ideal points greater than \( \frac{n + j_5^0}{2} \) must vote “yea,” irrespective of the size of \( \lambda_s \). These unambiguous predictions allow a direct evaluation of the mixed-motivations model, focusing on senators in those two ranges.

**Robust predictions**

There are two robust predictions for senators’ voting. First, recall that under the court-outcome based model, the senator should vote to reject whenever the new median justice is farther away from the senator than the old median justice. In fact, this prediction is robust. Why? By construction, this condition can only hold if the nominee is farther away from the senator than the old median, since the new median is bounded by \( j_4^0 \) and \( j_6^0 \). Thus, the court-outcome based model’s prediction about when to reject a nominee is robust: any time a senator should vote no under the court-outcome based model, he should also do so under any model. We call this robust prediction the too much movement prediction—the median justice moves too much for the Senate.

Second, recall that the position-taking senators model predicts a yes vote by a senator whenever the nominee is closer to the senator than the old median justice. This prediction is
also robust, because in all models senators are (weakly) better off when this condition holds, and should vote yes. We call this robust prediction the attractive nominee prediction.

2.3 Model Predictions: Presidential Selection of Nominee Ideology

We turn now to analyzing the president’s choice of nominee. While the calculations differ across the model variants, in each the president makes his selection by choosing a confirmable nominee who moves the median justice as close as possible to the president. Thus, in all variants the relationship between the location of the president and the Senate median is crucial for determining whether and to what extent the president is constrained in his choice of nominee. In all but the position-taking senators model, the location of the opening on the Court and the location of the new median justice is also critical.

We present the president’s selection strategies in Figure 2. To illustrate these strategies, it proves convenient to group possible Senate medians into four types, moving from most liberal to most conservative, as depicted in the bottom panel of Figure 2. For example, “Type A” medians are the most liberal, as they fall to the left of the midpoint between \( j_4^0 \) and \( j_5^0 \). Throughout the discussion of the top panels in the figure we assume that \( p > j_5^0 \) (i.e. the president is more conservative than the old median justice); the results are symmetric. In each panel, the horizontal axis corresponds to the type of Senate median. Given the assumption of \( p > j_5^0 \), Senate medians in categories A and B are opposed to the president (relative to the old median justice), while Senate medians in categories C and D are aligned with the president. In panels (A), (B) and (D), the vertical axis denotes which justice departed from the Court, relative to the president. Given \( p > j_5^0 \), vacancies created by \( e \in \{ j_6^0, \ldots, j_9^0 \} \) are what Krehbiel (2007) calls “proximal” vacancies, as they are on the president’s “side” of the court. Conversely, vacancies created by \( e \in \{ j_1^0, \ldots, j_3^0 \} \) are what Krehbiel (2007) calls “distal” vacancies, as they are on the opposite side of the president. The horizontal dashed lines in panels A), B) and D) thus divide proximal and distal vacancies. (We discuss below why distal versus proximal vacancies do not play a role in the predictions.
Figure 2: The president’s nomination strategy in the four variants of the model. Each panel assumes \( p > j_5^0 \). The bottom plot depicts the types of Senate median; the conservatism of the median is increasing from left to right. In panels (A), (B) and (D), the vertical axis denotes which justice departed from the Court, relative to the president, and thus whether a proximal or distal vacancy occurred—see the text for discussion of the vertical axis in panel (C). For each panel, each “box” indicates the president’s equilibrium choice of nominee under various combinations of the departing justice and/or the location of the Senate median. For panel (D), \( x = \frac{2s_m - j_5^0 - \lambda_s j_6^0}{1 - \lambda_s} \) if \( \frac{j_5^0 + j_6^0}{2} < s_m < j_5^0 \); \( x = \frac{2s_m (1 - \lambda_s) - j_5^0 + \lambda_s j_6^0}{1 - \lambda_s} \) if \( s_m > j_5^0 \).

For each model, each “box” in Figure 2 indicates the president’s equilibrium choice of
nominee under various combinations of the departing justice and/or the location of the Senate median. Importantly, the way to interpret this figure is not as giving a predicted location in a two-dimensional space; instead, these combination creates various nomination “regions” (or “regimes,” in the parlance of Moraski and Shipan 1999). In each region we both give the regime a substantive label and denote either the point prediction for the nominee or range of possible nominees.

**Choice of nominee in the court-outcome based model** We begin with the president’s selection strategy in the court-outcome based model, which is presented in Figure 2A. A proximal vacancy creates what we call a “restoring” nomination. Because the president cares only about the median justice in this model, and all nominees \( n \geq j_0^5 \) result in an unchanged median justice, the president is indifferent among all such nominees. Hence, the court-outcome based model produces a range of possible nominees given such a nominee, and not a point prediction (see Rohde and Shepsle 2007).

Next, consider “distal” vacancies under the court-outcome based model. First, if the Senate median is on the other side of the old median justice, relative to the president, the result is what we call a “gridlock” nomination. Here the best the president can do is choose \( n = j_5^0 \), since the Senate will reject any nominee the president prefers more. Since the president and the Senate lie on opposite sides of the old medians, movement in the median is gridlocked.

On the other hand, if a distal vacancy occurs and the Senate median is on the same side of the old median justice as the president, he can move the median. The extent of this movement, however, depends on the relative locations of the Senate median and the president. If the Senate median is closer to the old median justice (type C), then the president offers what we call a “smaller shift” nominee that is the minimum of the president’s ideal point \( (p) \) and the indifference point of the Senate median around the old median \( (2s_m - j_5^0) \). If the Senate median is farther from the old median justice (type D), the president can
make what we call a “maximum shift” nomination that moves the median justice as far as possible. Finally, if \( p > j^0_6 \), the court-outcome based model also predicts a range of possible nominees—all of which move the median justice to \( j^0_6 \), and thus similarly induce a maximum shift in the median justice.

**Choice of nominee in the nearly court-outcome based model**  Figure 2B indicates the president’s equilibrium choice of nominee in the nearly court-outcome based model. As discussed above, in this model the voting strategy of senators is exactly the same as in the court-outcome based model. But because the president is no longer indifferent over nominees who yield the same median justice, the ranges in the restoring and maximum shift nomination collapse to point predictions—in each the president nominates someone who mirrors his own ideology. Whether the president has a choice among (median-equivalent) nominees or is constrained to a single point has implications for work that evaluates how the president chooses among the “short list” of potential nominees—nominees who may look similar ideologically but differ on other important characteristics that the president may value (see e.g. Nemacheck 2008).

**Choice of nominee in the position-taking senators model**  The nomination strategy for the position-taking senators model is shown in Figure 2C. For ease of comparison with the rest of the panels, Figure 2C arrays nominating strategies for the same types of Senate medians. However, because senators do not care about the location of the new median justice and the president cares at least somewhat about the nominee’s ideology, whether a nomination is distal or proximal is irrelevant for determining the location of the nominee.\(^7\) Rather, the president nominates a confirmable individual as close to his own ideal point as possible. When the median senator is opposed to the president, we again see a gridlock

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\(^7\)It is important to note the distinction between distal and proximal vacancies is critical for the position-taking senators model presented in Krehbiel (2007), as it determines whether it is possible for the president to change the location of the new median justice (which is the substantive focus of Krehbiel’s article). However, the type of vacancy is irrelevant for the location of the nominee, because senators weigh the nominee against the old median justice, regardless of the nominee’s effect on the new median justice.
nomination. When the Senate median is on the same side as the president, the president can move the median justice. Again, he accomplishes a “smaller shift” in the median justice by appointing a nominee \( n = p \) or by choosing a nominee at \( 2s_m - j_0^m \), depending on the relative locations of the Senate median and the president.

Choice of nominee in the mixed-motivations model Finally, Figure 2D depicts the nomination strategy in the mixed-motivations model. The strategy here is similar to that seen in the position-taking senators model, except now there is a “maximum shift” region; here the president chooses a nominee either at his ideal point or a location \( (x, \text{ defined in the caption to Figure 2}) \) that depends on \( \lambda_s \), but which leaves the median senator indifferent between the nominee and the old median justice.

Robust predictions across models Using Figure 2, we can discern four robust predictions for presidential choice that hold across all the models:

1. **Own goals** Looking at all the variants of presidential strategies in Figure 2, it is clear that regardless of the regime, the president should *never* choose a nominee on the opposite side of the old median justice from himself. The worst-case scenario for the president is a gridlock nomination; across all model variants, in the gridlock scenario the president should choose a nominee exactly at the old median justice. Thus, if a president chooses a nominee on the opposite side of the old median justice, in soccer parlance he would be committing an “own goal.”

2. **Aggressive mistakes** Recall that a robust prediction for the Senate is that it should never confirm a nominee who moves the median justice farther away from the Senate than the old median justice. Accordingly, the president should never choose such an nominee, since she would be rejected. Such a nominee would thus constitute an “aggressive mistake.”

3. **Median locked** From Figure 2, it is clear that the “lower left quadrant” of each panel predicts that the president should choose a nominee exactly at the location of the old median justice. In this region, the president and Senate are on opposite sides of the old median justice, and hence the Senate would reject any nominee that would move the median in the president’s direction. We thus say that the president is “median locked.”

4. **Smaller shift** Finally, it can be seen that the “smaller shift” nomination regions of the court-outcome based and nearly court-outcome based models also apply to the
position-taking senators and mixed-motivations models. Whenever the Senate is on the president’s side but is not too “extreme,” and the vacancy is opposite the president, each variant predicts a nominee at the minimum of the president’s ideal point and $2s_m - j_5^0$.

3 Data and Results

We analyze the 46 nominees who were nominated between 1937 and 2010, 39 of whom were ultimately confirmed. Testing these predictions of MTM-theory requires measures of the ideal points of Supreme Court justices, nominees, senators, and the president that exist on the same scale. Fortunately, recent advances in measurement mean that this endeavor is much more feasible than in years past.

We employ two sets of measures, one based on NOMINATE scores (Poole and Rosenthal 1997) and one based on the ideal points developed by Michael Bailey (2007). Before turning to specifics, we note the relative strengths and weaknesses of each measure. One difference is the manner in which the justices are placed in the same ideological space as presidents and senators. A strength of the Bailey scores is that they are truly inter-institutional: Bailey uses actions taken by members of Congress and the president to “bridge” the gap between the elected branches and the Supreme Court. The resulting ideal points are thus derived from an integrated model of decision making across all three branches. Moreover, because the Bailey scores are based on position taking by presidents and members that is specifically linked to Supreme Court decisions, the scores exist in a dimension that can be characterized as fundamentally “judicial.” In contrast, no such inter-institutional scores exist for the justices in terms of NOMINATE scores (as described below, to accomplish this transformation we use the president’s ideal point as a bridge). Moreover, NOMINATE measures are based on many types of roll call votes, and not just those related to the judiciary.

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8To place members of the elected branches on the same scale as the justices, Bailey finds instances where presidents and members of Congress made statements or took actions in support or opposition to a particular decision by the Supreme Court (Bailey 2007, 442). For example, since Roe v. Wade was decided, many members have made floor statements expressing a clear opinion on the case, allowing the members to be scaled in the same space as the justices who took part in Roe.
The NOMINATE measures, however, carry several advantages. The Bailey scores begin in 1951, preventing us from using them to study nominations during the Roosevelt and Truman administrations. In contrast, the NOMINATE-based measures begin in 1937 and include the 13 nominations by these two presidents—a not insignificant proportion of the 46 nominees in our overall data. In addition, we go beyond nearly all existing work by incorporating uncertainty into our analyses. Because the Bailey scores are based on a far smaller number of observations compared to NOMINATE, which uses all scalable roll call votes, there is far more uncertainty in the former (i.e. the confidence interval for a given actor is wider using her Bailey score than her NOMINATE score). Thus, our ability to make more confident conclusions about our empirical predictions is enhanced with the NOMINATE measures.

**Ideal points of presidents, senators, and justices** For the NOMINATE-based measures, we place all relevant actors in the Senate DW-NOMINATE space (Poole and Rosenthal 1997). For senators and presidents, we employ their relevant DW-NOMINATE score at the time of a nomination. To place the justices on the same scale, we follow the lead of Epstein et al. (2007) and begin with the Martin-Quinn (2002) scores of the justices, which are based on the justices’ voting records. We transform these scores into DW-NOMINATE by using the DW-scores of the appointing presidents as a bridge. While the specifics of this procedure are given in Appendix A.3, it worth noting that to conduct this bridging, Epstein et al. (2007) only use presidents who were seemingly unconstrained in their choice of nominees, based on the results in Moraski and Shipan (1999). Because this choice assumes that MTM predicts presidential selection well, which is exactly what we evaluate, it does not make sense for us to use the same set of presidents. Instead, we use all presidents to estimate the transformation, which means that our choice of observations is not endogenous to MTM-theory.9

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9In Appendix A.3 we demonstrate that the estimated transformation does not significantly differ depending on whether one uses the constrained presidents from Moraski and Shipan (1999), as Epstein et al. (2007) do, or whether one uses all presidents, as we do.
Recall that the Bailey scores include estimates of presidents, senators, and justices on the same scale. Thus, for both sets of measures, it is straightforward to identify the median of the existing court (that is, the status quo), at the time of any given confirmation. To do so, we simply take the median of the ideal points of the nine justices (in the most recent Supreme Court term prior to a given nomination).

**Estimated ideal points of nominee**  Our next step is to place the location of the nominee into the same space as the other actors. Here we follow prior research and use the Segal-Cover scores (1989) as a proxy for the ideology of each nominee (Epstein et al. 2006, Moraski and Shipan 1999). These scores are based on contemporaneous assessments of nominees by newspaper editorials. While not flawless, this measure is exogenous to the subsequent voting behavior of the confirmed nominees and it is not based on the president’s measured ideal point, which are both virtues. To place these scores into the same space as NOMINATE or Bailey scores, we regress the respective first-year voting score of each confirmed nominee on their Segal-Cover score. We use the linear projection from this regression to map the Segal-Cover scores into the relevant space. Because every nominee has a Segal-Cover score, this procedure results in comparable scores even for unconfirmed nominees.10 With this measure in hand, we can calculate the location of the new median justice (assuming the nominee would be confirmed), as well as necessary distances between a senator and the nominee, and the senator and the new median justice.

**Incorporating uncertainty**  As with any ideal point measure, both the NOMINATE and Bailey scores are measured with error, and it is important to account for this when testing MTM theory. To do so, we use the relevant ideal points and their corresponding standard errors to generate 1,000 random draws of each actor’s ideal point. With these distributions

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10To be sure, confirmed nominees may differ from unconfirmed nominees in systematic ways that complicate the assumption that we can use the mapping between Segal-Cover scores and first-year voting to project ideology for unconfirmed nominees. However, since only seven of our nominees were unconfirmed, this assumption seems both reasonable and unlikely to dramatically affect our overall results.
in hand, we can simulate the location of the existing median justice on the Court 1,000 times, as well as the location of every senator and the Senate median. Thus, for every nominee, we can run empirical tests of nominee location and senatorial voting decision 1,000 times, and use variation within those simulations to make probabilistic estimates of “correct” decisions, depending on the theory’s predictions. (The actual implementation depends on a given test and quantities of interest).\footnote{One complication is that the Segal-Cover scores do not contain any uncertainty. However, we can use the uncertainty in the 1st-year voting scores to generate uncertainty in the linear projection mapping Segal-Cover into the respective spaces. Specifically, we run 1,000 regressions of the distribution of 1st-year voting scores on the Segal-Covers, then generate a vector of 1,000 predictions for each nominee, for each score. This procedure understates the true uncertainty in nominee ideology, since the Segal-Cover scores are noisy estimates of the true perceived nominee ideology.}

This allows us to generate uncertainty in all the measures and tests based on the location of the nominee. (Figure A-1 in Appendix A.2 depicts the estimates of the nominees’ ideal points, while Figure A-2 depicts the estimates of the extent to which each nominee moves the median justice, assuming they are confirmed. Both figures includes estimates of uncertainty for these quantities.)

3.1 The Voting Choices of Senators

Voting by Individual Senators  We begin our empirical analysis with direct tests of the Senate’s roll call voting on nominees, comparing the predictions of each MTM-variant with actual voting behavior.\footnote{Cameron, Kastellec and Park (2013) conduct indirect tests of whether senators vote differently when a nominee would move the median, and find some support for this prediction. Zigerell (2010) also conducts indirect tests; he finds only limited support for the theory. However, no direct tests of the MTM-theory’s predictions for senators have ever been conducted.} (We exclude from these analyses the three withdrawn nominees—Homer Thornberry, Douglas Ginsburg, and Harriet Miers—whose nominations thus created no Senate voting record). Recall that under the court-outcome based and nearly court-outcome based model, a senator should vote for the nominee if and only if $|s_i - j_5^1| \leq |s_i - j_5^0|$, while under the position-taking senators model a senator should vote yes if and only if $|s_i - n| \leq |s_i - j_0^0|$. Finally, for the mixed-motivations model, as described in Figure 1, we identify observations where the predictions are unambiguous, and then compare those
predictions to actual votes. For simplicity, we treat voice votes as votes to confirm.\textsuperscript{13}

The top part of Table 2 displays the results of this analysis, across both the NOMINATE and Bailey measures. Each “model-measure” pair depicts a two-by-two table of cell proportions, with 95% confidence intervals in brackets (based on the simulations). The results are very similar across the two different measures. For reference, the shaded portions of a given two-by-two table depict where the robust tests can be evaluated. We return to these below.

Our direct tests are simple. Given the structure of the two-by-two tables, correct classifications occur on-the-main diagonal, while errors occur off-the-main diagonal. The table reveals that voting errors were very numerous in all three models, but particularly so in the position-taking senators and mixed-motivations models. For the position-taking senators model, in \textit{nearly half} of all senator observations the model predicted a “no” vote when the senator actually voted yes. The court-outcome based model performs best, correctly predicting about 68% of votes correctly. However, this means that a third of votes were incorrect, according to this variant.

Where do the model’s predictions go wrong? A striking feature across Table 2 is the asymmetry in errors across predicted yes and no votes. Across all three models, if a senator’s vote was predicted to be a “yea,” most votes were in fact “yeas.” Indeed, in the position-taking senators and mixed-motivations models, the percentage of instances in which a senator votes no when he is predicted to vote yes is less than five percent. However, if a senator was predicted to vote no, for each model errors outnumber correct classification by a ratio of at least 3:1. The conclusion is inescapable: historically, senators have been much more accommodating of the president’s nominee than MTM-theory would suggest.

We now evaluate the robust predictions for Senate voting. Recall that the court-outcome

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\textsuperscript{13}Cameron, Kastellec and Park (2013) show that selection bias does not seem to affect analyses of roll call votes that treat voices votes as “ayes.” As a robustness check (see Appendix Section A.7), we reran all our analyses of Senate voting excluding nominees who received voice votes, and the results were substantively the same.
<table>
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<td>[.06, .11]</td>
<td>[.07, .11]</td>
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</tr>
<tr>
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<th>Predicted no</th>
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<td>.15</td>
<td>.03</td>
</tr>
<tr>
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<td>[.01, .02]</td>
<td>[.14, .16]</td>
<td>[.02, .03]</td>
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<td>.43</td>
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<td>[.50, .67]</td>
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Table 2: Predicted versus actual votes by top: individual senators, and bottom: the Senate as a whole, in different versions of the MTM-theory. For each two-by-two table, cell proportions are displayed, along with 95% confidence intervals in brackets. The shaded regions indicate the tests of the robust predictions for senatorial voting.
based model’s prediction of when to reject is robust (the “too much movement” prediction). Due to the asymmetry in errors, this prediction does not perform well. As seen in the shaded area of the court-outcome based model tests in Table 2, when the model predicts a no vote, meaning that the new median justice is farther away from the senator than the old median justice, the senator is still three times more likely to vote yes. Next, recall that the position-taking senators model’s prediction of when to confirm is robust (the “attractive nominee” prediction). As seen in the shaded regions of the position-taking senators model tests, this prediction is supported: when the nominee is closer to a senator than the old median justice, senators almost always vote yes.

**Confirmation Decisions** How consequential are these errors for MTM-theory in terms of which nominees actually make it to the Supreme Court? One benign possibility is that non-pivotal senators engage in position taking by voting to support nominees even when they are inclined to oppose them for ideological reasons—especially high quality nominees, or nominees with public support in their home states (Kastellec, Lax and Phillips 2010, Overby et al. 1992). If this were true, MTM-theory would fail across many individual votes, but the Senate as a whole might still conform to the theory’s predictions.

This is not the case, however. The bottom part of Table 2 examines predicted versus actual confirmation decisions, using the predicted votes of the Senate median and comparing it to whether the Senate actually confirmed a nominee. (We omit the mixed-motivations model from this analysis because for some nominations the predicted vote of the Senate median is ambiguous.) The results for confirmation decisions are generally very similar to the individual voting analysis. For both measures, the court-outcome based model classifies only about 60% of confirmations correctly. The performance of the position-taking senators model is even more dismal. The former classifies only about 40% of confirmation decisions correctly. Again, when all model variants predict rejection, confirmation is the much more likely outcome.
Because the court-outcome based model’s prediction of when to reject is robust, this means that in nearly one out of every three nominations, the Senate is approving nominees that all variants of MTM-theory predict should be rejected. If presidents are selecting nominees to further their own ideological interests on the Court, the Senate’s behavior means the president has much more leeway than MTM-theory would suggest.

3.2 Presidential Selection of Nominees

In this section we test the first three robust predictions from MTM-theory with respect to presidential selection. (Too few nominees fall into the “smaller shift” region to test the fourth robust prediction systematically.)

Own goals  The first two robust predictions are independent of the model-specific regions seen in Figure 2 and hence are straightforward to test. Recall that the president should never commit an “own goal” by choosing a nominee on the “opposite” side of the old median justice, since the worst the president can do is to select a nominee exactly at the location of the old median justice. Figure 3 depicts the distance between the old median justice and the nominee, scaled in the direction of the president, for both the NOMINATE and Bailey measures. The points show the median estimate across simulations for each nominee, along with 95% confidence intervals. Thus, positive values mean that the nominee is on the “correct” side of the president, while negative values (those in the shaded region) indicate an own goal. For nominees in the latter category, the numbers depict the probability that the estimate is statistically less than zero.

Figure 3 reveals that, in general, presidents have avoided scoring “own goals.” In fact, according to the Bailey measures, zero nominees display a statistically significant probability that the nominee was on the wrong side of the old median justice. For the NOMINATE measure, however, for eight nominees the probability that the nominee was on the wrong side of the old median justice is highly statistically significant. This means that in more than 15% of nominations from 1937 to 2010, presidents did make self-induced errors. Moreover, of
these nominees, five potentially had the effect of moving-the-median justice in the opposite direction. Thus, in these instances presidents failed to clear the easiest hurdle of MTM-theory: do not move-the-median \textit{away} from you.

Notably, all such nominations were made by Presidents Roosevelt, Truman, and Eisenhower—including perhaps the most famous own goals, Eisenhower’s nominations of Earl Warren and William Brennan. This means that the last own goals occurred more than six decades ago. This fact accords with the conventional wisdom that presidents have shifted over time towards a policy-making focus in their Supreme Court appointments (Yalof 2001), and means that the modern threat to MTM-theory is presidents selecting nominees that move-the-median too far in the direction of the president, rather than away.

\textbf{Aggressive mistakes} The second robust prediction is that the president should never make “aggressive mistakes”—selecting a nominee who moves the median father away from
the Senate median than the old median justice. Before evaluating this prediction, we first examine the incidence of the necessary condition for such a mistake to occur: that the *nominee* himself is farther from the Senate median than the old median justice. Recall that under the position-taking senators model, the president should not select such a nominee. Thus, for the robust prediction to fail, the position-taking senators prediction must first fail, such that the nominee has the *potential* to move the median justice too far (relative to the Senate median).

Figure 4A and Figure 4B depict estimates of the absolute value of the distance between the *nominee* and the Senate median, minus the absolute value of the distance between the old median justice and the Senate median, along with 95% confidence intervals. Positive values thus indicate that the nominee is farther away from the Senate median than the old median justice, while negative values (the shaded regions) indicate that the nominee is closer. Solid dots indicate confirmed nominees, while open dots indicate failed nominees. The plots show that, using the NOMINATE measure, 33 out of 46 (72%) of nominees were “too extreme” relative to the Senate median (i.e. have positive values). For the Bailey measure, some 23 out of 33 (70%) of nominees were too extreme. Moreover, these conclusions generally hold even when accounting for uncertainty. Using the NOMINATE measure, 22 of 33 nominees with positive values have at least a 95% probability of being too extreme (i.e. their confidence interval does not include zero). Under the Bailey measure, 17 of 23 nominees with positive values have at least a 95% probability of being too extreme. Thus, the prediction of the position-taking senators model frequently fails, as the president nominated someone more extreme than the model would predict.

Having established this result, we now evaluate the robust prediction of no aggressive mistakes. Figures 4C and Figures 4D depict the absolute value of the distance between the new median justice and the Senate median minus the absolute value of the distance between the old median justice and the Senate median, for both measures. Because many
Figure 4: Evaluation of “aggressive mistakes” by presidents. **Top:** In terms of the nominee. **Bottom:** In terms of the new median justice. See text for more details.

nominations do not provide presidents with an opportunity to move-the-median, the number of nominations in which nominees actually move the median too far is smaller than the
number of nominees who themselves are too extreme. But, using the NOMINATE measure, 20 of 46 nominees (43%) moved the median too far, relative to the Senate median. Notably, and consistent with the Senate voting results above, fully 16 of these nominees were confirmed by the Senate, rather than rejected. Out of these 20 nominees, for 11 there exists at least a 95% probability that they moved-the-median too far (i.e. the point estimate is significantly greater than zero). The results are similar under the Bailey measure: 17 out of 33 nominees moved-the-median too far; however, only five of these nominees have statistically significant positive values (due in large part to the greater uncertainty in the Bailey measures).

Is the president ever median locked? The prevalence of aggressive mistakes shows that presidents often select nominees who are too extreme under all variants of MTM theory. But it does necessarily mean that the Senate cannot act as as a greater constraint across different types of nomination. Specifically, recall the third robust prediction, which we denoted “median locked:” for all gridlocked nominations, meaning the vacancy falls on the opposite side of the presidency, the president must select a nominee at the location of the old median justice. Conversely, in other regions, he is free to move the nominee either to his ideal point, or least closer to it, depending on the model variant. A complication arises in evaluating regime-specific predictions given the uncertainty in the data. For some nominations, the predicted location of a nominee (for a given model variant) will not vary significantly across simulations. For other nominations, there exists much greater variance. For instance, in the vacancy that led to Stephen Breyer’s nomination, 100% of simulations result in “restoring” nominations in the court-outcome based and nearly court-outcome based models. Conversely, for Hugo Black, 35% of his simulations place him as a “smaller shift” nomination, 43% as a gridlock nomination, and 21% as a maximum shift nomination. For such nominees, the data is simply too noisy for us to make firm point predictions.

Accordingly, to test the median locked prediction, we select nominees where we are at least 50% confident that the nomination falls into the median locked category—that is,
nominees where a majority of simulations place them in this region. (Below we conduct a more systematic regression analysis in which we both use all nominees and distinguish among the different predicted locations across different nomination regimes). For each of these nominees, we then estimate the difference between the nominee’s estimated ideal point and the old median justice, and well as 95% confidence intervals around that distance. The robust prediction is that the confidence intervals for median locked nominees should include zero (meaning the nominee is located at the old median justice, accounting for uncertainty).

Figure 5A depicts the results of this analysis using the NOMINATE-based measures,
Figure 5B using the Bailey-based measures. (Note that the set of nominees across the two measures differ based on whether the data place them in the gridlock region.) The point estimates show the median difference between the nominee and the old median justice (the confirmed and unconfirmed nominees have, respectively, solid and open circles). Thus, positive (negative) values indicate that the nominee was more conservative (liberal) than the old median justice. We order the nominees by party—Democratic appointees appear in the shaded regions—and then by decreasing differences.

Two strong patterns emerge from Figure 5. First, the robust median-locked prediction fails much more often than not: only rarely do the confidence intervals around the difference between the nominee and the old median justice include zero. For the NOMINATE measures, this occurs in only four out of 21 nominees; for the Bailey measures it occurs in five out of 14. Second, the errors are not random: presidents tend to choose nominees on “their side” away from the old median justice. This is particularly noticeable among Republican appointees, who across both measures are almost always significantly more conservative than the old median justice (the exceptions are Eisenhower’s appointments of Warren, Harlan, and Brennan, using the Bailey scores). To be sure, many of the nominees were ultimately rejected by the Senate. But many aggressive mistakes by Republican presidents nevertheless resulted in confirmation.

For Democratic appointees, the picture is less clear cut. The Bailey measures place only three nominees in the median-locked region—the confidence interval for each includes zero. Under NOMINATE, four Democratic appointees are significantly more liberal than the old median justice, while three Roosevelt appointees are more conservative (Burton, Stone, and Byrnes). Interestingly, the last time a Democratic president was clearly median locked was in 1967, when Lyndon Johnson nominated Thurgood Marshall. This means that the asymmetric polarization among nominees that Cameron, Kastellec and Park (2013) document, where Republican nominees have become increasingly conservative over time, has
come even as Republican presidents have tended to face greater theoretical constraint from the Senate, in terms of MTM-theory.

Regression analysis of presidential selection  Despite the failure of these robust predictions, it could still be the case that presidents are more constrained when they do face gridlock nominations than when they do not. To evaluate this possibility, we conduct a more systematic (but weaker) test of presidential location: does the ideology of the nominee move in accordance with the predictions of MTM-theory? Because the court-outcome based model predicts a range of possible nominees under certain conditions, and because the predicted location is sometimes unobservable in the mixed-motivations model, we can only conduct tests of the nearly court-outcome based and the position-taking senators models. We follow the switching regression approach of Moraski and Shipan (1999), in which the predicted location varies across a given region. From Figure 2, it can be seen that for both models, there are three possible predicted locations: the ideal point of the president, the Senate's indifference point (or “flip” point) around the old median \(2s_m - j_5^0\), and the old median justice. The key difference across the models, of course, is that they will often place the same nominee in a different region, and thus create a different prediction under the same configuration of preferences across actors. Thus, let \(G\) denote a gridlock nomination, \(F\) a “flip” nomination (where the predicted location is \(2s_m - j_5^0\)), and \(P\) denote a nomination where the president can appoint someone at his ideal point (which, recall, is denoted with a lowercase \(p\)). For each model, we can then estimate the following linear model, which we call the “main” regression:

\[
n = \alpha + \beta_1 * G * j_5^0 + \beta_2 * P * p + \beta_3 * F * (2s_m - j_5^0)
\]  

(1)

Under MTM-theory, the predicted coefficients for \(\beta_1\), \(\beta_2\), and \(\beta_3\) is 1, while the predicted coefficient for the constant is 0. In addition, testing each model requires evaluating whether each respective quantity \((j_5^0, p, \text{ and } 2s_m - j_5^0)\) does not predict nominee location in the regions where it it not supposed to. Let \(Not G\), \(Not P\), and \(Not F\) denote instances where a
nominee is not in those respective regions. We then fit the following “placebo” regression:

\[ n = \alpha + \beta_1 \times Not\ G \times j^0_5 + \beta_2 \times Not\ P \times p + \beta_3 \times Not\ F \times (2s_m - j^0_5) \]  

(2)

The predicted coefficients for \( \beta_1 \), \( \beta_2 \), and \( \beta_3 \) is 0.

Table 3 presents eight models—the dependent variable in each is the nominee’s estimated location. Each regression accounts for the uncertainty in the independent variables; the brackets under each estimate depict 95% confidence intervals.\(^{14}\) There are four regressions each for the nearly court-outcome based and position-taking senators models: the models alternate between the NOMINATE- and Bailey-based measures.

Beginning with the nearly court-outcome based model, Models (1) and (2) present the main regressions. While the coefficients on the Gridlock \( \times j^0_5 \) are in the predicted direction, the confidence interval for each includes zero (though they both also include one). In contrast, the coefficients on President predicted \( \times p \) are both statistically larger than zero; however, they are statistically less than one, meaning nominee location does not vary as strongly with presidential ideology as MTM-theory would predict. Finally, the coefficients on Flip \( \times 2s - j^0_5 \) are indistinguishable from both one and zero (the confidence intervals are much larger due to the small number of observations that fall into the flip region). Thus, the main regressions show at best weak support for the nearly court-outcome based model.

The next key question is whether a given actor’s ideology does not predict nominee location in the regions where it is not supposed to. Models (2) and (4) test the placebo regression for the nearly court-outcome based model. The coefficients on Not gridlock \( \times j^0_5 \) are statistically indistinguishable from zero. However, the coefficients on Not president predicted \( \times p \) are positive and significantly different from zero, meaning that presidents choose nominees based on their own ideology even when they should not be able to. Moreover, the magnitude

\(^{14}\) We follow the procedures outlined in Treier and Jackman (2008). For each model presented, we first run 1,000 regressions, one for each simulation. Each of these regressions has its own uncertainty—we simulate the intercept and slope coefficients one time in each draw, to incorporate standard errors and covariances from the regression models into the estimates. This produces a distribution of 1,000 intercept and slope coefficients for each model, allowing us to characterize the uncertainty in the estimates via confidence intervals.
Nearly court-outcome based

Position-taking senators

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<td>Pres. predicted × p</td>
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<td>.55</td>
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<td>.42</td>
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<td>[.27, .86]</td>
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<td>[.08,1.07]</td>
<td>[.02,1.26]</td>
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<td>Flip × 2s − j_{B_5}</td>
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<td>[-2.46, 1.71]</td>
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<td>R²</td>
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Table 3: Linear regression models of presidential selection. In each model the dependent variable is the estimated location of the nominee. 95% confidence intervals in brackets, which are estimated via simulation. The R² values presented are the mean R² estimate across all simulations, for a given model.

of the effect of the president’s ideal point is statistically indistinguishable when we compare the coefficient on President predicted × p in the main regressions to the coefficient on Not president predicted × p in their placebo counterparts.

Turning to the position-taking senators model, the results tell mostly a similar story. The main regressions in Models (5) and (6) show that Gridlock × j_{B_5} is both positive and either statistically distinguishable from zero or very close to it (the confidence interval in Model (6) only barely includes zero). The coefficients on President predicted × p are both positive, although under NOMINATE the confidence interval includes zero. (Recall that the president is much more constrained in the position-taking senators model, since the Senate evaluates the nominee against the old median justice; this means that there are many fewer observations in which the predicted location is at the ideal point of the nominee, thereby
increasing the uncertainty of the estimate.) Both coefficients, however, are also statistically indistinguishable from one, as the theory predicts. Finally, the coefficients on $\text{Flip} \times 2s - j_5^0$ are indistinguishable from both one and zero.

As with the nearly court-outcome based model, these results provide weak support at best for the position-taking senators model. Moreover, when we turn to the placebo models in Models (7) and (8), we again see that the president’s ideal point predicts nominee location even under conditions when it should not. Thus, combining these results with our robust tests above, it is clear that the president has much more influence over the location of Supreme Court nominees than MTM-theory would predict.

4 Discussion

We combined a generalized theoretical framework with new empirical tests of move-the-median theory that exploit recent advancements in inter-institutional scaling. We found that MTM-theory—while providing an elegant, concise, and integrated theoretical account of presidential selection choices and Senate confirmation decisions—does a poor job of capturing the actual politics of Supreme Court nomination. First, individual senators and the Senate as a whole have been far too accommodating of the president than all variants of MTM-theory would predict, leading to the confirmation of many nominees who should have been rejected. Second, while earlier presidents occasionally suffered “own goals,” the more persistent pattern is that presidents have been far more aggressive in their nominations that MTM-theory would predict. Thus, using more nominations and superior measures, we reach a different conclusion about presidential choices than Moraski and Shipan (1999). In particular, where they find the president to be constrained by the location of the Senate median at times, we generally do not. Our results thus accord with the findings of Anderson, Cottrell and Shipan (2015), who show that the outputs of the Court (i.e. the location of the median justice, as inferred by the Court’s voting behavior) shifts much more substantially when the president makes a “constrained” nomination than MTM-theory would predict.
What explains these failures of MTM-theory? We conclude by discussing a variety of potential explanations. Our discussion is informed by the specific patterns in the data we documented above, by our reading of the broader literature on Supreme Court confirmations, and, in some cases, supplementary analyses that we present in Appendix A.

The multiple motivations of presidents and senators MTM-theory posits a bargaining environment in which presidents and senators care solely about ideology. While our mixed model allows for each to care both about the policy outputs of the Supreme Court and the ideological characteristics of the nominee herself, the world of MTM-theory is a circumscribed one that rules out other motivations for presidents and senators in the confirmation process. In reality, presidents and senators have multiple goals they seek to achieve through the nomination and confirmation process—goals that have varied across contexts and time.

Consider the pattern of “own goals” we find by some presidents. From the perspective of MTM-theory, such self-induced mistakes are incomprehensible—at the bare minimum, the president should be able to keep the median justice from moving in the wrong direction. Yet, once we consider the fact that earlier presidents emphasized a number of criteria in their selection of nominees, such “mistakes” become more explicable.

First, historically presidents have frequently used Supreme Court nominations to repay political favors. Such motivations were more often present in earlier eras, before presidents focused more intensely on policy considerations in nominations. President Franklin Roosevelt, for example, nominated James Byrnes—a conservative Southern Democrat—because he had been a loyal New Dealer and a friend of the president (Abraham 2008, 181). More famously, it is often alleged that Eisenhower selected Earl Warren as repayment for Warren’s support in the 1952 Republican convention, which helped Eisenhower secure the nomination (Yalof 2001, 44). We suspect that if our data were extended backwards to cover earlier nominees, we would find more “own goals” of this type.

Second, presidents have often considered the demographic composition of the Court, and
used nominations to secure a justice with a particular characteristic. Perhaps most famously, President Johnson nominated Thurgood Marshall with the intent of selecting the first African-American justice, and President Reagan nominated Sandra Day O’Connor with the intent of selecting the first female justice. Neither of these nominees constituted own goals in our analysis because they were sufficiently liberal and conservative, respectively. However, President Truman nominated Harold Burton explicitly because he was a Republican. Truman, along with some Democratic members of Congress, believed it would be inappropriate to have only one Republican appointee on the Supreme Court; in addition, Truman and Burton were good friends (Yalof 2001, 23). And, in perhaps the most famous “own goal” of all time, Eisenhower selected William Brennan in part because he wanted to reinstate the “Catholic seat” on the Court, as Catholics were an important part of Eisenhower’s reelection constituency. And, similar to the Burton nomination, Eisenhower thought selecting a Democratic appointee would enhance his bipartisan appeal (Yalof 2001, 55-61). Thus, in many nominations that were clearly ideological own goals, presidents satisfied multiple political goals.

The importance of nominee characteristics and Senate deference While the existence of own goals is problematic for MTM-theory, it is not (necessarily) problematic for senators, since a president’s own goal may work to the advantage of the majority of the Senate, should the two be in opposition. However, the more persistent pattern we document with respect to presidential selection is that the president has been far more aggressive in his nominations that MTM-theory would predict. Under MTM-theory, this is a significant problem for senators, since a) the president, in equilibrium, should not be making such nominations; and b) if he does so, the Senate should always reject. We have shown that (b) is not the case. One way to summarize this pattern of results is that senators appear to exhibit a general tendency of deference toward’s the president’s nominees—senators vote to confirm them even when the stark ideological-based prediction of MTM-theory is rejection.
How might multiple motivations among senators explain such deference? To answer this question, we can turn to the extensive literature on roll call voting on Supreme Court nominees, which shows that the legal qualifications of a nominee (i.e. their “quality”) is an important predictor of Senate voting, with higher quality nominees more likely to be favored by senators, *ceteris paribus* (see e.g. Cameron, Cover and Segal 1990, Epstein et al. 2006). The story here is that quality adds a valence characteristic that all senators value, regardless of their ideological assessment of a particular nominee, because having high quality justices is generally desirable. (This desire is also connected to the idea that the Supreme Court is different from other institutions, to which we turn shortly.) Thus, a confirmed “aggressive mistake” such as Lewis Powell becomes more understandable once we consider the fact that Powell was a highly accomplished attorney who was universally believed to be qualified for the Supreme Court (Abraham 2008, 246).

Similarly, party loyalty appears to weigh on senators’ confirmation votes, and induces senatorial deference to the president: senators of the president’s party are more likely to support a nominee, *ceteris paribus*. To the extent that ideology and partisanship overlap, this poses little problem for MTM-theory. However, in some instances the theory will predict that a moderate senator of the president’s party should reject a nominee who is too extreme (in the direction of the president). Nevertheless, party loyalty may push such a senator to confirm the nominee.

To confirm the role of quality and party in the senator voting errors we found above, we conducted a analysis of the “false yeas” in our data. For each observation where senators were *predicted* to vote no, we regressed their actual vote choice on the senator’s same-party status and on the nominee’s perceived legal quality, using the standard newspaper-based measure of quality (Cameron, Cover and Segal 1990), while also controlling for the distance between the nominee and the senator. The results, which are presented in Table A-2 in Appendix A, are clear: across all models, voting errors in the yes direction—i.e. voting yes
when MTM-theory predicts no—are more likely when the senator is of the president’s party, and when a nominee’s legal quality is higher (see Section A.4.1 for details). These results confirm that Senate deference to the president along at least two dimensions—favoring high quality nominees and loyalty to the president—contribute significantly to the pattern of senator voting errors we have documented.

Is the Supreme Court different? While our empirical analysis focuses solely on a single institution, it is worth speculating whether MTM-theory might fare better in a different institutional context. For example, would the theory better capture the politics of nominations and confirmations on regulatory agencies (c.f. Snyder and Weingast 2000)?

One place to start this inquiry is to consider the assumption that Supreme Court nominations are a one-shot game. This is obviously false, but the way in which it is false matters for how we consider the implications of our findings. Certainly the game continues in the event of a rejection of a Senate, but repetition will only change the strategic consideration of the players if something changes over time—for example, the ideal points of the players. Thus, the two-period model in Jo, Primo and Sekiya (2013) analyzes how MTM-theory changes if the presidency probabilistically changes parties following a rejection of a nominee by the Senate. Under some conditions, presidents are incentivized to make “compromise” appointments that the Senate will accept to preempt the possibility that the Senate rejects a more extreme nominee and a president of the opposite party is able to appoint the justice.

Another possibility, and one that might be more consistent with our results, is based not on changing preferences, but rather on differences between the president and the Senate in terms of the costs of rejection. MTM theory envisions a tough Senate willing to reject nominees who are too extreme, relative to the status quo, leaving a vacancy on the Court. But would an extended vacancy, arising from (say) repeated rejections of well-qualified but somewhat extreme presidential nominees, or a flat refusal to even consider such a nominee, be politically tenable? It is well documented that courts tend to have greater legitimacy
and are more respected than other political institutions (Gibson 2012). The Supreme Court in particular is a salient and well-known institution—and during nomination battles, even a non-attentive public is likely to cast its eyes on the proceedings (Kastellec, Lax and Phillips 2010). Because of the Court’s extraordinary legitimacy and high visibility, senators may pay an electoral price from rejecting well-qualified albeit somewhat extreme nominees. The president, on the other hand, may pay little or no electoral cost from offering well-qualified but somewhat extreme nominees. In other words, the interaction between president and senators may implicitly have some elements of a war of attrition, one with a presidential advantage. If this is true, then the president would enjoy a nominating advantage substantially greater than that envisioned in MTM theory.

By contrast, non-judicial institutions like independent regulatory agencies do not enjoy the same reservoir of institutional legitimacy as courts, particularly the Supreme Court. In addition, nominations to such agencies are typically low salience affairs. Hence, the president may enjoy no war-of-attrition advantage. If so, the strategic situation may correspond more closely to the assumptions of MTM theory. Certainly, while extended vacancies on the Supreme Court are rare, vacancies in other multimember bodies can and do persist for years. For example, the board of the Federal Reserve—whose power surely rivals that of the Supreme Court—has had at least one vacancy for more than 60% of the time over the past two decades. To give another example, between January 2008 and July 2013, the National Labor Relations Board never had its full slate of five members. Thus, it is clear the Senate is capable of tolerating extended vacancies on these agencies, implying presidential deference to the Senate if the chief executive really wants to fill the vacancy.

It is also striking that delays in confirmations are much more prevalent for lower federal court judges than for Supreme Court nominees, with some lower court nominees waiting years for a floor vote. MTM-theory does not translate immediately to the district courts and the Courts of Appeals, since cases are heard by either a single judge (in the former) or a panel
of three (in the latter), chosen among the judges in a given jurisdiction. Still, considering that both presidents and senators care about the ideological makeup of the federal judiciary, similar MTM-theory dynamics could be at play in lower court confirmations. And, the relatively low salience of these courts may mean that an extended vacancy on a federal district or circuit court may seem quite tenable to senators. Seemingly, senators pay little cost for obstructing lower court nominees. A worthwhile endeavor would be to apply our theoretical and empirical framework to both independent agencies and other multi-member courts in order to determine whether MTM-theory systematically fares better in these settings than it does for the Supreme Court.

The evolution of Supreme Court confirmation politics over time Finally, recent scholarship on Supreme Court confirmation politics suggests that we may be witnessing a significant change in the underlying dynamics of the nomination and confirmation process. Epstein et al. (2006) show that ideological considerations have played an increasingly larger role in senatorial evaluations of Supreme Court nominees—with a notable shift following the Senate’s rejection of Robert Bork in 1987. In addition to confirming this trend, Cameron, Kastellec and Park (2013) note the growing influence of elite polarization on the confirmation process. As is well known, the Senate has grown increasingly polarized since the middle of the 20th-century, to the point where there is almost no overlap between Democrats and Republicans. Less well know is that nominees themselves have become increasingly ideological extreme—this is due primarily to Republicans appointing more conservative nominees. While nominee quality and party loyalty still play an important role in confirmation politics (Epstein et al. 2006, Shipan 2008), nomination politics have become increasingly contentious, as measured by the likelihood that senators will vote to reject a nominee (Cameron, Kastellec and Park 2013).

This growing contentiousness suggests that, even as MTM-theory performs poorly across our sample of nominees dating back to 1937, its performance may have improved over time.
To evaluate whether this is the case, in Appendix A we present an analysis in which we evaluate the accuracy of MTM predictions with respect to Senate voting over time, in two ways. First, for each nominee we calculate the probability of a mistake by the full Senate—that is, if the Senate confirms when the theory predicts rejection and vice versa. Next, we examined errors at the level of individual roll call votes. As noted above, most errors are “false negatives”—instances where senators are predicted to vote no but actually vote yes. We thus focus on these errors, and calculate the proportion of false negatives for each nominee. For both analyses, we evaluated both the court-outcome based and position-taking senators models. (See Section A.5 for more details.)

These analyses reveal that the incidence of mistakes by the full Senate was high in early decades, particularly using the position-taking senators model. Indeed, the probability of mistaken confirmations was exactly one for the majority of nominees through the 1960s. In addition, we find that even today, significant classification errors still persist. For example, under the position-taking senators model, both Roberts and Alito should have been rejected, while the court-outcome based model predicts that neither Souter nor Thomas should have been confirmed. However, we show that the likelihood of MTM mistakes under both models have declined considerably in recent decades. MTM-theory envisions bare-knuckle, bruising, intensely ideological and highly strategic contests. We have shown that overall this picture does not seem to capture the politics of confirmations and nominations very well. However, if Supreme Court nominations shift more permanently in the direction of high stakes ideological fights, then surely MTM-theory will do a better job than it has done to date.

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A Appendix A

In this appendix, we present the following:

- Section A.1: Additional notes
- Section A.2: Supplemental figures
- Section A.3: Discussion of the mapping of Martin-Quinn scores into DW-NOMINATE
- Section A.4.1: Analysis of the role of nominee quality and party in roll call votes
- Section A.5: Evaluating MTM-theory over time
- Section A.6: Robustness checks using the filibuster pivot as the pivotal senator
- Section A.7: Robustness check excluding voice votes
- Section A.8: References for citations in Appendix A
A.1 Additional notes

In this subsection we present some additional notes that we could not present in the main text due to space constraints.

1. Our theoretical model abstracts away from many events that occur between the nomination stage and the final Senate vote, such as meetings with individual senators and hearings by the Senate Judiciary Committee. In practice, almost every Supreme Court nominee reaches the floor of the Senate and receives a confirmation vote. This differs from many other types of presidential nominations (including lower federal court judges), where nominees are routinely blocked from reaching a floor vote.

2. Our usage of the term “gridlock” differs from its traditional meaning in the pivotal politics literature (Krehbiel 1998), which focuses on legislation. There the gridlock scenario results in no legislation being passed, since at least one veto player prefers the status quo to a given proposal. In MTM-games with perfect information, a nominee will always be confirmed in equilibrium; in our gridlock scenario, however, movement in the location of the median justice cannot be obtained.

3. With respect to our empirical results, one possibility worth addressing is that simple measurement error explains our failure to find support for MTM-theory. We would argue against this conclusion for two reasons. First, a number of studies have showed that it is very easy to construct models of roll call voting on nominees in which the distance between the nominee and senator is highly predictive of a yes vote (see e.g. Epstein et al. 2006, Cameron, Kastellec and Park 2013, Zigerell 2010). These papers use very similar measures and bridging strategies to the ones we employ. (We also present a similar regression analysis below in Table A-2, based on our measures that shows that nominee-senator distance is highly predictive of confirmation votes). Second, the mistakes we document are not random, as one might expect if pure measurement error were driving the patterns. Rather, the combination of an overly deferent Senate and aggressive mistakes by the president are mutually supportive, and seem unlikely to have collectively occurred by chance.

4. In Figure 3A, the confidence interval for Harold Burton in the left panel is highly asymmetric because the distribution of distance from the old median justice to his ideal point is bimodal. This arises because in 9 percent of simulations, President Truman is estimated as to the right of the Senate median; in the other 91% he is to left. Thus, 91% of time Burton is as estimated as an own goal. In Figure 3B, similar circumstances explain the asymmetric confidence intervals for Brennan, Harlan, Warren, and Fortas (CJ).
Figure A-1: Estimates of each nominee’s ideal point, ordered from most to least conservative, for both the NOMINATE and Bailey-based measures. Horizontal lines depict 95% confidence intervals.
Figure A-2: How much each nominee would move the median justice, if the nominee were confirmed, ordered from most to least conservative. Horizontal lines depict 95% confidence intervals. Many of the confidence intervals in the figure are both asymmetric and “clipped” at zero. This is because, for most nominations, the ideal points on the existing justices are distributed such that there is zero probability that the nominee moves the median justice in the “opposite” direction as suggested by the fixed ideal points. Also note that the uncertainty in the Bailey estimates is much larger.
A.3 Mapping justices into DW-NOMINATE

As discussed in Section 3 of the paper, to place Supreme Court justices in DW-NOMINATE space, we follow the lead of Epstein et al. (2007)\(^{15}\) and transform the justices’ Martin-Quinn scores into NOMINATE. Epstein et al. begin with the 15 confirmed nominees who fall into the “unconstrained” regime in Moraski and Shipan’s (1999) analysis (Blackmun, Brennan, Breyer, Burger, Goldberg, Marshall, O’Connor, Powell, Rehnquist (both nominations), Scalia, Stewart, Warren, White, and Whitaker). Using these nominees, they regress the nominating president’s Common Space NOMINATE score on the 1st-year voting score of the confirmed justices (i.e. the Martin-Quinn score from the justices’ first term on the Court). Because Martin-Quinn scores are unbounded, whereas NOMINATE scores exist in [-1,1], Epstein et al. first take the tangent transformation of the president’s common space score, then regress it on the Martin-Quinn scores. Finally, they use the arc-tangent prediction from this equation to place the justices in Common Space.

Our procedure is similar, except a) we use the president’s DW-NOMINATE score (since we work with these scores for both the president and the Senate); b) we incorporate the uncertainty in the MQ scores into our estimates of justices’ ideology in DW space; and c) we use all presidents, not just those from the unconstrained regime in Moraski and Shipan’s (1999)—see below for more on this choice. Specifically, we begin with the Martin-Quinn median estimate of justice ideology in their first terms, and then use the standard error of that estimate to generate a distribution of 1,000 MQ scores for each justice. For each simulation, we run the following model:

\[
\tan\left(\frac{\pi}{2} DW_i \right) = B_0 + B_1 MQ_i,
\]

where \(DW\) is the DW score of the nominating president of justice \(i\) and \(MQ\) is the justice’s first-year MQ score. The resultant prediction equation gives us:

\(^{15}\)References for citations in Appendix A appear in Section A.8.
Table A-1: Regressions of president DW-NOMINATE scores on justices’ voting scores. See text for details of model specification. Standard errors in parentheses. Model 1 uses the 15 confirmed unconstrained nominations from Moraski and Shipan. Model 2 uses all 24 confirmed nominees from Moraski and Shipan. Model 3 uses all 40 confirmed nominees from our data. The intercept and slope estimates are very similar across models.

\[
\hat{DW}_i = \frac{2}{\pi} \arctan(\hat{B}_0 + \hat{B}_1 MQ)
\] (A-2)

That is, we get a predicted DW-NOMINATE score for each justice (across 1,000 simulations). With these in hand, we can then create estimates of the location of the old median justice on the Court in DW-NOMINATE space, as well as the location of the new median justice (once we incorporate the location of the nominee).

As we discussed in the text, we choose not to use the results from Moraski and Shipan (1999) to inform our choice of which nominees to use for the transformation between Martin-Quinn scores and DW-NOMINATE, since the choice of presidents/nominee by Epstein et al. (2007) assumes that MTM-theory does a good job of characterizing presidential selection.

How sensitive is the estimated mapping between Martin-Quinn and DW-NOMINATE to the choice of nominees? We estimated several models using different sets of nominees to answer this question. Here, for simplicity, we focus just on the Martin-Quinn point predictions and ignore uncertainty. Model (1) in Table A-1 presents the results of the
regression in Eqn. A-1, using the same 15 “unconstrained” nominations as Epstein et al. The intercept is about 0 and the coefficient on MQ-score is about .4. Next, Model 2 uses all 24 confirmed nominees that Moraski and Shipan used in their analysis. The intercept and slope are nearly identical and statistically indistinguishable from the results using only the constrained nominations. Finally, Model 3 uses all 40 confirmed nominees in our dataset. The results are again effectively the same. In addition, there is little difference in model performance across each model.

Thus, using all presidents to estimate the mapping from MQ to NOMINATE does not affect our estimates of justices’ location. In addition, the results across models in Table A-1 provides further support for our results showing that presidents’ ability to select nominees close to their ideal points is not affected by the Senate—or, is affected much less than MTM-theory would predict.

A.4 Supplemental analyses and robustness checks

In this section we present several supplementary analyses and robustness checks that are discussed or referenced in the paper.

A.4.1 The role of nominee quality and party in roll call votes

As discussed in Section 4 in the paper, we find that senatorial voting errors (particularly “false positives”) are predicted by whether the senator is of the president’s party and by nominee quality. Here we present the results of this analysis. For each observation where a senator is predicted to vote no, we regress their actual vote choice on whether the senator’s same-party status, and on the nominee’s perceived legal quality, using the standard newspaper-based measure of quality (Cameron, Cover and Segal 1990, Epstein et al. 2006). The results are presented in Table A-2. Models (1) and (2) use the court-outcome based as the basis for predictions of no votes, with Model (1) using the NOMINATE measure and Model (2) using the Bailey measure. Models (3) and (4) use the predictions from the position-taking senators model. The regressions incorporate uncertainty in the predictions,
as discussed in footnote 13 in the paper; the numbers in brackets are 95% confidence intervals.

The results are clear: across all models, voting errors in the yes direction are more likely when the senator is of the president’s party, and when a nominee’s legal quality is higher.

### A.5 Evaluating MTM-theory over time

As discussed in Section 4 of the paper, we conducted analyses evaluating the performance of MTM-theory over time. The clearest way to assess this question is to use senatorial voting decisions. Figure A-3 evaluates the accuracy of MTM predictions with respect to Senate voting over time in two ways. (In the interests of space, we present here only the results using NOMINATE; the results with Bailey show the same general patterns, and are available upon request.) First, the top two panels depict the probability of a mistake by the full Senate, first for the court-outcome based model and then for the position-taking senators model—that is, confirming when the theory predicts rejection and vice versa. (We again omit the mixed-motivations model because for some nominations the predicted vote of the Senate median is ambiguous without knowing $\lambda_S$.) Nominees in bold are those who were rejected (we omit the three nominees who did not receive a floor vote at all). We calculate the probability of a mistake by taking, for each nominee, the mean of simulations in which the theory is correct. For example, looking at Justice Black in the top panel, in nearly
100% of simulations the court-outcome based model incorrectly predicted that Justice Black should be rejected by the Senate. The lines in each panel are loess lines.

The graph makes clear that the incidence of mistakes by the full Senate was high in early decades, particularly using the position-taking senators model. Indeed, the probability
of mistaken confirmations was exactly one for the majority of nominees through the 1960s. In recent decades, however, mistakes under both models have declined significantly. Yet significant classification errors still persist. For example, under the position-taking senators model, both Roberts and Alito (as discussed earlier) should have been rejected, while the court-outcome based model predicts that neither Souter nor Thomas should have been confirmed.

The bottom two panels in Figure A-3 examine errors at the level of individual roll call votes. As noted above, most errors are “false negatives”—instances where senators are predicted to vote no but actually vote yes. We thus focus on these errors, plotting the proportion of false negatives for each nominee (for simplicity, we simply take the average of false negatives across all the simulation for each nominee). These pictures tell a similar story: the proportion of false negatives has been high across time—particularly for the position-taking senators model—but has trended downward as the number of no votes has increased. Because the decline in errors occurs more in the position-taking senators model relative to the court-outcome based model, it would appear senators have responded more sensitively to nominee ideology per se recently, rather than to the nominee’s impact on the median justice.

A.6 Using the filibuster pivot

As discussed in footnote 3 in the paper, one important consideration in testing MTM-theory is whether one should treat the Senate median or the filibuster pivot as the pivotal senator. Our reading of the historical record on Supreme Court nominations is that the Senate median has been pivotal in the vast majority of nominations, if not all of them, for the following reasons. First, two nominees have been been confirmed by margins under the 60-vote threshold (Thomas and Alito), meaning that their nominations could have been successfully filibustered if opposing senators believed it were a politically viable strategy. For Alito, in fact, the Senate did vote 72-25 to invoke cloture—several Democrats voted
for cloture but nevertheless voted against Alito’s confirmation (his final margin of victory was 58-42). Similarly, during William Rehnquist’s nomination to become associate justice in 1971, a cloture vote on his nomination only received 52 yes votes, not enough to cross the two-thirds threshold to end debate that existed at the time. Nevertheless, the Senate then agreed by unanimous consent to move to a vote on his nomination, where he was confirmed 68-26 (Beth and Palmer 2009, 13).

The only instance where a filibuster potentially derailed a confirmation was the nomination of Abe Fortas to become Chief Justice in 1968. However, it is unclear whether Fortas would have been confirmed in the absence of a filibuster, given that his nomination was dogged by accusations of financial impropriety, and he faced significant opposition from both Republicans and Southern Democrats (Curry 2005). Whittington (2006, 418), for example, argues that President Johnson “was forced to withdraw the nomination rather than [face] a certain defeat” on the Senate floor. In addition, it is notable that even as filibusters of lower federal court judges have become routine in modern nomination politics, the filibuster has not been wielded as a significant tool by the minority party during recent unified government nominations to the Supreme Court. Finally, the implementation of the “nuclear option” in 2013 with respect to lower court judges appears to have established a precedent by which the majority party in the Senate would shift the threshold for approval of Supreme Court nominees to 50 votes if the minority party used the filibuster to block a confirmable nominee.

As a robustness check, in this sub-section we replicate all the results in the paper in which the theory makes different predictions depending on which senator is pivotal (the analyses of individual senator votes and own goals are not implicated by the distinction). For each nominee and simulation, we calculated the filibuster pivot, accounting for whether the president was a Democrat or Republican. (Before 1975—up through and including the nomination of John Paul Stevens—two-thirds of senators present were required to invoke
cloture. In 1975, the threshold was reduced to three-fifths of all senators.}

Before turning to the tests of senator votes and presidential selection, we begin by comparing the predicted nominee locations of the nearly court-outcome based and the position-taking senators models, based on whether the median senator or filibuster pivot is pivotal. Figure A-4 presents these comparisons, using both the NOMINATE and Bailey measures. For simplicity, for each nominee we depict the mean prediction across simulations. In addition, the correlation between the median-based and filibuster-pivot-based calculations are

---

**Figure A-4**: Predicted nominee locations of the nearly court-outcome based and the position-taking senators models, based on whether the Senate median or filibuster pivot is pivotal. See text for details.
<table>
<thead>
<tr>
<th>NOMINATE</th>
<th>Bailey</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Confirmation decisions</strong></td>
<td>Predicted reject</td>
</tr>
<tr>
<td>Court-outcome based</td>
<td></td>
</tr>
<tr>
<td>Reject</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>[.05, .07]</td>
</tr>
<tr>
<td>Confirm</td>
<td>.37</td>
</tr>
<tr>
<td></td>
<td>[.32,.42]</td>
</tr>
<tr>
<td>Position-taking senators</td>
<td></td>
</tr>
<tr>
<td>Reject</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>[.07, .09]</td>
</tr>
<tr>
<td>Confirm</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td>[.52,.65]</td>
</tr>
</tbody>
</table>

Table A-3: Using the filibuster pivot, predicted versus confirmation decisions by the Senate. For each two-by-two table, cell proportions are displayed, along with 95% confidence intervals in brackets.

given in each panel. Beginning with the nearly court-outcome based model, Figure A-4 shows that the two sets of predictions are highly correlated—and, in fact, are identical for many nominees. For the position-taking senators model, the differences in the predictions depending on which senator is pivotal are more substantial—this is not surprising, given that this model is more sensitive to the location of the pivotal senator, since he or she weighs the nominee against the old median justice. Still, the senator-based and filibuster pivot-based measures are substantially correlated.

Next, we replicate the analysis of the Senate’s confirmation decisions presented in Table 2 in the paper, but this time assuming the filibuster pivot is pivotal—see Table A-3. As it turns out, for both measures and both MTM-variants, there are very few nominations where MTM-theory predicts that the Senate median should confirm but the filibuster should reject. Not surprisingly then, when we compare predicted versus actual confirmation decisions using the filibuster pivot, the results are unchanged. When MTM-theory predicts the Senate filibuster should confirm a nominee, the nominee is almost always confirmed. However, when MTM-theory predicts a rejection, the nominee is almost always confirmed as well.

Next, Figure A-5 replicates Figure 4 in the paper, and tests the prediction of no aggressive
Figure A-5: Evaluation of “aggressive mistakes” by presidents, based on the filibuster pivot. **Top:** In terms of the nominee. **Bottom:** In terms of the new median justice. Nominees in the shaded regions are estimated as aggressive mistakes. See text for more details.

mistakes by the president, but this time assuming the filibuster pivot (whom we denote $s_{fp}$) is pivotal. Figure A-5 shows a similar pattern: in many instances the president nominates
someone who is farther away from the filibuster pivot than is the old median justice. In addition, in a non-trivial number of nominations, an aggressive mistake results in the new median justice being farther from the filibuster pivot than the old median justice—and most of these nominees are confirmed.

Next, Figure A-6 replicates the test of the “median locked” prediction. (While the calculation of the tests themselves in Figure A-6 do not implicate the filibuster pivot, the location of the pivot will affect the calculation of the nominating regimes, which will affect which nominees clearly fall into the lower left region of the main panels in Figure 2 in the
Table A-4: Linear regression models of presidential selection, using the filibuster pivot. In each model the dependent variable is the estimated location of the nominee. 95% confidence intervals in brackets, which are estimated via simulation. The $R^2$ values presented are the mean $R^2$ estimate across all simulations, for a given model.

<table>
<thead>
<tr>
<th></th>
<th>Nearly court-outcome based</th>
<th></th>
<th></th>
<th>Position-taking senators</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) (NOMINATE) (Bailey)</td>
<td>(2)</td>
<td>(NOMINATE) (Bailey)</td>
<td>(3) (NOMINATE) (Bailey)</td>
<td>(4) (NOMINATE) (Bailey)</td>
<td>(5) (NOMINATE) (Bailey)</td>
<td>(6) (NOMINATE) (Bailey)</td>
</tr>
<tr>
<td>Intercept</td>
<td>.04</td>
<td>.02</td>
<td>.03</td>
<td>.08</td>
<td>.06</td>
<td>.31</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>[-.02, .11]</td>
<td>[.01, .40]</td>
<td>[-.03, .10]</td>
<td>[-.15, .31]</td>
<td>[.01, .13]</td>
<td>[.09, .54]</td>
<td>[.00, .03]</td>
</tr>
<tr>
<td>Gridlock $\times j_0^p$</td>
<td>.56</td>
<td>0.1</td>
<td></td>
<td></td>
<td>.64</td>
<td>0.52</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[.50, 1.56]</td>
<td>[.71, .84]</td>
<td></td>
<td></td>
<td>[.11, 1.32]</td>
<td>[.07, 1.13]</td>
<td></td>
</tr>
<tr>
<td>Pres. predicted $\times p$</td>
<td>.29</td>
<td>0.56</td>
<td></td>
<td></td>
<td>.43</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[.02, .60]</td>
<td>[.25, .90]</td>
<td></td>
<td></td>
<td>[.53, 3.75]</td>
<td>[.25, 3.7]</td>
<td></td>
</tr>
<tr>
<td>Flip $\times 2s_{fp} - j_0^p$</td>
<td>.63</td>
<td>0.26</td>
<td></td>
<td></td>
<td>.23</td>
<td>-0.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[-6.53, 9.01]</td>
<td>[-.26, .85]</td>
<td></td>
<td></td>
<td>[-1.3, .60]</td>
<td>[.20, .77]</td>
<td></td>
</tr>
<tr>
<td>Gridlock $\times j_0^p$</td>
<td>.38</td>
<td>0.27</td>
<td>.32</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[.35, 1.03]</td>
<td>[.30, .88]</td>
<td>[.01, .69]</td>
<td>[.66, .48]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pres. predicted $\times p$</td>
<td>.45</td>
<td>0.41</td>
<td>.37</td>
<td>0.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[.27, .64]</td>
<td>[.11, .78]</td>
<td>[.32, .42]</td>
<td>[.27, .52]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flip $\times 2s_{fp} - j_0^p$</td>
<td>.13</td>
<td>-0.11</td>
<td>-0.06</td>
<td>-0.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>46</td>
<td>33</td>
<td>46</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.15</td>
<td>.37</td>
<td>.39</td>
<td>.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.14</td>
<td>.28</td>
<td>.46</td>
<td>.33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Finally, Table A-4 replicates the regressions of nominee location presented in Table 3 in the paper, this time using the filibuster pivot as the pivotal senator. The key results remain unchanged. In the nearly court-outcome based model, the coefficient on the president’s ideal point is significant even in the placebo regressions (Models 3 and 4). Moreover, when we turn to the position-taking senators model, the coefficients on the president is not statistically different from zero even in the main regressions. Thus, we are confident MTM-theory finds no better support when the filibuster pivot is employed, rather than the Senate median.

A.7 Excluding voice votes

As discussed in footnote 12 in the paper, the potential for selection bias in our study of Senate roll call votes exists in the fact that many nominees in our sample did not receive full roll call votes; instead, they were confirmed unanimously via voice vote (such nominees were all nominated before 1970). Coding senators who participate in voice votes as all
voting “yes”—as we do in the main analyses—may overstate support for a nominee, as some senators (though presumably far from a majority) may have voted against him had a roll call vote been held. Cameron, Kastellec and Park (2013) show that selection bias does not seem to affect analyses of roll call votes that treat voices votes as “yeas.” We reran all the analyses of Senate voting in that appear in Section 3.1, this time excluding nominees who received voice votes (28 of the 43 nominees in our data who were voted on by the Senate had full roll call votes). Given the direction of the errors we uncover in our main analyses (too many votes to confirm, compared to what MTM predicts), this procedure is biased in favor of finding support for MTM-theory, since we are excluding a large proportion of “yes” votes from the data.

The results from this analysis appear in Table A-5. Not surprisingly, the models do better here than when we include all nominations that reached the floor. In particular,
the position-taking senators model and mixed-motivation models classify “nay” votes more successfully in this analysis. Still, even when we exclude a large proportion of would-be yes votes from the analysis, we still see that senators are still significantly more likely to vote yes when MTM-theory predicts they should vote yes. Thus, we are confident that treating voice votes as “yeas” does not create bias in our main analyses of senator vote choice in the paper. (Of course, the incidence of such votes does not affect the analyses of presidential selection, since the president’s choice of nominee comes before the Senate acts.)
A.8 Appendix-A References


B Appendix B: Proofs of Formal Theory

B.1 The Game

As discussed in the text, the players are the president \((P)\) and \(k\) senators \(S_1...S_k\). Index the players and members of the Court by their ideal points, i.e., \(p, s_i, j_i \in X = \mathbb{R}\). Given the unidimensional policy space and single-peaked utility functions, medians are well-defined; denote the ideal point of the median senator as \(s_m\). Denote justice \(i\) on the original natural court as \(J_0^i\) and denote justices’ ideal points by \(j_0^i, i = 1, 2, ..., 9\), with \(j_0^i \in X\) (superscripts denote strong natural courts, that is, 9-member courts). Order the original justices by the value of their ideal points, so \(j_0^1 < j_0^2 < ... < j_0^9\). Original Justice 5 \(J_0^5\) is thus the median justice on the original Court, with ideal point \(j_0^5\). Following a confirmation, there is a new 9-member natural Court; denote the ideal points of the members of the new Court by \(j_1^i\). The ideal point of the median justice on the new Court is thus \(j_1^5\).

The sequence of play in the one-shot game is simple: 1) Nature selects an exiting justice so that a vacancy or opening occurs on the 9-member Court; let \(e\) (for “exiting”) denote the ideal point of the exiting justice; 2) President proposes a nominee \(N\) with ideal point \(n \in X\); 3) senators vote to accept or reject the nominee; let \(v_i \in \{0, 1\}\) denote the confirmation vote of the \(i\)th senator. If \(\sum v_i \geq \frac{k+1}{2}\) the Senate accepts the nominee; otherwise, it rejects the nominee. If the Senate accepts the nominee, the Court’s new median become \(j_1^5\). If the Court rejects the nominee the “reversion policy” for the Court becomes \(q\). The game is one of complete and perfect information.

The reversion policy What is the proper reversion policy \(q\) in the event the nominee is rejected? There are at least three arguably reasonable choices. The first alternative is to take the version policy \(q\) to be the old median justice on the Court, \(j_0^5\). This alternative is strongly advocated in Krehbiel (2007). Krehbiel notes that all policies set by the old natural court (presumably) were set to the median \(j_0^5\), a point which now lies within a gridlock
interval on the 8-member Court and hence cannot be moved. Consequently, rejection of the
nominee effectively retains existing policy at the old median. While this approach abstracts
from new policy set by the 8-member Court, it is simple and logical.

The second alternative associates \( q \) with the median on the 8-member Court (see Moraski
and Shipan (1999), Rohde and Shepsle (2007), and Snyder and Weingast (2000)). Unfortunately,
this median is the interval \([j^0_4, j^0_5]\), \([j^0_5, j^0_6]\), or \([j^0_4, j^0_6]\), depending on the location
of the vacancy \( e \in \{j^0_6, \ldots, j^0_9\} \), \( e \in \{j^0_1, \ldots, j^0_4\} \), and \( e = j^0_5 \), respectively). Analysts typically associate the reversion policy with an arbitrary point within the intervals. Implicitly,
these analysts consider future cases coming to the 8-member Court and assume the justices
(somehow) set new policy to some point in the median range.

A third possibility stems from the observation that an 8-member Court is necessarily
short-lived and will surely be followed—eventually—by a 9 member Court. In that case, \( q \)
might be the discounted policy value of the future median justice’s ideal point likely emerge
from future play. Jo, Primo and Sekiya (2013) begin to explore this logic by examining a
two-period MTM game. This approach adds considerable complexity to the analysis; the
infinite horizon game has not yet been solved.

For the sake of simplicity and consistency, we follow (Krehbiel 2007) and assume \( q = j^0_5 \),
in other words, the reversion policy is the ideal point of the old median justice. This simplifies
the analysis without undue loss of generality.

**Utility functions** We specify utility functions that allow the players to value both the
nominee’s impact on the Court’s new median and the nominee’s ideology *per se* (see the
discussion in the text). For the president:

\[
\begin{align*}
    u_P(j^1_5, q, n; p) = \begin{cases} 
    -\lambda_p|p - j^1_5| - (1 - \lambda_p)|p - n| & \text{if confirmed} \\
    -|p - q| - \epsilon & \text{if rejected}
    \end{cases}
\end{align*}
\]
where \(0 \leq \lambda_p \leq 1\) and \(\epsilon > 0\). Here, the president suffers a turn-down cost \(\epsilon\) if his nominee is rejected (this may reflect public evaluation of the presidency). If his nominee is accepted, his evaluation reflects a weighted sum of the ideological distance between the president’s ideal point and that of the new median justice, and the ideological distance between the president and his confirmed nominee’s ideal point. Finally, we assume \(\lambda_s\) is common to all senators during a nomination and common knowledge; in addition, we assume \(\lambda_p\) is common knowledge.

Similarly for senators:

\[
\begin{align*}
    u_{s_i}(j_{n1}, q; s_i) &= \begin{cases} 
        -\lambda_s|s_i - j_{n1}| - (1 - \lambda_s)|s_i - n| & \text{if } v_i = 1 \\
        -|s_i - q| & \text{if } v_i = 0
    \end{cases}
\end{align*}
\]

(B-2)

where \(0 < \lambda_s \leq 1\). We adopt the standard convention that voting over two one-shot alternatives is sincere, so each senator evaluates her vote as if she were pivotal. If a senator votes in favor of a nominee, she receives a weighted average of the distance between her ideal policy and the new Court median’s ideal point, and the distance between her ideal point and the nominee’s ideology.

Care must be taken about the vacancy or opening on the Court \(e\), the ideology of the nominee \(n\), and the resulting ideal point of the new median justice \(j_{n1}\). This relationship
is made explicit in the following “median production function”:

\[
\begin{align*}
j_5^1 &= \begin{cases} 
  j_4^0 & \text{if } e \in \{j_5^0, \ldots, j_6^0\} \text{ and } n \leq j_4^0 \\
  j_5^0 & \begin{cases} 
    e \in \{j_1^0, \ldots, j_4^0\} \text{ and } n \leq j_5^0 \\
    e \in \{j_6^0, \ldots, j_9^0\} \text{ and } n \geq j_5^0 
  \end{cases} \\
  j_6^0 & \text{if } e \in \{j_1^0, \ldots, j_5^0\} \text{ and } n \geq j_6^0 \\
  n \in (j_4^0, j_6^0) & \begin{cases} 
    e \in \{j_1^0, \ldots, j_4^0\} \text{ and } j_5^0 < n < j_6^0 \\
    e = j_5^0 \text{ and } j_4^0 < n < j_6^0 \\
    e \in \{j_6^0, \ldots, j_9^0\} \text{ and } j_4^0 < n < j_5^0
  \end{cases}
\end{cases}
\end{align*}
\]

More intuitively, the relationship between the exiting justice, the nominee, and the resulting new median justice is shown in the form of a classification tree in Figure B-1. Importantly, the new median justice $j_5^1$ can only be $j_4^0$, $j_5^0$ (the old median justice), $j_6^0$, or $n$ itself, with $n$ bounded within $[j_4^0, j_6^0]$. The nominee can become the median justice only when the opening and the nominee lie on opposite sides of the old median justice and $n$ lies between $j_4^0$ and $j_6^0$. The set of possible new medians is thus the closed interval $I = [j_4^0, j_6^0]$. Equation B-3 is a function mapping the nominee’s ideology $n$, the opening $e$, and the values $j_4^0$, $j_5^0$, and $j_6^0$ into a point on interval $I$. That is, $j_5^1 = f(n, e; j_4^0, j_5^0, j_6^0)$.

A voting strategy for a senator is a function mapping the set of possible new medians,
the set of possible nominees, and the set of reversion policies into the set of vote choices: \( \sigma_i : I \times X \times X \to \{0, 1\} \), so that \( \sigma_i(j_5^1, n, q) \). A nominating strategy for a president is function mapping the set of possible ideal points of the senators, the set of ideal points of the eight justices on the Court, and the set of reversion policies, into the set of possible nominees: \( \pi : X^k \times X^8 \times X \to X \). In practice, this strategy is typically simplified into a mapping from the set of ideal points for the Senate median \( s_m \), the set of possible openings, the interval \( I \), and the possible reversion policies, hence \( \pi : X \times X^9 \times I \times X \to X \), so that \( \pi(s_m, e, j_4^0, j_5^0, j_6^0) \to X \).

**B.2 Equilibrium**

The utility weights define classes of game with quite different equilibria. We focus on four cases of particular interest: 1) the benchmark court-outcome based model \((\lambda_p = \lambda_s = 1)\); 2) a nearly court-outcome based model \((\lambda_p < 1, \lambda_s = 1)\); 3) the position-taking senators model \((\lambda_p < 1, \lambda_s = 0)\), and 4) the mixed-motivations model \((0 < \lambda_p < 1, 0 < \lambda_s < 0)\).

For the sake of brevity, throughout we assume \( p > j_5^0 = q \).

**B.2.1 Court-outcome based model**

In the court-outcome based model, the actors care only about the immediate policy consequences of a nomination. Hence, median-equivalent nominees are utility-equivalent.

**Voting by Senators** The voting strategy for senators is extremely simple in principle: \( v_i = 1 \) iff \(|s_i - j_5^1| \leq |s_i - j_5^0|\). However, because the determination of \( j_5^1 \) via Equation B-3 is complex, stating the equilibrium voting strategy in terms of \( o, n, \) and \( s \) is rather involved. The following observation proves useful. The possible new medians—\( j_4^0, j_5^0, j_6^0 \), plus intermediate \( n \)—imply four groups of senators: 1) Group A: \( s_i < \frac{j_4^0 + j_6^0}{2} \), who prefer \( j_4^0 \) to \( j_5^0 \); 2) Group B: \( \frac{j_4^0 + j_6^0}{2} \leq s_i < j_5^0 \), who prefer \( j_5^0 \) to \( j_4^0 \); 3) Group C: \( j_5^0 < s_i < \frac{j_4^0 + j_6^0}{2} \), who prefer \( j_5^0 \) to \( j_6^0 \); and, 4) Group D: \( s_i > \frac{j_4^0 + j_6^0}{2} \), who prefer \( j_6^0 \) to \( j_5^0 \). Recall that these four groups of senators are shown in Figure 2 in the paper. We assume an indifferent senator votes “aye”.

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Proposition 1  The following is the senatorial vote function in the court-outcome based model:

\[
\sigma^*_i(e, n; s_i) = \begin{cases} 
1 & \text{if } \begin{cases} 
e \in \{j_1, \ldots, j_4\}, n \leq j^0_n, \forall s_i \text{ (All groups)} \\
\ne = j^1_5, n \leq j^0_5 \text{ but } n \leq 2s_i - j^0_5, j^0_5 < s_i < \frac{j^0_5 + j^0_0}{2} \text{ (Group C)} \\
\ne = j^0_5, n > j^0_5 \text{ but } n \leq 2s_i - j^0_5, j^0_5 < s_i < \frac{j^0_5 + j^0_0}{2} \text{ (Group D)} \\
\ne = j^0_5, n \leq j^0_5, s_m < \frac{j^0_5 + j^0_0}{2} \text{ (Group A)} \\
\ne = j^0_5, n \leq j^0_5 \text{ but } n > 2s_i - j^0_5, j^0_5 < s_i < \frac{j^0_5 + j^0_0}{2} \text{ (Group B)} \\
\ne = j^0_5, n > j^0_5, s_i = j^0_5 < s_i < \frac{j^0_5 + j^0_0}{2} \text{ (Group C)} \\
\ne = j^0_5, n > j^0_5, s_i = j^0_5 < s_i < \frac{j^0_5 + j^0_0}{2} \text{ (Group D)} \\
\ne \in \{j^0_6, \ldots, j^0_9\}, n \leq j^0_5, s_i < \frac{j^0_5 + j^0_0}{2} \text{ (Group A)} \\
\ne \in \{j^0_6, \ldots, j^0_9\}, n \leq j^0_5 \text{ but } n > 2s_i - j^0_5, j^0_5 < s_i < \frac{j^0_5 + j^0_0}{2} \text{ (Group B)} \\
\ne \in \{j^0_6, \ldots, j^0_9\}, n > j^0_5, \forall s_i \text{ (All groups)} \\
\end{cases} 
\end{cases}
\]

Proof. The proof is by enumeration. To calculate new medians, reference to Figure B-1 is helpful. Case 1. \( \ne \in \{j^0_1, \ldots, j^0_4\}, n \leq j^0_n \) so \( j^1_5 = j^0_5 \). Because \( j^1_5 = j^0_5 \) all senators regardless of location \( s_i \) are indifferent between the two. So \( v_i = 1 \). Case 2. \( \ne \in \{j^0_1, \ldots, j^0_4\}, n > j^0_5 \) so \( j^1_5 = \min\{n, j^0_5\} \). A) \& B) \( s_m < \frac{j^1_5 + j^0_0}{2} \) or \( \frac{j^1_5 + j^0_0}{2} \leq s_i < j^0_5 \) (in other words, \( s_i < j^0_5 \)). Senator prefers \( j^0_5 \) to \( j^1_5 \) so \( v_i = 0 \). C) \( j^0_5 < s_i < \frac{j^0_5 + j^0_0}{2} \). If \( n \leq 2s_i - j^0_5 \), senator prefers all \( j^1_5 \) to \( j^0_5 \), so \( v_i = 1 \); conversely if \( n > 2s_i - j^0_5 \), senator prefers \( j^0_5 \) to all \( j^1_5 \) so \( v_i = 0 \). D) \( s_i > \frac{j^0_5 + j^0_0}{2} \). Senator prefers all \( j^1_5 \) to \( j^0_5 \), so \( v_i = 1 \).

Case 3. \( \ne = j^0_5, n \leq j^0_5 \) so \( j^1_5 = \max\{j^0_5, n\} \). A) \( s_m < \frac{j^0_5 + j^0_0}{2} \). Senator prefers all \( j^1_5 \) to \( j^0_5 \), so \( v_i = 1 \). B) \( \frac{j^0_5 + j^0_0}{2} \leq s_i < j^0_5 \). If \( n \leq 2s_i - j^0_5 \), senator prefers \( j^0_5 \) to all \( j^1_5 \) so \( v_i = 0 \); conversely, if \( n > 2s_i - j^0_5 \), senator prefers all \( j^1_5 \) to \( j^0_5 \) so \( v_i = 1 \). C) \& D) \( j^0_5 < s_i < \frac{j^0_5 + j^0_0}{2} \) or \( s_i > \frac{j^0_5 + j^0_0}{2} \).
(in other words, \( s_i < j_{5,0}^0 \)). Senator prefers \( j_{5,0}^0 \) to all \( j_{5,5}^1 \) so \( v_i = 0 \) (problem at \( n=j_{5,5}^5 \)).  

**Case 4.** \( e = j_{5,5}^0, n > j_{5,0}^0 \) so \( j_{5,5}^1 = \min\{n, j_{5,0}^0\} \). The new median is identical to that in Case 2 so the analysis is the same. **Case 5.** \( e \in \{j_{5,0}^0, \ldots, j_{5,9}^0\}, n \leq j_{5,0}^0 \) so \( j_{5,5}^1 = \max\{j_{5,0}^0, n\} \). The same as Case 3.  

**Case 6.** \( e \in \{j_{5,0}^0, \ldots, j_{5,9}^0\}, n > j_{5,0}^0 \) so \( j_{5,5}^1 = j_{5,0}^0 \). The same as Case 1. 

It may be more intuitive to consider ranges of senators and ranges of openings, and the nominees that senators will vote for. These are shown in the first three columns of Table B-1.

### Table B-1: Implications of the Median Senator’s Voting Strategy in the court-outcome based model

<table>
<thead>
<tr>
<th>Group</th>
<th>Opening</th>
<th>Confirmable n</th>
<th>Confirmable n yielding ( j_{5,5}^1 \geq j_{5,5}^0 )</th>
<th>Resulting ( j_{5,5}^1 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>{( j_{0,1}^0, \ldots, j_{0,4}^0 )}</td>
<td>( n \leq j_{5,0}^0 ) ( n \leq j_{5,5}^0 ) ( \text{all } n )</td>
<td>( j_{5,5}^0 ) ( j_{5,5}^0 ) ( n \geq j_{5,5}^0 )</td>
<td>( j_{5,5}^0 )</td>
</tr>
<tr>
<td>B</td>
<td>{( j_{0,1}^0, \ldots, j_{0,4}^0 )}</td>
<td>( n \leq j_{5,0}^0 ) ( 2s_m - j_{5,5}^0 \leq n \leq j_{5,5}^0 ) ( n \geq 2s_m - j_{5,5}^0 )</td>
<td>( j_{5,5}^0 ) ( j_{5,5}^0 ) ( n \geq j_{5,5}^0 )</td>
<td>( j_{5,5}^0 )</td>
</tr>
<tr>
<td>C</td>
<td>{( j_{0,1}^0, \ldots, j_{0,4}^0 )}</td>
<td>( j_{5,5}^0 \leq n \leq 2s_m - j_{5,5}^0 ) ( j_{5,5}^0 \leq n \leq 2s_m - j_{5,5}^0 ) ( n \geq j_{5,5}^0 )</td>
<td>( j_{5,5}^0 ) ( j_{5,5}^0 ) ( j_{5,5}^0 )</td>
<td>( j_{5,5}^0 ) ( 2s_m - j_{5,5}^0 ) ( [j_{5,5}^0, 2s_m - j_{5,5}^0] )</td>
</tr>
<tr>
<td>D</td>
<td>{( j_{0,1}^0, \ldots, j_{5,4}^0 )}</td>
<td>( \text{all } n ) ( n \geq j_{5,5}^0 ) ( n &gt; j_{5,5}^0 )</td>
<td>( n \geq j_{5,5}^0 ) ( n \geq j_{5,5}^0 ) ( n \geq j_{5,5}^0 )</td>
<td>( j_{5,5}^0 ) ( j_{5,5}^0 ) ( j_{5,5}^0 )</td>
</tr>
</tbody>
</table>

**Presidential Choice of Nominees** From the president’s perspective, the key senator is the median senator since if she votes for the nominee, the nominee will be confirmed, and vice versa. The vote function for the median senator is given by Equation B-4, replacing \( s_i \) by \( s_m \).

Table B-1 uses Equation B-4 to identify, for ranges of median senators and openings on the Court, the range of confirmable nominees (these are shown in columns 1-3 of the table). Column 4 in the table then shows the subset of confirmable nominees that yield new Court medians weakly greater than the old median on the Court. The fifth column shows the range of new medians on the Court that result from confirmation of one of these nominees.

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Using the table it is straightforward to derive the president’s equilibrium nomination correspondence in a subgame perfect equilibrium. This relationship \( n^*(s_m, e; p) \) indicates ranges of utility-equivalent, best-response nominees for the president, given the location of the median justice, the opening on the Court, and the ideal point of the president. For the sake of brevity, we focus on \( p > j_5^0 \) (there are mirror cases for \( p < j_5^0 \)). There are two cases to consider: \( j_5^0 < p < j_6^0 \) and \( p \geq j_6^0 \)

**Proposition 2 (Nominating Strategy in the Court-outcome based model)** The following indicates the president’s equilibrium nomination strategy:

If \( p \geq j_6^0 \):

\[
n^*(s_m, e; p \geq j_6^0) = \begin{cases} 
  j_5^0 & \text{if } e \in \{j_1^0, ..., j_5^0\} \text{ and } s_m \in \text{Groups A or B} \\
  2s_m - j_5^0 & \text{if } e \in \{j_1^0, ..., j_5^0\} \text{ and } s_m \in \text{Group C} \\
  x \geq j_6^0 & \text{if } e \in \{j_1^0, ..., j_5^0\} \text{ and } s_m \in \text{Group D} \\
  x \geq j_5^0 & \text{if } e \in \{j_6^0, ..., j_9^0\} \forall s_m 
\end{cases}
\]

If \( j_5^0 \leq p < j_6^0 \):

\[
n^*(s_m, e; j_5^0 \leq p < j_6^0) = \begin{cases} 
  j_5^0 & \text{if } e \in \{j_1^0, ..., j_5^0\} \text{ and } s_m \in \text{Groups A or B} \\
  p & \text{if } e \in \{j_1^0, ..., j_5^0\} \text{ and } s_m \in \text{Group C and } p < 2s_m - j_5^0 \\
  2s_m - j_5^0 & \text{if } e \in \{j_1^0, ..., j_5^0\} \text{ and } s_m \in \text{Group C and } p \geq 2s_m - j_5^0 \\
  p & \text{if } e \in \{j_1^0, ..., j_5^0\} \text{ and } s_m \in \text{Group D} \\
  x \geq j_6^0 & \text{if } e \in \{j_6^0, ..., j_9^0\} \forall s_m 
\end{cases}
\]

**Proof.** From inspection of Table B-1, noting that if a range of confirmable nominees yields the same final median, and no other feasible median is preferable for the president, then all proposals in the range must be part of the president’s strategy. For example, if \( e \in \{j_1^0, ..., j_5^0\} \) and \( s_m \in \text{Group D} \) then any nominee \( n \geq j_6^0 \) will be approved by the median senator and
yield $j_5^1 = j_6^0$ (see Figure B-1 and Table B-1). If $p \geq j_6^0$, deviation by the president to any
other nominee cannot be profitable as either the median senator approves a nominee that
yields a new median justice that is less desirable for the president, or the median rejects
the nominee; hence, all $n \geq j_6^0$ are part of the strategy profile in this configuration. ■

**B.2.2 Nearly court-outcome based model**

Here, the voting strategy of senators is exactly the same as in the court-outcome based
model (Equation B-4). But the president no longer views median-equivalent appointees as
utility-equivalent: he prefers closer nominees, all else equal (recall Equation B-1). Con-
sequently, if the median senator will vote for a range of median-equivalent nominees, the
president selects the nominee in that range closest to his ideal point. This change alters the
president’s nominating strategy. Again for brevity we focus on $p > j_5^0$.

**Proposition 3** *(Nominating Strategy in the nearly court-outcome based model) The follow-
ing indicates the president’s equilibrium nomination strategy:*

$$
n^*(s_m, o) = \begin{cases} 
  j_6^0 & \text{if } e \in \{j_1^0, \ldots, j_5^0\} \text{ and } s_m \in \text{Groups A or B} \\
  p & \text{if } e \in \{j_1^0, \ldots, j_5^0\} \text{ and } s_m \in \text{Group C and } p < 2s_m - j_5^0 \\
  2s_m - j_6^0 & \text{if } e \in \{j_1^0, \ldots, j_5^0\} \text{ and } s_m \in \text{Group C and } p \geq 2s_m - j_5^0 \\
  p & \text{if } e \in \{j_1^0, \ldots, j_5^0\} \text{ and } s_m \in \text{Group D} \\
  p & \text{if } e \in \{j_6^0, \ldots, j_9^0\} \forall s_m
\end{cases} \ 
$$

**Proof.** The strategy is similar to that in Proposition 2, except that if a range of confirmable,
median-equivalent nominees contains an element closest to $p$, the president must nominate
that element rather than any of the other median-equivalent confirmable nominees. This
affects the selected nominees when 1) $p \geq j_6^0$ and a) $e \in \{j_1^0, \ldots, j_5^0\}$ and $s_m \in \text{Group D}$
and b) $e \in \{j_6^0, \ldots, j_9^0\} \forall s_m$, and 2) $j_5^0 < p < j_6^0$ and $e \in \{j_6^0, \ldots, j_9^0\} \forall s_m$. In these cases, the
nominee must be $n = p$. With these changes, it is convenient to consolidate the strategies

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when \( p \geq j_0^0 \) and \( j_5^0 \leq p < j_0^0 \). ■

B.2.3 Position-taking senators model

When \( \lambda_s = 0 \) senators vote for the nominee iff \( |s_i - n| \leq |s_i - j_0^0| \). The median production function plays no role, so for senators this is a simple Romer-Rosenthal take-it-or-leave-it game where the “leave it” option corresponds to the old Court’s median justice. Senator \( i \) votes for the nominee if and only if \( |s_i - n| \leq |s_i - j_0^0| \). For the president, there remains a distinction between the nominee’s ideology and the ideological position of the new median justice. As in the previous game, the president focuses on confirmable nominees. Many confirmable nominees may yield the best attainable median justice; among these, the president chooses the nominee with \( n \) as close as possible to \( p \).

**Proposition 4** *(Position-taking senators model).* When \( \lambda_s = 0 \) and \( \lambda_p < 1 \), sub-game perfect voting and nominating strategies are:

\[
v_i^*(n, j_5^0; s_i) = \begin{cases} 
1 & \text{if } \begin{cases} 
s_i \leq j_5^0 \land n \in [2s_i - j_5^0, j_5^0] \\
s_i > j_5^0 \land n \in [j_5^0, 2s_i - j_5^0] 
\end{cases} \\
0 & \text{otherwise}
\end{cases}
\]

When \( p > j_5^0 \)

\[
n^*(s_m, j_5^0; p) = \begin{cases} 
j_5^0 & \text{if } s_m \leq j_5^0 \\
2s_i - j_5^0 & \text{if } s_m \in \left[ j_5^0, \frac{j_5^0 + p}{2} \right] \\
p & \text{if } s_m > \frac{j_5^0 + p}{2}
\end{cases}
\]

and when \( p \leq j_5^0 \)

\[
n^*(s_m, j_5^0; p) = \begin{cases} 
j_5^0 & \text{if } s_m \geq j_5^0 \\
2s_i - j_5^0 & \text{if } s_m \in \left[ \frac{j_5^0 + p}{2}, j_5^0 \right] \\
p & \text{if } s_m < \frac{j_5^0 + p}{2}
\end{cases}
\]

B.2.4 Mixed-motivations model

Here, senators distinguish among median-equivalent nominees. For example, they could put some weight—perhaps quite small—on the possibility the nominee may act as the median, an “as if” possibility. This “as if” possibility radically changes the voting strategy of the median senator, which in turn alters the nominating strategy of the president.

Voting by senators Given a nominee \( n \), the new median induced by the nominee \( j_5^1 \), and the reversion policy \( j_5^0 \), a senator \( i \) votes for the nominee if and only if
\[
\lambda_s|s_i-j_5^1|+(1-\lambda_s)|s_i-n| \leq |s_i-j_5^0|.
\]
In words, the senator votes for the nominee if the weighted average of the senator’s distance to the new median and distance to the nominee is less than the simple distance to the reversion policy (the old median justice). It proves helpful to define a point \( x \) utility-equivalent to the weighted average. Some algebra shows that
\[
x = \begin{cases} 
\lambda_s j_5^1 + (1-\lambda_s)n & \text{if } s_i < \min\{j_5^1, n\} \text{ or } s_i > \max\{j_5^1, n\} \\
\lambda_s (2s_i - j_5^1) + (1-\lambda_s)n & \text{if } j_5^1 < s_i < n \text{ or } n < s_i < j_5^1 
\end{cases}
\]
(In the second case, one may also write \( = \lambda_s j_5^1 + (1-\lambda_s)(2s_i - n) \) if \( j_5^1 < \lambda_s j_5^1 + (1-\lambda_s)n < s_i \) or \( n < s_i < \lambda_s j_5^1 + (1-\lambda_s)n \). In the text, we write the senatorial vote function in terms of \( x \) and the senators “preferred sets” \([j_5^1, 2s_i - j_5^1]\) (when \( s_i > j_5^0 \)) and \([2s_i - j_5^0, j_5^0]\) (when \( s_i \leq j_5^0 \)). Here we make the relations between \( n \) and \( j_5^1 \) explicit.
Proposition 5  The following is the senatorial vote function in the mixed-motivations model:

\[
v_i^*(n, j_5^0; s_i) = \begin{cases} 
1 & \text{if } \frac{2s_i - j_5^0}{1 - \lambda_s} \leq n \leq 2s_i - j_5^0 < j_5^1 < s_i < j_5^0 \text{ or } \\
\frac{2s_i - j_5^0}{1 - \lambda_s} < s_i < j_5^1 < 2s_i - j_5^0 \leq n \leq \frac{2s_i - j_5^0 - \lambda_s j_5^1}{1 - \lambda_s} \\
\frac{2s_i(1 - \lambda_s) - j_5^0 + \lambda_s j_5^1}{1 - \lambda_s} \leq n \leq 2s_i - j_5^0 < s_i < j_5^1 < j_5^0 \text{ or } \\
j_5^0 < j_5^1 < s_i < 2s_i - j_5^0 < n \leq \frac{2s_i(1 - \lambda_s) - j_5^0 + \lambda_s j_5^1}{1 - \lambda_s} \\
n, j_5^1 \in [2s_i - j_5^0, j_5^1] \text{ or } n, j_5^1 \in [j_5^0, 2s_i - j_5^0] \\
0 & \text{otherwise}
\end{cases}
\]

Proof. First, if \( x \) lies within a senator’s “preferred set” she votes for the nominee, but otherwise does not. Second, note that if \( j_5^0 < n \) then \( j_5^0 \leq j_5^1 \leq n \), and if \( n < j_5^0 \) then \( n \leq j_5^1 \leq j_5^0 \) (see Figure B-1). This limits the number of cases. In Parts i and ii, \( j_5^1 \) lies in the senator’s preferred set while \( n \) lies (weakly) outside it. The issue is, does \( x \) lies within the the preferred set? In Part i, \( j_5^1 \) lies on the same side of senator \( i \)’s ideal point as \( n \). Using the above definition of \( x, x \) will lie inside the preferred set if \( \lambda_s j_5^1 + (1 - \lambda_s)n \leq 2s_i - j_5^0 \Rightarrow n \leq \frac{2s_i - j_5^0}{1 - \lambda_s} \) when the preferred set is \([j_5^0, 2s_i - j_5^0]\) and similarly for the other preferred set. In Part ii, \( j_5^1 \) lies on the opposite side of senator \( i \)’s ideal point as \( n \). Hence the key relationship is \( \lambda_s(2s_i - j_5^1) + (1 - \lambda_s)n \leq 2s_i - j_5^0 \Rightarrow n \leq \frac{2s_i(1 - \lambda_s) - j_5^0 + \lambda_s j_5^1}{1 - \lambda_s} \) when \([j_5^0, 2s_i - j_5^0]\) is the preferred set and similarly for the other preferred set. Part iii) considers the case when both \( n \) and \( j_5^1 \) lie within the preferred set. Since \( x \) is just a weighted average of the two, \( x \) must clearly lie in the preferred set. In all other cases, \( x \) lies outside the preferred set so the senator prefers \( j_5^1 \) to \( n \). ■

The following is a corollary of the Proposition: If a senator is to vote for a nominee, i) the implied new median justice \( j_5^1 \) must lie within the senator’s preferred set, and ii) the nominee’s ideology \( n \) must lie either within the preferred set, or not “too far” beyond the \( 2s_i - j_5^0 \) edge (where “too far” is given by the quotients in the Proposition).
Presidential Choice of Nominees  The logic for the president is fairly straightforward. If the $x$ created by $n = p$ lies within the median senator’s preferred region, then $n = p$. If not, then the president must offer an $x$ at the edge of the preferred set, so that either $x = 2s_i - j_5^0$ or $x = j_5^0$. Among the set of nominees whose $x$ corresponds to these two points, the president picks the utility maximizing one. The proposition simply makes clear which points these are, given the opening $e$ and location of median senator $s_m$. Because the mirror cases are not as straightforward as previously, in this Proposition we indicate the president’s strategy for all locations of $p$.

**Proposition 6** The following is the nomination strategy in the mixed-motivations model:

When $p \geq j_5^0$

$$n^*(s_m, e; p) = \begin{cases} 
  j_5^0 & \text{if } s_m \in A \text{ or } B \\
  p & \text{if } e \in \{j_1^0, \ldots, j_5^0\}, s_m \in C \land p \in [j_5^0, 2s_m - j_5^0] \\
  e \in \{j_1^0, \ldots, j_5^0\}, s_m \in D \land p \in [j_5^0, x = \frac{2s_m(1-\lambda_s) - j_6^0 + \lambda_s j_0^6}{1-\lambda_s} \text{ if } s_m > j_6^0 \\
  \frac{2s_m - j_5^0 - \lambda_s j_0^6}{1-\lambda_s} \text{ if } j_5^0 + j_0^6 < s_m < j_6^0] \\
  2s_m - j_5^0 & \text{if } e \in \{j_1^0, \ldots, j_6^0\}, s_m \in C \land p > 2s_m - j_5^0 \\
  e \in \{j_1^0, \ldots, j_6^0\}, s_m \in D \land p > 2s_m - j_5^0 \\
  \frac{2s_m(1-\lambda_s) - j_6^0 + \lambda_s j_0^6}{1-\lambda_s} \text{ if } e \in \{j_1^0, \ldots, j_6^0\}, s_m \geq j_6^0, \land p > \frac{2s_m(1-\lambda_s) - j_6^0 + \lambda_s j_0^6}{1-\lambda_s} \\
  \frac{2s_m - j_5^0 - \lambda_s j_0^6}{1-\lambda_s} \text{ if } e \in \{j_1^0, \ldots, j_6^0\}, \frac{j_0^6 + j_0^6}{2} < s_m < j_6^0, \land p > \frac{2s_m - j_5^0 - \lambda_s j_0^6}{1-\lambda_s} 
\end{cases}$$
When $p < j_5^0$

$$n^*(s_m, e; p) = \begin{cases} 
  j_5^0 & \text{if } s_m \in C \text{ or } D \\
  e \in \{j_1^0, \ldots, j_4^0\}, \ s_m \in A \text{ or } B \ \& \ p \in [2s_m - j_5^0, j_5^0] \\
  p & \text{if } e \in \{j_5^0, \ldots, j_9^0\}, \ s_m \in A \text{ or } B \ \& \ p \in [2s_m - j_5^0, j_5^0] \\
  2s_m - j_5^0 & \text{if } e \in \{j_1^0, \ldots, j_4^0\}, \ s_m \in A \text{ or } B \ \& \ p < 2s_m - j_5^0 \\
  e \in \{j_5^0, \ldots, j_9^0\}, \ s_m \in B \ \& \ p < 2s_m - j_5^0 \\
  \frac{2s_m(1-\lambda_s-j_5^0+\lambda_s j_6^0)}{1-\lambda_s} & \text{if } e \in \{j_5^0, \ldots, j_9^0\}, \ s_m < j_4^0 \ \& \ p < \frac{2s_m(1-\lambda_s-j_5^0+\lambda_s j_6^0)}{1-\lambda_s} \\
  \frac{2s_m-j_5^0}{1-\lambda_s} & \text{if } e \in \{j_5^0, \ldots, j_9^0\}, \ s_m < j_4^0 \ \& \ p < \frac{2s_m-j_5^0}{1-\lambda_s} \\
\end{cases}$$

**Proof.** The proof is by construction. We present the material systematically by enumerating cases. The proposition summarizes the cases.

**Case 1:** $e \in \{j_1^0, \ldots, j_4^0\}$.

Note that $j_5^1 = \begin{cases} 
  j_5^0 & \text{if } n \leq j_5^0 \\
  n & \text{if } j_5^0 < n < j_6^0 \\
  j_6^0 & \text{if } n \geq j_6^0 
\end{cases}$

Subcase 1A: $s_m \in A$ (so $s_m < \frac{j_5^1+j_5^0}{2}$).

Subsubcase 1A i) $p > j_5^0$.

Claim: $n = j_5^0$.

This is the familiar gridlock configuration. $s_m$ will reject any $n > j_5^0$ since then $j_5^1 > j_5^0$.

So $n = j_5^0$.

Subsubcase 1A ii) $p < j_5^0$.

Claim: $n = \begin{cases} 
  p & \text{if } p \in [2s_m - j_5^0, j_5^0] \\
  2s_m - j & \text{if } p < 2s_m - j_5^0 
\end{cases}$. 

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If \( p \in [2s_m - j_5^0, j_5^0] \) then \( n = p \) which the median senator accepts, since \( j_5^1 = j_5^0 \) while \( n \in [2s_m - j_5^0, j_5^0] \) by construction. (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So we focus on \( p, n < 2s_m - j_5^0 \). In this case, note that \( j_5^1 = j_5^0 \). In such a case, the median senator accepts \( n \) when \( s_m > j_5^1 \) iff \( \lambda_s(j_5^0 - s_m) + (1 - \lambda_s)(s_m - n) \leq (s_m - j_5^0) \Rightarrow (1 - \lambda_s)(s_m - n) \leq (1 - \lambda_s)(s_m - j_5^0) \Rightarrow n \geq 2s_m - j_5^0 \). But this is a contradiction to \( n < 2s_m - j_5^0 \). This implies that if \( p \geq 2s_m - j_5^0 \) then \( n = p \) but if \( p < 2s_m - j_5^0 \) then \( n = 2s_m - j_5^0 \).

Subcase 1B: \( s_m \in B \) (so \( \frac{j_5^0 + j_5^0}{2} < s_m < j_5^0 \)).

Subsubcase 1B i) \( p \geq j_5^0 \).

Claim: \( n = j_5^0 \). This is the familiar gridlock configuration. \( s_m \) will reject any \( n > j_5^0 \) since then \( j_5^1 = j_5^0 \) but \( n \) is farther than \( j_5^0 \). So \( n = j_5^0 \).

Subsubcase 1B ii). \( p < j_5^0 \).

Claim: \( n = \begin{cases} p & \text{if } p \in [2s_m - j_5^0, j_5^0] \\ 2s_m - j & \text{if } p < 2s_m - j_5^0 \end{cases} \).

If \( p \in [2s_m - j_5^0, j_5^0] \) then \( n = p \) which the median senator accepts, since \( j_5^1 = j_5^0 \) while \( n \in [2s_m - j_5^0, j_5^0] \) by construction. (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So we focus on \( p, n < 2s_m - j_5^0 \). In this case, note that \( j_5^1 = j_5^0 \). In such a case, the median senator accepts \( n \) when \( s_m > j_5^1 \) iff \( \lambda_s(j_5^0 - s_m) + (1 - \lambda_s)(s_m - n) \leq (s_m - j_5^0) \Rightarrow (1 - \lambda_s)(s_m - n) \leq (1 - \lambda_s)(s_m - j_5^0) \Rightarrow n \geq 2s_m - j_5^0 \). But this is a contradiction to \( n < 2s_m - j_5^0 \). This implies that if \( p \geq 2s_m - j_5^0 \) then \( n = p \) but if \( p < 2s_m - j_5^0 \) then \( n = 2s_m - j_5^0 \).

Subcase 1C: \( s_m \in C \) (so \( j_5^0 < s_m \leq \frac{j_5^0 + j_5^0}{2} \)).

Subsubcase 1C i) \( p \geq j_5^0 \).

Claim: \( n = \begin{cases} p & \text{if } p \in [j_5^0, 2s_m - j_5^0] \\ 2s_m - j & \text{if } p > 2s_m - j_5^0 \end{cases} \).
Again, if \( p \in [j_5^0, 2s_m - j_5^0] \) then \( n = p \) (by construction since \( 2s_m - j_5^0 < j_6^0 \)) which the median senator accepts, since both \( j_5^1 \) and \( n \) lie in the accept zone. (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So again we focus on \( p, n > 2s_m - j_5^0 \). First, suppose \( n > 2s_m - j_5^0 \) but \( n < j_6^0 \) so \( j_5^1 = n \). Then median senator accepts \( n \) iff \( \lambda_s(n - s_m) + (1 - \lambda_s)(n - s_m) \leq (s_m - j_5^0) \Rightarrow (n - s_m) \leq (s_m - j_5^0) \Rightarrow n \leq 2s_m - j_5^0 \). But this is a contradiction of \( n > 2s_m - j_5^0 \). Hence, if \( p > 2s_m - j_5^0 \) then \( n = 2s_m - j_5^0 \). We need not consider the case when when \( n > 2s_m - j_5^0 \) and \( n \geq j_6^0 \) since we have just proven that \( n \) cannot be greater than \( 2s_m - j_5^0 \).

Subcase 1C ii) \( p < j_5^0 \).

Claim: \( n = j_6^0 \). Again the gridlock scenario, so \( n = j_6^0 \).

Subcase 1D: \( s_m \in D \) (so \( s_m > \frac{j_5^0 + j_6^0}{2} \)).

Subcase 1D i) \( p > j_5^0 \).

Claim: \( n = \begin{cases} p \quad \text{if} \quad j_5^0 < p < x \\ x \quad \text{if} \quad p > x \end{cases} \) where \( x = \begin{cases} \frac{2s_m(1 - \lambda_s) - j_5^0 + \lambda_s j_5^1}{1 - \lambda_s} \quad \text{if} \quad s_m > j_6^0 \\ \frac{2s_m - j_5^0 - \lambda_s j_5^1}{1 - \lambda_s} \quad \text{if} \quad s_m < j_6^0 \end{cases} \).

If \( p \in [j_5^0, 2s_m - j_5^0] \) then \( n = p \) which the median senator accepts, since either \( j_5^1 = n \) (if \( j_5^0 < n \leq j_6^0 \)) or \( j_5^1 = j_6^0 \in [2s_m - j_5^0, j_6^0] \) (by construction) (if \( n > j_6^0 \)). (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So we focus on \( p, n > 2s_m - j_5^0 \). In this case, note that \( j_5^1 = j_6^0 \) since \( s_m > \frac{j_5^0 + j_6^0}{2} \). In such a case, the median senator accepts \( n \) when \( s_m < j_5^1 = j_6^0 \) iff \( \lambda_s(j_5^0 - s_m) + (1 - \lambda_s)(n - s_m) \leq (s_m - j_5^0) \Rightarrow n \leq \frac{2s_m - j_5^0 - \lambda_s j_5^1}{1 - \lambda_s} \); and when \( s_m > j_5^1 = j_6^0 \) accepts \( n \) iff \( \lambda_s(s_m - j_5^0) + (1 - \lambda_s)(n - s_m) \leq (s_m - j_5^0) \Rightarrow n \leq \frac{2s_m(1 - \lambda_s) - j_5^0 + \lambda_s j_5^1}{1 - \lambda_s} \). This implies that if \( p \leq \frac{2s_m - j_5^0 - \lambda_s j_5^1}{1 - \lambda_s} \) or \( \frac{2s_m(1 - \lambda_s) - j_5^0 + \lambda_s j_5^1}{1 - \lambda_s} \) (respectively) then \( n = p \) but if \( p > \frac{2s_m - j_5^0 - \lambda_s j_5^1}{1 - \lambda_s} \) or \( \frac{2s_m(1 - \lambda_s) - j_5^0 + \lambda_s j_5^1}{1 - \lambda_s} \) (respectively) then \( n = \frac{2s_m - j_5^0 - \lambda_s j_5^1}{1 - \lambda_s} \) or \( \frac{2s_m(1 - \lambda_s) - j_5^0 + \lambda_s j_5^1}{1 - \lambda_s} \) (respectively).

Subcase 1D ii) \( p < j_5^0 \).

Claim: \( n = j_5^0 \).

Again the gridlock scenario, so \( n = j_5^0 \).
**Case 2:** \( e = j_5^0 \).

Note that \( j_3^1 = \begin{cases} 
  j_4^0 & \text{if } n \leq j_4^0 \\
  n & \text{if } j_4^0 < n < j_6^0 \\
  j_6^0 & \text{if } n \geq j_6^0
\end{cases} \).

Subcase 2A. \( s_m \in A \) (so \( s_m < \frac{j_3^4 + j_5^0}{2} \)).

Subsubcase 2A i) \( p \geq j_5^0 \).

Claim: \( n = j_5^0 \).

This is the familiar gridlock configuration. \( s_m \) will reject any higher \( n \) since then both \( n \) and \( j_3^1 \) are farther than \( j_5^0 \).

Subcase 2A ii). \( p < j_5^0 \).

Claim: \( n = \begin{cases} 
  p & \text{if } x < p < j_5^0 \\
  x & \text{if } p < x < j_5^0
\end{cases} \) where \( x = \begin{cases} 
  \frac{2s_m(1-\lambda_s)-j_5^0+\lambda s j_5^1}{1-\lambda_s} & \text{if } s_m < j_4^0 \\
  \frac{2s_m-j_5^0-\lambda s j_5^1}{1-\lambda_s} & \text{if } j_4^0 < s_m < \frac{j_3^4 + j_5^0}{2}
\end{cases} \).

If \( p \in [2s_m - j_5^0, j_5^0] \) then \( n = p \) which the median senator accepts, since either \( j_5^1 = n \) (if \( j_4^0 < n \leq j_5^0 \)) or \( j_5^1 = j_4^0 \in [2s_m - j_5^0, j_5^0] \) (recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So we focus on \( p, n < 2s_m - j_5^0 \). In this case, note that \( j_5^1 = j_4^0 \) since \( s_m < \frac{j_3^4 + j_5^0}{2} \). In such a case, the median senator accepts \( n \) when \( s_m > j_5^1 \) iff \( \lambda_s(s_m - j_4^0) + (1 - \lambda_s)(s_m - n) \leq (j_5^1 - s_m) \Rightarrow n \geq \frac{2s_m-j_5^0-\lambda s j_5^1}{1-\lambda_s} \); and when \( s_m < j_5^1 \) accepts \( n \) iff \( \lambda_s(j_4^0 - s_m) + (1 - \lambda_s)(s_m - n) \leq (j_5^1 - s_m) \Rightarrow n \geq \frac{2s_m(1-\lambda_s)-j_5^0+\lambda s j_5^1}{1-\lambda_s} \). This implies that if \( p \geq \frac{2s_m-j_5^0-\lambda s j_5^1}{1-\lambda_s} \) or \( \frac{2s_m(1-\lambda_s)-j_5^0+\lambda s j_5^1}{1-\lambda_s} \) (respectively) then \( n = \frac{2s_m-j_5^0-\lambda s j_5^1}{1-\lambda_s} \) or \( \frac{2s_m(1-\lambda_s)-j_5^0+\lambda s j_5^1}{1-\lambda_s} \) (respectively).

Subcase 2B: \( s_m \in B \) (so \( \frac{j_3^4 + j_5^0}{2} < s_m < j_5^0 \)).

Subsubcase 2B i) \( p \geq j_5^0 \).

Claim: \( n = j_5^0 \).

This is the familiar gridlock configuration. \( s_m \) will reject any higher \( n \) since then both \( n \) and \( j_3^1 \) are farther than \( j_5^0 \). So \( n = j_5^0 \).
Subsubcase 2B ii). $p < j_5^0$.

Claim: $n = \begin{cases} 
    p & \text{if } p \in [2s_m - j_6^0, j_5^0] \\
    2s_m - j & \text{if } p > 2s_m - j_6^0.
\end{cases}$

Again, if $p \in [2s_m - j_6^0, j_5^0]$ then $n = p$ which the median senator accepts, since then $j_5^1 = n$ (by construction $j_6^0 < 2s_m - j_6^0$). (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So again we focus on $p, n < 2s_m - j_5^0$. First, suppose $n < 2s_m - j_5^0$ but $n > j_4^0$ so $j_5^1 = n$. Then median senator accepts $n$ iff $\lambda_4(s_m - n) + (1 - \lambda_4)(s_m - n) \leq (j_5^0 - s_m) = (s_m - n) \leq (j_5^0 - s_m) \Rightarrow n \geq 2s_m - j_5^0$. But this is a contradiction of $n < 2s_m - j_5^0$. Hence, if $p < 2s_m - j_5^0$ then $n = 2s_m - j_5^0$. We need not consider the case when when $n < 2s_m - j_5^0$ but $n \leq j_4^0$ since we have just proven that $n$ cannot be less than $2s_m - j_5^0$.

Subcase 2C: $s_m \in C$ (so $j_5^0 < s_m \leq \frac{j_6^0 + j_5^0}{2}$).

Subsubcase 2C i) $p \geq j_5^0$.

Claim: $n = \begin{cases} 
    p & \text{if } p \in [j_5^0, 2s_m - j_5^0] \\
    2s_m - j & \text{if } p > 2s_m - j_5^0.
\end{cases}$

If $p \in [j_5^0, 2s_m - j_5^0]$ then $n = p$ which the median senator accepts, since then $j_5^1 = n$ (by construction $j_5^0 > 2s_m - j_5^0$). (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So again we focus on $p, n > 2s_m - j_5^0$. First, suppose $n > 2s_m - j_5^0$ but $n < j_6^0$ so $j_5^1 = n$. Then median senator accepts $n$ iff $\lambda_4(n - s_m) + (1 - \lambda_4)(n - s_m) \leq (s_m - j_5^0) = (n - s_m) \leq (s_m - j_5^0) \Rightarrow n \leq 2s_m - j_5^0$. But this is a contradiction of $n > 2s_m - j_5^0$. Hence, if $p > 2s_m - j_5^0$ then $n = 2s_m - j_5^0$. We need not consider the case when when $n > 2s_m - j_5^0$ but $n \geq j_4^0$ since we have just proven that $n$ cannot be greater than $2s_m - j_5^0$.

Subsubcase 2C ii) $p < j_5^0$.

Claim: $n = j_5^0$.

Again the gridlock scenario, so $n = j_5^0$. 

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Subcase 2D: $s_m \in D$ (so $s_m > \frac{j_6^0 + j_6^0}{2}$).

Subsubcase 2D i) $p \geq j_5^0$.

Claim: $n = \begin{cases} p & \text{if } j_5^0 \leq p < x \\ x & \text{if } p > x \end{cases}$ where $x = \begin{cases} \frac{2s_m(1-\lambda_s)j_5^0 + \lambda_s j_5^1}{1-\lambda_s} & \text{if } s_m > j_6^0 \\ \frac{2s_m - j_6^0 - \lambda_s j_5^1}{1-\lambda_s} & \text{if } \frac{j_6^0 + j_6^0}{2} < s_m < j_6^0. \end{cases}$

If $p \in [j_5^0, 2s_m - j_6^0]$ then $n = p$ which the median senator accepts, since either $j_5^0 = n$ (if $j_5^0 < n \leq j_6^0$) or $j_5^1 = j_6^0 \in [j_5^0, 2s_m - j_6^0]$ (by construction). (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So we focus on $p, n > 2s_m - j_6^0$. In this case, note that $j_5^1 = j_6^0$ since $s_m > \frac{j_6^0 + j_6^0}{2}$. In such a case, the median senator accepts $n$ when $s_m < j_5^1 = j_6^0$ iff $\lambda_s(j_6^0 - s_m) + (1 - \lambda_s)(n - s_m) \leq (s_m - j_6^0) \Rightarrow n \leq \frac{2s_m - j_6^0 - \lambda_s j_5^1}{1-\lambda_s}$; and when $s_m > j_5^1 = j_6^0$ accepts $n$ iff $\lambda_s(s_m - j_6^0) + (1 - \lambda_s)(n - s_m) \leq (s_n - j_6^0) \Rightarrow n \leq \frac{2s_m(1-\lambda_s)j_5^0 + \lambda_s j_5^1}{1-\lambda_s}$. This implies that if $p \leq \frac{2s_m - j_5^0 - \lambda_s j_5^1}{1-\lambda_s}$ or $\frac{2s_m(1-\lambda_s) - j_6^0 + \lambda_s j_5^1}{1-\lambda_s}$ (respectively) $n = p$ but if $p > \frac{2s_m - j_5^0 - \lambda_s j_5^1}{1-\lambda_s}$ or $\frac{2s_m(1-\lambda_s) - j_6^0 + \lambda_s j_5^1}{1-\lambda_s}$ (respectively) then $n = \frac{2s_m - j_5^0 - \lambda_s j_5^1}{1-\lambda_s}$ or $\frac{2s_m(1-\lambda_s) - j_6^0 + \lambda_s j_5^1}{1-\lambda_s}$ (respectively).

Subsubcase 2D ii) $p < j_5^0$.

Claim: $n = j_5^0$.

Again the gridlock scenario, so $n = j_5^0$.

Case 3: $e \in \{j_6^0, \ldots, j_9^0\}$.

Note that $j_5^1 = \begin{cases} j_5^0 & \text{if } n \leq j_5^0 \\ n & \text{if } j_5^0 < n < j_5^0 \\ j_5^0 & \text{if } n \geq j_5^0 \end{cases}$.

Subcase 3A: $s_m \in A$ (so $s_m < \frac{j_5^0 + j_5^0}{2}$).

Subsubcase 3A i) $p \geq j_5^0$.

Claim: $n = j_5^0$.

This is the familiar gridlock configuration. $s_m$ will reject any higher $n$ since then $j_5^1 = j_5^0$ but $n$ is farther than $j_5^0$. So $n = j_5^0$.

Subsubcase 3A ii) $p < j_5^0$.

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Claim: \( n = \begin{cases} 
  p & \text{if } x < p < j_5^0 \text{ where } x = \frac{2s_m - j_4^0 - \lambda s j_4^1}{1 - \lambda_s} \text{ if } s_m < j_4^0 \\
  x & \text{if } p < x < j_5^0 \\
  (2s_m - j_5^0) - \lambda s j_5^1 & \text{if } j_4^0 < s_m < \frac{j_4^0 + j_5^0}{2}.
\end{cases} \)

If \( p \in [2s_m - j_5^0, j_5^0] \) then \( n = p \) which the median senator accepts, since either \( j_5^1 = n \) (if \( j_4^0 < n \leq j_5^0 \)) or \( j_5^1 = j_4^0 \in [2s_m - j_5^0, j_5^0] \) by construction. (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So we focus on \( p, n < 2s_m - j_5^0 \). In this case, note that \( j_5^1 = j_4^0 \) since \( s_m < \frac{j_4^0 + j_5^0}{2} \). In such a case, the median senator accepts \( n \) when \( s_m > j_5^1 \) iff \( \lambda_s(s_m - j_4^0) + (1 - \lambda_s)(s_m - n) \leq (j_5^0 - s_m) \Rightarrow n \geq \frac{2s_m - j_5^0 - \lambda s j_5^1}{1 - \lambda_s} \); and when \( s_m < j_5^1 \) accepts \( n \) iff \( \lambda_s(j_4^0 - s_m) + (1 - \lambda_s)(s_m - n) \leq (j_5^0 - s_m) \Rightarrow n \geq \frac{2s_m - j_5^0 - \lambda s j_5^1}{1 - \lambda_s} \). This implies that if \( p > \frac{2s_m - j_5^0 - \lambda s j_5^1}{1 - \lambda_s} \) or \( \frac{2s_m - j_5^0 - \lambda s j_5^1}{1 - \lambda_s} \) (respectively) \( n = p \) but if \( p < \frac{2s_m - j_5^0 - \lambda s j_5^1}{1 - \lambda_s} \) or \( 2s_m(j_4^0 - j_5^0) + \lambda s j_5^1 \) (respectively) then \( n = \frac{2s_m - j_5^0 - \lambda s j_5^1}{1 - \lambda_s} \) or \( 2s_m(j_4^0 - j_5^0) + \lambda s j_5^1 \).

Subcase 3b: \( s_m \in B \) (so \( \frac{j_4^0 + j_5^0}{2} < s_m < j_5^0 \)).

Subsubcase 3B i) \( p \geq j_5^0 \). Claim: \( n = j_5^0 \). This is the familiar gridlock configuration. \( s_m \) will reject any \( n > j_5^0 \) since then \( j_5^1 = j_5^0 \) but \( n \) is farther than \( j_5^0 \). So \( n = j_5^0 \).

Subcase 3B ii). \( p < j_5^0 \).

Claim: \( n = \begin{cases} 
  p & \text{if } p \in [2s_m - j_5^0, j_5^0] \\
  2s_m - j & \text{if } p < 2s_m - j_5^0 
\end{cases} \).

Again, if \( p \in [2s_m - j_5^0, j_5^0] \) then \( n = p \) which the median senator accepts, since then \( j_5^1 = n \)(by construction \( j_4^0 < 2s_m - j_5^0 \)). (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So again we focus on \( p, n < 2s_m - j_5^0 \). First, suppose \( n < 2s_m - j_5^0 \) but \( n > j_5^0 \) \( \text{so } j_5^1 = n \). Then median senator accepts \( n \) iff \( \lambda_s(s_m - n) + (1 - \lambda_s)(s_m - n) \leq (j_5^0 - s_m) = (s_m - n) \leq (j_5^0 - s_m) \Rightarrow n \geq 2s_m - j_5^0 \).

But this is a contradiction of \( n < 2s_m - j_5^0 \). Hence, if \( p < 2s_m - j_5^0 \) then \( n = 2s_m - j_5^0 \). We need not consider the case when \( n < 2s_m - j_5^0 \) but \( n \leq j_4^0 \) since we have just proven that \( n \) cannot be less than \( 2s_m - j_5^0 \). Case 3C: \( s_m \in C \) (so \( j_5^0 < s_m \leq \frac{j_4^0 + j_5^0}{2} \)).

Subsubcase 3C i) \( p \geq j_5^0 \).
Claim:  
\[
    n = \begin{cases} 
        p & \text{if } p \in [j_5^0, 2s_m - j_5^0] \\
        2s_m - j & \text{if } p > 2s_m - j_5^0 
    \end{cases}.
\]

Again, if \( p \in [j_5^0, 2s_m - j_5^0] \) then \( n = p \) which the median senator accepts, since then \( j_5^1 = j_5^0 \). (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So again we focus on \( p, n > 2s_m - j_5^0 \).

First, suppose \( n > 2s_m - j_5^0 \) and of course \( j_1^5 = j_0^5 \). Then median senator accepts \( n \) iff 
\[
    \lambda_s(s_m-j_5^0)+(1-\lambda_s)(n-s_m) \leq (s_m-j_5^0) \Rightarrow (1-\lambda_s)(n-s_m) \leq (1-\lambda_s)(s_m-j_5^0) \Rightarrow n \leq 2s_m-j_5^0.
\]
But this is a contradiction of \( n > 2s_m - j_5^0 \). Hence, if \( p > 2s_m - j_5^0 \) then \( n = 2s_m - j_5^0 \).

Subsubcase 3C ii) \( p < j_5^0 \).

Claim: \( n = j_5^0 \).

Again the gridlock scenario, so \( n = j_5^0 \).

Subcase 3D: \( s_m \in D \) (so \( s_m > \frac{j_5^0 + j_6^0}{2} \)).

Subsubcase 3D i) \( p \geq j_5^0 \).

Claim: \( n = \begin{cases} 
        p & \text{if } p \in [j_5^0, 2s_m - j_5^0] \\
        2s_m - j & \text{if } p > 2s_m - j_5^0 
    \end{cases}.
\]

If \( p \in [j_5^0, 2s_m - j_5^0] \) then \( n = p \) which the median senator accepts, since \( j_5^1 = j_5^0 \) and \( n \in [j_5^0, 2s_m - j_5^0] \). (Recall that a convex combination of distances to two points in the accept set must be less than the distance to the reversion policy). So we focus on \( p, n > 2s_m - j_5^0 \). In this case, note that \( j_5^1 = j_5^0 \) since \( s_m > \frac{j_5^0 + j_6^0}{2} \). In such a case, the median senator accepts \( n \) iff 
\[
    \lambda_s(s_m-j_5^0)+(1-\lambda_s)(n-s_m) \leq (s_m-j_5^0) \Rightarrow (1-\lambda_s)(n-s_m) \leq (1-\lambda_s)(s_m-j_5^0) \Rightarrow n \leq 2s_m-j_5.
\]
But this is a contradiction to \( n > 2s_m - j_5^0 \). This implies that if \( p \leq 2s_m - j_5^0 \) \( n = p \) but if \( p > 2s_m - j_5^0 \) then \( n = 2s_m - j_5^0 \).

Subsubcase 3D ii) \( p < j_5^0 \).

Claim: \( n = j_5^0 \).

Again the gridlock scenario, so \( n = j_5^0 \). \( \blacksquare \)
B.3 The Median on the Court

Finally, we now briefly consider the implied location of the new median on the Court \( j_5^1 \) following play of the games. In what follows we assume \( p > j_5^0 \).

**Proposition 7.** In the court-outcome based, nearly-court outcome based, position-taking senators, and mixed motivation models, the location of the new median justice on the Court is as follows:

1) With a proximal vacancy (so \( e \in \{j_6^0, \ldots, j_9^0\} \)), \( j_5^1 = j_5^0 \).

2) With the “gridlock” configuration (so \( s_m \leq j_5^0 \)), \( j_5^1 = j_5^0 \).

3) With a distal vacancy (so \( e \in \{j_1^0, \ldots, j_5^0\} \)) and \( s_m > j_5^0 \) (non-gridlock configuration) then

   i) If \( j_5^0 \leq p \leq j_6^0 \)

   \[
   j_5^1 = \begin{cases} 
   2s_m - j_5^0 & \text{if } s_m \leq \frac{j_5^0 + p}{2} \\
   p & \text{if } s_m > \frac{j_5^0 + p}{2} 
   \end{cases}
   \]

   ii) If \( p > j_6^0 \)

   \[
   j_5^1 = \begin{cases} 
   2s_m - j_5^0 & \text{if } s_m \leq \frac{j_5^0 + j_6^0}{2} \\
   j_6^0 & \text{if } s_m > \frac{j_5^0 + j_6^0}{2} 
   \end{cases}
   \]

**Proof.** The outcomes in the four games follow from Equation B-3 and Propositions 1 and 2 (court-outcome based model), Propositions 3 and 4 (nearly court-outcome based model), Proposition 4 (Position-taking senators model) and Propositions 5 and 6 (mixed-motivations model). The details are straightforward but tedious and are omitted for brevity. ■

It is perhaps surprising that the outcome in the position-taking senators model and that in the court-outcome based and nearly court-outcome based models should be identical since voting behavior and nominee selection differ across the models. But Equation B-3 is extremely restrictive. More specifically, when \( p > j_5^0 \), the equilibrium location of the new
median justice can only be \( j_5^0, j_6^0 \), or \( n \) with \( j_5^0 < n < j_6^0 \). The configurations when \( j_5^1 = j_5^0 \) and \( j_5^1 = j_6^0 \) are clearly the same across the three models. More subtly, whenever the president’s best confirmable nominee lies between \( j_5^0 \) and \( j_6^0 \), then the president nominates the same individual in all three models: either \( n = p \) (which occurs when \( p \) lies within \([j_5^0, 2s_m - j_5^0]\) in all three models), or \( n = 2s_m - j_5^0 \) (which occurs when \( p > 2s_m - j_5^0 \)). Given that the nearly court-based model and position-taking senators model yield the same court medians, it is perhaps not surprising that the mixed motivation model should as well.