RESEARCH NOTE

Case selection and Supreme Court pivots

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Abstract

How does the Rule of Four affect Supreme Court decisions? We show two effects of changing a "hearing pivot" justice who is decisive for case selection. First, a court with more extreme hearing pivots will hear cases with more moderate precedents. For example, as the conservative hearing pivot becomes more extreme, the court hears a broader range of cases with liberal status quo precedents. Second, more extreme hearing pivots shrink dispositional majorities and lead to more polarized rulings. If the median justice becomes more extreme without changing the hearing pivots, then rulings are more extreme. The effect on the range of cases heard, however, is smaller than that from changing hearing pivots. Finally, we show that case selection can also depend on non-median, non-hearing-pivot justices. Replacing an extreme justice with someone even more extreme can lead to a smaller set of heard cases, as final rulings can shift away from the binding hearing pivot, making status quo precedents more appealing.

Keywords: American politics; formal modeling; judicial politics

1. Introduction

Many Supreme Court appointments have not changed the median Supreme Court justice. Recent examples are the appointments of Justices Sotomayor, Kagan, and Gorsuch. Yet, observers widely view policy outcomes as changing only when the median justice changes.[1]

We analyze a formal model to explore the consequences of changing the Supreme Court's composition without necessarily changing the median justice. Does the court's composition change which cases are heard? If so, how? Do policy outcomes change when non-median justices change?

Our model reflects three key features of the Supreme Court. First, granting *certiorari* requires approval by only four justices (colloquially known as the *Rule of Four*). Thus, changing the fourth-most liberal or fourth-most conservative justice shifts the pivotal voter for case selection. Second, majority opinions are created collectively. Therefore, the court's composition can also change the output of the opinion-writing process (Lax and Cameron, 2007; Carrubba et al., 2012; Cameron and Kornhauser, 2010; Parameswaran et al., 2019). Third, dispositional votes determine who can influence the majority opinion. For any heard case, justices first decide whether to *overturn* or *uphold* the current ruling. These dispositional votes then determine which direction precedent will shift, as the bargaining coalition only includes justices supporting the majority disposition.

We build on existing models of the Supreme Court by adding a first stage where justices decide whether to grant *certiorari*. And for the final majority opinion, we use a reduced form approach reflecting properties of judicial bargaining models like Carrubba et al. (2012) and Lax and Cameron (2007).

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[1]See Roeder (2018) and Buchanan and Yourish (2018) for conventional wisdom upon Justice Kennedy's retirement, as well as Moraski and Shipan (1999) and Krehbiel (2007) for theoretical grounding.

We show two effects of changing justices who are pivotal for case selection. First, as hearing pivots become more extreme, the court is willing to hear cases with more moderate precedents. For example, the court hears a broader range of cases with relatively liberal precedents as the conservative hearing pivot becomes more extreme. We do not interpret this result as the court hearing a greater number cases because, empirically, case loads have been relatively constant for the past 20 years, at about 70–80 cases per term. Instead, we interpret it as the court being more permissive in the nature of cases it hears.

Second, more extreme hearing pivots lead to more split decisions. Intuitively, in more moderate cases, there is less consensus about which direction to move policy. Thus, dispositional votes are more divisive when those cases are granted *certiorari*.

We then study the effects of replacing the median justice. When the median becomes more extreme and hearing pivots remain constant, observed rulings of heard cases become more extreme as the majority opinion shifts. Yet, the range of heard cases changes less than when hearing pivots become more extreme. If, however, the old median's replacement is more extreme than a previous hearing pivot, then that previous pivot becomes the new median and the new justice becomes a hearing pivot. The court hears more moderate cases and these cases result in more extreme rulings. Next, we show how case selection depends on non-pivotal, non-median justices. Replacing an extreme justice with someone even more extreme can shrink the set of cases heard: extreme justices may pull rulings away from the binding hearing pivot, making status quo precedent more appealing. Finally, we conclude with a discussion of the consequences of the death of justice Ruth Bader Ginsberg and court packing. Overall, our analysis emphasizes that case selection depends on strategic behavior by justices (Kastellec and Lax, 2008; Johnson, 2018; Bonica et al., 2020) and our departure from canonical move-the-median games (Cameron and Kastellec, 2016) provides new implications of Supreme Court composition.

To our knowledge, the only models studying the Rule of Four are Lax (2003) and Fang et al. (2007). In settings different from ours, Lax shows how the Rule of Four can increase lower court compliance with Supreme Court decisions, while Fang et al. focus on how the minority can use the Rule of Four to its advantage. Models of case selection typically assume the court receives a flow of possible cases (Clark and Kastellec, 2013; Fox and Vanberg, 2014; Beim, 2017; Callander and Clark, 2017; Parameswaran, 2018) and tries to rule correctly despite informational problems. We ignore informational problems and focus on ideology. Our focus allows us to isolate ideology, and we view our approach as complementing work analyzing informational considerations.[2]

2. Model basics

We study a spatial policy-making game. The players are n (odd) justices. There is a case with status quo x_{sq} in policy space $\mathbb{R}$. In our judicial context, policy is best thought of as a *threshold*. For example, what is an acceptable level of force by police? Moving policy leftward corresponds to a lower level of acceptable police force.

2.1 Timing

In the first stage, justices collectively decide whether to hear the case. To capture minority quotas such as the Rule of Four, hearings require consent from $m = n - 1/2$ justices. Hearings impose costs $c \geq 0$ on each justice.[3]

If the case is not heard, the game ends with x_{sq} persisting.

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[2]For more comprehensive surveys of the literature, see Cameron and Kornhauser (2017), and Kastellec (2017).

[3]We interpret this cost as specific to the case under consideration. For example, hearing a case earlier in the term may be costlier than hearing a later case if the opportunity cost of deciding which cases to hear decreases as the term progresses. However, the incentives in our analysis apply broadly.

Otherwise, there is a dispositional vote decided by majority rule. Each justice votes whether to move policy left or right from x_{sq}.[4] We denote rightward votes $d = 1$ and leftward votes as $d = 0$. After the dispositional vote, justices in the dispositional majority determine the new policy location, which we refer to as the *final ruling*.[5]

2.2 Preferences

Policy preferences are represented by quadratic loss utility.[6] Thus, each justice i has ideal point $\hat{x}_i \in \mathbb{R}$. Without loss of generality, we order justices $\hat{x}_1 < \hat{x}_2 < \cdots < \hat{x}_n$.

Along with the final ruling's location, justices care about dispositional votes.[7] One might wonder why justices ever vote against the majority; joining allows them to participate in bargaining and possibly influence the final outcome. In practice, however, dissenting may signal future behavior (Ginsburg, 2010) or increase a case's media coverage (Bryan and Ringsmuth, 2016). Moreover, justices may care about reputation, which could be damaged by joining dispositions they oppose.

Dispositional motivations are represented by $I \cdot 0 + (1 - I) \cdot l(x_{sq} - \hat{x}_i)$; where $I = 1$ if justice i joins her preferred disposition and $I = 0$ otherwise, and $l()$ is a concave loss function single peaked at 0. Voting against dispositional motivation is costlier for justices farther from the status quo.[8]

Justice i's payoff from not hearing the case is $-(x_{sq} - \hat{x}_i)^2$. Because each justice i incurs costs c from a hearing, i's payoff from hearing a case resulting in final ruling x^* is $U_i(x^*) - c$, where

$$U_i(x^*) = \begin{cases} -(x^* - \hat{x}_i)^2 & \text{if vote for preferred disposition} \\ -(x^* - \hat{x}_i)^2 + l(x_{sq} - \hat{x}_i) & \text{if vote against preferred disposition.} \end{cases}$$

2.3 Final rulings

In practice, final rulings likely result from bargaining among majority justices. We do not explicitly model such bargaining. Instead, we assume final rulings satisfy four properties. Let dispositional majority M have associated final ruling x_M^*.

Properties of final rulings:

(1) If justice i is in dispositional majority M, then $0 \leq \partial x_M^*/\partial \hat{x}_i \leq 1$.
(2) If justice j satisfies $\hat{x}_j \geq x_{M_1}^*$ for dispositional majority M_1 and $M_2 = M_1 \cup j$, then $x_{M_2}^* \geq x_{M_1}^*$. Symmetrically, $\hat{x}_j \leq x_{M_1}^*$ implies $x_{M_2}^* \leq x_{M_1}^*$.
(3) Let $\bar{\hat{x}}_M$ denote the rightmost justice in dispositional majority M and $\underline{\hat{x}}_M$ denote the leftmost. Then $x_M^* \in [\underline{\hat{x}}_M, \bar{\hat{x}}_M]$.
(4) Let justice i be in dispositional majorities M_1 and M_2, where $M_1 \subset M_2$. Then $(\partial x_{M_1}^*/\partial \hat{x}_i) \geq (\partial x_{M_2}^*/\partial \hat{x}_i)$.

Broadly, the properties say that all justices in the dispositional majority can (weakly) affect final rulings. By Property 1, shifting a dispositional majority justice moves final rulings weakly in that same direction. Property 1 also limits the size of that shift. Property 2 implies that adding a justice to a dispositional majority shifts the final ruling weakly toward that justice's ideal point.

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[4]In the US Supreme Court, dispositional votes are whether to uphold or overturn. But in practice, written opinions move policy regardless of whether the specific case is upheld or overturned.

[5]We ignore the possibility of concurring opinions in the model. They do not affect the results.

[6]All results hold if policy utilities are represented by a loss function $l(x - \hat{x}_i)$ that is concave and single-peaked at 0.

[7]Carrubba et al. (2012), Cameron and Kornhauser (2010), and Cameron and Kornhauser (2017) provide detailed justification for modeling dispositional motivations.

[8]In our context, this captures the spirit of the observation that "making a mistake on what should be a 'slam dunk' case is more costly than on a 'close call'" (Callander and Clark, 2017).

Property 3 assures that final rulings cannot be improved for every majority member. Property 4 states that justices have weakly more influence on the final ruling's location in smaller majorities than in larger majorities.[9]

These reduced-form properties for judicial bargaining align with microfounded settings studied elsewhere, including Lax and Cameron (2007), Carrubba and Clark (2012), and Parameswaran et al. (2019). Our approach allows us to take the bargaining equilibria as given and focus on the implications for, and consequences of, case selection.

3. Analysis

3.1 Dispositional vote

We study Subgame Perfect Equilibria in weakly undominated strategies (hereafter just equilibria). In particular, we analyze equilibria featuring 'monotonic' dispositional majorities: either the dispositional vote is unanimous, or there is a justice i such that each justice j votes to move the threshold rightward, $d_j = 1$, if and only if $j \geq i$. In Lemma B.1 in the appendix, we show that sufficiently strong dispositional motivations ensure that such equilibria exist and henceforth we focus on that case.

In equilibrium, each justice i has a unique cutpoint, $\check{x}_i$, fully characterizing her dispositional voting strategy. If $x_{sq} < \check{x}_i$, then i votes to shift precedent rightward ($d_i = 1$) and, similarly, $x_{sq} \geq \check{x}_i$ implies she votes to shift precedent leftward ($d_i = 0$). Additionally, the cutpoints have the same order as ideal points, which implies monotonic dispositional majorities.

We can use the dispositional cutpoints to easily order final opinions for heard cases as a function of x_{sq}. Let x_i^* denote the final opinion of the dispositional majority if $d_j = 0$ for all $j \leq i$ and $d_j = 1$ for all $j > i$. For example, in a five-member court hearing a case with $x_{sq} \in (\check{x}_2, \check{x}_3)$, the final opinion x_2^* is written by justices 3, 4, and 5. Properties 2 and 4 imply that final opinions are ordered $x_{n+1/2}^* \leq x_{n+1/2+1}^* \leq \cdots x_n^* = x_0^* \leq x_1^* \leq \cdots \leq x_{n-1/2}^*$. Intuitively, the left-leaning bare majority writes the leftmost ruling, $x_{n+1/2}^*$, and the right-leaning bare majority writes the rightmost ruling, $x_{n-1/2}^*$.[10]

3.2 Case hearings

We first establish a necessary condition for a justice to vote to hear a case: she must be in the dispositional majority. In heard cases, the final ruling is worse than x_{sq} for minority justices. Intuitively, they never want to bear costs of hearing cases resulting in worse outcomes.

LEMMA 1: Justices never vote to hear a case for which they will be in the dispositional minority.

For case selection with quota $m = n - 1/2$, it suffices to focus on two justices who are the decisive pivots, $P_L = n - 1/2$ and $P_R = n + 3/2$. We focus on P_R, as P_L is analogous. Optimally hearing a case requires the benefit from setting new precedent to exceed the cost of hearing and deciding the case. Formally, if $x_{sq} \in (\check{x}_i, \check{x}_{i+1}]$ for $i < n + 1/2$, then the case is heard if and only if

$$U_{P_R}(x_i^*) - c \geq -(x_{sq} - \hat{x}_{P_R})^2. \tag{1}$$

We can characterize whether the court hears $x_{sq} \leq \check{x}_{n+1/2}$ using conditions similar to (1), and $x_{sq} > \check{x}_{n+1/2}$ using analogous conditions for P_L.

Lemma 2 shows existence of an interval of cases around $\hat{x}_{n+1/2}$ that are not heard. In the main text, we focus analysis on this interval to emphasize our key points. Yet, there can exist other
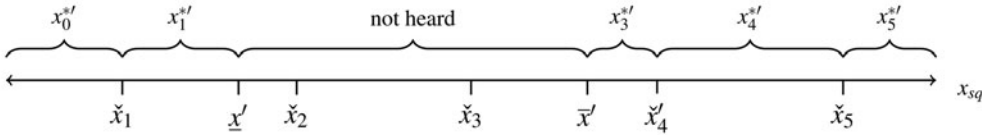
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[9]This property can be weakened.
[10]Note that x_0^* and x_n^* feature equivalent dispositional majorities because they are unanimous.

(a) Baseline:
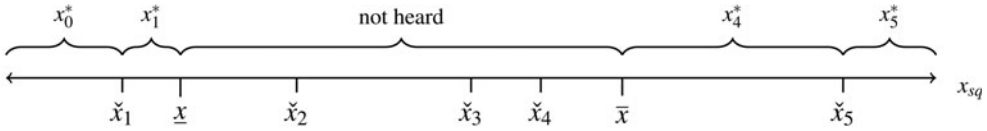
(b) More extreme right hearing pivot, $\hat{x}_4' > \hat{x}_4$:

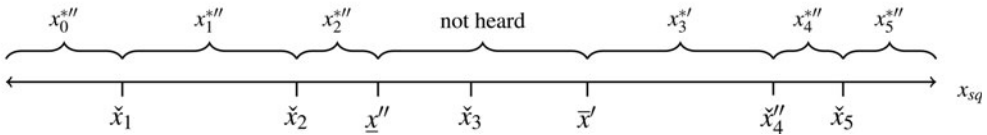(c) Even more extreme right hearing pivot, $\hat{x}_4'' > \hat{x}_4'$:

Figure 1. Effects of more extreme hearing pivots on case selection and final rulings.

Figure (a)–(c) each display a five member court. To ease illustration, each justice i has arbitrarily strong dispositional motivation, so $\hat{x}_i \approx \check{x}_i$. Curly braces indicate the sets of status quo, x_{sq}, mapping to final outcomes, which are not depicted spatially. In (a), final rulings satisfy $x_4^* \leq x_5^* = x_0^* \leq x_1^*$. In (b), justice 4 shifts rightward to $\hat{x}_4' \geq \hat{x}_4$. The court hears more left-leaning cases, $\underline{x}' > \underline{x}$, but the effect on right-leaning cases is ambiguous. A left-leaning bare majority is now possible, if $x_{sq} \in (\overline{x}', \check{x}_4')$, so the leftmost ruling decreases from (a): $x_3^{*\prime} < x_i^*$ for $i = 0, 1, 4, 5$. For each majority also possible in (a), rulings shift right: $x_i^{*\prime} > x_i^*$ for $i = 0, 1, 4, 5$. In (c), $\hat{x}_4'' \geq \hat{x}_4'$. The court hears the same right-leaning cases, $\overline{x}'' = \overline{x}'$, and more left-leaning cases, $\underline{x}'' > \underline{x}'$. The leftmost ruling, $x_3^{*\prime}$, is unchanged and rulings shift rightward for each majority also possible in (b). Right-leaning bare majorities are now possible, if $x_{sq} \in (\check{x}_2, \underline{x}'')$, so the rightmost ruling increases from (b): $x_2^{*\prime\prime} > x_i^{*\prime}$ for $i = 0, 1, 3, 4, 5$.

intervals of non-heard cases. In the appendix, we fully characterize which cases are heard and show that the main analysis illustrates the primary takeaways.

LEMMA 2: The court does not hear cases with $x_{sq} \in [\underline{x}, \overline{x}]$, where $\underline{x} \leq \check{x}_{n+1/2} \leq \overline{x}$.

In $[\underline{x}, \overline{x}]$, the left endpoint is the most moderate status quo that the right hearing pivot votes to hear. Similarly, the right endpoint is the most moderate status quo that the left hearing pivot votes to hear. All cases between the endpoints are not heard and their final ruling is x_{sq}. See Figure 1 for an illustration.

We are interested in how changing justices' ideal points alters which cases are heard and final rulings. First, we show that more extreme hearing pivots are willing to hear more moderate cases.

PROPOSITION 1: As the right hearing pivot gets more extreme, $\underline{x}$ increases. Symmetrically, $\overline{x}$ decreases as the left hearing pivot gets more extreme.

If a hearing pivot becomes more extreme, two main forces produce Proposition 1. First, status quo on the opposite side of the spectrum become less favorable to the shifting pivot, which encourages granting *certiorari*. Second, the final ruling can move, which may help or harm the shifting pivot. If it helps her, then this second force complements the first. But if the final ruling becomes less favorable, then the second force discourages granting *certiorari* and counteracts the first force. Yet, Property 1 implies that the first force always dominates. Thus, the overall effect

encourages hearing the case. For example, the overall effect of a more conservative hearing pivot increases $\underline{x}$, so the court hears cases with more moderate liberal precedents.

Although Proposition 1 conveys key forces, it only applies to the central interval of non-heard cases. Proposition 2 extends the result. The key forces are similar.

PROPOSITION 2: As the right hearing pivot gets more extreme, the court hears a broader range of cases with left-leaning precedents. Symmetrically, the court hears a broader range of cases with right-leaning precedents as the left hearing pivot gets more extreme.

3.3 Change in dispositional majorities

We have shown that more extreme hearing pivots are willing to hear more moderate cases. Next, we study the effects on (i) the composition of dispositional majorities and (ii) final rulings. In general, more extreme hearing pivots make observed decisions more divisive and final rulings more extreme.

Lemma 2 implies that $\underline{x}$ is the most moderate left-leaning status quo that P_R hears. Let $\hat{x}'_{P_R} \geq \hat{x}_{P_R}$, with corresponding $\underline{x}' \geq \underline{x}$, by Proposition 1. Thus, cases $x_{sq} \in (\underline{x}, \underline{x}')$ are not heard if $\hat{x}_{P_R}$ is the right hearing pivot, but are heard if she is replaced by $\hat{x}'_{P_R}$. For these cases, either the dispositional majority is identical to that if $x_{sq} = \underline{x}$, or it has fewer justices. Thus, more extreme hearing pivots lead to smaller dispositional majorities for cases with precedent on the opposite side of the spectrum.

More extreme hearing pivots also affect dispositional majorities for cases on their own side. For example, there are cases for which $\hat{x}_{P_R}$ joins the dispositional majority but $\hat{x}'_{P_R}$ joins the minority. This more extreme hearing pivot shrinks the dispositional majority from $n + 1/2 + 1$ to $n + 1/2$.

Fixing the court, smaller dispositional majorities produce more extreme final rulings. Thus, changes in dispositional majorities can affect final rulings. For example, some cases will have one fewer conservative in their dispositional majorities and, in turn, more liberal final rulings.

3.4 Changes in other justices

We now discuss how non-pivotal justices affect case selection. Even though non-pivotal justices are not decisive in case selection, their effect on final rulings can alter $[\underline{x}, \overline{x}]$. If final rulings shift toward a hearing pivot, then the court hears more cases with precedents opposite that pivot. Symmetrically, if final rulings shift away from a hearing pivot, then the court hears fewer cases with precedents opposite that pivot.

For example, a sufficiently extreme justice may pull final rulings farther away from a hearing pivot and expand the interval of non-heard cases. Consider a dispositional majority containing a justice $\hat{x}_j \geq \hat{x}_{P_R}$ and producing final ruling $x^* \geq \hat{x}_{P_R}$. If j becomes more extreme, the distance between $\hat{x}_{P_R}$ and x^* increases by Property 1. Appointing very extreme justices therefore presents a trade-off: heard cases have more extreme final rulings, but the court may hear fewer cases with moderate precedents.Moving the court median without changing the overall ordering is roughly equivalent to shifting any other non-hearing-pivot justice. However, the interval characterized in Lemma 2 can shift through changes in dispositional majorities, as well as through changes in final rulings. And if $\underline{x} = \hat{x}_{n+1/2}$, then increasing $\hat{x}_{n+1/2}$ can cause such changes even if the final ruling is unchanged. See Figure 2 for an example.

If the ordering changes such that a former hearing pivot is now the median justice and a new justice is a hearing pivot, then there are multiple effects. Beyond the already noted effects of moving the hearing pivot, changing the court median switches some cases from one dispositional majority to the other. A new median justice may actually be *more* important than previously understood because, as far as we are aware, the combined impact on the dispositional majority and case selection has not been noted.
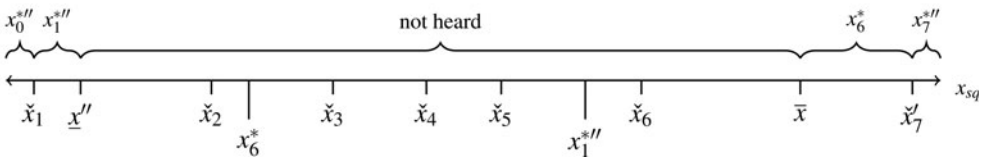
(a) Baseline:
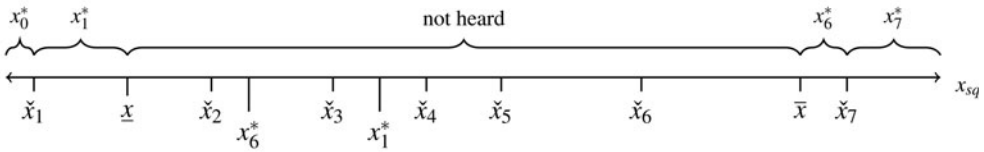
(b) Legislator 6 shifts right, $\hat{x}_6' > \hat{x}_6$:
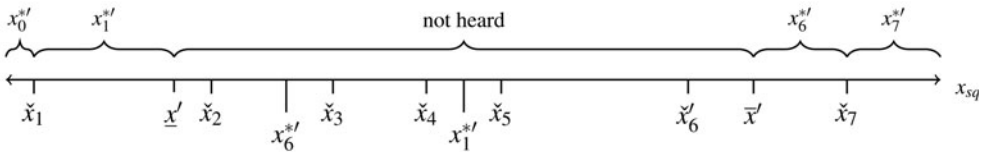
(c) Legislator 7 shifts right, $\hat{x}_7' > \hat{x}_7$:

Figure 2. Effects of other justices on case selection and final rulings.
Figure 2 depicts a seven-member court. To ease illustration, each justice i has arbitrarily strong dispositional motivation, so $\hat{x}_i \approx \check{x}_i$. If legislator 6 shifts right from $\check{x}_6$ to $\check{x}_6'$, as depicted in (b), then the court hears more cases and the final ruling increases for all heard cases, i.e. $x_i^{*'} > x_i^*$ for all $i = 0, 1, 6, 7$. If legislator 7 shifts right from $\hat{x}_7$ to $\hat{x}_7'$, as depicted in (c), then the court hears fewer left-leaning cases and the same right-leaning cases. Final rulings weakly increase for all heard cases.

3.5 Conclusion

At the time of writing, the Supreme Court was attracting substantial attention following the death of justice Ruth Bader Ginsberg and subsequent nomination of Amy Coney Barrett. As Barrett was widely expected to be one of the court's most conservative justices, the median would shift from Roberts to Kavanaugh. This change is clearly important, but our analysis suggests additional significance. Confirming Barrett would not only produce a more conservative median, both hearing pivots would also be more conservative. Roberts would be the new *left* hearing pivot. Our analysis suggests the new court would hear a broader range of cases with liberal precedents and, with only three liberal justices, issue relatively moderate final rulings in cases with "left" majorities.

Following Barrett's nomination, some Democrats discussed "court packing," i.e., adding seats to the Supreme Court. Adding two liberal justices would shift the median leftward. It would also shift both hearing pivots leftward, but how far depends on whether the Rule of Four is modified. If the rule changes to reflect additional seats (i.e., a Rule of Five), then the hearing pivots will revert to those before Ginsberg's death (Breyer and Kavanaugh). But maintaining the Rule of Four would produce a left hearing pivot more liberal than Breyer and a right hearing pivot more conservative than Kavanaugh. To match the pre-vacancy court most closely, any expansion must be paired with a modification to the Rule of Four.

References

Beim D (2017) Learning in the judicial hierarchy. *Journal of Politics* **79**, 591–604.

Bonica A, Chilton A and M Sen (2020) The "Odd Party Out" Theory of Certiorari. Available at SSRN 3205620.

Bryan AC and Ringsmuth EM (2016) Jeremiad or weapon of words?: The power of emotive language in Supreme Court dissents. *Journal of Law and Courts* **4**, 159–185.

Buchanan L and Yourish K (2018) After Kennedy's exit, Supreme Court's center is likely to shift right. The New York Times. Available at https://www.nytimes.com/interactive/2018/06/27/us/politics/supreme-court-moves-right.html.

Callander S and Clark TS (2017) Precedent and doctrine in a complicated world. *American Political Science Review* **111**, 184–203.

Cameron CM and Kastellec JP (2016) Are Supreme Court nominations a move-the-median game? *American Political Science Review* **110**, 778–797.

Cameron CM and Kornhauser LA (2010) Modeling collegial courts (3): adjudication equilibria. *NYU School of Law, Public Law Research Paper* 09–29.

Cameron CM and Kornhauser LA (2017) Theorizing the US Supreme Court. *Oxford Research Encyclopedia of Politics*.

Carrubba CJ and Clark TS (2012) Rule creation in a political hierarchy. *American Political Science Review* **106**, 622–643.

Carrubba CJ, Friedman B, Martin AD and Vanberg G (2012) Who controls the content of Supreme Court opinions? *American Journal of Political Science* **56**, 400–412.

Clark TS and Kastellec JP (2013) The Supreme Court and percolation in the lower courts: an optimal stopping model. *Journal of Politics* **75**, 150–168.

Fang S, Johnson TR and Roberts JM (2007) Will of the minority: Rule of Four on the United States Supreme Court. Available at SSRN 998492.

Fox J and Vanberg G (2014) Narrow versus broad judicial decisions. *Journal of Theoretical Politics* **26**, 355–383.

Ginsburg RB (2010) The role of dissenting opinions. *Minnesota Law Review* **95**, 1.

Johnson B (2018) The Supreme Court's political docket: how ideology and the Chief Justice control the court's agenda and shape law. *Connecticut Law Review* **50**, 581.

Kastellec JP (2017) The judicial hierarchy. *Oxford Research Encyclopedia of Politics*.

Kastellec JP and Lax JR (2008) Case selection and the study of judicial politics. *Journal of Empirical Legal Studies* **5**, 407–446.

Krehbiel K (2007) Supreme Court appointments as a move-the-median game. *American Journal of Political Science* **51**, 231–240.

Lax JR (2003) Certiorari and compliance in the judicial hierarchy: discretion, reputation and the rule of four. *Journal of Theoretical Politics* **15**, 61–86.

Lax JR and Cameron CM (2007) Bargaining and opinion assignment on the US Supreme Court. *The Journal of Law, Economics, and Organization* **23**, 276–302.

Moraski BJ and Shipan CR (1999) The politics of Supreme Court nominations: a theory of institutional constraints and choices. *American Journal of Political Science* **43**, 1069–1095.

Parameswaran G (2018) Endogenous cases and the evolution of the common law. *The RAND Journal of Economics* **49**, 791–818.

Parameswaran G, Cameron CM and Kornhauser LA (2019) Bargaining and strategic voting on Appellate Courts. Available at SSRN 3397299.

Roeder O (2018) John Roberts has cast a pivotal liberal vote only 5 times. FiveThirtyEight. Available at https://fivethirtyeight.com/features/john-roberts-has-cast-a-pivotal-liberal-vote-only-5-times/.