No self-control: Decentralized agenda power and the dimensional structure of the Mexican Supreme Court*

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Abstract

We investigate the dimensionality of Mexico's Supreme Court by analyzing individual justice behavior in judicial review petitions heard between 1995 and 2007. We specify a dynamic, two-dimensional item response model to estimate ideal points and their temporal drift from all contested votes recorded in the period. We find ideal points scattered in all four quadrants of space at least some of the time in the period. Higher-dimensionality is expected in a Court with decentralized agenda power, like Mexico's. Analysis also reveals drastic realignments in justices' ideal points in the period. If the policy cleavage dominated at the start, judicial doctrine became preponderant towards the end, with a mix of both dimensions in between.

This paper argues that, among the differences between the Mexican and American Supreme Courts, limits in docket control (or, as we call it, agenda power) make the study of the Mexican case interesting to judicial scholars in the United States. Unlike their counterparts north of the border, Mexican Justices are not free to fully select which cases they will hear and resolve from among the thousands that are brought to their attention yearly. Decentralized agenda power has important consequences for judicial politics, chiefly justices' incapacity to shape judicial debate by ignoring problematic cases likely to enrage those with

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potential to hurt the Court's interests. This is encapsulated in an expectation of a Court with higher dimensionality in Mexico than the U.S.

We investigate the dimensionality of Mexico's Supreme Court by scrutinizing all contested votes in judicial review cases heard in the first twelve years since it was overhauled. We draw on the spatial theory of voting to estimate justices' ideal points from their recorded roll-call votes. We assume a two-dimensional space in the process to verify whether or not recovered ideal points correlate to a large extent in both dimensions. And given radical changes in the Court's institutional structure and political environment in the last decade and a half, we opted for a dynamic specification in search of temporal drift in voting patterns. Results corroborate our main expectation of two-dimensionality, while also revealing how justices have rearranged in interesting ways over the period.

The paper proceeds as follows. Section 1 develops an intuition from legislative studies that centralized agenda power will induce one-dimensionality. Section 2 explains the key difference in the Mexican Court, decentralized agenda power. In section 3 we describe recent important changes in the Court and summarize the votes that make the empirical basis of this work. Section 4 develops our two-dimensional, dynamic ideal point estimation model, an extension of previous work by Martin and Quinn (2002). Section 5 describes the substance underlying spatial coordinates: the recovered space intersects a policy horizontal axis, inherited from the party system, and a legal doctrine vertical axis, of relevance to the Court but not necessarily to other politicians. Section 6 presents our results: Markov Chain Monte Carlo (MCMC) estimates of justices' ideal points and their drift in the period. To interpret our findings, the section also discusses the degree to which courts are sheltered from political tempests, another consequence of agenda centralization that our theory does not address. Section 7 concludes.

1   Agenda power

"Issues begin life as high-dimensional ideas that are reduced through the legislative process to low-dimensional floor decisions."—Talbert and Potosky[1]

The theme of agenda manipulation and its consequences has received a fair deal of attention by legislative students in the last decades. In general terms, the literature has demonstrated how someone in a position to manipulate the voting agenda will in most circumstances gain relative influence over collective choice. This sort of influence has been dubbed agenda power.

Agenda power is any special ability to decide what gets voted, when, and how (Schwartz 1987:338–40). Romer and Rosenthal's (1978) setter model is the canonic representation. It involves two players only: the agenda setter (A) who can offer a proposal or not; and a voter (V) who, if given a proposal, can accept or reject it. In its simplest form, A has agenda monopoly: if she chooses to make no proposal the game ends with policy at the status quo (Q) before V has

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[1]Talbert and Potoski (2002:864).

Part A Status quo prevails
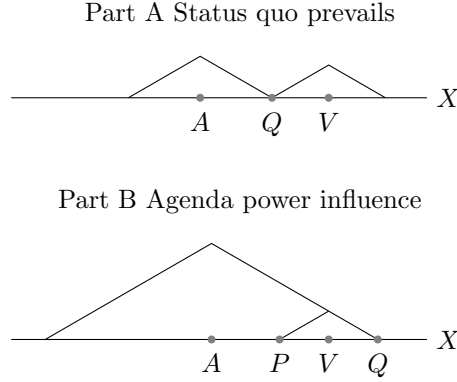

Part B Agenda power influence

Figure 1: One-dimension setter. A and V are the agenda setter's and the voter's ideal points, respectively; Q is the status quo; and P is a proposal.

a chance to move. But policy also reverts to Q if V rejects the offer, so even if the agenda setter is free to make any proposal, she does best by focusing on those that are also acceptable to the voter.

The setter model draws results from a spatial analogy of policy and preference. Each player has a unique, most-preferred or ideal point in space, welfare dropping as alternatives become more distant from it. By implication, a player confronted with two alternatives will always choose the one closer to her ideal point. We discuss the model's main assumptions in Figure 1. Policy and preference map onto a flat continuum X: in panel A, for example, a left-of-center agenda setter confronts a right-of-center voter, the status quo between them. With Q as a baseline, a player's utility surges as policy nears her ideal point, then drops again; triangles represent this process. A player will find any offer under her triangle preferable to the status quo.

Despite its simplicity the one-dimensional version shows setter's key results. First, agenda power does not always confer an advantage to change policy. Figure 1.A shows a situation where agenda setter and voter desire contrary policy changes, so V only accepts offers that A finds undesirable. Yet, even in such situation, agenda power confers unconditional influence of another sort: when A anticipates that only outcomes leaving her worse than Q are feasible in the final voting stage, she can keep the gates of change shut, protecting the status quo. So even if the agenda setter is not always in a position to influence policy change, she is *always* is a position to exert a silent influence as enforcer of the status quo.[2] Second, when there is room for a compromise, agenda power confers policy change influence. Figure 1.B shows such a situation (triangles overlap). By proposing P at the edge of V's triangle, the agenda setter can get a substantial policy gain while the voter remains indifferent vis-à-vis the status

[2]Cox and McCubbins (2005) develop this intuition into an elaborate theory of party government in the U.S. House or Representatives.

quo. Third, agenda power is proportional to the voter's dislike for the status quo. The concession that A needs to make to get V's acceptance shrinks as Q shifts rightward in Figure 1.B. With a distant enough status quo, an outcome at A's ideal point is within reach.

We have thus far imposed flat-line policy exogenously. We now show graphically that one-dimensionality can be arrived at endogenously from the institution of agenda setting. In other seminal contributions, Shepsle (1979) and Shepsle and Weingast (1981) modeled the U.S. House agenda process by generalizing the setter model to N-dimensional space ($N \geq 1$). A corollary of this family of models is that agenda power reduces the dimensionality of policy.

Setter's multidimensional extension is straightforward. In the the two-dimensional case, illustrated in Figure 2.A, ideal points have more liberty to differ with respect to the status quo. But once they are fixed, an indifference contour (the equivalent of triangles in the previous figure) can be drawn for each player. A and V will choose any offer inside their respective contour over Q because it is nearer to ideal points. The grey petal highlights the overlap of players' contours, including alternatives they both prefer to Q. The agenda setter has leverage to make a proposal improving her welfare that is also acceptable to the voter so long as this petal is not empty. Proposal P maximizes A's policy gain in the example. A three-dimensional rendition of policy would replace contours with indifference spheres, but it is just as easy to locate the equilibrium proposal.

Having found equilibrium proposal P in any number of dimensions, draw a straight line connecting P to the status quo Q, as Figure 2.B does. Borrowing Shepsle's (1979) nomenclature, this is the *structure-induced one-dimensional policy space X*. Any N-dimensional game can be faithfully represented on this line X. Begin by finding which point on X each player most prefers. Having thus projected players' preferences, the two-dimensional game also gets projected in a one-dimensional rendition. Figures 2.C and Figure 1.B reach the same solution. We should note that the structure-induced space is not an issue dimension that "makes sense" to observers, like tax levels or gay marriage: X is a linear combination of two or more issues into an abstract contract curve. But it is a single straight line. Agenda power collapses policy to a single dimension endogenously.

The empirical study of roll call voting in the U.S. Congress supports this assertion. Poole and Rosenthal's (1997) colossal study of final passage votes between 1789 and 1985 shows that, bar from rare periods when racial issues have come into full play, congressional politics have been markedly one-dimensional. Adding a second dimension to their NOMINATE estimation does remarkably little, improving correct vote classification by only 2 percentage points, up from 83 (1997:28). Scholarship has long recognized how highly centralized agenda power is in Congress, so this regularity should be unsurprising given our previous discussion.[3]   Parties structure committees, which in turn structure decision-

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[3]Riker's interest in political losers comes to mind here. Winners control offices with agenda power, and use them to keep losers' issues off the agenda, and politics conveniently one-dimensional. Losers, on the other hand, keep looking for ways to invent new dimensions of political controversy in an effort to deny winners the basis of their current dominion.

Part A Two-dimensional setter
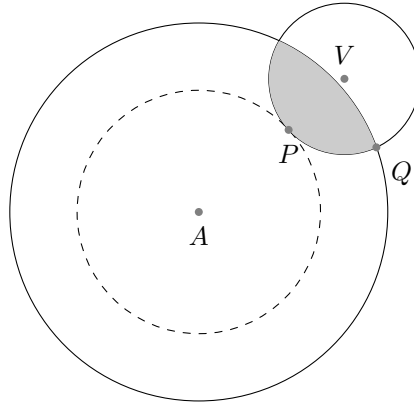
Part B Orthogonal projections
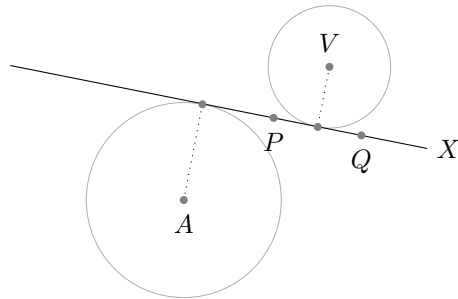
Part C Structure-induced unidmensionality

Figure 2: How agenda setting reduces dimensionality

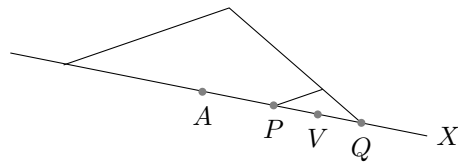making to the utmost degree (Cox and McCubbins 1993). Talbert and Potosky (2002) address the question of the shrinking dimensionality of Congress directly by comparing the beginning (cosponsoring) and end (final passage vote) stages of the legislative process. Cosponsoring is subject to little, if any, agenda power: all members of Congress are nominally free to introduce pieces of legislation. It is only later on that most of these bills are filtered out in the agenda-setting stages—by failing to get sub-committee markups, a committee report, a rule, and so forth. NOMINATE estimates manifest between 3 and 5 relevant issue dimensions at the co-sponsoring stage, but only about one at the final passage stage. Centralized agenda power turns collective choice into low-dimension floor decisions.

All this boils down to this paper's working hypothesis: Committees subject to more centralized agenda power will manifest lower dimensionality, all else equal, than committees where agenda power is more decentralized. The next section reviews Court institutions and some of known consequences.

2 No (agenda) self-control

Unlike lower courts, the near totality of petitions to the U.S. Supreme Court are under discretionary jurisdiction, implying that justices are nearly always free to select which arguments they will hear and which ignore.[4] The Court's high degree of selectiveness is manifest in the proportion of cases snubbed or dismissed: out of more than seven thousand petitions brought to the Court yearly in the last decade, a ruling was made in only 80 or so. By this count, nearly 99 percent of the cases are denied a hearing, making Supreme Court decisions a rare event (Baum 2007:86). Agenda power in the U.S. is centralized in justices themselves.

In sharp contrast, the Mexican Constitution mandates that "*the* federal tribunals"—emphasis added: that includes the Supreme Court—"will resolve all disputes" arising from statutes and policy that encroach on citizen, state, or the federal government's constitutional rights (art. 103). Since the judiciary is a purely reactive power (cf. Hamilton 1961), it should be conceded that, of all the disputes, the text must tacitly exclude those not petitioning a writ. But even this qualification does not improve much the minimal room left for Supreme Court discretion in setting its own business. Agenda power in Mexico is decentralized, resting outside the Court.

In practice, the Mexican Court rejects a large number of petitions due to legal technicalities. The Court dismissed 799 judicial review petitions of a total of 1,333 in the period, three-fifths of all (Sánchez 2008, ch. 5). The rejection rate is remarkably high on first impression, but that requires qualification. First, a total

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They occasionally succeed, one-dimensional normality appearing punctuated by momentary, heresthetic lapses of higher dimensionality. See Riker (1996), Shepsle (2003).

[4]Agenda power is more or less evenly distributed among individual justices in the U.S. A case is selected from the discuss list if four or more justices vote to grant the writ in conference. The Chief Justice prepares the discuss list, but other justices can and do add cases freely. See Baum (2007:86–98).

of 321 of the rejected petitions were filed simultaneously by municipalities from the state of Oaxaca challenging a federal constitutional reform falling short of granting indigenous communities the full autonomy demanded in peace accords with Zapatista rebels in 2001. These writ petitions look like position-taking of some sort, and were all dismissed in a ruling that constitutional amendments are beyond the reach of judicial review. Excluding these strange requests the rejection rate drops below half of all. Second, when dismissing a petition, the Court has to give a justifying opinion, with justices' votes recorded and publicized. The dismissal of indigenous rights petitions was among those that sparked vocal reactions in the partisan arena. (Conveniently, the American Court has to give no reason whatsoever when choosing not to hear a case, another cross-national difference diluting agenda power in Mexico.) Third, appellants unable to afford quality legal advice will be likelier to see their cases disregarded on procedural grounds. The bulk of dismissals involved petitions by minor actors. It is useful to distinguish two types of judicial review cases (discussed in more detail in the next section): municipalities—the lowest-level actor with standing in the Supreme Court—can only petition via Controversy, restricting Actions to higher-level political actors. It is telling that the rejection rate is much higher Controversies (74%) than in Actions (27%). In judicial review cases, parties, legislatures, and executive agencies at different levels are much less likely to lack access to minimally competent lawyers, making it much harder to dismiss their cases. Major political actors effectively act as the Court's agenda setters in judicial review.

Centralized agenda power coincides with one-dimensionality in the U.S. court. It is well established that justices cleave neatly into a liberal–conservative spectrum (Baum 2007:122–6, Hagle and Spaeth 1993, Segal and Cover 1989, Segal and Spaeth 1993). Whether or not this continuum is the same along which politicians in the Court's wider environment arrange is a matter of controversy. Many scholars emphasize the limits that legal doctrines impose on justice policy preferences. Bailey and Maltzman (2008) are among those who argue that the Court's space conflates ideological and legal questions. By using the positions of elected politicians—who have little reason to be influenced by legal doctrine—on the cases heard in the court, they are able to disentangle two dimensions, political ideology and legal doctrine, in their estimation of justices' ideal points.

We hasten to add that Bailey and Maltzman's results do not imply that the U.S. Court is two-dimensional. By virtue of centralized agenda power, political and legal influences combine linearly into a structure-induced one-dimensional space that scholars have systematically detected. The rest of the paper shows that, even without relying on the Bailey-Maltzman method to separate the political from the legal, ideal point estimation in the Mexican Supreme Court recovers a two-dimensional space. This is expected in a Court without centralized agenda power.

Name	Years served	Nominating president	Justice replaced	Appointing parties
José Aguinaco	1995–2003	Zedillo	(New Court)	PAN+PRI
Juventino Castro	1995–2003	Zedillo	(New Court)	PAN+PRI
Humberto Román	1995–2004[†]	Zedillo	(New Court)	PRI
Juan Díaz	1995–2006	Zedillo	(New Court)	PAN+PRI
Mariano Azuela	1995–2009	Zedillo	(New Court)	PAN+PRI
Genaro Góngora	1995–2009	Zedillo	(New Court)	PAN+PRI
Sergio Aguirre	1995–(2012)	Zedillo	(New Court)	PAN+PRI
Guillermo Ortiz	1995–(2012)	Zedillo	(New Court)	PRI
José de Jesús Guniño	1995–(2015)	Zedillo	(New Court)	PAN+PRI
Olga Sánchez	1995–(2015)	Zedillo	(New Court)	PRI
Juan Silva	1995–(2015)	Zedillo	(New Court)	PRI
José Ramón Cossío	2004–(2018)	Fox	Aguinaco	PAN+PRI+PRD
Margarita Luna	2004–(2018)	Fox	Castro	PAN+PRI+PRD
Sergio Valls	2004–(2018)	Fox	Román	PAN+PRI+PRD
José F. Franco	2007–(2021)	Fox	Díaz	PAN+PRI+PRD

† Died in office; term should have ended 2006. Source: Sánchez, Magaloni and Magar (2011).

Table 1: Supreme Court nominations 1995–2007

3 Data

Prior to an overhaul in 1994, the Mexican Supreme Court adjudicated against encroachment of constitutional rights through the *amparo* trial only. *Amparos*, which still represent the bulk of cases heard in the Court today, have limited reach because the ruling can only relief the petitioner, lacking general effects. The reform expanded the Court's judicial review power, turning it into a constitutional tribunal.[5]

The new Court opened shop in January 1995. Eleven justices, listed in Table 1, were newly appointed. The PRI remained in control of a two-thirds majority in the Senate, so was free to pack the Court at will. President Zedillo and his party ultimately opted, probably out of the need to instill credibility to the new tribunal, to negotiate seven appointees with the then second-largest party, the right-of-center PAN. But four members (Justices Ortiz, Román, Sánchez, and Silva) were appointed with the votes of PRI senators only. Another feature of the reform makes this number unlikely to be accidental: the Court's rulings do not annul legislation unless at least 8 justices vote against the constitutionality of the law. We shall keep an eye on these four justices in the original bench because their joint action sufficed to limit the stakes of constitutional disputes.

We examine the entirety of publicized judicial review decisions from January 1995 to August 2007. Included are two general types of disputes announced earlier. *Acciones de inconstitucionalidad* (which we dub Actions) are a form of judicial review that can be promoted by one-third or more of the members of
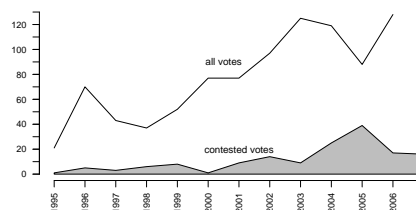
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[5]For a comprehensive review of the reform, see Sánchez (2008) and Sánchez, Magaloni and Magar (2011).

Part A Number of filed constitutional Actions and Controversies
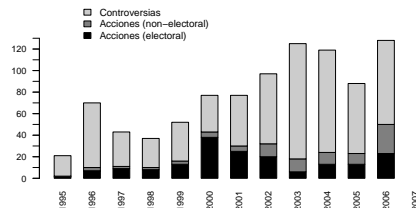
Part B Contested votes as a portion of all roll call votes

Source: Sánchez 2008.

Figure 3: Actions and Controversies heard in the Mexican Supreme Court. Excludes indigenous rights controversies discussed in text.

a chamber of Congress and the Solicitor General against federal laws or international treaties; by one-third or more of a state assembly against state laws; and by the leaders of registered national political parties against federal election laws. Through *controversias constitutionales* (or Controversies), the Court adjudicates conflict between the branches (eg. one chamber of Congress v. the Executive) and levels (eg. a municipality v. its parent state) of government. There are strong limitations to the reach of the Court's role as constitutional tribunal—the most notorious, doubtless, is that citizens have no standing to petition judicial review—but by most standards these rulings mark a new era in the Mexican judiciary.

The data comes from Sánchez (2008). Of 1,358 Court decisions in the period, one-fourth were Actions and three-fourths Controversies. Less than one-third of rulings took place prior to the PRI's loss of the presidency in 2000. Figure 3.A provides an annual breakdown of petitions heard in the Court by type. Several patterns emerge. The temporal trend has been towards a busier Court in both Actions and Controversies. With variance, most Actions have involved electoral appeals; since 2000, however, the number and proportion of non-electoral Actions has risen continuously. Of more direct relevance for estimation, panel B separates unanimous from contested decisions. We consider a vote contested if at least one justice present in the panel voted contrary to the rest. Unanimous rulings, quite common in the Court, offer no information to infer ideology and are therefore dropped from analysis. A total of $I = 153$ votes between 1995 and 2007 were contested, about 16% of all. An annual breakdown of this share
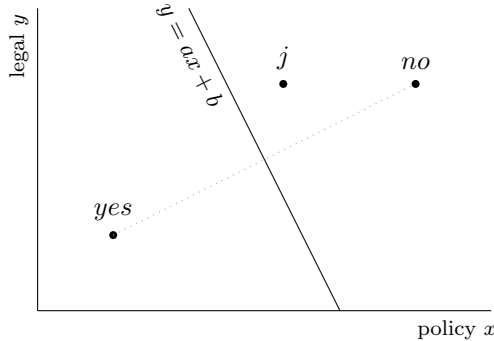
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Figure 4: Vote determinant in two dimensions

reveals variance in the Court's propensity to divide. The Aguinaco (1995–98) and Góngora (1999-2002) Courts are close to the overall average, but the Azuela (2003–06) and Ortiz (2007–11, only first year observed) Courts were ostensibly above and below the average, respectively.

We next present a method to infer justices' ideal points and their temporal change from the data.

4 Methods

We rely on a dynamic item response model similar to Martin and Quinn (2002) for estimation. We believe that our paper makes two methodological innovations: in accordance with the discussion in section 2, we adapt the Martin–Quinn model to specify ideal points in two dimensions instead of one; and we show that such model can be estimated in BUGS.[6]

Ideal point estimation methods rely on the spatial model of voting, reversed: instead of taking preferences as given to explain voting—as in the examples in Figures 1 and 2—the trick is to take observed votes as given in order to estimate ideal points through the same theoretical apparatus (see Poole and Rosenthal 1997). When deciding a ruling, a justice locates the implications of voting *yes* ($v = 1$, for the petitioner) or *no* ($v = 0$, against the petitioner) in space. Figure 4 illustrates. Key for analysis is the alternatives' cut-line, the line orthogonal to the (dotted in the figure) segment connecting *yes* and *no* also passing through the middle of that segment. Thus defined, justices with ideal points on one side of the cut-line necessarily have *yes* closer, and vote accordingly; the rest vote *no*. The hypothetical justice j in the figure being above (on the *no* side of) the cut-line opposes granting the petition. The method observes the vote and from

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[6]BUGS (Lunn, Thomas, Best and Spiegelhalter 2000) is a free program to perform Bayesian estimation of complex statistical models using MCMC methods. Pre-estimation data set-up and post-estimation analysis were done in R (R Development Core Team 2009).

it attempts to estimate the slope and constant for the cut-line and the ideal point's coordinates.

Noting in Figure 4 that $y > ax + b \Leftrightarrow ax + b - y < 0$ are points above the cut-line, we formalize a simple voting rule. Justice j's vote propensity (also known as the utility differential) on item i is $v_{j,i}^* = a_i x_j + b_i - y_j$, where x_j and y_j are the horizontal and vertical coordinates, respectively, of justice j's ideal point θ_j in space, a_i and b_i are the slope and constant of item i's cut-line, and the voting rule is $v_{j,i} = 1$ if and only if $v_{j,i}^* \geq 0$, otherwise $v_{j,i} = 0$. We multiply the vote propensity by a weight $\delta_i \in \mathbb{R}$ and add an error term, leaving the stochastic equation as

$$v_{j,i}^* = \delta_i(a_i x_j + b_i - y_j) + \text{error}_{j,i}. \tag{1}$$

A larger δ_i (in absolute value) indicates a more polarizing issue, an item discriminating ideology better. In the extreme, where $\delta_i = 0$, the utility differential plays no role and voting is entirely determined by the random disturbance. A negative δ_i reverses yes and no votes, letting analysis proceed without an a priori judgment about which vote falls on what side of the cut-line.

Since we are observing the genesis of judicial review in Mexico, and because the Court's environment in the last decades saw the replacement of a hegemonic party system by one with multiparty, competitive elections, it seems only natural to expect a degree of instability and adaptation in judicial behavior throughout the period. We opted for these reasons in favor of a dynamic specification capable of estimating temporal drift in justices' ideal points. As in the Martin–Quinn model, we break time into discrete periods, categorizing roll call votes into $T = 7$ biennia (the 2007–08 biennium remains incomplete, our series ends too soon). Justice j's dynamic ideal point at biennium t, noted $\theta_{j,t}$ is specified in such way that it is auto-correlated with j's ideal point in the previous biennium. Formally, $\theta_{j,t} \sim N(\theta_{j,t-1}, \text{slack})$, where the slack term constrains the degree of auto-correlation.[7] As slack tends to infinity, results become the same as when each biennium is estimated separately; and slack $= 0$ renders the model static. This specification captures a justice's voting drift and realignments within the Court.

With model and data ($I = 153$ roll call votes) thus structured, we proceed to estimate equation 1 with the Bayesian MCMC method (see Jackman 2000). This will produce, among other parameters, one ideal point estimate for each of $J = 15$ justices along $T = 7$ biennia. While the Mexican court has 11 members at any time, four replacements occurred in the period, bringing the aggregate to fifteen (see Table 1). Justices absent throughout a full biennium were not estimated at that point in time.[8] The Appendix provides a sample of the code

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[7]The slack term is established a priori by Martin–Quinn. We settled inductively on a value of slack $= .067$, roughly equivalent to a .25 standard deviation for the normal distribution. Given the –1 to 1 spread given to space by our priors (see below), .25 allows an inter-biennial slack of one-eighth the spread of space in each direction. Relying on higher (lower) values for slack made ideal points more (less) volatile from t to $t+1$, but the general trends in movement were the same as those we report.

[8]We defined a dummy $dj_{j,i}$ equal to one if justice j was on the bench during all or part of

we prepared to implement the model.

Section 6 will present our results. Before this, the next section offers a map to orientate in the two-dimensional space of the Mexican Supreme Court.

5 Substance

The Bayesian method requires prior probability distributions to be assigned to every parameter that will be estimated in the model.[9] Priors given to ideal points serve another important purpose in the analysis: they create a sort of compass to navigate the space. By anchoring four justices in informative coordinates we give the arbitrary scale on which estimates are mapped a unit and a sense of direction. All ideal point coordinates (and other parameters) are therefore expressed relative to extremists. We briefly discuss the decisions made and their meaning.

As shown in Figure 5, we pinned Justice Gudiño in the North, Aguirre in the East, Góngora in the South, and Silva in the West of the Court's space. This choice is grounded in a comprehensive study of dissenting votes by Sánchez (2008, also reported in Sánchez et al. 2011), and gives substantive meaning to these extremes.[10] Justices Gudiño and Góngora were systematic in framing (contrary) opinions around the theme of the proper role and scope of the Court in the Mexican government in several important rulings. This is why their positions as North–South extremes pin down the 'legal doctrine' vertical dimension. Justice Gudiño's dissents often espoused judicial restraint. As used here, restraint includes justices who call for a limited interpretation of both the Court's jurisdiction and the rules of standing. It is also related to textualism or the literal interpretation of the law. Justice Góngora, on the contrary, was vocal in pushing in favor of an activist Court. Judicial activism implies a willingness to overturn precedent limiting the scope of the judiciary in the system of separation of power (Ginsburg 2003, McCloskey 2005). It is also related to non-literal interpretation of legal prose, often basing decisions on non-juridical reasoning.

Justices Aguirre and Silva showed marked propensities to attack and defend the status quo, respectively, anchoring the 'policy' dimension, which appears horizontal in our space. It captures gradations in the policy cleavage of the party system from which the preferences of the elected branches feed. Through the

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the biennium in which item i was voted, zero otherwise. By multiplying the vote propensity by this dummy, we were able to zero out justices totally absent in a biennium from the estimation equation. See the appendix for a sample of the code used for estimation.

[9]We adopted non-informative priors for all parameters—ie. $\theta_{j,0} \sim N([0,0],[1,1])$; $\delta_i \sim N(0,10)$; $a_i \sim unif(-\infty,\infty)$; and $b_i \sim N(0,10)$—except the four justices' ideal points discussed in the next paragraph. These were instead given the following semi-informative priors for the period $t = 0$: $\theta_{Aguirre,0} \sim N([-1,0],[.25,.25])$; $\theta_{Góngora,0} \sim N([0,-1],[.25,.25])$; $\theta_{Gudiño,0} \sim N([0,1],[.25,.25])$; and $\theta_{Silva,0} \sim N([1,0],[.25,.25])$. All distribution dispersions in this footnote are variances; the code in the appendix, however, expresses them in terms of precision (the inverse of the variance) in accordance with Bugs nomenclature.

[10]We are quite confident that the four anchors chosen are indeed extremists: they always outflanked other justices chosen as alternative extremes in preliminary runs of the model.
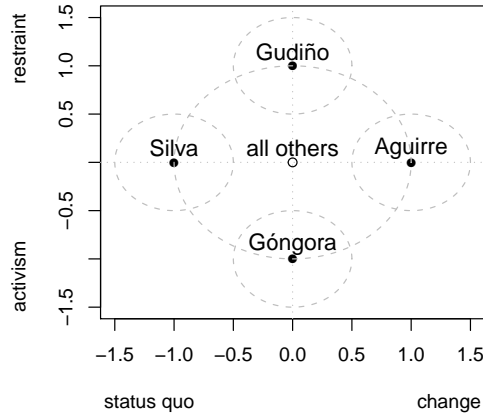
Figure 5: Extremists in two dimensions. Points and hashed circumferences indicate the location of the mean and standard deviation, respectively, of prior justices' ideal point distributions at $t = 0$ used for estimation.

appointment process and other external influences, the cleavage percolates with more or less fidelity and strength to the Supreme Court. In the Eastern extreme of this axis are conservative (broadly construed) justices who defend the status quo; in the Western, those favoring change. This resembles but is not exactly a classic left–right divide because the status quo inherited by seven decades of PRI rule is an odd mix of socialist (eg., state monopolies in key industries), nationalist (eg., barring foreigners from any sort of political activity), and anti-citizen (eg., prohibitive entry barriers to the ballot) positions.

Our two dimensions are not perfectly orthogonal. Legal considerations can be set aside whenever they point towards upholding undesirable policy—liberals often seek to overturn conservative precedents but maintain liberal ones. This is precisely the exercise that centralized agenda power achieves when collapsing policy to a structure-induced one-dimension. But the legal dimension has life of its own: anyone truly putting a very high value to judicial orthodoxy will willingly sacrifice policy in favor of sounder legal argument (cf. Bailey and Maltzman 2008). We now show that, by virtue of decentralized agenda power, all four quadrants of space have had occupants, for some time at least, from among the justices of Mexican Supreme Court.

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Justice	'95-'96	'97-'98	'99-'00	'01-'02	'03-'04	'05-'06	'07-'08
				Contested votes observed			
	6	9	9	23	29	61	16
			Posterior means of $\theta_{j,t}$'s x,y coordinates				
Aguinaco	$-.7,-.2$	$-.7,-.2$	$-.6,-.2$	$-.6,-.1$	$-.6,-.1$	NA	NA
Aguirre	.8,.0	.6,$-.1$	.4,$-.2$	.2,$-.1$	.2,$-.1$	.2,.2	.2,.2
Azuela	$-.2,-.1$	$-.1,.0$	.0,.0	.1,.0	.1,.1	.1,.3	.1,.2
Castro	$-.2,.0$	$-.2,.0$	$-.1,.0$	.1,.0	.2,.0	NA	NA
Díaz	$-.7,.0$	$-.7,-.1$	$-.6,-.1$	$-.6,-.1$	$-.5,-.1$	$-.3,-.1$	NA
Góngora	.4,$-.9$	.4,$-.9$	.3,$-.9$	.2,$-.9$	.1,$-.9$	$-.2,-.9$	$-.2,-.8$
Gudiño	.5,1	.4,1	.3,1.1	.1,.9	.0,.9	$-.1,.7$	$-.1,.6$
Ortiz	$-.4,.4$	$-.3,.5$	$-.2,.4$	.0,.4	$-.1,.4$	.0,.5	.0,.5
Román	$-.5,.0$	$-.5,.0$	$-.5,.0$	$-.6,-.1$	$-.5,-.1$	NA	NA
Sánchez	$-.4,-.1$	$-.3,-.1$	$-.2,-.1$	$-.1,-.1$	$-.2,-.2$	$-.2,-.4$	$-.2,-.4$
Silva	$-.6,-.2$	$-.5,-.2$	$-.5,-.3$	$-.5,-.3$	$-.3,-.3$	$-.2,-.4$	$-.2,-.4$
Cossío	NA	NA	NA	NA	.1,$-.2$	.1,$-.3$	.1,$-.3$
Luna	NA	NA	NA	NA	.0,.3	$-.1,.3$	$-.1,.2$
Valls	NA	NA	NA	NA	.1,.3	.2,.4	.2,.4
Franco	NA	NA	NA	NA	NA	NA	.0,.8
			Posterior standard deviations for x,y				
Aguinaco	.3,.4	.3,.4	.3,.4	.3,.4	.3,.4	NA	NA
Aguirre	.3,.4	.3,.3	.3,.3	.3,.3	.3,.3	.4,.4	.5,.4
Azuela	.3,.4	.3,.4	.3,.3	.3,.3	.3,.3	.3,.3	.4,.4
Castro	.3,.4	.3,.4	.3,.4	.3,.4	.3,.4	NA	NA
Díaz	.3,.4	.3,.4	.3,.4	.2,.3	.3,.3	.3,.3	NA
Góngora	.3,.4	.3,.4	.3,.4	.3,.3	.3,.3	.4,.3	.4,.4
Gudiño	.3,.4	.4,.4	.4,.3	.3,.3	.3,.3	.3,.3	.4,.4
Ortiz	.3,.4	.3,.4	.3,.3	.3,.3	.3,.3	.3,.3	.4,.4
Román	.3,.4	.3,.4	.3,.4	.3,.4	.3,.4	NA	NA
Sánchez	.3,.4	.3,.3	.3,.3	.2,.3	.3,.3	.3,.3	.4,.4
Silva	.3,.4	.3,.4	.3,.4	.3,.3	.3,.3	.3,.3	.4,.4
Cossío	NA	NA	NA	NA	.5,.5	.4,.4	.5,.5
Luna	NA	NA	NA	NA	.3,.3	.3,.3	.3,.4
Valls	NA	NA	NA	NA	.5,.4	.4,.4	.5,.4
Franco	NA	NA	NA	NA	NA	NA	.7,.7

Table 2: Dynamic ideal point estimates for the Mexican Supreme Court. NAs for justices not in Court; red for PRI appointees; blue for PAN nominees.

6 Results

MCMC ideal point estimates appear in Table 2. It reports justice (those with a j subscript in equation 1) but not item (i subscript) parameters. Even so, the large number of estimates makes for a difficult read of the results in table format and present them graphically below. We just remark that the number of contested votes on which each biennium's estimates are produced varies considerably, from 6 in 1995–96 to 61 in 2005–06. Bayesian estimation can proceed with small samples. And the dynamic specification has the advantage that, when estimating parameters for one biennium, the data of other biennia partially inform it through the autoregressive process. Still, having more data, through a longer series or by including some *amparos* for all biennia, would be suitable. The table reports the mean and standard deviation of posterior parameter densities upon thousands of iterations.[11] The modal standard deviation is .3 horizontally, .4 vertically, and little change in estimate precision is manifest across justices and time. This represents a considerable improvement over prior standard deviations at $t = 0$ of .5 for anchors and 1 for the rest, so something is learned from the data. But there remains a good deal of imprecision in the estimates that, as we develop later, is possibly linked to strategic behavior by justices that are improperly shielded from political tempests. Estimates are somewhat less precise towards the end, especially for late entrants, no doubt an artifact of observing biennium $t = 7$ only partially.

In red are the names of justices appointed with PRI support only; we shall refer to them as the 'Gang of Four'. In blue are replacements, justices appointed after Fox won the presidency. Figure 6 offers a friendlier, visual representation of the estimates. Each panel covers one biennium, its ellipses centered at the median of each ideal point's posterior density, where the name of the corresponding justice lies. Circumferences are Bayesian confidence intervals including 95 percent of the posterior density vertically and horizontally. (They are solid to distinguish them for those in Figure 5, which portray prior standard deviations.) The period began with a solid block of justices with indistinguishable ideal point densities at the West end of space. The most straightforward interpretation of proximity in spatial models is voting likeness, so the group included seven members of the bench who mostly voted identically in judicial review cases heard in the 1995-96 biennium. While Justice Ortiz did not belong to the inner core of the block, his degree of overlap with the cluster is such that it is safe to say that the monolith included the full Gang of Four. With Ortiz in, the monolith (or Extended Gang) summed eight votes, just enough for a Court opinion to invalidate statutes on constitutional grounds and set precedents. The presence of the Four at the pro-status quo end of the policy axis suggests that post-reform Supreme Court was, in part at least, an insurance scheme by the PRI to congeal hegemonic-era policy in case the opposition succeeded in pushing them

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[11]We updated three chains 100 thousand times each, dropping the first half, then took every hundredth observation of the remainder as posterior sample. Gelman and Hill's (2007) $\hat{R}$ statistic offered evidence that the chains had converged to a steady state; a visual inspection of the chains corroborated that conclusion.
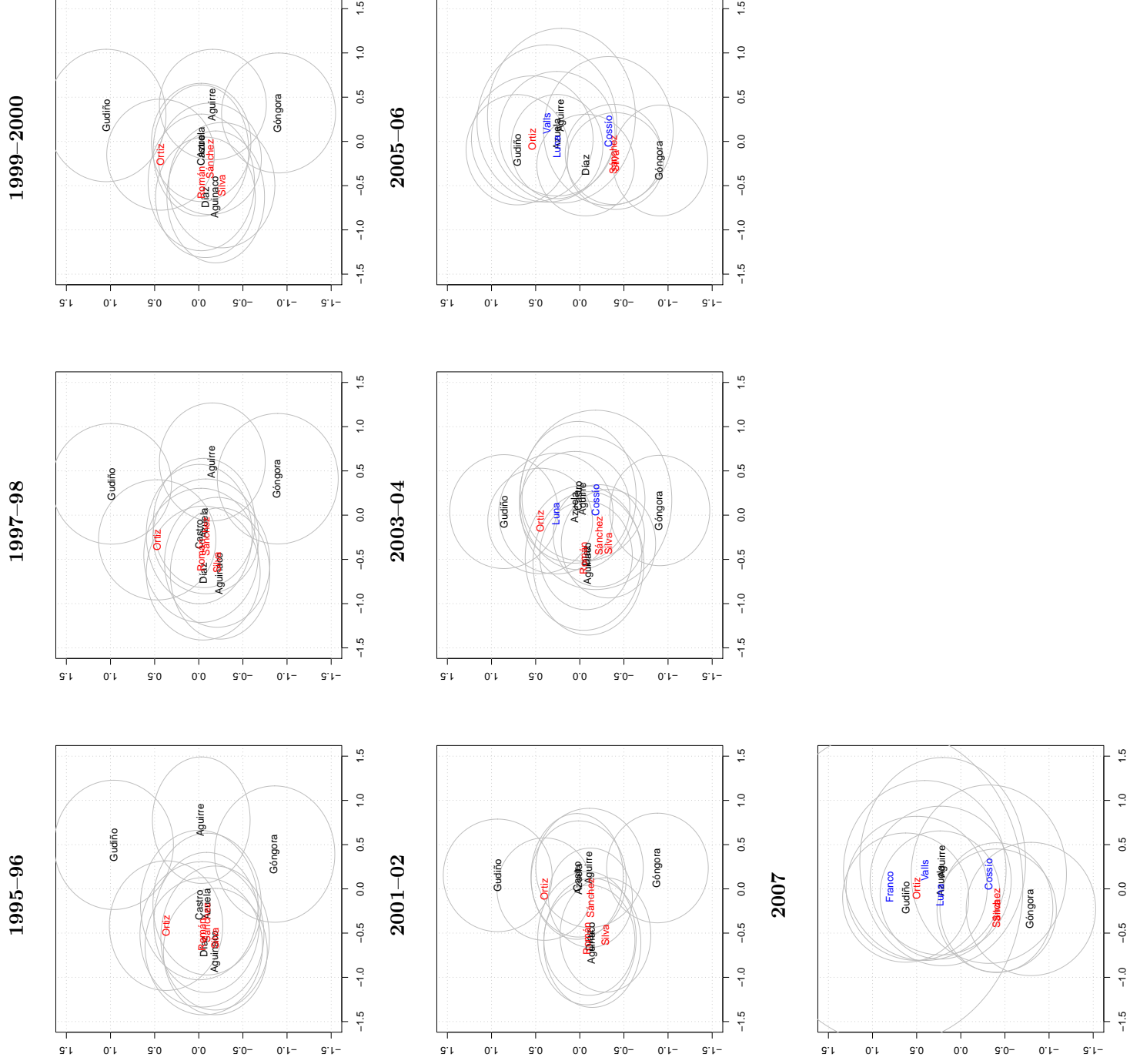
Figure 6: Two-dimensional dynamic ideal point estimates in the Mexican Supreme Court

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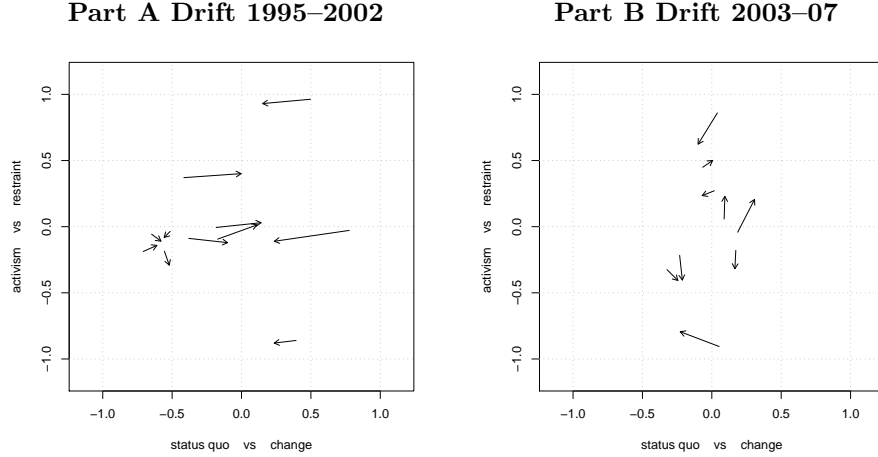**Part A Drift 1995–2002**　　　　**Part B Drift 2003–07**

Figure 7: Ideal point drift in two periods. The right panels exclude justices who were not members of the Court throughout the 2003–2007 period, see text.

out of government (McNollgast 1994, Sánchez, Magaloni and Magar 2011). The insurance scheme, however, was short-lived.

Excluded from the Extended Gang were Justices Gudiño, Aguirre, and Góngora, who often voted against the rest and expressed dissenting opinions. They nonetheless dissented in different subsets of cases, as their quite distant ideal points reveal. Their Northern, Eastern, and Southern positions, respectively, are partly due to the larger influence of $t = 0$ priors on biennium $t = 1$. Anchors all slid towards the center from their prior positions, but they also retained their relative positions to a large degree in subsequent biennia by virtue of systematic voting differences, drifting in space in the same slow manner as other members of the bench.

Ideal point drift was considerable over the period we scrutinize. Movement was gradual but persistent, so a few discrete periods later the Court's preference profile had changed quite drastically from what it had been. Notable in the first periods is the gradual erosion and imminent disbandment of the Extended Gang. The block remained quite cohesive in the first two biennia, perhaps also in the third, although by then Justice Ortiz overlapped relatively less with it and more with Justice Gudiño's northern density, a pull towards preference for judicial restraint. By 2001-02 the bloc had split in two nearly distinct halves, Justices Aguinaco, Díaz, Román, and Silva voting together towards the West, Justices Azuela and Castro now virtually indistinguishable from Aguirre, who had occupied the far East at the start but migrated towards the center of the policy axis. Justice Sánchez bridged the two halves.

With Ortiz's exception, the Gang of Four remained quite united until 2003-04, when three replacements took place in the bench and drift trajectories

changed. The Gang lost one member, Justice Román, and it is interesting to note that those remaining split increasingly on the vertical dimension. Overall drift trajectories are summarized in Figure 7. The figure portrays the beginning-to-end drift in central ideal point tendencies between 1995 and 2002 (panel A) and between 2003 and 2007 (panel B). Movement in the first four biennia was mostly horizontal, rearranging justices towards the center of the policy axis while leaving their vertical coordinates mostly unchanged. The second part include nine arrows only because justices exiting before 2007-08 biennium (Aguinaco, Castro, Díaz, and Román) and the one entering after the 2003-04 biennium (Franco) had to be dropped. But overall drift trajectories re-arranged justices along the legal doctrine axis, with only minor adjustments in horizontal coordinates. By the time newcomers arrived, voting patterns changed in such way that horizontal variance lost importance relative to vertical variance. In 2003–04 and subsequent biennia, Court members rearranged to more or less align on a nearly vertical axis, defined from the outset by Justices Góngora and Gudiño.

How did Court cleavages evolve from primarily East–West to primarily North–South over a relatively short period? We read drift patterns as indicative of two general changes in Court behavior.

First, the new constitutional tribunal established where none existed before operated with an absolute lack of precedent in matters of judicial review. This left justices considerable margin to engage in judicial activism, defining (expanding) their exact role in the system of separated powers. In fact, the Court began accepting to hear parts of cases that were not clearly in its jurisdiction since quite early, a process led systematically by Justice Góngora and opposed by Justice Gudiño. The evolution of the Court's criteria culminated with the famous case of *Temixco* (1999).[12] The pull of the vertical, legal doctrine dimension was in this sense hard to resist, and the Court clearly began deciding along two axes of controversy between 1999 and 2002.

Second, migration to the vertical axis is perhaps associated with another aspect of decentralized agenda power. Justices in the American bench are free to be strategic by rejecting petitions that they suspect might pull them into harmful political fights. Centralized agenda power shelters them quite effectively from political tempests. Mexican justices enjoy little margin to do the same. Decentralized agenda power can be said to permanently situate their workplace outdoors, exposed to every political meteor on the horizon. And big storms have indeed arrived, and most likely will continue. The erosion of the PRI's hegemony failed to consolidate a new majority, so outcomes of the electoral arena and the composition of the elected branches remained subject to much uncertainty throughout the period. Rational justices should also do something about this, attempting to make this situation less uncomfortable and their careers more secure. But the institutional setup of the Mexican Court forces them to do this differently. By framing opinions as a matter of doctrine justices try to avoid, or at least cover as well as possible, the policy consequences of rulings that

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[12]Discussed in Sánchez (2008). A detailed description of the evolution in the Court's criteria is found in Justice Cossío's dissenting vote in Controversy 18/2003.

inevitably divide the main parties in Congress. The arrival of (blue) newcomers consolidated this tendency.

Future work needs to explain the relative merits of these (and perhaps other) explanations of Court realignments. In any event, even if the last biennia appear one-dimensional, all four quadrants of the two-dimensional policy space were occupied by ideal points in some of the seven biennia. The decisions of the Mexican Supreme Court have been two-dimensional, as expected for committees with decentralized agenda power. The very nature of decentralized agenda power offers little guarantee that justices will be able to avoid policy questions for long, and this would break the neat North–South alignment they have achieved.

7   Conclusion

This paper has built upon an intuition from a simple but popular model of political bargaining that agenda power, when centralized, induces one-dimensional policy. Noting that the Mexican Supreme Court operates under decentralized agenda power, we test the expectation that its justices cleave in a two-dimensional policy space, unlike those in the U.S. who have been shown to decide in one-dimensional space. The analysis of judicial review petitions heard between 1995 and 2007 corroborates our expectation of higher dimensionality. A dynamic estimation of justices' ideal points also describes dramatic changes in Court cleavages in a period when precedents are being established. The starting dominion of a conservative, pro-status quo bloc was ephemeral, disrupted by what we see is the pull of legal doctrines. Towards the end of the period, when new justices were appointed, the legal dimension had clearly overshadowed the policy dimension in Court rulings. The new predominant line of cleavage confronts opposing views about the role and scope of the Supreme Court's rulings. The primacy of this line of debate may also reflect strategic behavior by justices attempting to shield the bench from political battles that they cannot avoid precisely because they lack control of their agenda.

Our research also raises new and interesting questions. The drastic realignments that we have uncovered suggest one obvious line of inquiry, turning drift into the dependent variable and look for its determinants. We have suggested institution building in the context of an absolute lack of precedent as well as a strategic response by justices improperly shielded from the political backlashes. Since Courts differ from legislatures in the importance of deliberation, a systematic study concurrent and dissenting opinions should illuminate the mechanism behind ideal point drift. And the study of a sample of *amparo* trials, where justices have much better control of the agenda, should help confirm the centrality that, we claim, decentralized agenda power has in Court behavior.

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8   Appendix: BUGS code

```
model {
  for (j in 1:J){                                           ## LOOP OVER JUDGES
    for (i in 1:I){                                         ## LOOP OVER ITEMS
      v.hat[j,i] ~ dbern(p[j,i]);                           ## VOTING RULE
      p[j,i] <- phi(v.star[j,i]);                           ## SETS 0<p<1
      v.star[j,i] ~ dnorm(mu[j,i],1)I(lo.v[j,i],hi.v[j,i]); ## TRUNCATED NORMAL SAMPLING
      mu[j,i] <- delta[i]*a[i]*(xOne[j]*dOne[i]*dj[j,i] + xTwo[j]*dTwo[i]*dj[j,i]
        ## [[ADD SAME FOR PERIODS THREE THRU SIX]]
        + xSeven[j]*dSeven[i]*dj[j,i]) + delta[i]*b[i]
        - delta[i]*(yOne[j]*dOne[i]*dj[j,i] + yTwo[j]*dTwo[i]*dj[j,i]
        ## [[ADD SAME FOR PERIODS THREE THRU SIX]]
        + ySeven[j]*dSeven[i]*dj[j,i])                      ## UTILITY DIFFERENTIAL
              }
            }
  for (j in 1:J){                                           ## SLACK PARAMETERS
      xOne[j] ~ dnorm (xZero[j],15); yOne[j] ~ dnorm (yZero[j],15);
      xTwo[j] ~ dnorm (xOne[j],15);  yTwo[j] ~ dnorm (yOne[j],15);
      ## [[SAME FOR PERIODS THREE THRU SIX]]
      xSeven[j] ~ dnorm (xSix[j],15); ySeven[j] ~ dnorm (ySix[j],15);
              }
  for (i in 1:I){
  a[i] <- sin(angle[i]) / sqrt(1-sin(angle[i])*sin(angle[i]))
              }
                                                            ## PRIORS
    xZero[1] ~  dnorm( 1, 4); yZero[2] ~  dnorm( 0, 4)      ## AGUIRRE
    xZero[2] ~  dnorm( 0, 4); yZero[3] ~  dnorm(-1, 4)      ## GÓNGORA
    xZero[3] ~  dnorm( 0, 4); yZero[4] ~  dnorm( 1, 4)      ## GUDIÑO
    xZero[4] ~  dnorm(-1, 4); yZero[1] ~  dnorm( 0, 4)      ## SILVA
    for (j in 5:15){
       xZero[j] ~  dnorm(0, 1); yZero[j] ~  dnorm(0, 1)     ## REST
                }
    for(i in 1:I){
        delta[i] ~ dnorm( 0, 0.1)
        angle[i] ~ dunif(-1.57,1.57)                        ## (-PI/2,PI/2)
        b[i] ~ dnorm( 0, .1)
                }
}
```

Key for terms in utility differential:

- `delta[i]` is item i's difficulty parameter;

- `a[i]` and `b[i]` are the slope and constant parameters of item i's cutline, respectively;

- `xOne[j]` and `yOne[j]` are the coordinates for member j's ideal point in biennium One ($t = 1$); `xTwo[j]`, `yTwo[j]` ... `xSeven[j]`, `ySeven[j]` defined analogously for biennia $t = 2 \ldots 7$;

- `dOne[i]` is a dummy equal to 1 if item i was voted in biennium One ($t = 1$), 0 otherwise; other dummies `dTwo[i]` ... `dSeven[i]` defined analogously for $t = 2 \ldots 7$; and

- `dj[j,i]` is a dummy equal to 1 if judge j was a member of the Court in the biennium when item i was voted; 0 otherwise.

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