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Ideological influences on governance and regulation: The comparative case of supreme courts

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Abstract
A key influence on governance and regulation is the ideology of individual decisionmakers. However, certain branches of government – such as courts – while wielding wide ranging regulatory powers, are expected to do so with no attitudinal influence. We posit a dynamic response model to investigate attitudinal behavior in different national courts. Our ideological scores are estimated based on probability models that formalize the assumption that judicial decisions consist of ideological, strategic, and jurisprudential components. The Dynamic Comparative Attitudinal Measure estimates the attitudinal decisionmaking on the institution as a whole. Additionally, we estimate Ideological Ideal Point Preference for individual justices. Empirical results with original data for political and religious rights rulings in the Supreme Courts of the United States, Canada, India, the Philippines, and Israel corroborate the measures' validity. Future studies can utilize Ideological Ideal Point Preference and the Dynamic Comparative Attitudinal Measure to cover additional courts, legal spheres, and time frames, and to estimate government deference.

Keywords: attitudinal decisionmaking, comparative law, judicial politics, supreme court, judicial ideology.

1. Introduction

A key influence on governance and regulation may be the ideology of individual decisionmakers. The style of governance, the extent of regulation and its type, the overall perception of the role of the state and its desired size, and the understanding of what constitutes justice may all be influenced by the ideology of officials. However, certain branches of government, while wielding wide ranging governing and regulatory powers, are expected to do so with no attitudinal influence. This is particularly true for judicial institutions and decisionmakers. While justices are policymakers in almost every sense of the word, decisions on the judiciary are expected to be devoid of any ideological influence. Yet literature indicates that in some countries the effect of attitudes may be substantial, especially at the highest levels of the judicial hierarchy. This, for instance, would be the case of attitudinal behavior on the United States (US) Supreme Court (Segal & Spaeth 2002, inter alia).

What are the effects of attitude on governance and regulation performed by the judiciary? To examine this question systematically, we suggest moving beyond case study design. Whereas the literature has focused predominantly on individual courts to achieve variance in the variety of judicial attitudes, we think there is a need to switch over to a comparative framework, in which we can juxtapose the attitudinal effects in different judicial systems around the world. To this end, this paper introduces a theoretical framework and an empirical dynamic index that apply to both the macro-level of the institution and the micro-level of the individual judicial decisionmakers. These allow us to compare attitudinal decisionmaking in different national high courts.

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According to the classic attitudinal model of Supreme Court decisionmaking, judges decide cases in accordance with their sincere ideological policy preferences in light of the stimuli presented by the facts of the case (Segal & Spaeth 2002). Strategic (Epstein & Knight 1998) and new-institutional (Clayton & Gillman 2012) approaches to judicial behavior accept the notion that attitudes are a main motivating factor in judicial decisionmaking. Such scholarship argues, however, that justices operate within a decisional terrain in which institutions and strategic considerations affect their ability to cast votes sincerely. Largely in line with the latter approaches, the underlying assumption of this project is that judicial decisions consist of ideological, strategic, and jurisprudential components to changing and dynamic degrees. Assuming that institutional design and political context variably influence these ideological, strategic, and jurisprudential components, our goal is to generate scores that reflect the overall level to which attitudes influence decisionmaking in each Supreme Court, as well as the ideological preference of the individual justices. The macro-level and micro-level measures elucidate the roles of ideology in judicial institutions.

The paper unfolds as follows. In Section 2, we expound the importance of developing an attitudinal comparative measure. We detail at least six potential ways in which our measure can contribute to existing attitudinal literature and advance the study of comparative judicial policymaking. Section 3 canvasses our theoretical and methodological framework. We present our proposed measure, using a dynamic response model that allows levels of attitudinal decisionmaking to change systematically according to voting patterns of individual justices and the nature of the cases they decide. Our model is estimated for each country separately, using a combination of Metropolis–Hastings and Green samplers within a 500,000-step Markov Chain Monte Carlo (MCMC) algorithm to fit our Bayesian model. The scores capture the tendency of judges in common law countries, across various types of cases, and over time, to deviate from the expected decision in each case, given the ideological disposition in the case and the number of dissenting and concurring judges. We produce measures at two levels. At the macro-level, the Dynamic Comparative Attitudinal Measure (DCAM) is a dynamic index that estimates the degree of attitudinal decisionmaking in that court. At the micro-level of the individual decisionmakers, we estimate a value pertaining to each justice's Ideological Ideal Point Preference (IIPP) compared with the ideological preferences of her colleagues on the court. In Section 4, we employ our measurement strategy and present initial empirical results. We use original data for decisions in political and religious rights cases in the supreme courts of the US, Canada, Israel, India, and the Philippines (we further explain our choice of issues and courts in the data sub-section). We find robust correlations of IIPP with existing attitudinal measures for the US and Canada. At the macro-level, the DCAM results were estimated for each of the five courts, measuring decisionmaking in the two issue areas separately, as well as providing a DCAM score for overall levels of attitudinal behavior in civil liberties cases. Those DCAM pilot scores show higher degrees of attitudinal decisionmaking in courts characterized by a more political appointment process, a privilege to set their own agenda (including intermediate appellate courts and discretionary review), and larger panels. In line with existing attitudinal literature, the DCAM pilot index indicates that justices on the US Supreme Court exhibit the highest levels of attitudinal voting. Canadian justices are significantly less attitudinal than in the US, followed closely by justices of the Supreme Court of the Philippines. The latter are particularly prone to attitudinal voting in political rights cases. Israeli Supreme Court justices are overall less attitudinal than in the Philippines (with the exception of cases reviewed by enlarged panels, where Israeli jurists' attitudinal behavior surpasses that of their Canadian counterparts). Finally, of the courts studied here, Indian justices display the lowest levels of attitudinal behavior.

The paper concludes with a discussion of the contributions and limitations of this project. We set out to create a new tool, a scale that can advance the study of comparative attitudinal behavior in courts. The scale's validity is tested and we provide pilot scores (IIPP and DCAM) for five supreme courts and their principal individual justices. While those attitudinal scores are based on the issue areas and periods under analysis, future research could capitalize on the measurement strategy developed here to cover additional courts, legal spheres, and time frames, and potentially develop scores for all common law courts.

2. Why model a Dynamic Comparative Attitudinal Measure (DCAM)?

This project is among the first to study and compare attitudinal decisionmaking in several high courts beyond North America and potentially in all common law countries or mixed systems of common and civil law traditions. Over the past few decades, the attitudinal model has been considered the dominant paradigm among scholars who engage in empirical research of American courts. Yet unlike other socio-legal theories and models, the model did not travel well beyond the US and has won scant empirical testing. We believe the scarcity of comparative empirical research in this

area is by no means an indication of irrelevance. Rather, it is a result of obstacles pertaining to measurement issues, which we strive to overcome here.

A comparative attitudinal measure can advance the study of judicial policymaking in at least six different ways. First, scores for attitudinal decisionmaking in each high court can contribute to socio-legal research in individual countries. IIPP provides the necessary building blocks for attitudinal and strategic empirical studies of judicial behavior. Furthermore, the effect of justices' attitudes on their rulings and the policy they make has implications for the normative role of the judiciary in any democratic system. The level of attitudinal voting in a court is relevant when debating judicial appointments or the institutions of checks and balances. This point is doubly important when justices in many nations are entrusted with some of the key questions of the hour (Hirschl 2004).

Second, comparative measures for attitudinal voting allow testing of hypothesized institutional effects. Attitudinal studies suggest, for instance, that the institutional setup of the US Supreme Court – featuring lifetime appointments, gatekeeping privileges, the judicial hierarchy, and minimized bureaucracy – is conducive to high levels of attitudinal decisionmaking (Segal & Spaeth 2002). Yet because such claims are applied predominantly in the American context, scholars are yet to subject them to rigorous empirical testing. With the benefit of variance inherent to a comparative framework, the DCAM and IIPP expand our understanding of the extent to which justices are attitudinal as a function of the divergent institutional and political environments in which they operate.

Third, comparative attitudinal measures may also be used to explain a range of political phenomena running the gamut from public trust in courts to levels of judicial activism. In this sense, the comparative measure would facilitate the empirical testing of normative claims concerning the relations between attitudinal patterns of judicial voting and courts' legitimacy and judicial activism.

Fourth, as we offer a dynamic measure, our proposed theory and scaling algorithm could be useful in studies seeking to explain changes in judicial behavior over time (in one country) or across different issue areas. For instance, the DCAM could be used for comparing levels of attitudinal decisionmaking before and after implementing reforms.

Fifth, as justices in several supreme courts decide cases in panels, we modeled our statistical algorithm to take into account the effects of group decisionmaking. This is indeed necessary for our comparative framework. Furthermore, it is an important contribution to existing measures of judicial ideal point estimates in American and Canadian courts, which rely on the assumption that judicial decisions are independent. Thus, such estimates do not account for potential effects of judicial deliberation, changes in the court's composition, drifts in colleagues' policy preferences, or shifting group dynamics. As the effects of any eight justices on the decisions of any ninth justice are *mostly* constant on courts deciding all cases en banc, this independence assumption is reasonably sound. However, not only does this assumption fail to carry over to courts with changing panels, but as IIPP takes into account fluctuations in the brethren's composition and attitudes, its estimates should be more precise than those available to date.

Finally, the suggested methodology can be applied in different international, national, and subnational settings. The DCAM, for instance, may be used to test the attitudinal consequences of institutional design on state supreme courts in the US (where cases are decided in panels) or to study deference to governmental agencies.

3. Modeling a DCAM

3.1. Theoretical background

Existing models of judicial decisionmaking identify the key variables that influence this process. These include ideological preferences (the attitudinal model), jurisprudence (legal and new-institutional models), and strategic considerations relating to the preferences of the public, the executive branch, and other justices (rational choice models). Institutional arrangements, norms, and political context produce different environments for judicial decisionmakers and thus influence the weight and degree to which these different considerations affect their decisions (Clayton & Gillman 2012; Richards & Kritzer 2002; Feldman 2005; Bailey & Maltzman 2011; Epstein *et al.* 2013; Farnsworth *et al.* 2013). For instance, the influence of justices' attitudes on the votes they cast on the merits is conditioned on case selection mechanisms (Kastellec & Lax 2008; Eisenberg *et al.* 2012), panel size and composition (Farhang & Wawro 2004; Eisenberg *et al.* 2013; Tiller 2015), and political salience (Giles *et al.* 2008).

The point of departure for the comparative exercise we offer here is that judicial decisions in different legal systems are influenced by justices' ideological preferences depending on institutional, political, and cultural settings. The existing attitudinal literature outside the US, however limited in scope, is very much in line with such contentions.

Compared to the American, the Canadian Supreme Court – which is similar in institutional design – reveals a significant but lesser degree of attitudinal behavior (Alarie & Green 2007, 2009; Ostberg & Wetstein 2007; Songer *et al.* 2012). High levels of collegiality in the Supreme Court of Canada explain the more complex and less pronounced attitudinal levels on this court (Wetstein *et al.* 2009; Songer *et al.* 2012). Canadian justices' attitudinal behavior varies between issue areas, both in terms of ideological dimensions and the degree of attitudinal impact (Wetstein *et al.* 2009), and moderately correlates with ideological point estimates (Alarie & Green 2007). In Australia, there is a significant correlation between justices' dissent rates and their ideology, measured with the political party as proxy (Smyth & Narayan 2007). Attitudinal studies of the Philippine Supreme Court, using demographic background, political party of the appointing president, and recently utilizing ideal point measurement, show mixed degrees of attitudinal behavior across presidential terms and in different political contexts (Tate & Haynie 1993; Haynie 1994; Escresa & Garoupa 2012; Dalla Pellegrina *et al.* 2014). Weinshall (2011) found significant correlations between the religiosity of Israeli Supreme Court justices – as a measure of their religious ideology – and the votes they cast in freedom of religion cases. Changing degrees of ideologically-driven decisions also were found in the Israeli setting according to jurisprudential changes (Gliksberg 2014), the deciding panel's composition (Eisenberg *et al.* 2013), and across mandatory and discretionary jurisdictions (Eisenberg *et al.* 2011). In India, Shankar (2009) studied judicial voting patterns and found that in civil liberty and social rights cases, Indian Supreme Court judges did not show pure attitudinal patterns of decisionmaking (Sathe 2002; Gadbois 2011).[1] We found a volume of additional comparative literature that, mainly because of methodological difficulties, does not quantify judicial ideological inclinations and their effects on votes (Robertson 1998).

In sum, judicial attitudes have been found to play a role in judicial decisionmaking to different degrees and with dissimilar effects in various national settings.[2] Yet because of methodological challenges, these effects are measured using a range of approaches, making it difficult to compare them or their behavioral and political ramifications.

3.2. Measuring attitudinal behavior comparatively

Judicial attitudinal behavior has been measured using two distinct methodologies. The first dominated American attitudinal studies until the early 2000s and is most common in the non-American literature we reviewed. Justices' ideologies are first measured *independently* of their rulings. Subsequently, the researcher examines correlations between these ideological estimates and the actual direction of justices' votes. Ideologies are mainly measured based on information gleaned from justices' appointment process, or based on their social background (as a proxy for ideology).

Such a methodology, which requires measuring ideology based on variables unrelated to justices' behavior, is unsuitable for a comparative enterprise. The reason is threefold. Firstly, in many common law countries, there is simply not enough information available regarding justices' ideological-political inclinations. Judicial appointments are often not as political or public as in the US. In India, a collegium comprising the chief justice and four senior justices selects the nominees to the Supreme Court, which are then formally appointed by the President (Robinson 2013, p. 119). The proceedings of the collegium are not publicized, political bodies, such as the Union Cabinet or Parliament, have almost no role to play in the appointment process, and, the public is generally unaware of the nominees' political inclinations (Gadbois 2011). In Israel, meetings of the appointment committee are held behind closed doors and in most cases the candidates' political views are not publicly known. In many other countries, it is difficult if not nearly impossible to identify judicial attitudes based on information available during the appointment process, or for that matter based on any type of information independent of actual decisions. Furthermore, because judicial appointment processes in different countries vary, a scale based on appointments alone could not be used for cross-sectional analyses. Finally, a measurement strategy, which assigns ideological time-invariant scores to justices, usually from information that predates their appointments, disregards changes that may occur over time in justices' ideological preferences (Martin & Quinn 2002; Martin *et al.* 2005; Epstein *et al.*, 2007; Epstein *et al.* 2008).

For these reasons, we turn to the second methodology, which measures judicial attitudes based on votes (Martin & Quinn 2002). Different measures of judicial ideology are widely used in attitudinal studies of supreme and lower courts in the US and Canada (Martin & Quinn 2002; Bailey & Maltzman 2011; Alarie & Green 1997; Fischman 2011). The suggested comparative scale adopts basic principles from these measurement techniques.

Before we turn to the specific modeling, however, it is important to highlight that we seek to *compare* levels of attitudinal decisionmaking because these fluctuate as a function of institutional design and political context. We specify a dynamic response model that allows levels of attitudinal decisionmaking to vary in each court. We characterize court

cases as differing in a unidimensional issue space, ranging from conservatism to liberalism. These specifications assign more attitudinal weight to dissenting opinions compared to majority votes (Wahlbeck *et al.* 1999; Maltzman *et al.* 2000; Hettinger *et al.* 2004; Garoupa *et al.* 2012[3]).

3.3. Mathematical formulation

Translating our theoretical framework into a probabilistic model, we consider the following function to capture the prospect of judge j voting on the conservative side in case m decided by panel P_m;

$$\alpha_m + \gamma \sum_{k \in P_m} \iota_k + \beta_m \iota_j. \tag{1}$$

P_m is the panel composition of the mth case; J denotes the total number of judges in all cases; and α_m, $m = 1, \ldots, M$ is a random effect capturing the case facts and jurisprudential considerations in the case. Large absolute values mean that the case is hardly disputed, with orientation given by the sign.

γ denotes a parameter capturing how much the mth case outcome is influenced by panel composition. If $\gamma > 0$, and a conservative judge is replaced by a liberal one, the other members of the panel are more likely to side with the liberals. Larger values mean that the case is more likely to be decided according to the panel decomposition (see further explanations in the next paragraphs).

β_m, $m = 1, \ldots, M$ is a random effect capturing the impact of the difference between the judges in their actual tendency to deviate from a unanimous decision in the mth case. A large value means that the judges act according to their individual tendencies.[4]

$\iota_1, \ldots, \iota_J$ are individual judges' tendency to the conservative side (eventually forming the IIPP estimates). To make the parameter identifiable and without any loss of generality, they are assumed to have a mean of 0 and a variance of 1 (with respect to a metric with weight proportional to the number of cases decided by each judge).

We assume a logit link function. Thus, *given* the panel composition and the random parameters of the case, α_m and β_m, judges are independent and vote with probabilities:

$$P(v_{mj} = 1 | \alpha_m, \beta_m, P_m) = \frac{e^{\alpha_m + \gamma \sum\limits_{k \in P_m} \iota_k + \beta_m \iota_j}}{1 + e^{\alpha_m + \gamma \sum\limits_{k \in P_m} \iota_j + \beta_m \iota_j}}, \tag{2}$$

where $v_{mj} = 1$ if the decision of judge $j \in P_m$ in case m is conservative and 0 otherwise. Note that the votes are conditionally but not unconditionally independent. For example, all judges would vote the same in clear cases (α_m large), and the model assumes that a judge's vote is influenced by the composition of the panel. In particular, if γ is large, all panel members tend to vote similarly. The random effect parameters are assumed to be independent, normal $N(\mu_\alpha, \sigma_\alpha^2)$ and $N\left(\mu_\beta, \sigma_\beta^2\right)$, respectively (to be exact, normal truncated to a grid).

Before we further explain the model, its assumptions, and limitations, a few examples portraying the meaning of the three primary parameters in the model (α, β and γ) could clarify the work being performed by the model. For instance, when σ_α^2 is large while μ_α, γ and β_m are small, the differences between the cases dominate the differences between the judges and decisions of the court tend to be unanimous and independent of panel composition. Such a court would yield relatively small DCAM scores. On the other hand, a large β_m means that the judges decided more attitudinally. Finally, a small value of σ_α^2, μ_β and σ_β^2 while γ has a large value implies that court decisions tend to be unanimous, but are dependent largely on panel compositions.

The model is a mixed Bayesian model with latent variables. We are not interested in the values of the alpha ($\alpha_1, \ldots, \alpha_M$) or beta ($\beta_1, \ldots, \beta_M$) parameters, but in their distributions – their mean and variance. If all panels are the same, then the first case, parameter α_m, is the mean position of the case on the conservative-liberal axis, while case parameter β_m is the spread of the opinions.

Note that the α parameter absorbs all across case variance not accounted for by the β or γ parameters. In other words, α captures all case elements that are not related to variance across judges. We assume those case elements to be mostly related to the case facts and broader jurisprudential considerations; however, the α case parameter could also capture unrelated judicial case considerations that are not absorbed by the other two parameters.

The γ parameter is mainly significant in courts deciding cases in panels. In countries hearing cases en banc, the parameter γ is hardly identifiable. Thus, for the American and Canadian courts, the difference between the contributions of μ_α and γ to the likelihood is relevant only when the courts' composition changes (in our US and Canadian data, only a couple of judges were replaced, which means the DCAM and IIPP results for these two courts would not change much without the panel effects element γ). However, for courts sitting in panels, parameter γ is crucial, as it captures the different impacts that panels may have in different courts and compositions. Assuming that in some countries judges tend to vote the same as their panel colleague, discarding their attitudinal inclination toward a case, the γ parameter captures how much a judge is influenced by the panel composition – the degree to which a judge would tend to vote conservative in a conservative panel and liberal in liberal panel. Note the model is conditional on the panel decomposition, and hence will not be influenced by the diverse panel assignment methods that are employed in different courts. This is an essential feature of the panel parameter because in many high courts the panels are not randomly assigned.

The estimation algorithm is based on a 500,000-step MCMC in which the values of $\iota_1, \ldots, \iota_J, \alpha_m$ and β_m are updated one after the other using a Metropolis–Hastings sampler and iteratively through a Green sampler. Under the prior, $\iota_1, \ldots, \iota_J$ have an a priori uniform distribution on the sphere (with respect to a metric with weight proportional to the number of cases decided by each judge). At each step, three random judges are selected. Their three-dimensional vector of tendencies is rotated slightly keeping its mean and variance fixed. The values of α_m and β_m were truncated to the grid $-4, -3.8, \ldots, 4$, and the likelihood of the observation was computed by integrating the likelihood of these particular values multiplied by the normal densities with means μ_α and μ_β and variances σ_α^2 and σ_β^2, respectively. These means and variances of the assumed normal distribution of α_m and β_m were found at each step using an empirical Bayes method by equating the a priori and a posteriori marginal moments. Finally, γ was estimated to maximize the likelihood using a standard stochastic approximation scheme along the MCMC iterations. The algorithm was implemented on a Matlab platform.[5] For the institutional-level measure of attitudinal behavior, the DCAM, the parameter of interest is the distribution of β_m, as large values indicated a tendency of the judges to cast individual votes according to their own ideological inclinations. Because this random effect is assumed to be Gaussian, we consider its second moment (the expected value of β_m squared). In particular, we define:

$$DCAM = \mu_\beta^2 + \sigma_\beta^2 \tag{3}$$

The DCAM is therefore structured to measure the level of heterogeneity between the judges in a given court. Scores are computed separately for each country. As $\beta_1, \ldots, \beta_M$ are latent variables that tell how much the probability of a conservative vote depends on the individual value – IIPP of the judge – the higher the value of a β_m, the higher the difference between the probabilities of the different judges composing the panel. The measure considers the average value, $\frac{1}{M}\sum_m \beta_m^2$. Finally, as the β_m's are assumed to be normal with mean μ_β and variance σ_β^2, the expected value of $\frac{1}{M}\sum_m \beta_m^2$ is $DCAM = \mu_\beta^2 + \sigma_\beta^2$.

It might be useful to explain the model in terms of item response theory (IRT). Our model is similar to the classic IRT in psychometrics, where problems with different levels of difficulties (($\alpha_1, \ldots, \alpha_M$ in our formulation) are administered to subjects with diverse abilities ($\iota_1, \ldots, \iota_J$) (Reise & Waller 2009). The problems can discriminate differently among subjects ($\beta_1, \ldots, \beta_M$). A feature of our model that lacks a direct parallel in this psychometric analogy is that each problem is administered only to a panel of the subjects and the panel composition seemingly influences the abilities of its subjects. In contrast to the standard application of the IRT model, we are neither interested in the difficulty of the problems, nor in the ability of the subjects per se. Our focus is the heterogeneity of the subjects, which is captured by the final DCAM measure. Moreover, we compare the heterogeneity of different groups that face a completely different set of unrelated problems.

4. Testing DCAM and Ideological Ideal Point Preference (IIPP) in five supreme courts

4.1. Outline

The objective of this section is to test the measurement strategy introduced within a comparative framework. The validity of IIPP is tested in comparison with widely accepted attitudinal scores for individual justices in the US and Canada. In addition, the validity of DCAM scores is tested based on how our results conform to expected institutional effects based on scholarly literature.

The degree of attitudinal behavior can vary across issue areas (Alarie & Green 1997; Wetstein *et al.* 2009; Lauderdale & Clark 2012). For this reason, we chose to test the DCAM and IIPP while focusing on specific issue areas: political and religious rights. Political rights are defined as the right to vote, the right to be elected, political speech, and freedom of assembly and protest. Religious rights cases are those in which freedom of religion is considered (see additional definitions in the following section).[6] As the two issue areas are sufficiently distinct, we can expect different results for each, especially in countries that are extremely sensitive in one of the selected socio-legal spheres. Yet as both fall squarely within the sphere of civil rights and liberties, the two are also sufficiently close to generally provide a valid and reliable attitudinal measure for each jurist and each court. We thus calculate the DCAM estimates combining both issue areas, as well as separately. These two legal spheres are relatively easier to define and classify in ideological terms than decisions in other legal spheres unrelated to public law. This renders them particularly useful in a comparative framework, where the goal is juxtaposition.

We test the DCAM and IIPP in the supreme courts of five countries: the US, Canada, India, the Philippines, and Israel. These countries were selected from all countries with common law legal systems or a mixed common and civil law tradition in which individual judicial opinions are published. The American and Canadian courts were chosen not only for their centrality in an international context, but also because of the existing attitudinal literature on these courts, which we add to and which serves as an important point of reference for validity tests.

As for the other countries in our sample, after eliminating certain common law high courts for this first phase of testing the DCAM,[7] we focused on the Supreme Courts of India, the Philippines, and Israel because of variance in

Table 1 A comparison of the American, Canadian, Indian, Philippine, and Israeli Supreme Courts

	United States	Canada	Israel	India	The Philippines
Capacities	Highest appellate court; original jurisdiction	Highest appellate court; advisory jurisdiction	Highest appellate court in criminal and civil cases + Court of first and final instance in many administrative petitions	Highest appellate court; original jurisdiction; advisory jurisdiction	Highest appellate court; original jurisdiction
Judicial Review Powers	Full (Marbury v. Madison, 1803)	Full (Charter of Rights and Freedoms, 1982)	Full (ISC interpretation of the two basic laws on human rights, 1992)	Full (by constitutional mandate)	Full (by constitutional mandate)
Number of Justices	9	9	15–9	31	15
Appointment	By president + Senate confirmation	By prime minister	By integrated committee (formally by the president)	By collegiums of justices (formally by the president)	By president and integrated committee
Tenure	Lifetime	Retirement at 75	Retirement at 70	Retirement at 65	Retirement at 70
Annual caseload	About 100 cases	About 100 cases	About 1,500 cases ending in verdicts	About 45,000 admission cases and 5,000 regular cases	About 4,000 cases
Control of Docket	Mainly discretionary jurisdiction	Mainly discretionary jurisdiction	In practice, almost no control	Almost no control plus mechanisms to simplify petitions	Almost no control
Panels	No	Yes (rarely used)	Yes	Yes	Yes
Consensus Norm	Low	Relatively high	High	High	High

institutional makeup in panel size, caseload, gatekeeping privileges, norms of consensus and judicial appointment regimes, as outlined in Table 1 (Austin 1966; Tate & Haynie 1993; Barzilai *et al.* 1994; Baum 1998; Howe & Russell 2001; Neuborne 2003).

While the American Court has a long history as a powerful political player, the Canadian, Philippine, and Israeli high courts have only enhanced their engagement in the political game since the 1980s and 1990s, mostly as a result of constitutional changes granting them a mandate to strike down parliamentary legislation. As for the Indian court, its political clout has evolved since the 1950s, with the court's entrustment of constitutional interpretation of the fundamental rights provisions in the constitution (Chodosh *et al.* 1999). It further developed during the 1980s, after Gandhi's emergency period, with the court's new interpretations for civil, political, and social rights, and encouragement of public interest litigation and is today a key player in the advancement of regulatory reforms, such as in the sphere of telecom regulation (Sathe 2002; Thiruvengadam & Joshi 2012). In all five countries, the judicial systems enjoy a *relatively* non-partisan image and reasonably high levels of public trust (Barzilai *et al.* 1994; Ostberg & Wetstein 2007; Shankar 2009).

The judiciary in these countries is fully independent, as justices enjoy institutional arrangements that guarantee their non-dependence on the political establishment. These include guaranteed salaries and either lifetime tenures (in the US) or full judicial tenure until mandatory retirement. Political clout combined with judicial independence – true in all five courts – are features that likely foster attitudinal voting patterns (Segal & Spaeth 2002). Yet as demonstrated in Table 1, *institutional discrepancies* between the courts exist and may have consequences for levels of attitudinal behavior.

The first key difference between the courts is in the system of judicial appointments. Differences in levels of political involvement and contentiousness in the judicial appointment process would influence the levels of attitudinal behavior of the justices once appointed. The more politically contentious judicial appointments are, the more we expect the justices to tend to vote their preference (Wetstein *et al.* 2009; Gadbois 2011; Escresa & Garoupa 2012, p. 784–785; Robinson 2013, p. 119). Conversely, when the appointment process involves other players in addition to the political branches of government – for instance in the form of judicial appointment committees consisting of both politicians and legal professionals, such as in Israel and the Philippines – appointments are expected to yield a less attitudinal bench.

Agenda-setting mechanisms and consequently the size of the court's docket and judicial panels differ greatly between the American and Canadian courts at one end of the spectrum, the Indian court at the other end of the spectrum, and the Philippine and Israeli courts in between and closer to the Indian court. By means of agenda setting (*certiorari*), the American and Canadian courts decide about 100 cases per year, handpicked for review. In contrast, the Israeli, Indian, and Philippine courts use limited agenda-setting mechanisms and handle an enormous caseload on an annual basis. In fact, the Indian court has the reputation of being the busiest and most crowded supreme court in a common law country, discussing around 45,000 admission cases and accepting around 5,000 cases for regular hearing annually (Robinson 2013, p. 104). Judicial behavior varies between mandatory and discretionary dockets, with important cases more typical of the latter (Eisenberg *et al.* 2012). Caseloads affect the amount of resources available to be invested in each case, as well as the cost of registering dissent (Smyth & Narayan 2007; Sommer 2009, 2010; Epstein *et al.* 2013).

As for the size of panels deciding each case, American and Canadian justices decide cases en banc.[8] Three divisions, each consisting of five justices, render most decisions of the Supreme Court of the Philippines. The Israeli court sits mostly in panels of three; in salient cases, the panels are expanded to an uneven number of up to 11 justices. Panels of two to three justices, also known as division benches, decide most cases on the Supreme Court of India. However, a constitutional bench of five justices is required for cases with constitutional importance, to reverse precedent, or when fundamental questions of law are at stake. Panel effects would also influence the collegiality cost of dissenting (Farhang & Wawro 2004). These costs increase as the panel size decreases; a smaller panel raises the threshold of dissenting. Furthermore, small group decisionmaking can by itself obscure individual ideological preferences on the panel (Eisenberg *et al.* 2013). Because of the constitutional issue areas examined here, many of the cases in our sample consist of extended panels in Israel and India. We utilize the changing panel size as we expect to find higher degrees of attitudinal behavior when comparing decisions rendered in enlarged panels compared with decisions reviewed in a regular panel (in courts where panel expansion occurs). However, deciding most cases in small intimate panels may form collegiality and consensual norms that have diffusing effects on all cases, also reflected in large panels. Thus, even in large panels, Israeli and Indian justices should be less attitudinal than their American counterparts.

In sum, all these institutional variances, as well as the comparative attitudinal literature reviewed, suggest that our estimates of attitudinal behavior should show the highest attitudinal levels in the US Supreme Court. Canadian justices should be less attitudinal, followed by the Philippine and Israeli courts. Levels of attitudinal behavior among Israeli judges are expected to rise in expanded panels. Indian justices are likely to be the least attitudinal.

4.2. Data and methods

Our dataset comprises a representative sample (India, the Philippines, and Israel)[9] or the full docket (the US and Canada) of political and religious rights cases between 2000 and 2006.[10] Only cases in which one of these rights was key to the controversy were coded. The controversy was identified on the basis of the court's own statement. All rulings were gathered from the different supreme courts' websites.[11] The dataset centers on individual rulings as the unit of analysis. In the political rights cases decided in the Supreme Court, 261 votes were found in the US, 244 in Israel, 135 in Canada (nine justices sat in all cases), 149 in India, and 93 in the Philippines. In religious rights cases decided in the Supreme Court, 90 votes were coded in the US, 72 in Canada, 173 in Israel, 100 in India, and 83 in the Philippines.

Note that because of the scaling methodology, there is no need for a high number of votes in a sample to generate valid DCAM scores. However, for each court and issue area, the sample must include a few justices that vote in a sufficient number of cases (in panels with other justices, who may vote in a small number of cases). With the exception of the Indian court, all sampled court-issue areas met this standard.

Deciding on coding strategy was particularly challenging as multiple dimensions of attitudinal voting might occur in different supreme courts in accordance with their different ideological spectrums and axes (Wetstein *et al.* 2009; Fischman 2015). Political rights cases present three primary ideological dimensions: a political-party split (liberal/conservative in the US and Canada, left/right in Israel, etc.), a civil rights split (expanding/narrowing rights), and a judicial deference split (pro/anti executive and administrative agencies). Other possible dimensions might include, for example, regional affinities (in the Philippines, Canada, or India). After testing alternative coding schemes, we decided to code political rights cases according to the political-party split for a number of reasons. First, the level of ideological consistency exhibited by justices was found to be considerably higher with regards to this split. Second, coding according to the two other splits posed more objective and interpretive obstacles. In many of the political rights cases, different rights are pitted against each other;, an expansion of one right, therefore, would come at the expense of another, which renders coding according to the civil rights split largely unworkable. As for the judicial deference coding scheme, it too posed a practical limitation, as few of the cases originated in civil or criminal disputes. Lastly, regional affinities were unrelated to many of the cases. In contrast, most political rights cases had a direct political representative or party as one of the sides.

As for terminology, to simplify the discussion we refer to ideological directions in justices' votes as "liberal" versus "conservative," although this ideological mapping is most accurate in describing the American and Canadian liberal-conservative ideological dimensions. For example, we treat decisions favoring leftwing parties in Israel as "liberal" and rightwing parties as conservative. In the Indian Supreme Court, in cases regarding elections where both parties advocate the same political right, we coded for a liberal or conservative final disposition according to party affiliation. For instance, when a national party candidate lost to a central-liberal party, the coding was "liberal." With regard to religious rights cases, we generally coded decisions protecting the right to exercise religion as "liberal," and opposing decisions as "conservative." We excluded cases where the freedom of two religions clashed.[12] Israeli law and political science students (undergraduate and graduate) performed the coding. Based on recoding of 30 percent of the cases, inter-rater reliability was over 95 percent.

4.3. Results

The DCAM is a dynamic index that estimates the degree of attitudinal decisionmaking in that court. It yields positive estimates. Higher DCAM values indicate generally higher levels of attitudinal decisionmaking on the court. The DCAM is based on the IIPP of the individual justices. IIPP indicates the ideological preference point of the individual jurist compared to the ideological preferences of her colleagues. Values range from negative (for liberal justices) to positive (for conservatives).

Figure 1 presents the DCAM scores for the overall degree of attitudinal decisionmaking in each country, combining both civil liberty type cases, as well as separate scores in each country for political and religious rights cases. As a result of

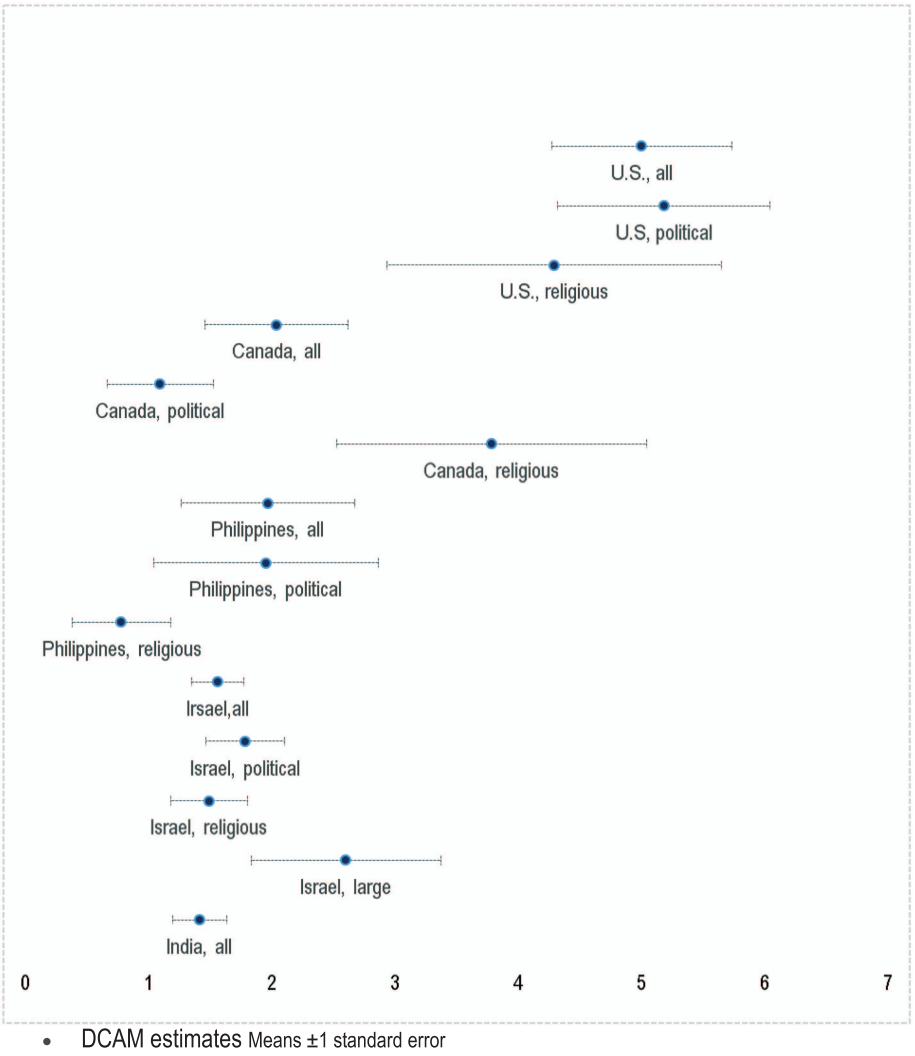

Figure 1 Dynamic Comparative Attitudinal Measure (DCAM) estimates.

data limitations pertaining to the number of cases and deciding judges in the Indian Supreme Court (43 justices in our sample), we did not separate the results for the two issue areas in India. For the same reasons, we could only estimate the DCAM scores separately for enlarged panels (more than three justices) in the Israeli setting. The figure includes standard errors calculated for each score.

The findings lend strong support to our institutional and theoretical analyses. As expected, the US Supreme Court exhibits the highest levels of attitudinal behavior. The DCAM combined score for the American court is 5, the score for political rights is somewhat higher at 5.18, and the score for religious rights is 4.29. The American court seems to be in a league of its own. The closest score is that of the Canadian court in the area of religious rights (DCAM = 3.78). Yet when the votes of Canadian justices in political rights cases – where the DCAM equals 1.1 – are also incorporated, the overall DCAM for the Canadian institution in the two issue areas is approximately 2.04.

The DCAM in the Philippines is 1.97. A higher level of attitudinal trends is measured in political rights cases, where the DCAM is 1.95 (note that the standard error for this score (0.91) is the highest of all scores, although still producing a reliable estimate). In comparison, the DCAM in religious rights cases in this court is 0.78. The DCAM findings for the Philippine court are hardly surprising given its political context. In the Marcos era and during the martial law periodically in effect during his two decades in power, the infringements on political rights were ubiquitous. While much has changed in the Philippines since, those political hardships were perennial in a formative stage of the lives of the justices serving on the Court during the years studied. Moreover, during this period, the issue of political rights became more acute and controversial in the wake of Philippine's four-day revolution in January 2001. Thus, Philippine justices might

be sensitized to political rights issues, which are reflected in the DCAM for political rights and in the gap vis-à-vis the DCAM for religious rights.

The DCAM of 1.56 indicates lower levels of attitudinal behavior in Israel. A DCAM score of 2.6 for expanded panels in Israel supports a higher level of attitudinal behavior when contentious legal question or acrimonious political debate is brought before the court, which then expands the panel. The Indian court reveals the lowest levels of attitudinal behavior with a DCAM score of 1.41. In sum, the DCAM scores support our theoretical expectations for *the degree of attitudinal behavior* on different courts. Let us now examine IIPP.

Figures 2–4 to 4 outline the distributions of IIPP scores for justices in the American, Canadian, and Israeli Supreme Courts, respectively. IIPP scores are presented for the combined analysis of political and religious rights, because splitting the two limited the number of observations for each justice. We calculated IIPP estimates for all justices voting in at least 10 cases in our sample. The width of each IIPP column in the figures is proportional to the number of cases decided by the judge; the middle line is the IIPP score – the posteriori mean of ι_j and its height equals two standard deviations of the distribution. IIPP estimates for Philippine and Indian justices are presented in the Appendix as only six Philippine and three Indian justices voted in more than 10 cases in our sample.

The liberal contingent on the American court is visible in Figure 2. The liberals consist of justices Ginsburg, Stevens, Souter, and Breyer. Justices O′Connor and Kennedy occupy the median positions on the court. Chief Justice Rehnquist is on the conservative contingent with associate justices Scalia and Thomas. To test the robustness of our findings, we propose several juxtapositions of IIPP scores with existing measures.

The body of literature using the Segal–Cover scores is immense and thus is our first reference point (Segal & Cover 1989). The correlation between the IIPP and the Segal–Cover scores is a robust −0.67. With IIPP on one axis and the Segal–Cover scores on the other in Figure 5, the face validity seems high. The conservative contingent on the Rehnquist court is clearly visible, with the chief justice and his fellow conservatives on the bench, Thomas and Scalia, positioned close to each other. The two justices acting as medians throughout long periods of the Rehnquist court, located between the conservative and the liberal groups, are Kennedy and O′Connor. The two outliers are Stevens and Souter (when

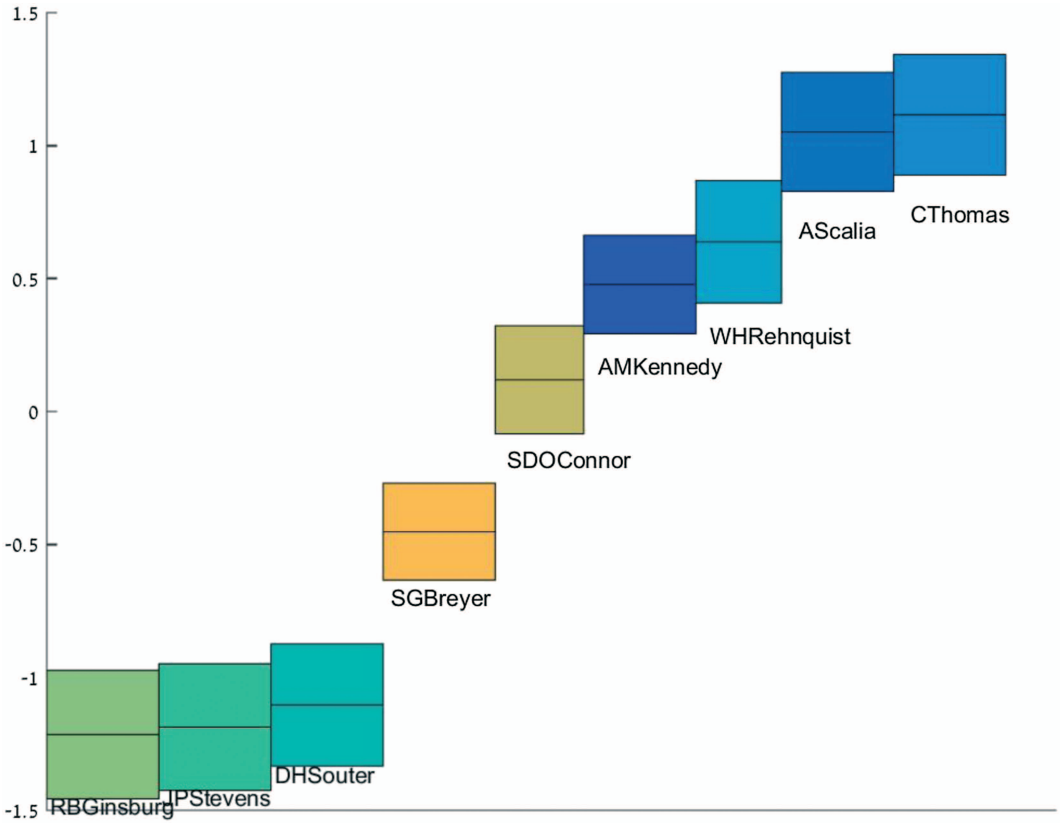

Figure 2 Ideological Ideal Point Preference (IIPP) for United States Supreme Court Justices.

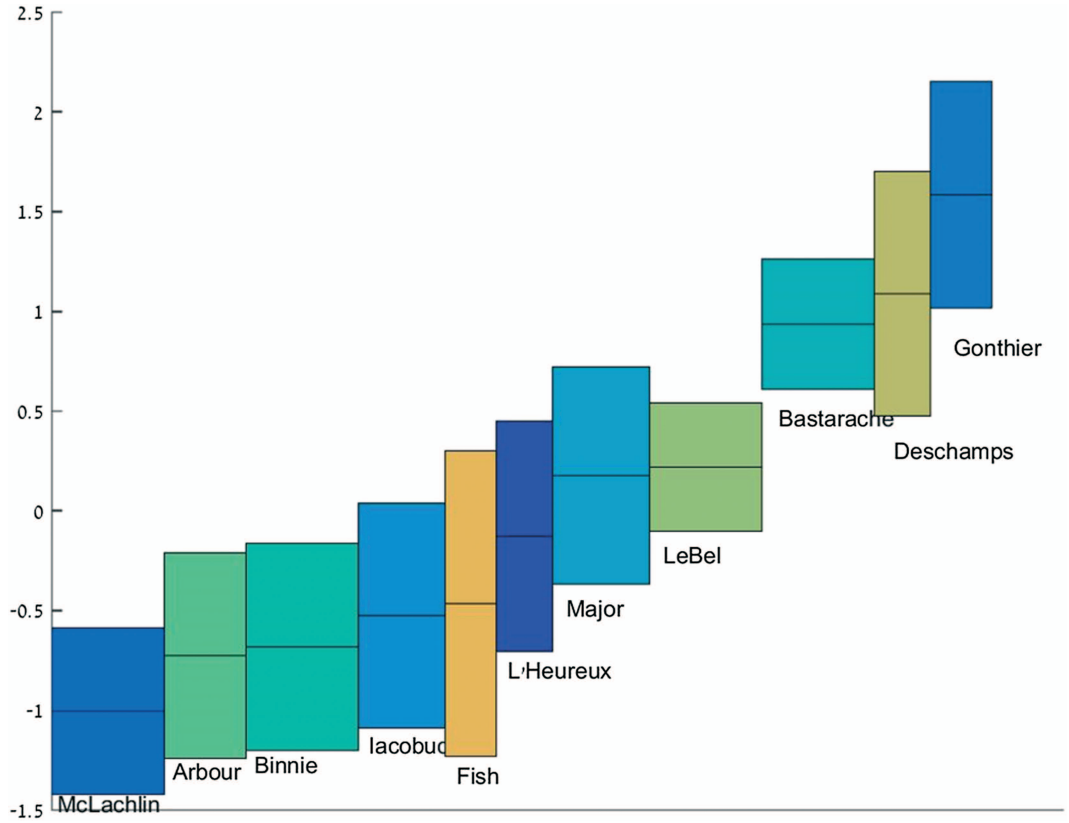

Figure 3 Ideological Ideal Point Preference (IIPP) for Canadian Supreme Court Justices.

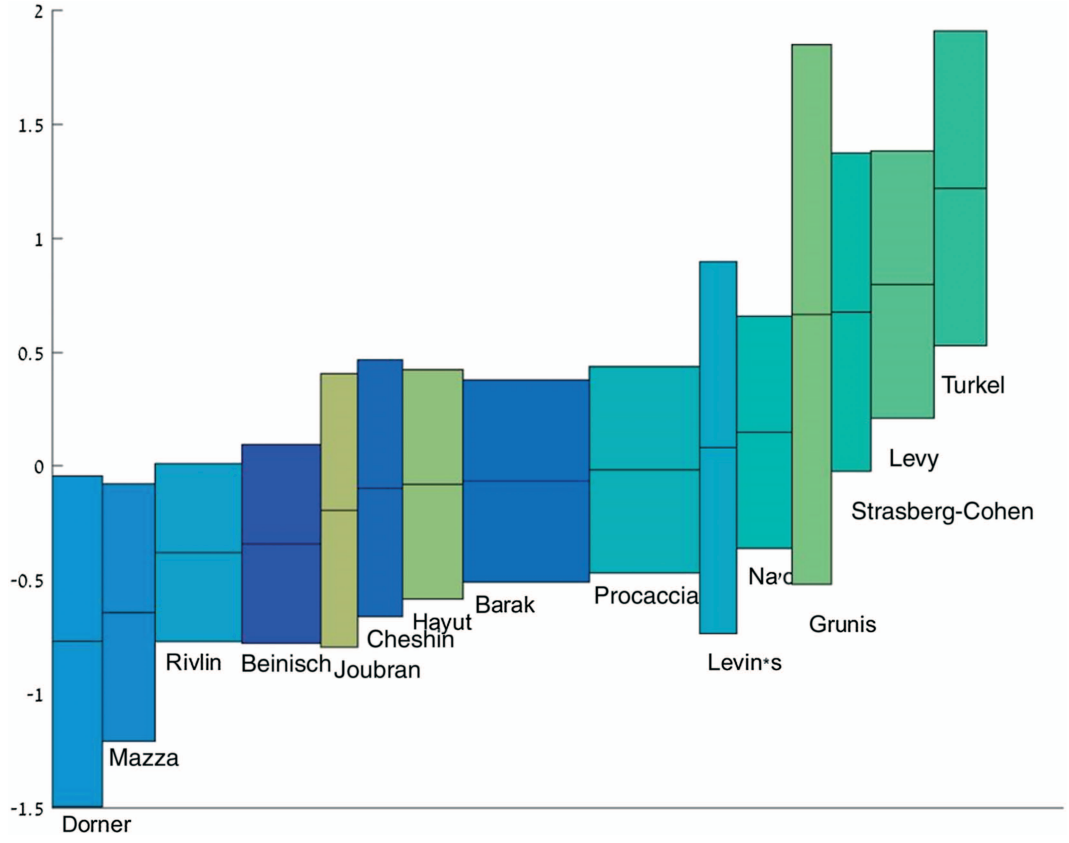

Figure 4 Ideological Ideal Point Preference (IIPP) for Israeli Supreme Court Justices.

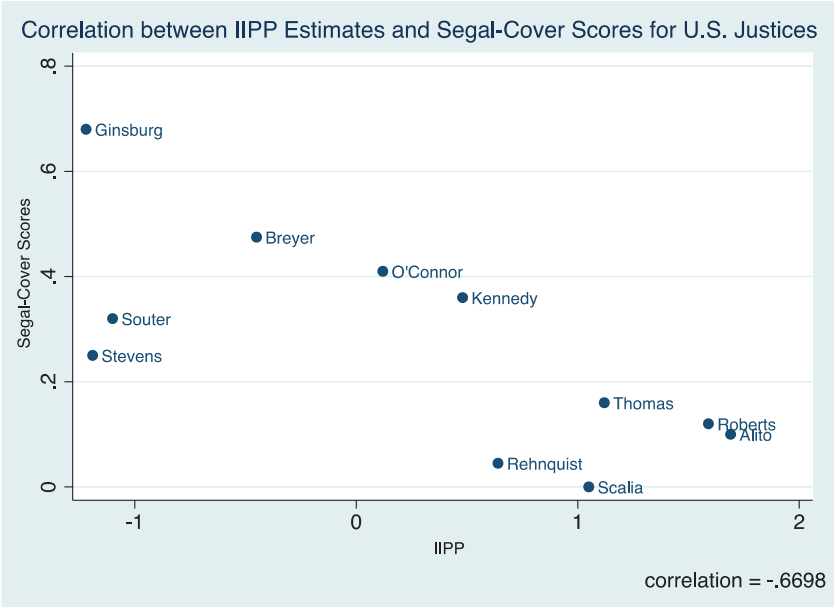

Figure 5 Correlation between Ideological Ideal Point Preference (IIPP) estimates and Segal–Cover scores for American justices.

omitting these two, the correlation of IIPP and Segal–Cover scores approaches −0.9). This empirical discrepancy, however, can be easily accounted for theoretically. The Segal–Cover scores are based on the content analysis of op-ed pieces published at the time of appointment. Both justices can be said to have defied the expectations of their appointing president.

Figure 6 juxtaposes IIPP with Martin–Quinn scores. Whereas the statistical algorithms underlying the two sets of ideological scores are different, they are very highly correlated (0.93) with high levels of face validity. A comparison of IIPP with scores prevalent in research on the US Supreme Court lends support to the measurement technology we introduce here. Well-established scales, which are extensively used in scholarship on the Court, correlate highly with our new protocol for generating dynamic estimates of judicial ideology with any discrepancies explained theoretically.

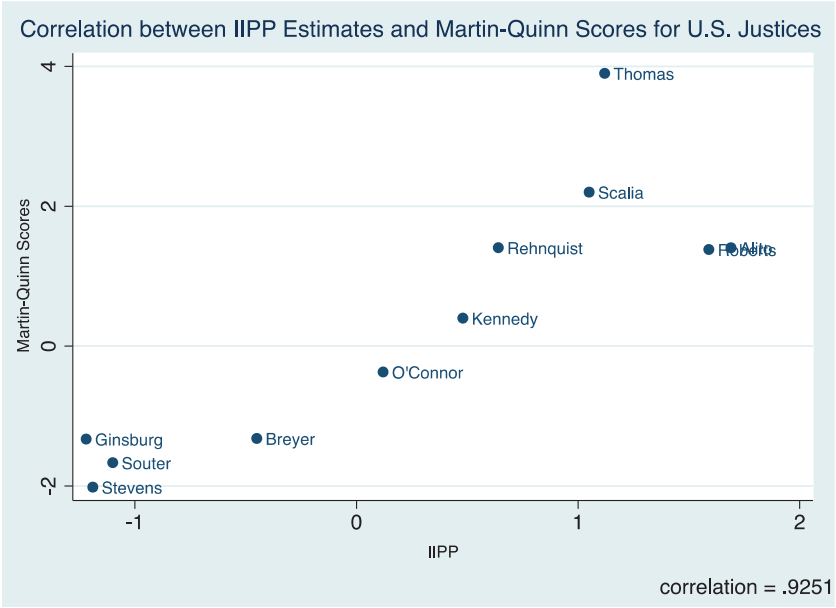

Figure 6 Correlation between Ideological Ideal Point Preference (IIPP) and Martin–Quinn ideal point estimates for American Justices.

The Canadian case is not as straightforward as the American one. Previous research on the application of the attitudinal model in the Canadian court found that Canadian justices vote in an ideologically inconsistent manner in disparate socio-legal spheres. We find high levels of correlation between IIPP and the ideological scores that Wetstein *et al.* (2009) generate in economic, criminal, and civil rights cases. The latter appear in Figure 7, and produce a correlation of nearly −0.9 with IIPP estimates for the justices who overlap with our sample.

We also find reasonably high correlations between IIPP and two other measures of judicial ideology in Canada. The correlation between IIPP and percent of lifetime liberal voting in all issue areas is −0.62 (see Figure 8).[13] Along the same lines, we find a correlation of slightly less than −0.6 between IIPP and a version of Martin–Quinn scores applied in the Canadian case by Alaire and Green (2009).

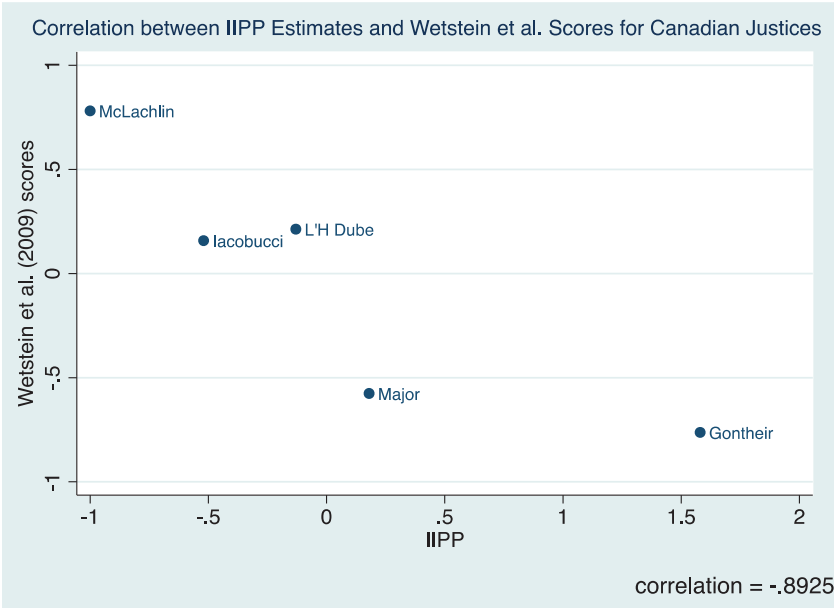

Figure 7 Correlation between Ideological Ideal Point Preference (IIPP) and Wetstein *et al.* (2009) civil rights scores for Canadian justices.

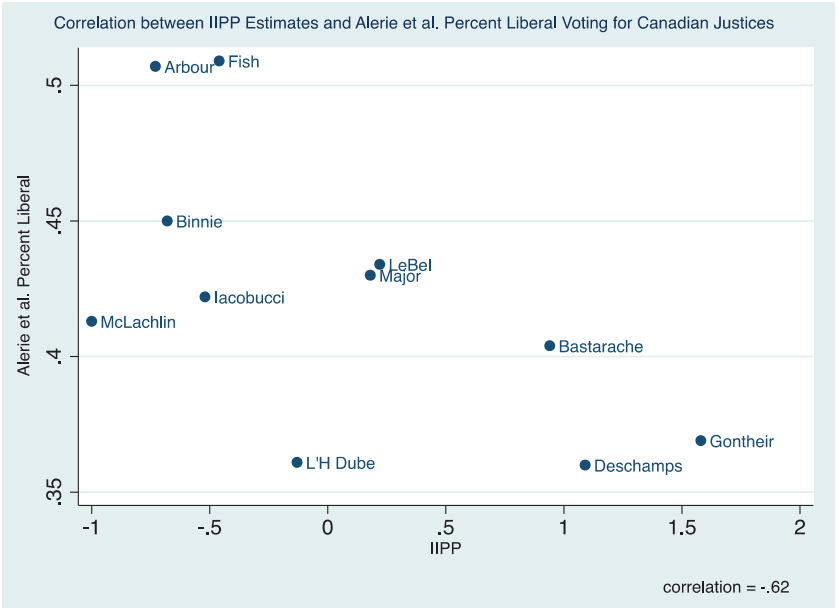

Figure 8 Correlation between Ideological Ideal Point Preference (IIPP) and Alereie *et al.* percent voting liberal for Canadian justices.

We have a good number of observations for each of the North American justices, because in both the US and Canadian courts, all justices cast a vote in all cases. In the other three courts, the panel system means that the IIPP score is based on a limited number of observations per individual justice; justices on those courts cast a vote in only a subset of cases.[14] We thus present IIPP scores for a partial number of justices in the Philippines, Israel, and India (those deciding in more than 10 cases). As we expand our data to more issue areas and cases, IIPPs in the other countries should extend. In the Israeli Supreme Court, we estimated scores for 15 of the 19 justices serving during the studied period. As this is the first study to estimate Israeli justices' ideological ideal points, we cannot compare the results to previous findings. Intuitively, IIPP estimates for Israeli Supreme Court justices seem to make a lot of sense. In Figure 4, the only two religiously observant justices, Tirkel and Levy, are the conservative outliers, which is expected – particularly when deciding freedom of religion cases. Likewise, it is not surprising to find Grunis in the center leaning conservative or Beinisch and Dorner on the liberal end. Justice Cheshin was a liberal in freedom of religion cases, but more of a conservative when it comes to political rights cases. We find Cheshin in a liberal-median position, close to former Chief Justice Barak, who was known for his coalition stitching skills.

5. Discussion and conclusions

To systematically study the effect of ideology on regulation and governance performed by the judiciary, we introduce a novel tool for assessing and comparing judicial decisionmaking in courts of different countries. The DCAM and IIPP are readily applicable tools to any common law or mixed common and civil law system. They are flexible and can compute separate scores for subsets of cases as defined by the researcher, such as cases in distinct issue areas, cases contingent on a particular institutional feature (e.g. expanded panels in Israel), or any other category or type of cases. To test the proposed tools, we provide pilot attitudinal scores while employing a combination of Metropolis–Hastings and Green samplers within a MCMC algorithm with 500,000 steps to fit our Bayesian model. The empirical tests lend strong support to the model. The US Supreme Court – the institution that prompted the development of the school of legal realism that led to the attitudinal model – proves to be the institution with the most pronounced ideological trends as measured by pilot DCAM scores. Likewise, IIPP scores correlate highly with existing measures of ideology of individual justices in the US and Canada, but have the distinctive measurement advantage of their applicability in a comparative context.

Using DCAM and IIPP methodology, this is the first study to empirically compare levels of ideological decisionmaking in five supreme courts and the first to present ideal point estimates for almost all justices on the Israeli court and a number on the Indian court. The calculated estimates are based on two issue areas from 2000 to 2006, which leaves room for a host of future research. We will conclude by suggesting some possible avenues for future research.

A range of new opportunities is now available for scholars engaged in comparative research on the interface of law and politics. The research questions that can be examined using the DCAM range from the normative to the empirical and positivist. In the realm of normative queries, the notion of justices substituting their ideological convictions for prescriptions of the law may be considered troubling. This is particularly true because of the counter-majoritarian nature of any judicial institution and especially of high courts that engage in judicial review of legislative and executive actions. The notion that appointed officials may declare the actions of elected officials null and void becomes more challenging as a function of the degree to which court appointees let their attitudes guide such rulings. The DCAM offers an empirical method to examine such normative questions by comparing the extent to which justices in different courts engage in such behavior, and whether these levels of attitudinal conduct vary over time and between issue areas. To this end, we hope to expand the data collection to more common law countries, issue areas, and subsequent years, and thus create general DCAM and IIPP estimates. A first step toward this goal would involve the coding of one or two more issue areas relating to civil liberties (e.g. privacy or due process cases) and generating a comprehensive civil liberties score.

As for positivist aspects, scholars of comparative politics are often concerned with the ramifications of institutional design for various political upshots (Epstein & Knight 1998, inter alia). In the context of judicial institutions, the literature has examined the role of institutions, such as agenda setting, appointments, and the judicial hierarchy, for decisionmaking in courts. However, such theoretical contentions have mainly been studied with respect to a single court, and thus with little or no institutional variance. The DCAM, as well as its individual-level companion, IIPP, offer

a comparable measure that carries across different countries and over time. We are now able to better test institutional effects and their consequences.[15]

Along the same lines, the DCAM and IIPP scores enable the study of related empirical questions, such as the relations between certain aspects of judicial behavior and activism or judicial legitimacy. One can use the methodology introduced to measure and compare judges' attitudes toward deference to governmental agencies, including institutional influences on the degree of deference. Furthermore, we are able to see whether an institutional change – for instance, a judicial reform – yields the desired upshots.

Another avenue to pursue in future research is an analysis of ideology in different issue areas. The extent to which individual decisionmakers act consistently across different issue areas in terms of ideological proclivities is fertile ground for research for both legal scholars and students of ideology. In addition, the DCAM and IIPP can be used for the study of institutions nested within courts, which are in turn nested within national political contexts. Such studies could include features of the system of separation of powers and checks and balances, and may require the incorporation of bridging techniques to compare the ideology of justices and of other political and legal actors.

In conclusion, the research agendas to be derived from the applications of the DCAM and IIPP measures are vast. We hope that the range of tools developed here will become a part of the toolkit available to scholars around the world.

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Notes

1 In recent years some comparative attitudinal work has sprung in the context of Constitutional Courts in Civil Law countries. See for example in Germany and France (Bricker, B. (2017), Brouard & Honninge (2017)), Poland (Kantorowicz and Garoupa (2016)), Portugal and Spain (Amaral-Garcia *et al.* (2009), Garoupa *et al.* (2012), Hanretty (2013)) and Norway (Skiple *et al.* (2016).

2 An exception is Hanretty (2013) who, using ideal point estimates, did not find evidence for attitudinal decisionmaking in the British House of Lords.

3 Garoupa *et al.* (2012) studied judicial behavior in the Spanish Supreme Court, and found judicial politicization to be consistent with consensus and dissent rates.

4 Negative values, which may occur, mean that the mechanical classification of the liberal/conservative side of a case was not as the judges perceived because of some unique features.

5 Data and algorithm available on request.

6 In each country, we examine what are considered religious rights cases, which in the US also include issues pertaining to the establishment of religion by the state.

7 We did not include a test of the United Kingdom (UK) Supreme Court because during the period studied the Constitutional Reform Act 2005 was passed, establishing a significant institutional transition from the House of Lords to the Supreme Court of the UK. Note the transition was realized only in 2009; however, we assumed the expected transition might affect judicial behavior. We decided not to include the Constitutional Court of South Africa in this first phase of testing DCAM because it does not discuss many of the cases relevant to the selected issue area. (South Africa has a specialized court for election matters.)

8 The Canadian court is authorized to decide cases in panels of five to nine justices. However, there were no cases in our sample decided by less than nine justices, which, in general, is the rule.

9 In the Supreme Court of the Philippines, instead of using the search feature provided by the website, which does not allow the user to specify years, we used search software that downloads the archive to the computer and scans the archive by search words. The search words used for political rights cases were: "right to be elected," "political rights" and "freedom of speech." The search words used for religious rights cases were: "religion," "religious freedom/rights" and "religious beliefs."In India and Israel, we used the search engine provided on their Supreme Court websites. For religious rights cases, we used "religion" and "freedom of religion" as search words. For political rights cases, we used: "right to protest," "right to be elected," "political rights," "right to vote," "freedom of speech," "*bandh*" (general strike), "*gherao*" (workers protest), "*hartal*" (type of strike), "*dharna*" (non-violent protest), "elections" and "Representation of the People Act." All pertinent cases yielded by those searches for the respective

years were coded.The main issue with the Philippine and Indian courts was obviously their docket size. In the time period for the data in this project, the Philippine court had on average 4,000–5,000 cases every year; the Indian court had over 30,000 annually. The search itself was conducted differently for the Philippine court because we searched the archive but did not use the search engine provided by the court's website, as it was technically limited. For religious freedom cases in the Philippine court we also tried "religious" as a search term; for India, the volume of pertinent cases in the search results was sufficient. With respect to political rights cases, initially we had too few, and thus used additional search terms. The decision rule for whether to add additional search terms in this case was whether we had a reasonable sample of the docket. The difference in search terms for the different courts suggests that the coverage of the sample out of the universe of cases in the particular issue areas may be slightly different for the different courts. That being said, as we used related terms, or the adjective rather than the noun form (or vice versa), we have no reason to believe the representativeness of the different samples is substantively different.

10 For political rights cases in the American, Canadian, and Israeli courts, we expanded the data to include cases from 2007 to 2009.

11 The US Supreme court database was also used http://scdb.wustl.edu/data.php. See in http://supremecourtofindia.nic.in/ (the Indian Supreme Court), http://www.court.gov.il/heb/home.htm (the Israeli Supreme Court), http://www.scc-csc.gc.ca/ (the Supreme Court of Canada), http://sc.judiciary.gov.ph/ (the Supreme Court of the Philippines).

12 In religion establishment cases in the US, the coding was "liberal" when the vote of the justice reflected a separationist approach and "conservative" when the approach reflected was accommodationist.In Israel, religion and the state are not completely separated and the religious split is usually defined in a religious versus secular configuration. In order to best represent the socio-legal cleavages, we coded decisions that protected an individuals right to exercise religion as "conservative."

13 The data was kindly provided by Benjamin Alarie and Andrew Green of the University of Toronto, based on calculations drawing on their Supreme Court of Canada database of appeals between 1958 and 2011.

14 The small number of justices on panels of low ideology countries does not mathematically affect the scores. We attribute the correlation between the size of the panel and the DCAM scores to the more institutional-theoretical panel effects, as well as the difference in cases and other institutional features.

15 When the DCAM is used for this sort of institutional analyses, however, the particular institutional features studied should be considered. Attitudinal behavior, as measured by the scale, is influenced by dissent rate, which itself may be a function of certain institutional arrangements on the court.

References

Alaire B, Green A (2009) Policy Preference Change and Appointments to the Supreme Court of Canada. *Osgoode Hall Law Journal* 47, 1–46.

Alarie BRD, Green A (2007) The Reasonable Justice: An Empirical Analysis of Frank Iacobucci's Career on the Supreme Court. *University of Toronto Law Journal* 57, 195–226.

Amaral-Garcia S, Garoupa N, Grembi V (2009) Judicial Independence and Party Politics in the Kelsenian Constitutional Courts: The Case of Portugal. *Journal of Empirical Legal Studies* 6, 381–404.

Austin G (1966) *The Indian Constitution: Cornerstone of a Nation*. OUP, Oxford.

Bailey MA, Maltzman F (2011) *The Constrained Court: Law, Politics, and the Decisions Justices Make*. Princeton University Press, Princeton, NJ.

Barzilai G, Yuchtman-Yaar E, Segal Z (1994) *The Israeli Supreme Court and the Israeli Public*. Papyrus at Tel Aviv University Press, Tel Aviv, Israel.

Baum L (1998) *The Supreme Court*, 6th edn. CQ Press, Washington, DC.

Bricker B (2017) Breaking the Principle of Secrecy: An Examination of Judicial Dissent in the European Constitutional Courts. *Law & Policy* 32(2), 170–191.

Brouard S, Honninge C (2017) Constitutional courts as veto players: Lessons from the United States, France and Germany. *European Journal of Political Research*.

Chodosh H, Mayo SA, Ahmadi AM, Singhvi AM (1997) Indian Civil Justice System Reform: Limitation and Preservation of the Adversarial Process. *New York University Journal of International Law and Politics* 30, 1–78.

Clayton CW, Gillman H (eds) (1999) *Supreme Court Decision-making: New Institutionalist Approaches*. University of Chicago Press, Chicago.

Dalla Pellegrina L, Escresa L, Garoupa N (2014) Measuring Judicial Ideal Points in New Democracies: The Case of the Philippines. *Asian Journal of Law and Society* 1, 125–164.

Eisenberg T, Fisher T, Rosen-Zvi I (2011) Israel's Supreme Court Appellate Jurisdiction: An Empirical Study. *Cornell Law Review* 96, 693–726.

Eisenberg T, Fisher T, Rosen-Zvi I (2012) Does the Judge Matter? Exploiting Random Assignment on a Court of Last Resort to Assess Judge and Case Selection Effects. *Journal of Empirical Legal Studies* 9, 246–290.

Eisenberg T, Fisher T, Rosen-Zvi I (2013) Group Decision Making on Appellate Panels: Presiding Justice and Opinion Justice Influence in the Israel Supreme Court. *Psychology, Public Policy, and Law* 19, 282–296.

Epstein L, Knight J (1998) *The Choices Justices Make*. CQ Press, Washington, DC.

Epstein L, Martin AD, Quinn KM, Segal JA (2007) Ideological Drift among Supreme Court Justices: Who, When, and How Important. *Northwestern University Law Review* 101, 1483–1542.

Epstein L, Quinn KM, Martin AD, Segal JA (2008) On the Perils of Drawing Inferences about Supreme Court Justices from their First Few Years of Service. *Judicature* 91, 168–179.

Epstein L, Landes WM, Posner RA (2013) *The Behavior of Federal Judges: A Theoretical and Empirical Study of Rational Choice*. Harvard University Press, Cambridge, MA.

Escresa L, Garoupa NM (2012) Judicial Politics in Unstable Democracies: The Case of the Philippine Supreme Court, an Empirical Analysis 1986-2010. *Asian Journal of Law and Economics* 3 (1), 1–39.

Farhang S, Wawro G (2004) Institutional Dynamics on the U.S. Court of Appeals: Minority Representation Under Panel Decision Making. *The Journal of Law, Economics, and Organization* 20, 299–330.

Farnsworth W, Guzior D, Malani A (2013) Policy Preferences and Legal Interpretation. *Journal of Law and Courts* 1, 115–138.

Feldman SM (2005) The Rule of Law or the Rule of Politics? Harmonizing the Internal and External Views of Supreme Court Decision Making. *Law and Social Inquiry* 30, 89–135.

Fischman JB (2011) Estimating Preferences of Circuit Judges: A Model of Consensus Voting. *Journal of Law and Economics* 54, 781–809.

Fischman JB (2015) Do the Justices Vote Like Policy Makers? Evidence from Scaling the Supreme Court with Interest Groups. *The Journal of Legal Studies* 44 (Suppl. 1), S269–S293.

Gadbois GH Jr (2011) *Judges of the Supreme Court of India:1950–1989*. OUP, New Delhi, India.

Garoupa N, Gili M, Gómez-Pomar F (2012) Political Influence and Career Judges: An Empirical Analysis of Administrative Review by the Spanish Supreme Court. *Journal of Empirical Legal Studies* 9, 795–826.

Giles MW, Blackstone B, Vining RLJ (2008) The Supreme Court in American Democracy: Unraveling the Linkages between Public Opinion and Judicial Decision Making. *The Journal of Politics* 70, 293–306.

Gliksberg D (2014) Does the Law Matter? Win Rates and Law Reforms. *Journal of Empirical Legal Studies* 11, 378–407.

Hanretty C (2013) The Decisions and Ideal Points of British Law Lords. *British Journal of Political Science* 43, 703–716.

Haynie SL (1994) Resource Inequalities and Litigation Outcomes in the Philippine Supreme Court. *The Journal of Politics* 56, 752–772.

Hettinger VA, Lindquist SA, Martinek WL (2004) Comparing Attitudinal and Strategic Accounts of Dissenting Behavior on the U.S. Courts of Appeals. *American Journal of Political Science* 48, 123–137.

Hirschl R (2004) *Towards Juristocracy: The Origins and Consequences of the New Constitutionalism*. Harvard University Press.

Howe P, Russell PH (eds) (2001) *Judicial Power and Canadian Democracy*. McGill-Queen's University Press, Montreal, QC.

Kantorowicz J, Garoupa N (2016) An Empirical Analysis of Constitutional Review Voting in the Polish Constitutional Tribunal, 2003–2014 Constitutional Political Economy 27(1), 66–92.

Kastellec JP, Lax JR (2008) Case Selection and the Study of Judicial Politics. *Journal of Empirical Legal Studies* 5, 407–446.

Lauderdale BE, Clark TS (2012) The Supreme Court's Many Median Justices. *American Political Science Review* 106, 847–866.

Maltzman F, Spriggs JF II, Wahlbeck PJ (2000) *Crafting Law on the Supreme Court: The Collegial Game*. CUP, Cambridge, UK.

Martin AD, Quinn KM (2002) Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953-1999. *Political Analysis* 10, 134–153.

Martin AD, Quinn KM, Epstein L (2005) The Median Justice on the United States Supreme Court. *North Carolina Law Review* 83, 1275–1322.

Narayan PK, Smyth R (2007) What Explains Dissent on the High Court of Australia? An Empirical Assessment Using a Cointegration and Error Correction Approach. *Journal of Empirical Legal Studies* 4, 401–425.

Neuborne B (2003) The Supreme Court of India. *International Journal of Constitutional Law* 1, 476–510.

Ostberg CL, Wetstein ME (2007) *Attitudinal Decision-making in the Supreme Court of Canada. University of British Columbia Press*. Vancouver, BC.

Reise SP, Waller NG (2009) Item Response Theory and Clinical Measurement. *Annual Review of Clinical Psychology* 5, 27–48.

Richards MJ, Kritzer HM (2002) Jurisprudential Regimes in Supreme Court Decision-making. *American Political Science Review* 96, 305–320.

Robertson D (1998) *Judicial Discretion in the House of Lords*. Clarendon Press, Oxford.

Robinson N (2013) Structure Matters: The Impact of Court Structure on the Indian and US Supreme Courts. *American Journal of Comparative Law* 61, 173–208.

Sathe SP (2002) *Judicial Activism in India: Transgressing Borders and Enforcing Limits*. OUP, New Delhi, India.

Segal JA, Cover AD (1989) Ideological Values and the Votes of U.S. Supreme Court Justices. *American Political Science Review* 83, 557–565.

Segal JA, Spaeth HJ (2002) *The Supreme Court and the Attitudinal Model Revisited*. CUP, Cambridge, UK.

Shankar S (2009) *Scaling Justice: India's Supreme Court, Social Rights, and Civil Liberties*. OUP, New Delhi, India.

Skiple JK, Grendstad G, Shaffer WR, Waltenburg EN (2016) Supreme Court Justices' Economic Behaviour: A Multilevel Model Analysis. *Scandinavian Political Studies* 39(1), 73–94.

Sommer U (2009) Crusades Against Corruption and Institutionally Induced Strategies in the Israeli Supreme Court. *Israel Affairs* 15, 279–295.

Sommer U (2010) A Strategic Court and National Security: Comparative Lessons from the Israeli Case. *Israel Studies Forum* 25 (2), 54–80.

Songer DR, Johnson SW, Ostberg CL, Wetstein ME (2012) *Law, Ideology, and Collegiality: Judicial Behaviour in the Supreme Court of Canada*. McGill-Queen's University Press, Toronto, ON.

The State of Israel: The Judicial Authority (in Hebrew). [Last accessed 10 December 2016.] Available from URL: http://www.court.gov.il/heb/home.htm

Supreme Court of Canada [Last accessed 10 December 2016.] Available from URL: http://www.scc-csc.gc.ca/

Supreme Court of India [Last accessed 10 December 2016.] Available from URL: http://supremecourtofindia.nic.in/

Supreme Court of the Philippines [Last accessed 10 December 2016.] Available from URL: http://sc.judiciary.gov.ph/

Tate NC, Haynie SL (1993) Authoritarianism and the Functions of Courts: A Time Series Analysis of the Philippine Supreme Court, 1961–1987. *Law and Society Review* 27, 707–740.

Thiruvengadam AK, Joshi P (2012) Judiciaries as Crucial Actors in Southern Regulatory Systems: A Case Study of Indian Telecom Regulation. *Regulation & Governance* 6, 327–343.

Tiller EH (2015) The Law and Positive Political Theory of Panel Effects. *The Journal of Legal Studies* 44 (Suppl. 1), S35–S58.

Wahlbeck PJ, Spriggs JF II, Maltzman F (1999) The Politics of Dissents and Concurrences on the U.S. Supreme Court. *American Politics Quarterly* 27, 488–514.

Washington University Law. The Supreme Court Database. [Last accessed 10 December 2016.] Available from URL: http://scdb.wustl.edu/index.php

Weinshall K (2011) Attitudinal and Neo-institutional Models of Supreme Court Decision Making: An Empirical and Comparative Perspective from Israel. *Journal of Empirical Legal Studies* 8, 556–586.

Wetstein ME, Ostberg CL, Songer DR, Johnson SW (2009) Ideological Consistency and Attitudinal Conflict: A Comparative Analysis of the U.S. and Canadian Supreme Courts. *Comparative Political Studies* 42, 763–792.

Appendix: Ideological Ideal Point Preference (IIPP) for all justices casting at least 10 votes:

U.S. Supreme Court	Supreme Court of Canada	Supreme Court of Israel	Supreme Court of India	Supreme Court of the Philippines
Ginsburg: -1.22	McLachlin: -1.00	Dorner: -0.77	Lahoti: 0.01	Carpio: -1.09
Stevens: -1.19	Arbour: -0.73	Mazza: -0.64	Mathur: 0.24	Davide: 0.88
Souter: -1.10	Binnie: -0.68	Rivlin: -0.38	Balakrishnan: 0.40	Panganiban: -0.82
Breyer: -0.45	Iacobucci: -0.52	Beinisch: -0.34		Austria-Martinez: -0.02
OConnor: 0.12	Fish: -0.46	Joubran: -0.19		Ynares-Santiago: 0.43
Kennedy: 0.48	L'Heureux: -0.13	Cheshin: -0.10		Puno: 0.60
Rehnquist: 0.64	Major: 0.18	Hayut: -0.08		
Scalia: 1.05	LeBel: 0.22	Barak: -0.07		
Thomas: 1.12	Bastarache: 0.94	Procaccia: -0.02		
	Deschamps: 1.09	S. Levin: 0.08		
	Gonthier: 1.58	Naor: 0.15		
		Grunis: 0.67		
		Strasberg-Cohen: 0.68		
		Levy: 0.80		
		Turkel: 1.22		