Ideological Influences on Governance and Regulation: The Comparative Case of Supreme Courts

A key influence on governance and regulation is the ideology of individual decisionmakers. Still, 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 (DCAM) estimates the attitudinal decision-making on the institution as a whole. Additionally, we estimate Ideological Ideal Point Preference (IIPP) for individual justices. Empirical results with original data for political and religious rights rulings in the Supreme Courts of the U.S, Canada, India, the Philippines and Israel corroborate the measures' validity. Future studies can utilize IIPP and DCAM to cover additional courts, legal spheres and time frames, and to estimate government deference.

Keywords: Attitudinal Decision Making, Comparative Law, Judicial Politics, Supreme Courts, Judicial Ideology

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I. 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. Still, 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 judicial 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 at least in some countries, the effect of attitudes may be substantial even at the highest levels of the judicial hierarchy. This, for instance, would be the case of attitudinal behavior on the U.S. Supreme Court (Segal & Spaeth 2002, *inter alia*).

What are the effects of attitudes on governance and regulation done in the judiciary? To examine this question systematically, we suggest moving beyond case study design. Whereas literature has focused predominantly on individual courts, to achieve variance in the variable 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 decision-making in different national high courts.

According to the classic attitudinal model of Supreme Court decision-making, 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 (Gillman & Clayton 1999) approaches to judicial behavior accept the notion that attitudes are a main motivating factor in judicial decision-making. Such scholarship argues, however, that justices operate within a decisional terrain where 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 decision-making in each Supreme Court as well as the ideological preference of the individual justices. The macro-, and micro-level measures elucidate the roles of ideology in judicial institutions.

The paper unfolds as follows. In Section II, 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 policy making. Section III canvasses our theoretical and methodological framework. We present our proposed measure, using a dynamic response model that allows levels of attitudinal decision-making 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 steps 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 decision-making 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 to the ideological preferences of her colleagues on the court. In Section IV, 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 U.S., 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 USA and Canada. At the macro level, DCAM results were estimated for each of the five

courts, measuring decision-making 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 decision-making in courts characterized by an appointment process that is more political, 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 U.S. Supreme Court exhibit the highest levels of attitudinal voting. Canadian justices are significantly less attitudinal than in the U.S., 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). Lastly, of the court studied here, Indian justices show 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 and its implications for governance and regulation. 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.

II. Why Model a Dynamic Comparative Attitudinal Measure?

This project is among the first to study and compare attitudinal decision-making 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 on the U.S. courts. Yet, unlike other socio-legal theories and models, the model did not travel well beyond the USA 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 policy making in at least six different ways. First, scores for attitudinal decision-making in each high court can contribute to socio-legal research in individual countries. IIPP provides 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 U.S. Supreme Court—featuring lifetime appointments, gatekeeping privileges, the judicial hierarchy and minimized bureaucracy—is conducive to high levels of attitudinal decision-making (Segal & Spaeth 2002). Yet, since such claims are applied predominantly in the American context, scholars are yet to put them to rigorous empirical testing. With the benefit of variance inherent to a comparative framework, 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, DCAM could be used for comparing levels of attitudinal decision-making 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 decision-making. This is indeed necessary for our comparative framework. Furthermore, it is an important contribution to existing measures of judicial ideal point estimates in the U.S. 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 the ones available to date.

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

III. Modeling a Dynamic Comparative Attitudinal Measure

A. Theoretical Background

Existing models of judicial decision-making 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 the 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 (Gillman & Clayton 1999; Feldman 2005; Richards & Kritzer 2002; Bailey & Maltzman 2011; Farnsworth *et al.* 2013; Epstein *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 U.S., however limited in scope, is very much in line with such contentions. Compared to the U.S., the Canadian Supreme Court—which is similar in institutional design—reveals a significant, yet smaller, 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 political party as proxy (Smyth & Narayan 2007). Attitudinal studies of the Philippine Supreme Court, using demographic background, political party of appointing president, and recently utilizing ideal point measurement, show mixed degrees of attitudinal behavior across presidential terms and in different political contexts (Haynie 1994; Tate & Haynie 1993; Escresa & Garoupa 2012; Dalla Pellegrina *et al.* 2014). Weinshall-Margel (2011) found significant correlations between 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 liberties and social rights cases Indian Supreme Court judges did not show pure attitudinal patterns of decision-making (Sathe 2002; Gadbois 2011).[1] We found a volume of additional comparative literature that, mostly due to 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 decision-making to different degrees and with dissimilar effects in various national settings.[2] Yet, mostly due to methodological challenges, these effects are measured using a range of approaches, making it hard to compare them or their behavioral and political ramifications.

B. Measuring Attitudinal Behavior Comparatively

Judicial attitudinal behavior has been measured using two distinct methodologies. The first dominated U.S. attitudinal studies until the early 2000s and is most common in the non-U.S. 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 measured mostly 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 U.S.. 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, since 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 (Epstein *et al.* 2007; 2008; Martin & Quinn 2002; 2005).

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 U.S. and Canada (Martin & Quinn 2002; Bailey & Maltzman 2011; Alarie & Green 2009; 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 decision-making since these fluctuate as a function of institutional design and political context. We specify a dynamic response model that allows levels of attitudinal decision-making 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; Hettinger *et al.* 2004; Maltzman *et al.* 2000; Garoupa *et al.* 2012[3]).

C. 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:

$\alpha_m + \gamma \sum_{k \in P_m} \iota_k + \beta_m \iota_j$, where

P_m is the panel composition of the mth case;

J denotes the total number of judges in all cases;

α_m , $m = 1, \dots, M$ is a random effect capturing the case facts and jurisprudential considerations in the case. Large absolute values means 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 , $m = 1, \dots, M$ 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. Large value means that the judges act according to their individual tendencies.[4]

$\iota_1, \dots, \iota_J$ 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 mean zero and variance 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

$$P\left(v_{mj} = 1 \middle| \alpha_m, \beta_m, P_m\right) = \frac{e^{\alpha_m + \gamma \sum_{k \in P_m} \iota_k + \beta_m \iota_j}}{1 + e^{\alpha_m + \gamma \sum_{k \in P_m} \iota_j + \beta_m \iota_j}}$$

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 $N(\mu_\beta, \sigma_\beta^2)$ respectively (to be exact, normal truncated to a grid, see below).

Before we further explain the model, its assumptions and limitations, few examples portraying the meaning of the three primary parameters in the model (α , β and γ) could clarify the work being done 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 dependent largely on panel compositions.

The model is a mixed Bayesian model with latent variables. We are not interested in the values of parameters alpha ($\alpha_1, \ldots, \alpha_M$) or beta ($\beta_1, \ldots, \beta_M$), but only 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 β or γ parameter. 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 consideration that are not absorbed by the other two parameters.

The γ parameter is significant mostly in courts deciding cases in panels. In countries hearing cases en banc, parameter γ is hardly identifiable. Thus, for the U.S. and Canadian courts, the difference between the contribution of μ_α and the contribution of γ to the likelihood is relevant only when the courts' composition change (in our U.S. and Canadian data, only a couple of judges were replaced by another couple, 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 towards a case, the γ parameter captures haw 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 steps Markov Chain Monte Carlo (MCMC) in which the values of $\iota_1, \ldots, \iota_J$, α_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 3-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, and can be received upon request.

For the institutional-level measure of attitudinal behavior, DCAM, the parameter of interest is the distribution of β_m, as large values indicated tendency of the judges to have individual votes according to their own ideological inclinations. Since this random effect is assumed to be Gaussian, we consider its second moment (the expected value of β_m squared). In particular, we define:

$$DCAM = \mu_\beta^2 + \sigma_\beta^2$$

DCAM is therefore structured to measure the level of heterogeneity between the judges in a given court. Scores are computed separately for each country. Since $\beta_1, \ldots, \beta_M$ 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, since 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, as aforementioned, $DCAM = \mu_\beta^2 + \sigma_\beta^2$.

It might be useful to explain the model in terms of item response theory (IRT). Our model is similar to the classical IRT in psychometric (Reise & Waller 2009), where problems with different levels of difficulties ($\alpha_1, \ldots, \alpha_M$ in our formulation) are administered to subjects with diverse abilities ($\iota_1, \ldots, \iota_J$). 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 to only 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.

Testing DCAM and IIPP in Five Supreme Courts

A. 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 U.S. 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 (Lauderdale & Clark 2012; Wetstein *et al.* 2009; Alarie & Green 2009). For this reason, we chose to test 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[5] is considered (see additional definitions in the following section). Since 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 DCAM estimates combining both issue areas as well as separately for each. Lastly, 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 DCAM and IIPP in the supreme courts of five countries: the U.S., Canada, India, the Philippines and Israel. These countries were selected from the universe of all countries with Common Law legal

systems or a mixed common and Civil Law tradition in which individual judicial opinions are published. The U.S. 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 DCAM,[6] we focused on the supreme courts of India, the Philippines and Israel because of variance in institutional makeup in panel size, caseload, gatekeeping privileges, norms of consensus and judicial appointment regimes, as outlined in Table 1 (Baum 1998; Howe & Russell 2001; Neuborne 2003; Tate & Haynie 1993; Austin 1966; Barzilai *et al.* 1994)

(insert Table 1 here)

While the American Court has a long history as a powerful political player, the Canadian, Philippine and Israeli high courts have enhanced their engagement in the political game only 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.* 1997); 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 (Sathe 2002) and is today a key player in the advancements of regulatory reforms such as in the sphere of telecom regulation (Thiruvengadam & Joshi 2012). In all five countries, the judicial systems enjoy a *relatively* non-partisan image and reasonable high levels of public trust (Ostberg & Wetstein 2007; Barzilai *et al.* 1994; 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 U.S.) 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 levels of attitudinal behavior on the part of the justices once appointed. The more politically contentious judicial appointments are, the more we expect the justices once on the court to tend to vote their preference (Escresa & Garoupa 2012; Wetstein *et al.* 2009, p. 784-785; Robinson 2013, p. 119; Gadbois 2011). 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 U.S. and Canadian courts at one end of the spectrum, the Indian court at the other end of the spectrum, with 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 (Eisenberg *et al.* 2012), with important cases more typical of the latter. Caseloads affect the amount of resources available to be invested in each case, as well as the cost of registering dissents (Sommer 2009; 2010; Smyth & Narayan's 2007; Epstein *et al.* 2013).

As for the size of panels deciding each case, American and Canadian justices decide cases en banc.[7] 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 eleven

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 decision-making 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 to decisions reviewed in a regular panel (in courts where panel expansion occurs). Yet, deciding most cases in small intimate panels may form collegiality and consensual norms that have diffusing effects on all cases, reflected also 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 above, suggest that our estimates of attitudinal behavior should show the highest attitudinal levels in the U.S. 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.

B. Data and Methods

Our dataset comprises a representative sample (India, the Philippines and Israel[8]) or the full docket (the U.S. and Canada) of political and religious rights cases between 2000 and 2006.[9] 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.[10] The dataset centers on

individual rulings as the unit of analysis. 261 votes were found in political rights cases decided in the U.S., 244 votes in the Israeli court, 135 votes in political rights cases from Canada (nine justices sat in all cases), 149 votes in the Supreme Court of India in political rights cases and 93 votes in political rights cases in the Supreme Court of the Philippines. In religious rights cases, 90 votes were coded in the U.S. Supreme Court, 72 votes in Canada, 173 votes in Israel, 100 votes in India and 83 in the Philippines.

Note that due to 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 ideologically 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 U.S. 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 few 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 U.S. 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.[11] Israeli law and political science students (undergraduate and graduate) performed the coding. Based on recoding of 30% of the cases, Inter-rater reliability was over 95%.

C. Results

DCAM is a dynamic index that estimates the degree of attitudinal decision-making in that court. DCAM yields positive estimates. Higher DCAM values indicate generally higher levels of attitudinal decision-making on the court. DCAM is based on the Ideological Ideal Point Preference (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).

(*Insert Figure 1 here*)

Figure 1 presents DCAM scores for the overall degree of attitudinal decision-making in each country, combining both civil liberties type of cases, as well as separate scores in each country for political rights cases and for religious rights cases. Due to 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 estimate DCAM scores separately for enlarged panels (more than three justices) only 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 U.S. Supreme Court exhibits the highest levels of attitudinal behavior. DCAM combined score for the American court is 5. The U.S. 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 DCAM equals 1.1—are also incorporated, the overall DCAM for the Canadian institution in the two issue areas is approximately 2.04.

DCAM in the Philippines is 1.97. A higher level of attitudinal trends is measured in political rights cases, where DCAM is 1.95 (note that SE for this score (0.91) is the highest of all scores, though still producing a reliable estimate). In comparison, 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 of January 2001. Thus, Philippine justices might be sensitized to political rights issues, which is reflected in DCAM for political rights and in the gap vis-à-vis DCAM for religious rights.

DCAM of 1.56 indicates lower levels of attitudinal behavior in Israel. A DCAM score of 2.6 for expanded panels in Israel supports the higher level of attitudinal behavior when contentious legal question or acrimonious political debate are 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, DCAM scores support our theoretical expectations for *the degree of attitudinal behavior on* different courts. Let us now examine IIPP.

(*insert Figures 2 to 4 here)*

Figures 2 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 ten 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 in each patch 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 ten 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. Occupying the median positions on the court are justices O'Connor and Kennedy. 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.

(*insert Figure 5 here)*

The body of literature using the Segal-Cover scores (Segal & Cover 1989) is immense and thus it is our first reference point. 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 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.

(insert Figure 6 here)

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 (.93) with high levels of face validity. Comparison of IIPP with scores prevalent in research on the U.S. 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.

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 Canadian justices to 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.

(insert Figures 7 to 8 here)

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[12] is -0.62 (see Figure 8). Along the same lines, we find a correlation of slightly under -0.6 between IIPP and a version of Martin-Quinn scores applied in the Canadian case by Alarie and Green (2009).

We have a good number of observations for each of the North American justices, since in both the U.S. 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 only in a subset of cases.[13] We thus present IIPP scores for a partial number of justices in the Philippines, Israel and India (those deciding in more than ten cases). As we expand our data to more issue areas and cases, IIPP 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. This is the first study to estimate Israeli justice's ideological ideal points and so 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 shis coalition stitching skills.

V. Discussion and Conclusions

To systematically study the effect of ideology on regulation and governance done by the judiciary, we introduce a novel tool for assessing and comparing judicial decision-making in courts of different countries. 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 (for example, 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 Markov Chain Monte Carlo (MCMC) algorithm with 500,000 steps to fit our Bayesian model. The empirical tests lend strong support to the model. The U.S. 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 U.S. 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 decision-making in five supreme courts and the first to present ideal point estimates for almost all justices on the Israeli court and few justices on the Indian court. The calculated estimates are based on two issue areas from 2000-2006, which leaves room for a host of future research. We will conclude by suggesting a few possible venues for creating 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 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 the prescriptions of the law may be considered troubling. This is particularly true due to 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. DCAM offers an empirically way 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 towards this goal would involve the coding of one or two more issue areas relating to civil liberties (for example, 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 decision-making in courts. Yet, such theoretical contentions have been studied mostly with respect to a single court, and thus with little or no institutional variance. 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[14].

Along the same lines, DCAM and IIPP scores enable the study of related empirical questions such as the relations between certain aspects of judicial behavior and judicial activism or judicial legitimacy. One can use the methodology introduced to measure and compare judges' attitudes towards 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 venue to pursue in future research would be the 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, 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 ideology of justices and ideology of other political and legal actors.

In conclusion, the research agendas to be derived from the applications of 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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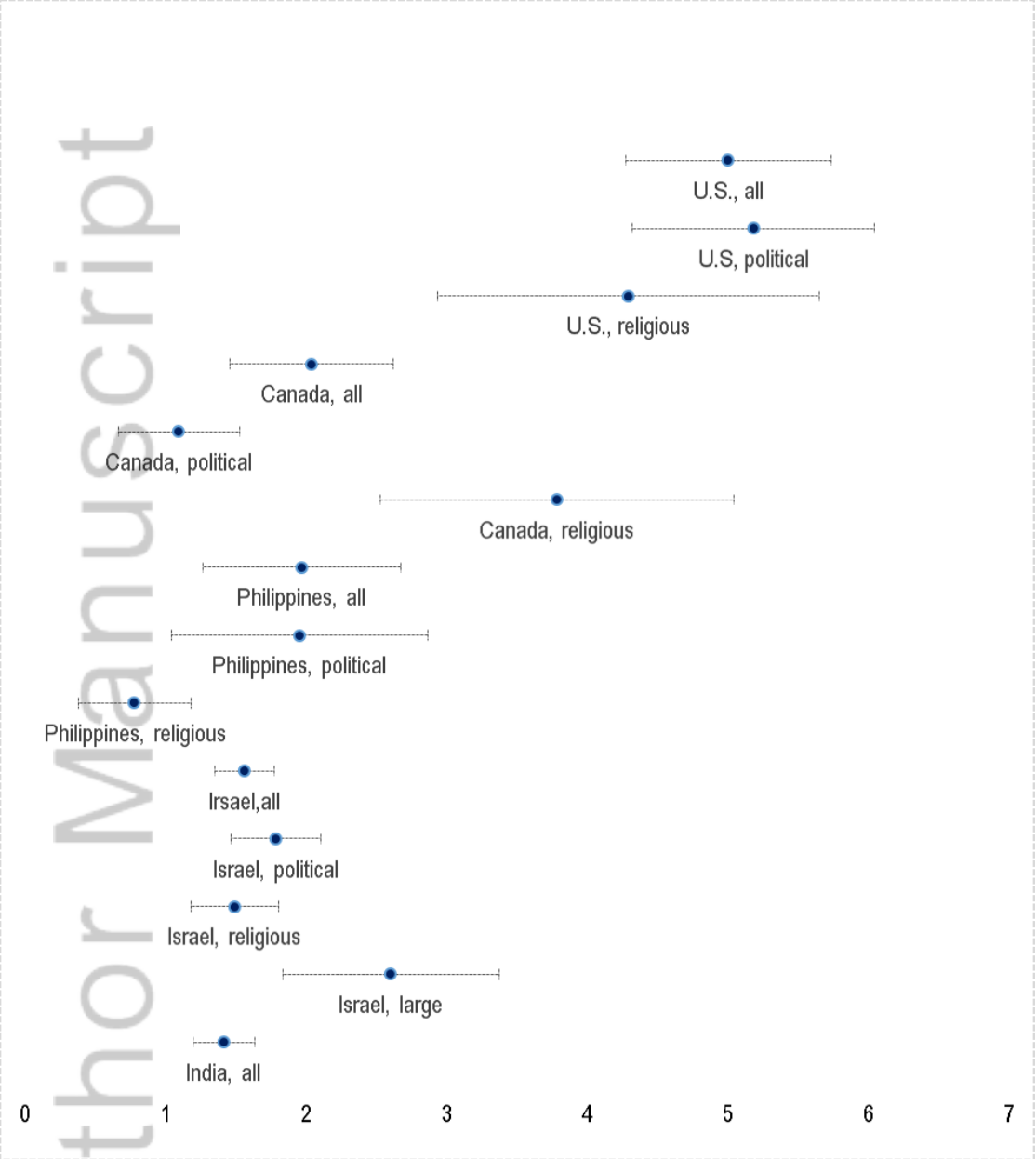
U.S.S.C. Database - http://scdb.wustl.edu/index.php

Table 1: A Comparison of the American, Canadian, Indian, Philippine and Israeli Courts

	United States Supreme court	Supreme Court of Canada	Israel Supreme Court	Supreme Court of India	Supreme Court of 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	9-15	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

Figure 1: Dynamic Comparative Attitudinal Measure (DCAM) Estimates



- DCAM estimates Means ±1 standard error

Figure 2: Ideological Ideal Point Preference (IIPP) for U.S. Supreme Court Justices

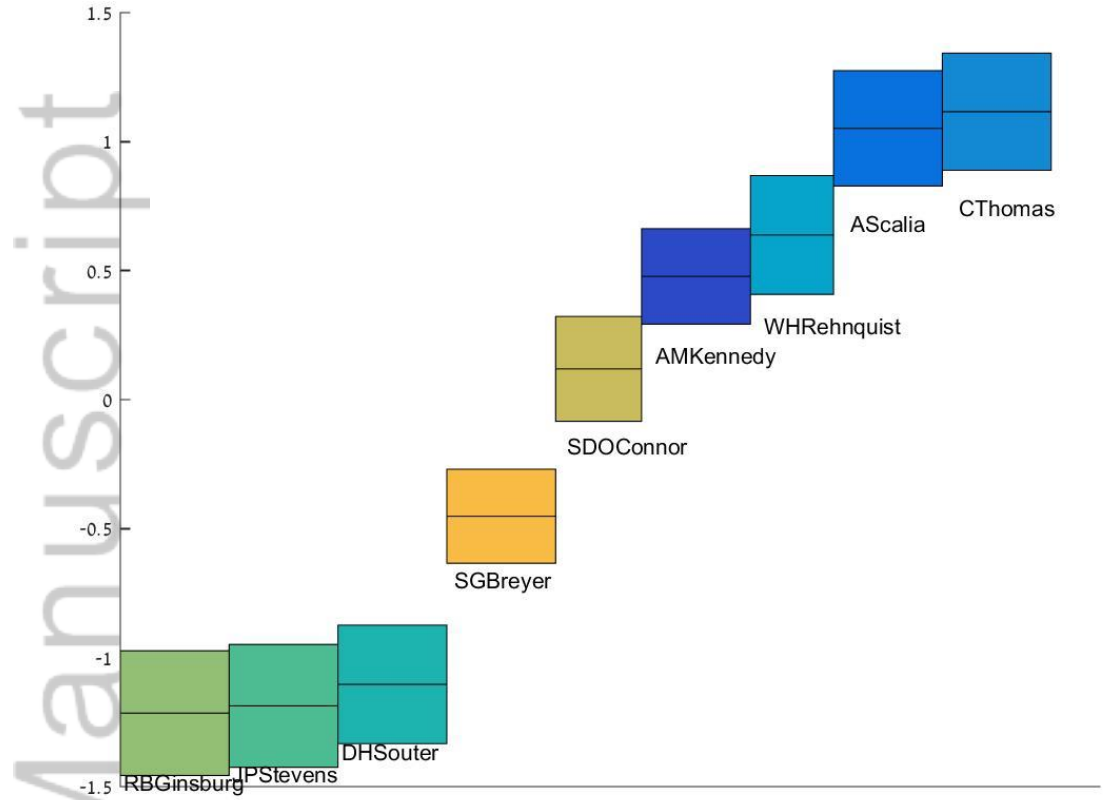


Figure 3: Ideological Ideal Point Preference (IIPP) for Canadian Supreme Court Justices

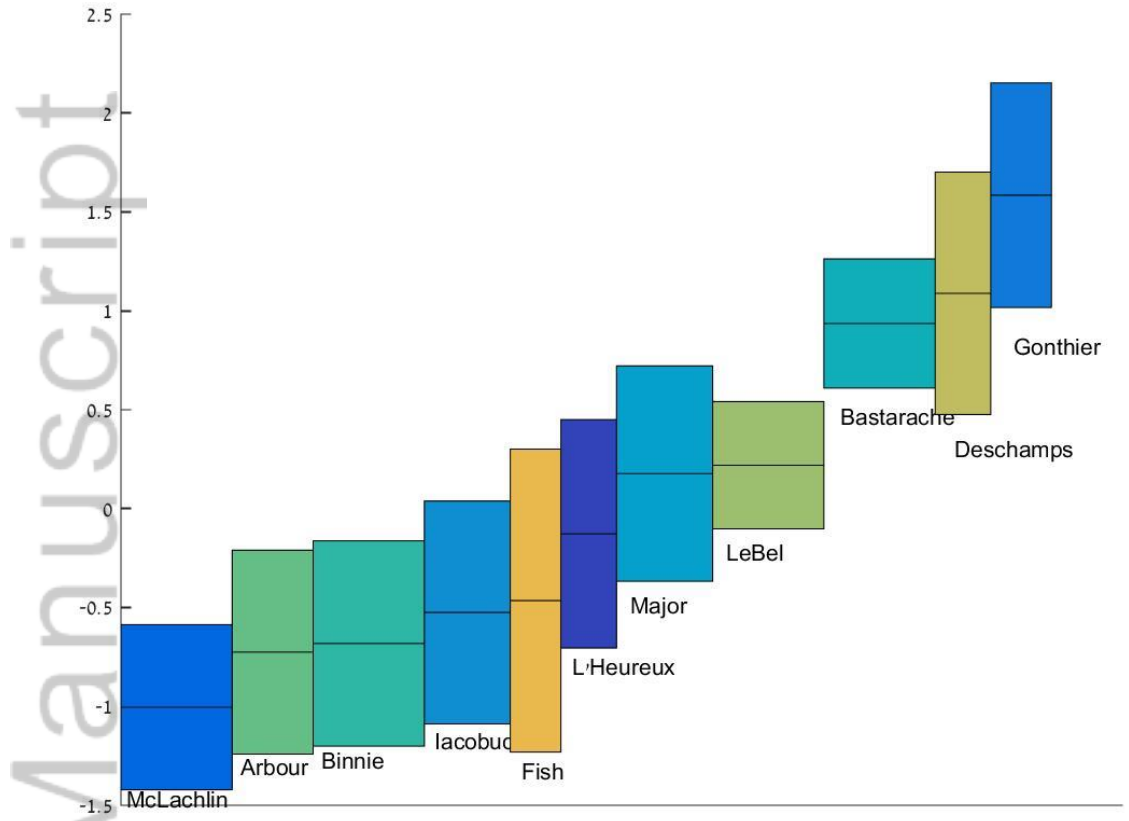


Figure 4: Ideological Ideal Point Preference (IIPP) for Israeli Supreme Court Justices

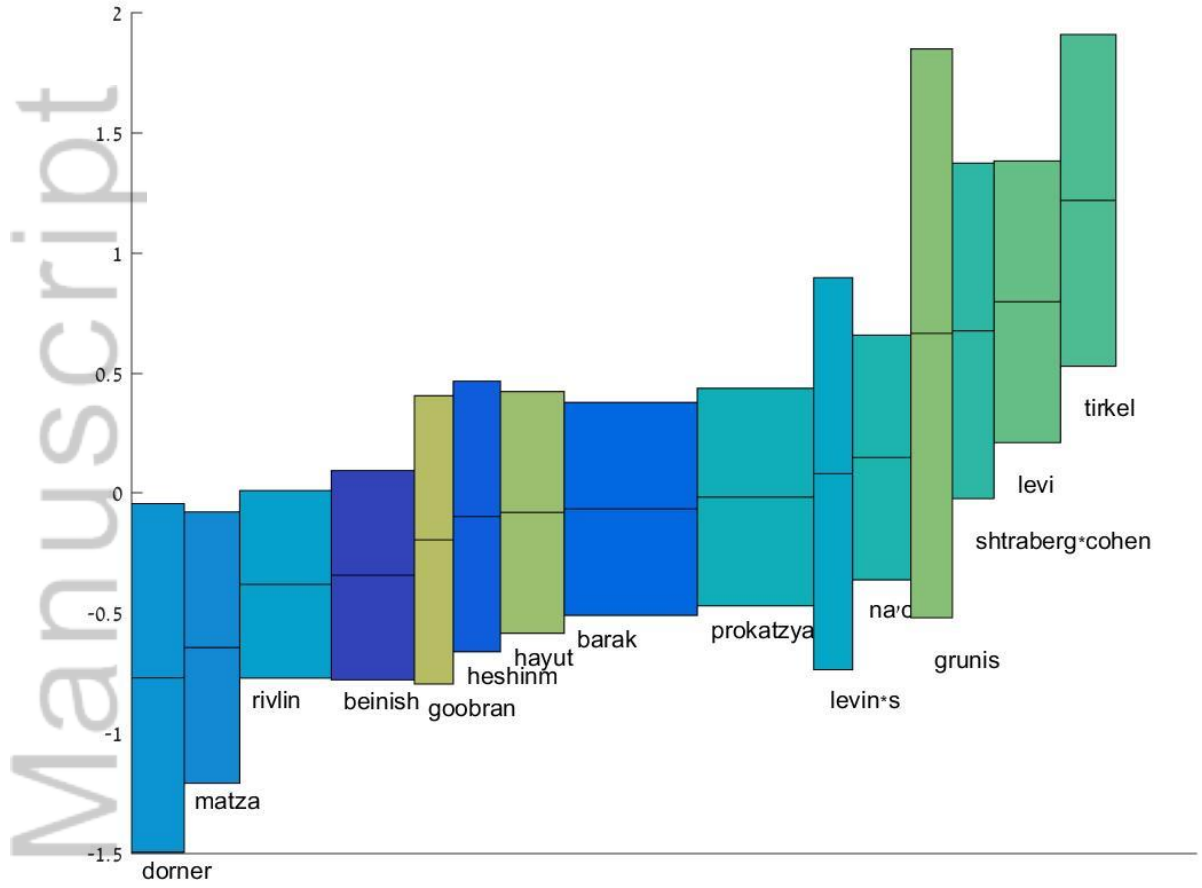


Figure 5: Correlation between IIPP Estimates and Segal-Cover Scores for U.S. Justices

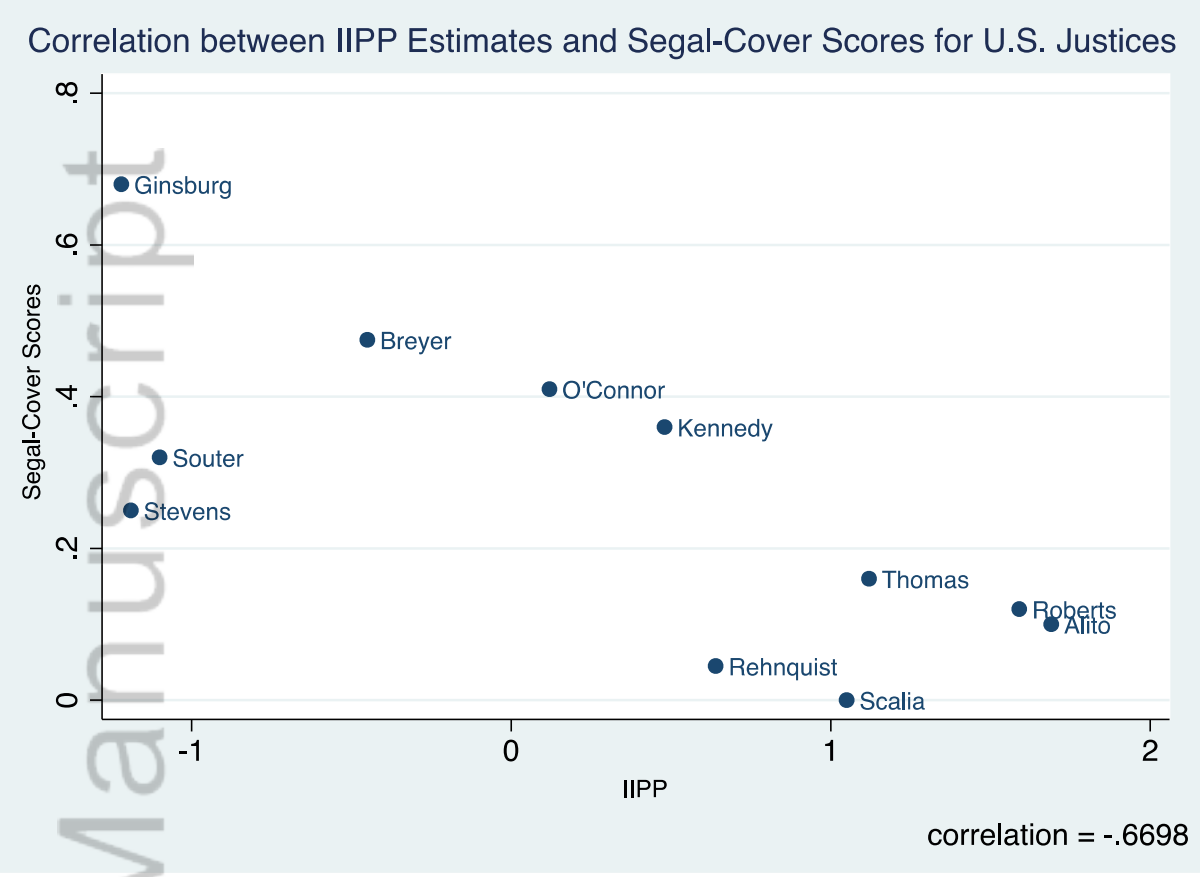


Figure 6: Correlation between IIPP and Martin-Quinn Ideal Point Estimates for U.S. Justices

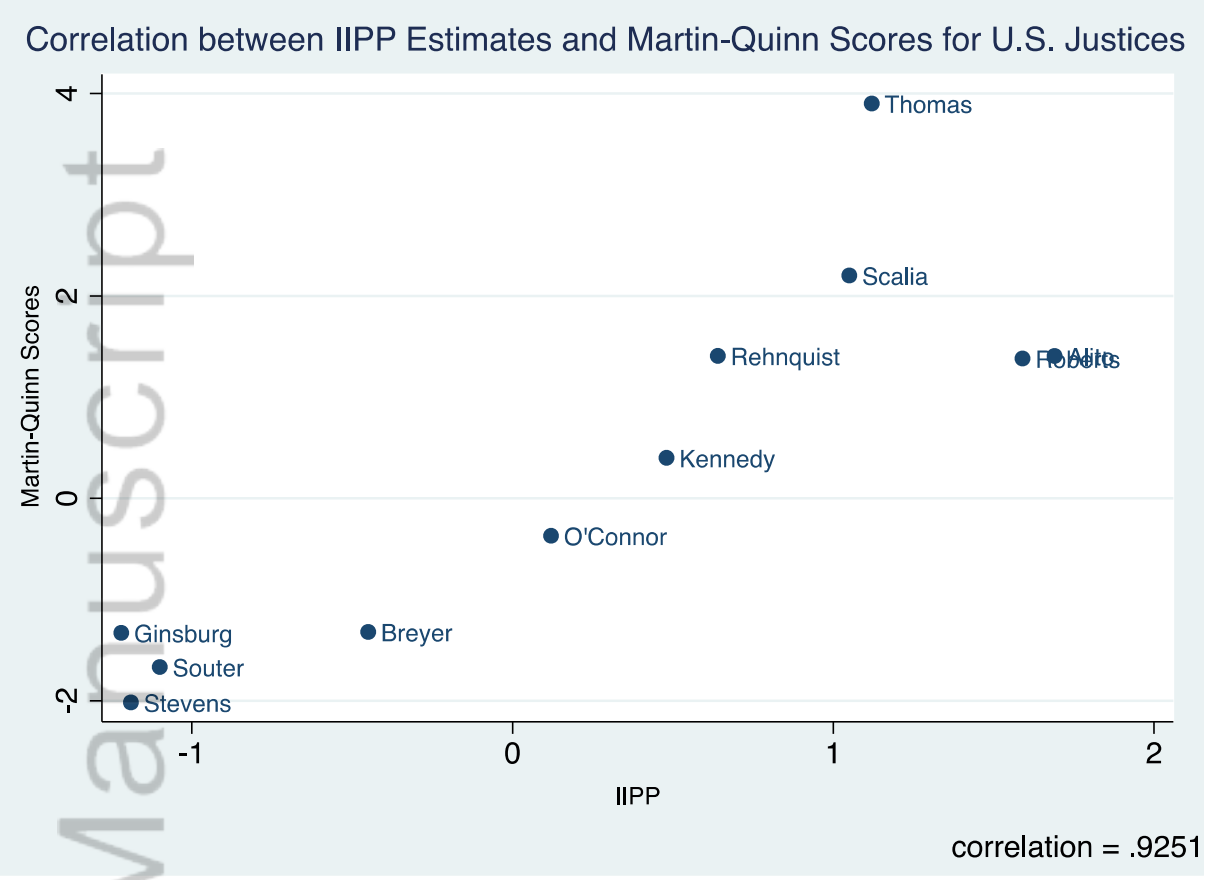


Figure 7: Correlation between IIPP and Wetstein et al. Civil Rights Scores for Canadian Justices

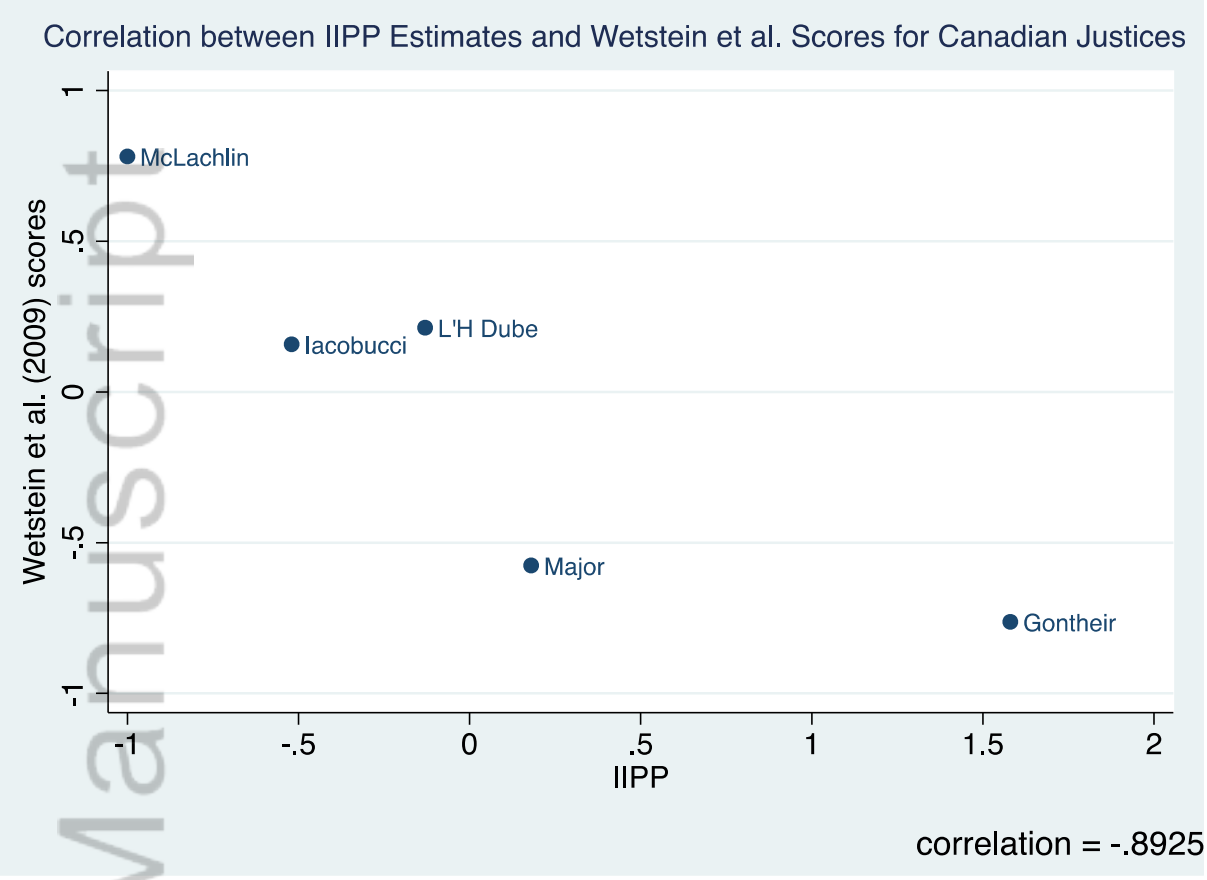
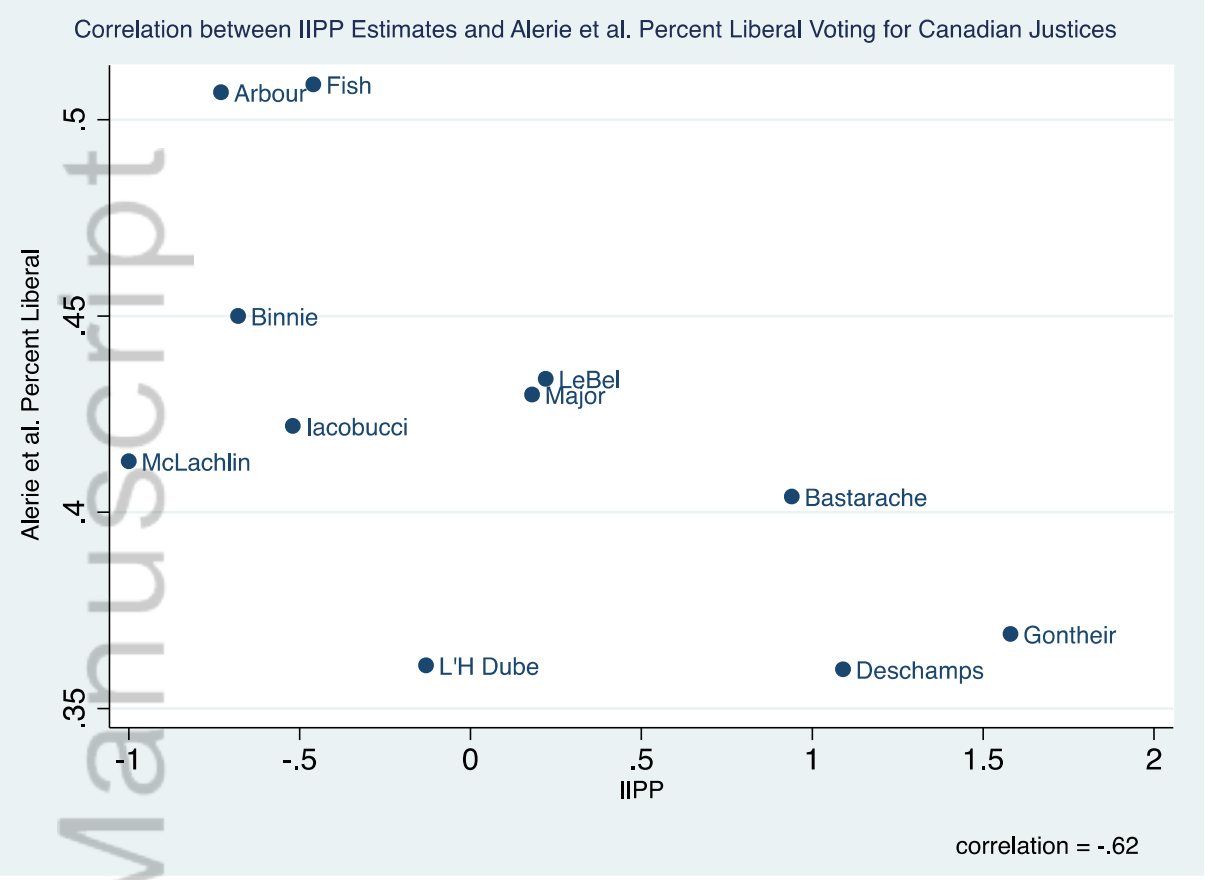


Figure 8: Correlation between IIPP and Alereie et al. Percent Voting Liberal for Canadian Justices



Appendix: Ideological Ideal Point Preference (IIPP) for all justices casting at least ten 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		
		Y. Alon: 1.13		
		Tirkel: 1.22		

[1] See more comparative attitudinal literature in Haynie and Sill (2007) for South Africa; Garoupa *et al.* (2011, 2012) for Spain; and Garcia *et al.* (2009) for Portugal.

[2] An exception is Hanretty (2013) who, using ideal point estimates, did not find evidence for attitudinal decision-making 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 happen, mean that the mechanical classification of the liberal/conservative side of a case was not like the way it was perceived by the judges because of some unique features.

[5] In each country, we examine what are considered religious rights cases, which in the U.S. also includes issues pertaining to the establishment of religion by the state.

[6] We did not include a test of the UK 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.)

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

[8] 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's websites. For religious rights cases, we used "religion" and "freedom of religion" as search words. For political rights cases, we used the following search words: "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 4-5K cases every year; the Indian had over 30K annually. The search itself was conducted differently for the Philippine court because we searched the archive not using 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, which we didn't for the Indian, where the volume of pertinent cases in the search results was sufficient. With respect to political rights cases, initially we had too few of those, and thus, we used additional search terms. The decision rule for whether to add additional search terms in this case was whether it seemed like even if we were missing a few cases 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.

[9] For political rights cases in the U.S., Canadian and Israeli courts, we expanded the data to also include cases from 2007-2009.

[10] The U.S. Supreme court database was also used http://scdb.wustl.edu/data.php

[11]In religion establishment cases in the U.S., 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 as "conservative" decisions that protect individual’s rights to exercise religion.

[12] 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, see at Benjamin Alarie and Andrew Green, *Supreme Court of Canada Database* (2015); http://www.supremecourtdatabase.ca.)

[13] 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 DCAM scores to the more institutional-theoretical panel effects, as well as the difference in cases and other institutional features.

[14] When 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.