A Micro-Macro Gauge of ideological Effects on Judicial Decision Making: The Dynamic Comparative Attitudinal Measure and the Ideological Ideal Point Estimate [*]

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We posit a dynamic response model to investigate attitudinal behavior in different national courts. The model allows levels of attitudinal decision making to vary with the voting patterns of individual justices, the nature of the cases they decide and the institutional makeup of their court. The scores are estimated based on a probability model that formalizes the assumption that judicial decisions consist of ideological, strategic and jurisprudential components. We employ 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. This allows for two levels of measurement; at the macro level, the Dynamic Comparative Attitudinal Measure (DCAM) estimates the extent to which attitudes influence decision making on the institution as a whole. At the micro level, we estimate Ideological Ideal Point Preference (IIPP) for the individual justice. Empirical results based on 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. IIPP estimates match well with existing attitudinal measures for individual justices. DCAM results are largely in line with expectations, given disparities in institutional design; on the U.S. court, levels of attitudinal behavior are highest. On the Canadian court, those levels are significantly lower, followed closely by the Philippine and Israeli institutions. The lowest levels are measured on the Indian court.

I.   Introduction

This paper introduces a theoretical framework and a novel empirical dynamic index that apply to both the macro level of the institution and the micro level of the individual decision maker. These allow us, for the first time, 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 preferences, in light of the stimuli presented by the facts of the case (Segal and Spaeth 2002). Strategic (Epstein and Knight 1998) and new-institutional (Gillman and 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 institutional 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. In addition, we strive to generate a measure estimating the ideological preference of the individual justices on these courts. The macro-level measure and its micro-level companion complement each other; together they elucidate the roles of ideology in judicial institutions and the effects of ideological preferences of individual justices.

To investigate levels of attitudinal behavior in different courts, we posit 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 modeling strategy is based on a probability model formalizing our assumptions that judicial decision making in each case is a dynamic function of case facts, legal considerations, panel composition and judges' ideological preferences. The model is estimated using Markov Chain Monte Carlo simulations. Our theoretical framework is developed for common law courts, where a

majority on the high court is required to establish binding legal precedents, and where dissenting opinions can be registered. Accordingly, the scores capture the tendency of judges 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, which is the level of the institution, the Dynamic Comparative Attitudinal Measure (DCAM) is a dynamic index that estimates the degree of attitudinal decision making in that court. DCAM yields positive estimates. Courts that exhibit higher degrees of attitudinal behavior receive higher DCAM values. This measure is relative in nature and thus comparable between different courts. At the micro level, which is the level of the individual decision maker, 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. IIPP values range from negative (for liberal justices) to positive (for conservatives).

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. Supreme Court as well as on other U.S. federal and state courts. Yet, unlike other socio-legal theories and models, the model did not travel well. In the absence of a measurement strategy for the ideology and attitudinal behavior of judicial decision makers in courts outside the United States, this model has won scant empirical testing. We believe the scarcity of comparative empirical research in this area, however, is by no means an indication of irrelevance. Rather, it is a result of obstacles pertaining to measurement techniques, which we strive to overcome here.

A comparative attitudinal measure can advance the study of judicial politics in at least five aspects. First, an estimate of the degree of attitudinal decision making in each high court can contribute to socio-legal research in individual countries. IIPP, the score for the ideological preferences of individual justices, provides necessary building blocks for attitudinal and strategic empirical studies of judicial behavior. Furthermore, the

effect of justices' attitudes on their rulings, whether high or low, has implications for the normative role of the judiciary in any democratic system (Dahl 1957; Hausegger & Riddell 2014). Likewise, the level of attitudinal voting in a court is relevant when debating issues such as judicial appointments or the institutions of checks and balances. This point is doubly important in the present age of global judicial empowerment, when justices in many nations are entrusted with some of the key questions of the hour (Tate and Vallinder 1995; Hirschl 2010).

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 and 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. The variance in both predictors (institutional features) and outcome variables (levels of attitudinal voting) makes the comparative exercise particularly appealing. Note that the comparative measure we suggest 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 United States.

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, or the extent to which courts may be characterized as engaging in 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 or several countries) or across different issue areas. For instance, as judicial reforms become ubiquitous, DCAM could be used for comparing levels of attitudinal decision making before and after implementing reforms. Finally, 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 (e.g., Martin and Quinn 2002; Alarie and Green 2007).

This paper has two main components. The first canvasses the theoretical and methodological framework. We begin by laying out our working assumptions, which largely stem from existing comparative attitudinal literature. Then, after briefly reviewing approaches U.S. scholars have employed to measure attitudinal voting and discussing their comparative relevance, we present the DCAM and IIPP.

In the second section, 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.) Micro- and macro-level tests are employed to examine the performance and validity of the novel estimation technique. At the micro level, IIPP correlates robustly with existing and widely used ideological estimates for individual justices in the U.S. and Canada. Lending considerable support to the approach developed here, IIPP yields extremely similar results to Martin and Quinn's (2005a) dynamic ideal point estimates. In cases where we identify discrepancies between our measure and alternative scales (e.g., the Segal-Cover scores), we are able

to theoretically account for such incongruities. There are no comparable measures for justices on the other courts in our sample.

At the macro level, DCAM results 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 (or en banc) panels. In line with existing attitudinal literature, the DCAM 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, Indian justices show the lowest levels of attitudinal behavior.

II.   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 decision makers and thus influence the weight and degree to which these different considerations affect their decisions (Gillman & Clayton 1999, Gillman 2001, Feldman 2005; Richards and Kritzer 2002; Bailey and Maltzman 2011; Lax 2011; Farnsworth et al. 2013; Epstein, Lands and Posner 2013). For instance, the influence of justices' attitudes on the votes they cast on the merits is conditioned on case selection mechanisms (Yates et al. 2013; Kastellec & Lax 2008; Eisenberg et al. 2012), panel size and composition (Farhang and 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 and Green 2007; 2009; Ostberg and 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 (Ostberg and Wetstein 1998; 1999; 2002; 2007). 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 and Green 2007). In Australia, there is a significant correlation between justices' dissent rates and their ideology, measured as a proxy of the political party (Smyth 2005; Narayan & Smyth 2007). Attitudinal studies of the Philippine Supreme Court, using demographic background or political party of appointing president as a proxy for ideology, show mixed degrees of attitudinal behavior across presidential terms and in different political contexts (Haynie 1994; Tate and Haynie 1993; Samonte 1969; Escresa and Garoupa 2012). 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. Other studies found ideologically driven decisions, to changing degrees, 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 (see also Rajamani & Sengupta 2010; 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. Rather, such scholars more broadly assert that judges are influenced by their ideologies (e.g., Robertson (1993).[2]

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.[3] Yet, mostly due to methodological challenges, these effects are measured using a range of approaches, making it hard to compare them or their behavioral ramifications. Our goal is to generate a single, intuitively meaningful measure that would provide a comparable estimate for the degrees of attitudinal decision making. Such a measure could be used across institutional makeups, in different countries and for different historical periods.

B. Measuring Attitudinal Behavior in a Comparative Context

Judicial attitudinal behavior can be 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 the appointment process, such as the political party of the appointing president or editorials published prior to appointment (Segal and Cover 1989 in the U.S.; Ostberg and Wetstein 2007 in Canada). Other studies use justices' social or professional background as a proxy for their ideology.

Such a methodology, which requires measuring ideology based on instrumental 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 American case. 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, 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, the committee responsible for nominating justices is composed of four politicians (including parliament members from the opposition) and five professionals (three justices and two members of the bar). Meetings 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. Secondly, even if one could produce an ideological measure for justices in different countries, or just for those where such information is available, the scores would not be comparable. For example, since judicial appointment processes in different countries vary, a scale based on appointments alone could not be used for valid 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. U.S. studies from recent years have revealed that changes in judicial preferences indeed do occur and may be quite substantial in certain cases (Epstein et al. 2007; 2008; Martin & Quinn 2002; 2005).

For these reasons, we turn to the second methodology of measuring attitudinal behavior, which we think is more appropriate for a comparative framework. This methodology measures attitudinal behavior based on judicial votes (Martin and 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 and Quinn 2005a; 2005b; Owens and Black 2009; Bailey and Maltzman 2011; Alarie and Green 2009). The suggested comparative scale adopts basic principles from these measurement techniques.

Before we turn to the specific modulation, 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 according to voting patterns of individual justices and the nature of the cases they decide. We characterize court cases as differing in a unidimensional issue space ranging from conservatism to liberalism. We model the case

outcome to also allow influence of panel composition, thus formulizing panel effects.[4] These specifications

assign more attitudinal weight to dissenting opinions compared to majority votes. This is not just in line with

other judicial voting measures, but also stems from ample empirical literature suggesting that dissenting

opinions are motivated by justices' ideology to a much greater degree than majority decisions (see, for example,

Epstein et al. 2009;2010 Wahlbeck et al. 1999; Hettinger et al. 2004; Maltzman et al. 2000; Epstein and Walker

1998; Segal and Spaeth 1996; 1999; Garoupa et al. 2012[5]).

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

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.

γ denotes a parameter capturing how much the mth case outcome is influenced by panel composition. Large

value means that the case is likely to be decided according to the panel decomposition[6];

P_m is the panel composition of the mth case;

J denotes the total number of judges in all cases;

$\iota_1, \dots, \iota_J$ are individual judges' tendency to the conservative side (eventually forming the IIPP estimates); and,

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.

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

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

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 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).

Examples:

1. 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.

2. 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.

3. A large β_m means that the judges decided more attitudinally.

4. 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.

The estimation algorithm is based on 500,000 steps Markov Chain Monte Carlo (MCMC) in which the values of $\iota_1, \dots, \iota_J, \alpha_m,$ and β_m are updated one after the other using a Metropolis-Hastings sampler and iteratively through a Green sampler. Under the prior, $\iota_1, \dots, \iota_J$ 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 it sum and length fixed. The values of α_m and β_m were truncated to the grid$-4, -3.8, ... , 4$, 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 tendency. Since this random effect is assumed to be normal, we consider its second moment. In particular, we define:

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

III.   Testing DCAM and IIPP in Five Supreme Courts

A. Outline

The degree of attitudinal behavior, as well as the direction of justices' ideological preferences, can vary across issue areas (Lauderdale and Clark 2012; Wetstein et al. 2009; Alarie & Green 2009). For this reason, we chose to test DCAM 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[7] 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

largely 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. Moreover, 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 United States, Canada, India, the Philippines and Israel. These countries were selected from the population 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 and measurements pertaining to these courts. The juxtaposition of DCAM and IIPP to existing measures is an important validity test. Furthermore, as the statistical algorithm underlying our approach yields an estimate that considers group dynamics—which is a heretofore largely overlooked aspect of judicial decision making—IIPP may also contribute to research on these two well-studied high courts.

As for the other countries in our sample, after eliminating central common law high courts for this first phase of testing DCAM,[8] we focused on the supreme courts of India, the Philippines and Israel because of variance in institutional makeup pertaining to the size of the panels, caseload, gatekeeping privileges, norms of consensus and judicial appointment regimes, as outlined in Table 1 (Baum 1998; Howe and Russell 2001; Neuborne 2003; Rajamani & Sengupta 2010; Tate and 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 1997); it further developed during the 1980s, after Gandhi's emergency

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period, with the court's new interpretations for civil, political and social rights, and encouragement of public interest litigation (Sathe 2002). Despite their political involvement, the judicial systems in all five countries enjoy a *relatively* non-partisan image and reasonable high levels of public trust (Ostberg and Wetstein 2007; Barzilai et al. 1994; Shankar 2009).

In addition to the judicial and political powers that all five courts possess, 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 (in India, the Philippines, Canada and Israel). Political clout combined with judicial independence—true in all five courts—are features that likely foster attitudinal voting patterns (Segal and Spaeth 2002). Yet, as demonstrated in Table 1, *institutional discrepancies* between the courts exist and may have consequences for the levels of attitudinal behavior on each court.

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 (e.g., in the U.S. and in Canada), the more we expect the justices once on the court to tend to vote their preference (Epstein and Segal 2005; Art. VIII Sec. 9 of the Constitution of the Philippines, Escresa and Garoupa 2012; Wetstein et al. 2009: 784-785; Robinson 2013, 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—political contentiousness declines and the appointment is expected to yield a less attitudinal bench.

The 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: 104-105, describing the atmosphere during Monday and Friday "admission days"). Judicial behavior varies between mandatory and discretionary dockets (Eisenberg et al. 2012), with important cases more typical of the latter (Black and Boyd 2012). Caseloads affect the amount of resources available to be invested in each case, as well as the cost of writing dissents, thus decreasing the impact of justices' attitudes (Sommer 2009; 2010; Smyth and Narayan's 2007; Epstein et al. 2010).

As for the size of panels deciding each case, American and Canadian justices decide cases en banc.[9] 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 and Wawro 2004). Since justices are repeat players, dissenting justices accrue costs. 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). Note that because of the constitutional issue areas examined here, many of the cases in our sample consist of extended panels in the Israeli and the Indian courts. We will utilize the changing panel size and selection mechanisms in India and Israel to test institutional consequences for judicial behavior. 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 when deciding cases in large panels. This means that 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 here, 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 than in the U.S., followed by justices on the Philippine and Israeli courts. However, levels of attitudinal behavior among Israeli judges are expected to rise in cases decided by larger panels. Indian justices are likely to show the lowest degree of attitudinal behavior.

B.   Data and Methods

Our dataset comprises a representative sample (India, the Philippines and Israel[10]) or the full docket (the U.S. and Canada) of political and religious rights cases between 2000 and 2006.[11] 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.[12] 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.

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 (Westein 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 in all countries according to the political-party split for three reasons. Firstly, the level of ideological consistency exhibited by justices was found to be considerably higher. Interestingly, the difference between the consistency in the political-party outcomes (supporting conservatives versus liberals) and the inconsistency in the legal-ideology outcomes (expanding/narrowing political rights and degrees of deference) was most pronounced in the U.S. Other supreme courts did show some consistent decision making in regard to the two other splits, and especially the judicial deference 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. Thus, the basic coding for the ideological direction of the justices' votes according to a political-party split was straightforward: Which party won the case?

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 left-wing parties in Israel as "liberal" and right-wing parties as conservative.[13] 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 (e.g., 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.)[14] Israeli law and political science students (undergraduate and graduate) performed the coding. Inter-rater reliability, based on recoding 30% of the cases, was over 90%.

C. Results

The scaling scheme developed here provides measures at both the macro and micro levels. At the macro (or institutional) level, the Dynamic Comparative Attitudinal Measure (DCAM) is a dynamic index that estimates the degree of attitudinal decision making in that court. DCAM yields estimates with values greater than zero. Higher values indicate generally higher levels of attitudinal decision making on this court in a particular issue area for the period of time studied. To help interpret DCAM results, we also present another estimate, which is more intuitively interpretable. This measure pertains to the percent of judicial votes that would change on average if all judges voted in a completely "neutral" way. That is, the measure is an indication of the expected change resulting from complete nullification of attitudes 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. IIPP values measure attitudinal behavior on the micro level of the individual justice. These values range from negative (for liberal justices) to positive (for conservatives).

(*Insert Figure 1 here*)

Figure 1 presents DCAM scores. The black columns indicate the overall degree of attitudinal decision making in each country. The striped columns designate DCAM scores in each country for political rights cases only. The plaid columns stand for religious rights cases. Due to data limitations pertaining to the high number of cases and deciding judges in the Indian supreme court (43 justices in our sample), we could not separate the results for the two issue areas in India. For the same reasons, we could estimate DCAM scores separately for

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enlarged panels (more than three justices) only in the Israeli setting, in the final blank-white column for this country.

The findings lend strong support to the institutional and theoretical analyses presented in previous sections of this article. As expected, the U.S. Supreme Court exhibits the highest levels of attitudinal behavior. DCAM for the American court is 5.03. The U.S. score for political rights is somewhat higher at 5.21 than the score for religious rights at 4.27. 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=3.56). Yet, when the votes of Canadian justices in political rights cases—where DCAM equals 1.12—are also incorporated, the overall DCAM for the Canadian institution is approximately 2. DCAM in the Philippines is 1.91. A conspicuously high level of attitudinal trends in measured in political rights cases, where the DCAM for the Philippine court reaches a value of 2.33. In comparison, the DCAM in religious rights cases in this court is only 0.74. 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 changed in the Philippines in the following decades, those political hardships were perennial in a formative stage of the lives of the justices serving on the court during the years studied here (2000-2006). Moreover, during this period, the issue of political rights became more acute and controversial in the Philippines in the wake of the four-day revolution of January 2001. Thus, Philippine justices are sensitized to political rights issues and this is strongly reflected in the score for political rights cases and in the clear gap vis-à-vis DCAM in religious rights cases.

The Israeli court exhibits lower levels of attitudinal behavior overall, as reflected in a DCAM score of 1.49. Panels on the Israeli high court are expanded beyond the basic three-judge size in salient cases that bring before the court a particularly contentious legal question or acrimonious political debate, where justices' ideologies are more likely to influence their voting patterns. A DCAM score of 2.5 for expanded panels in Israel supports this contention. As anticipated, the Indian court reveals the lowest levels of attitudinal behavior with a

DCAM scores of 1.49. In sum, DCAM scores for the macro level (that is, the level of the institution as a whole), support our theoretical expectations for *the degree of attitudinal behavior on* different courts. Let us now examine the results for individual justices.

(*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. 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 the IIPP scores with existing measures. IIPP should correlate highly with existing measures, with any discrepencies largely accounted for theoretically.

(*insert Figure 5 here*)

The body of literature using the Segal-Cover scores (Segal and Cover 1989) is immense and thus it is our first reference point. The correlation between the IIPP scores for American jurists and the Segal-Cover scores is a robust -0.67. With IIPP on one axis and the Segal-Cover scores on the other, as Figure 5 illustrates, the face validity is 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

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and the liberal groups, are Kennedy and O'Connor. That being said, two outliers are visible. While Stevens and

Souter are quite liberal in terms of their IIPP scores, the two are more conservative on the Segal-Cover

ideological continuum. Indeed, these two justices weaken the correlation between the Segal-Cover and the IIPP

scores to some extent.(When omitting these two, the correlation of IIPP and Segal-Cover scores approaches -

0.9). This empirical discrepancy, however, can be easily explained theoretically. The Segal-Cover scores are

based on the content analysis of op-ed pieces published at the time of appointment. Thus, they are based on

what was known at the time. What is unique about both Stevens and Souter compared to the other American

justices in our sample is that their behavior while on the bench could not be accurately predicted based on the

knowledge available at the time the Senate considered their nomination; in hindsight, both can be said to have

surprised the presidents who appointed them. IIPP accurately captures the policy preferences of Stevens and

Souter because it is not sensitive to justices who surprise their appointers.

(insert Figure 6 here)

Figure 6 juxtaposes the dynamic measures produced by Martin and Quinn with IIPP estimates.

Whereas the statistical algorithms underlying the two sets of ideological scores are fundamentally different, they

are very highly correlated (.93). Indeed, both the conservatives and liberals on the court are aligned with the

medians in between. As the comparison of the IIPP and the scores prevalent in research on the U.S. Supreme

Court indicate, the IIPP wins much support in the American context. Well-established scales correlate highly

with this new protocol for generating dynamic estimates of judicial ideology, with discrepancies largely

accounted for theoretically.

The Canadian case is not as straightforward as the American one. As noted, 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.[15] 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[16] is -0.62 (see Figure 8). Along the same lines, Figure 9 shows a similar correlation of slightly under -0.6 between IIPP and a version of Martin-Quinn scores applied in the Canadian case by Alaire 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. On the other hand, 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. Thus, conclusions at the individual level are at this point more robust for the North American courts, and especially the U.S. court (with more than thirty decisions for each justice). As we expand our data to more issue areas and cases, IIPP in the other countries should improve. Even so, IIPP estimates for Israeli supreme court justices seem to make a lot of sense. As seen in Figure 4, the only two religiously observant justices in the sample, 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 on the center-conservative side or Beinisch and Dorner on the liberal end. Justice Cheshin is 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, which the ideologically median position handily served.

IV. Discussion and Conclusions

We employ 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 that introduces a novel tool for assessing and comparing judicial decision making in high courts of different countries. The empirical tests in two issue areas and five courts, at the institutional (macro) and individual (micro) levels, lend strong support to the overall model and the specific DCAM and IIPP scores. The findings for the different courts examined here are in line with the theoretical framework developed. For example, the U.S. Supreme Court—the institution that prompted the development of the school of legal realism that led to the development of the attitudinal model—proves to be the institution with the most pronounced ideological trends as measured by DCAM. Likewise, IIPP scores correlate highly with existing measures of ideology in the U.S. and Canada, but have the distinctive advantage of their applicability in a comparative context. Furthermore, DCAM and IIPP are readily applicable to any common law or mixed common and civil law system. In addition, DCAM is 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 meaningful division. We will conclude by suggesting a few possible venues for future research utilizing DCAM and IIPP.

The introduction of DCAM offers a range of exciting new opportunities 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 their rulings. DCAM offers an easy way to examine such normative concerns empirically 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.

As for positivist aspects, scholars of comparative politics are often concerned with the ramifications of institutional design for various political upshots. 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. Gatekeeping mechanisms, so the argument goes, produce a more attitudinal court, for instance. Yet, such theoretical contentions have been studied mostly with respect to a single court, and thus with little variance in the predictors or in the outcome variable. DCAM, as well as its individual-level companion, IIPP, offers a comparable measure that carries across different countries and over time. With the introduction of such dynamic measures, we are now able to better test institutional effects and their consequences.

Along the same lines, the study of a range of related empirical questions is now within reach, such as the relations between certain aspects of judicial behavior and judicial activism or judicial legitimacy. Furthermore, we are able to see whether an institutional change—for instance, a judicial reform—yields the desired upshots. Another venue to pursue would be the analysis of ideology in different issue areas. The extent to which individual decision makers 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 actors in the political and legal spheres.

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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Supreme Court of the Philippines - http://sc.judiciary.gov.ph/
U.S. Supreme Court Database Website- 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	high Relatively	High	High	High

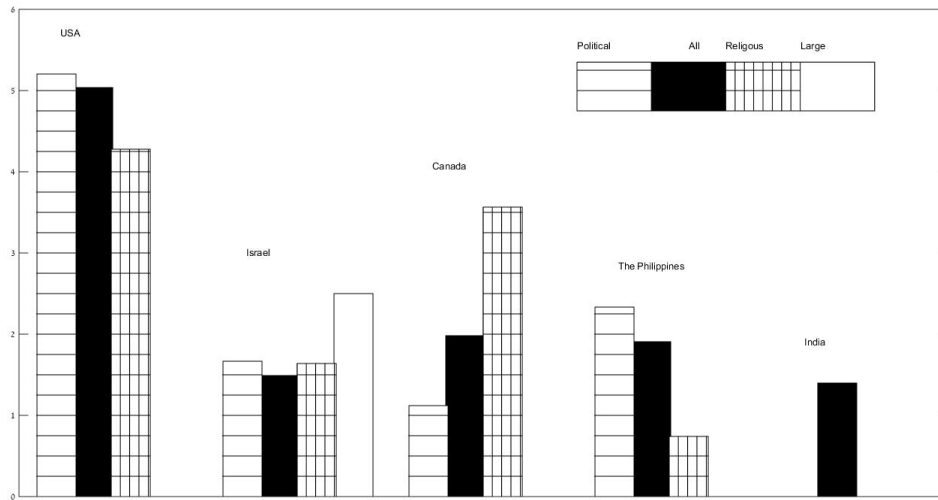**Figure 1: Dynamic Comparative Attitudinal Measure (DCAM) Estimates**

Figure 2: Ideological Ideal Point Preference (IIPP) for U.S. Supreme Court Justices
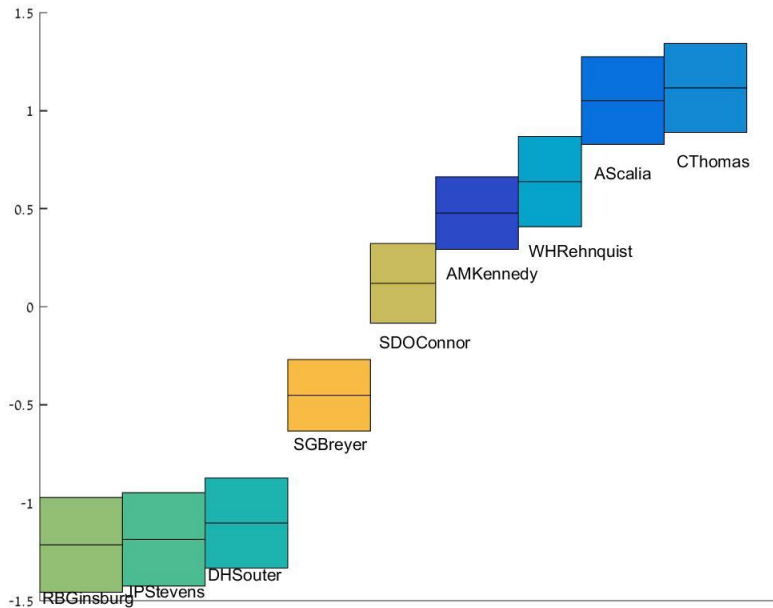
Figure 3: Ideological Ideal Point Preference (IIPP) for Canadian Supreme Court Justices
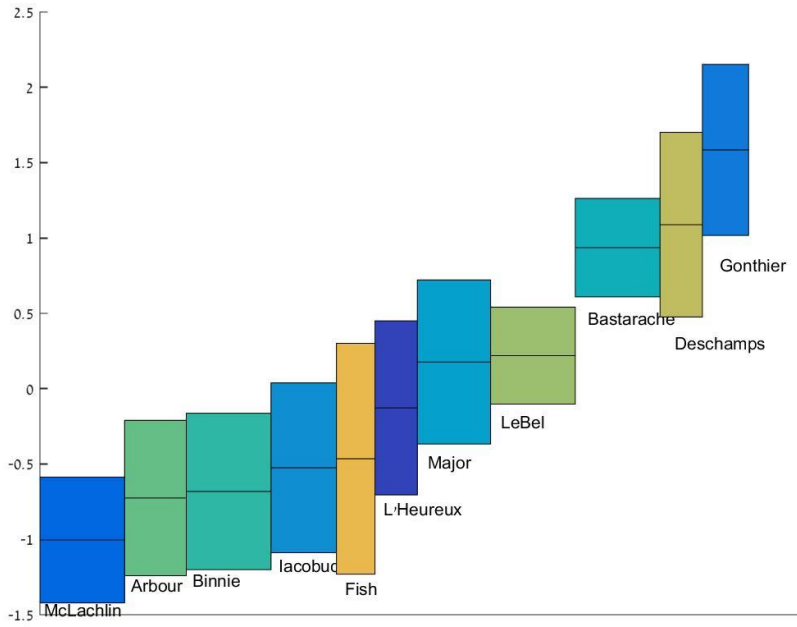

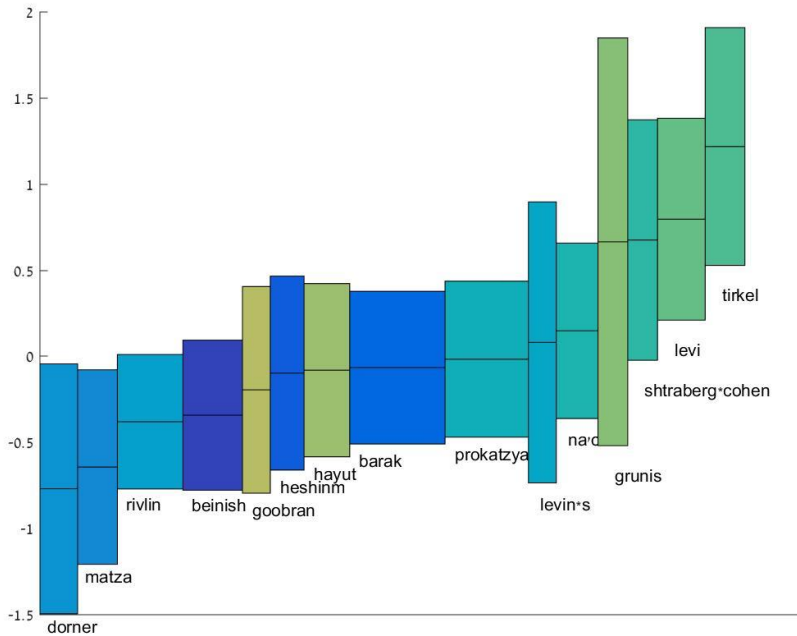**Figure 4: Ideological Ideal Point Preference (IIPP) for Israeli Supreme Court Justices**

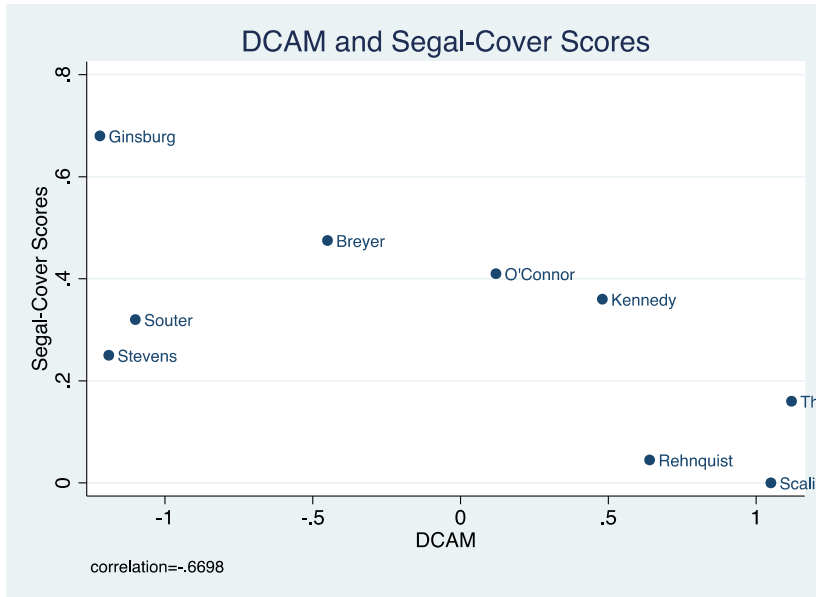**Figure 5: Correlation between IIPP Estimates and Segal-Cover Scores for U.S. Justices**

DCAM and Segal-Cover Scores

- Ginsburg
- Breyer
- O'Connor
- Kennedy
- Souter
- Stevens
- Tho
- Rehnquist
- Scalia

correlation=-.6698

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

DCAM and Martin-Quinn Scores

- Tho
- Scalia
- Rehnquist
- Kennedy
- O'Connor
- Ginsburg
- Breyer
- Souter
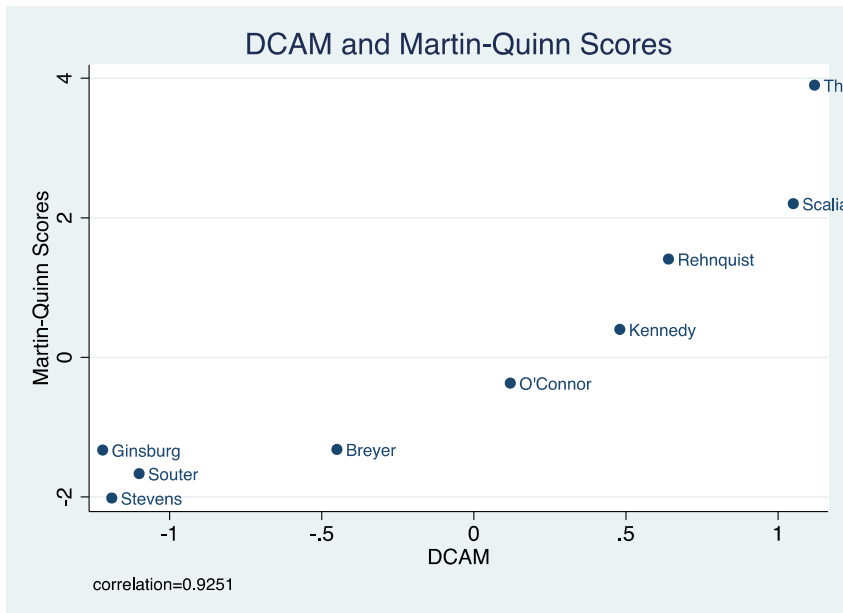- Stevens

correlation=0.9251

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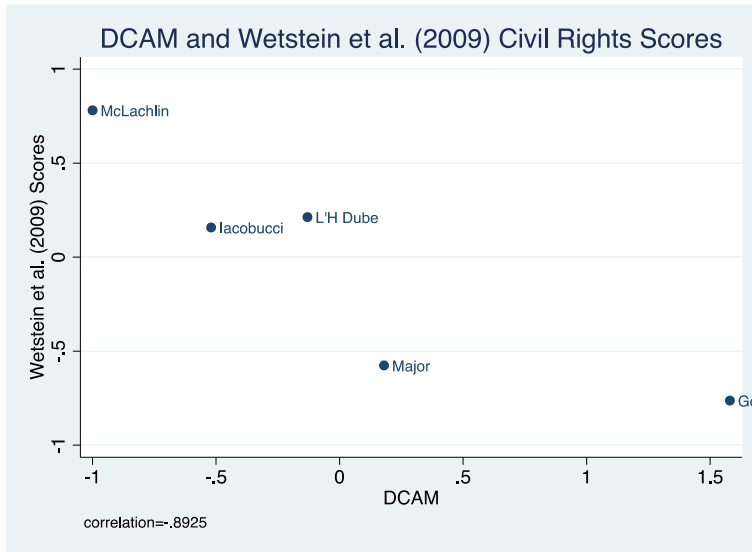

Figure 8: Correlation between IIPP and Alereie et al. Percent Voting Liberal for Canadian Justices
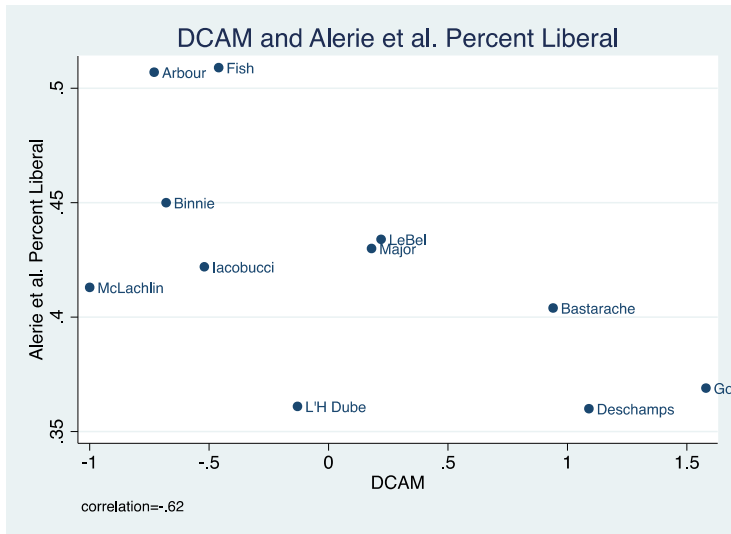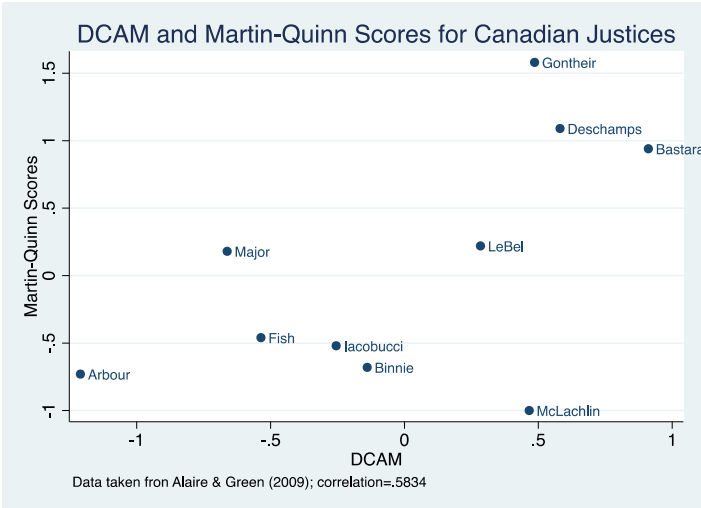
Figure 9: Correlation between IIPP and Alereie et al. Ideal Point Estimates for Canadian Justices

DCAM and Martin-Quinn Scores for Canadian Justices

Data taken fron Alaire & Green (2009); correlation=.5834

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 Stevens: -1.19 Souter: -1.10 Breyer: -0.45 OConnor: 0.12 Kennedy: 0.48 Rehnquist: 0.64 Scalia: 1.05 Thomas: 1.12	McLachlin: -1.00 Arbour: -0.73 Binnie: -0.68 Iacobucci: -0.52 Fish: -0.46 L'Heureux: -0.13 Major: 0.18 LeBel: 0.22 Bastarache: 0.94 Deschamps: 1.09 Gonthier: 1.58	Dorner: -0.77 Mazza: -0.64 Rivlin: -0.38 Beinisch: -0.34 Joubran: -0.19 Cheshin: -0.10 Hayut: -0.08 Barak: -0.07 Procaccia: -0.02 S. Levin: 0.08 Naor: 0.15 Grunis: 0.67 Strasberg-Cohen: 0.68 Levy: 0.80 Y. Alon: 1.13 Tirkel: 1.22	Lahoti: 0.01 Mathur: 0.24 Balakrishnan: 0.40	Carpio: -1.09 Davide: 0.88 Panganiban: -0.82 Austria-Martinez: -0.02 Ynares-Santiago: 0.43 Puno: 0.60

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

[2] For additional examples see Schubert (1977) as well as Schubert and Danelsky (1969).

[3] The only exception is Hanretty (2013) who, using ideal point estimates, did not find evidence for attitudinal decision making in the British House of Lords.

[4] Note that the model is conditional on the panel decomposition, and hence it is not important whether the panel is selected at random, selected to be balanced or, conversely, composed of judges with similar judicial positions. This point is important because in some high courts the panels are not randomly assigned.

[5] Garoupa et al. (2012) studied judicial behavior in the Spanish supreme court, and found judicial politicization to be consistent with consensus and dissent rates.

[6] Note that for countries hearing cases en banc, some of the parameters are hardly identifiable. Thus, for a country like the U.S. where all judges sit in all cases, the difference between the contribution of μ_α and the contribution of γ to the likelihood is relevant only when the courts' composition changes. In our U.S. and Canadian data, only a couple of judges were replaced by another couple, which results in a fairly problematic estimation of μ_α. However, since the values of α_m and γ are nuisance parameters for us, this is only a secondary problem and does not impact DCAM or IIPP results.

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

[8] We did not include a test of the UK court because during the study period the court underwent a very significant institutional transition from the House of Lords to the Supreme Court of the UK (see the Constitutional Reform Act 2005); 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.) We did not find enough relevant cases in the study period to test DCAM in the High Court of Australia.

[9] 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.

[10] 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. However, additional searches (e.g., "religious" in addition to "religion") would arguably yield additional cases. Therefore, the coding is only of a sample, rather than the entire population of political rights and religious rights cases.

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

[12] For the American institution, the U.S. Supreme court database was also used http://scdb.wustl.edu/data.php

[13] A few cases in Israel involved religious Jewish parties, which we coded as right-wing in accordance with the bulk of Israeli research (Arian 2008).

[14] In religion establishment cases in the United States, 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 in the country, we coded as "conservative" decisions that protect ritual and the rights of individuals to exercise their religion.

[15] We compare IIPP to the most recent version of Wetstein, Ostberg et al. scores, from 2009.

[16] 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. (The underlying data will be available beginning in late 2015 at Benjamin Alarie and Andrew Green, *Supreme Court of Canada Database* (2015); http://www.supremecourtdatabase.ca.)