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# INEQUALITY IN THE WORLD POLITY: THE STRUCTURE OF INTERNATIONAL ORGANIZATION

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*Recent research reveals strong effects of involvement in international organizations on state policies, but much of this research downplays inequality in world political participation, and there is only a limited understanding of what explains world-polity ties. Using data on memberships in intergovernmental and international non-governmental organizations (IGOs and INGOs) for 1960 through 2000, this study analyzes inequality in the world polity. IGO ties are fairly evenly distributed, but the level of inequality in INGO ties is as high as the level of world income inequality. Since 1960, inequality in ties to IGOs decreased sharply, but inequality in ties to INGOs remained more stable. A conflict-centered model of the world polity is developed here that explains world political participation as a function of material and symbolic conflict. Rich, core, Western states and societies have significantly more ties to the world polity than do others. Powerful states dominate IGOs less now than they did in 1960, but rich, core, Western societies have grown more dominant in the INGO field.*

**T**HE INSTITUTIONALIZATION of the world polity—the increasingly dense global network of states and international organizations—is altering the geography of sovereignty (Hardt and Negri 2000; Held et al. 1999; Hirst and Thompson 1996; Sassen 1996; Strange 1996). In sociology, the world-polity/world-society perspective has gained influence as a useful way to understand the impact of this institutionalization (Boli and

Thomas 1997, 1999a; Katzenstein, Keohane, and Krasner 1998; Meyer et al. 1997; Ó Riain 2000; Thomas and Meyer 1984).<sup>1</sup> Scholarship from this perspective shows that involvement in international organizations shapes state policy in many domains: education (Bradley and Ramirez 1996; Meyer, Ramirez, and Soysal 1992; Schafer 1999), environmental protection (Frank 1997, 1999; Frank, Hironaka, and Schofer 2000), science (Finnemore 1993), women's suffrage (Ramirez, Soysal, and Shanahan 1997), welfare provision (Strang and Chang 1993), same-sex sexual relations (Frank and McEneaney 1999), population (Barrett and Frank 1999; Barrett and Tsui 1999), and war (Finnemore 1999). It is clear that involvement in the world polity matters for states and societies.

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<sup>1</sup> Barrett and Tsui (1999:215) use the term “institutionalist theory”; Boli and Thomas (1999b: 13) use “world polity”; while Guillén (2001:244) and Ó Riain (2000:189) use “world society.” Boswell and Chase-Dunn (2000:25) call this body of work “the institutionalist branch of world-systems studies.”

Emphasis on the *effects* of the world polity has overshadowed concern with its *structure*. The structure of the world polity matters because nation-states more actively involved in international organizations may have more influence within the world polity. If the world polity is stratified along familiar political-economic and cultural lines, then these inequalities may be reproduced as the world polity institutionalizes. Conversely, if world-polity ties are more equitably distributed, then the world polity might be less susceptible to domination by powerful nation-states. I assess trends since 1960 in inequality in ties to the two types of organization that bind the world polity together: intergovernmental organizations (IGOs), whose members are states, and international nongovernmental organizations (INGOs), whose members are civil society actors (Boli, Loya, and Loftin 1999). This organizational distinction is key, as states and societies may differ greatly in their integration into the world polity.

If there is variation in how closely states and civil societies are tied to the world polity, we need to explain this variation. I develop and test a model that views the world polity as an arena of political-economic and cultural conflict. I conceptualize the world polity as a network governance structure that states and societies struggle to control. The *conflict model* draws on world-systems theory, which suggests that core states hold the most world political power (Boswell and Chase-Dunn 2000), and on the world civilization perspective, which holds that world political conflict increasingly mirrors cultural conflict (Huntington 1996). I test the model with data from 90 nation-states and for several years between 1960 and 2000.

## BACKGROUND

### WORLD-POLITY THEORY AND RESEARCH

World-polity theory provides a useful, sophisticated understanding of political globalization. Its explanation of institutional isomorphism and its view of world culture has contributed much to sociology. World-polity theory holds that states embedded in the world polity receive "policy scripts"—global models of legitimate state action (Boli

and Thomas 1997; Meyer et al. 1997). IGOs and INGOs create, carry, and embody the world culture in the world polity, diffusing policy scripts to states (Meyer 2000; Strang and Meyer 1993). For instance, states with many world-polity ties enact pro-environment policies sooner than do those with fewer ties (Frank 1999; Frank et al. 2000), and they also implement more liberal policies on same-sex sexual relations (Frank and McEneaney 1999). World-polity theory shares with the "third force" international relations approach an optimism about the ability of the world polity, particularly INGOs, to counter political-economic forces (Bratton 1989; Florini 2000; Rice and Ritchie 1995; Shaw 1991). Research along these lines focuses on progressive policies (Florini 2000). World-polity effects in other policy domains have received less scrutiny, despite arguments implicating international organizations in the internationalization of markets (Murphy 1994).

Some argue that world-polity theory downplays power and inequality (Hall and Taylor 1996:954; Smith 2000:1575; Stinchcombe 1997:17; Thelen 1999:387). DiMaggio and Powell (1983:157) note that the brand of neoinstitutionalist theory that world-polity theory is based on does not fully account for power and interests, nor does it attend to questions about who benefits from institutions. World-polity theory views the structure of the world polity as relatively flat. Although world-polity and "third force" international relations scholars acknowledge inequality in participation in the world polity, they downplay this inequality (Boli and Thomas 1999a; Florini 2000). In its structure, the world polity is said to be universal and nonhierarchical: Membership in international organizations is "a social imperative" (Boli et al. 1999:56) and "practically compulsory" (p. 76). World-polity theorists expect "ever greater parity in the breadth of INGO participation among residents and countries of the world" (p. 77).

The evidence is mixed, however. One study that examines inequality in INGO ties finds that, from 1960 to 1988, countries in the bottom two quartiles of the GDP distribution increased their memberships in INGOs faster than did countries in the top

two quartiles (Boli et al. 1999). Wallace and Singer (1970) document IGO memberships from 1815 to 1964 and find that states dramatically increased their participation in these organizations. However, Jacobson (1979) and Jacobson, Reisinger, and Mathers (1986) find striking inequality in the number of IGO ties, and Shanks, Jacobson, and Kaplan (1996) find that, from 1981 to 1992, IGO ties increased more for rich countries than for poor ones. Feld and Jordan (1988) rank countries by membership in INGOs for 1960 and 1984, and Jacobson (1979) finds high levels of inequality in IGO and INGO ties in 1966.

Thus, previous work on inequality in the world polity leaves several questions unanswered. We do not know how *international* inequality in IGO and INGO ties has changed because many studies examine interregional or interquartile inequality. We need a systematic comparison of inequality in IGO and INGO ties. We might expect less inequality in ties to INGOs because they may be less bound to interstate alliances and geopolitics. We also need to know how inequality in world political participation has changed since 1992, and we need to compare the trends in inequality in IGO and INGO ties.

Previous work on the predictors of world-polity ties is scarce. Boli et al. (1999) find a strong relationship between INGO ties and economic development: The richest societies had the most numerous INGO ties over the 1960–1988 period. Though INGO ties also correlate strongly with other indicators of development, the authors downplay this relationship by emphasizing that poor societies increased their INGO memberships at a faster rate than did rich ones. I extend Boli et al.'s work by modeling both IGO ties and INGO ties, and by adding data from later years. More important, I examine change in the relationship between world-polity ties and wealth, and I include two important dimensions of stratification and difference: position in the world system and civilization type.

#### **WORLD SYSTEM IN THE WORLD POLITY**

Characterization of the world *polity* as being fairly “flat” contrasts with the vision of the world *system* as a hierarchical network of

nation-states bound by competitive and unequal relations (Boswell and Chase-Dunn 2000; Chase-Dunn and Grimes 1995). World-systems theory focuses on economic globalization (Chase-Dunn, Kawano, and Brewer 2000), but some world-systems scholars also theorize political globalization (Boswell and Chase-Dunn 2000). Boswell and Chase-Dunn (2000), for example, recognize international organizations but view these organizations as “sites of conflict and power” (p. 199). From this perspective, the world polity develops within the *world order*, or “the agreed upon and normative rules of international relations” (p. 24). Because world orders are established by core hegemony and benefit the international capitalist class, world political organizations become “boards of directors for ruling states” (p. 238). This conceptualization of institutions as established by powerful actors and at least initially benefiting those actors resonates with a strand of new institutionalist thought found in economic sociology (Fligstein 1996; Fligstein and Mara-Drita 1996). Although variation in interests within the core (and within the periphery) is likely, the extent of variability in the expression of these interests through international institutions remains an empirical question.

If the world-systems account is correct, position in the world system is likely to be especially relevant to involvement in the world polity, as the core has a material interest in maintaining the global capitalist order through the creation and diffusion of policy scripts. The world-systems approach contradicts the argument that noncore states form IGOs to counter the neoliberal economic order established by core states—an argument implying that position in the world system should weaken over time as a predictor of IGO ties (Krasner 1985).

#### **CIVILIZATIONS IN THE WORLD POLITY**

Huntington (1996) provocatively claims that the major geopolitical fault lines are no longer economic or ideological (*viz.*, capitalist versus Communist) but are instead cultural: “Global politics is being reconfigured along cultural lines. Peoples and countries with similar cultures are coming together. Peoples and countries with different cultures

are coming apart" (p. 125). Huntington argues that the world is divided into roughly nine "civilizations"—Western, Latin American, African, Islamic, Sinic (Chinese), Hindu, Orthodox, Buddhist, and Japanese—each with a distinct value system (Inglehart and Baker 2000). According to Huntington (1996), the central cultural cleavage is between Western and non-Western civilizations, but the many non-Western civilizations also differ from one another, and important conflicts occur among them. Huntington argues that the Orthodox-Western, Orthodox-Islamic, Islamic-Hindu, Sinic-Hindu, and Islamic-Western conflicts are intensifying over time.

Cultural differences, expressed crudely as civilizational divides, are likely to be especially relevant to integration into the world polity because the world polity constructs and reflects world culture (Boli and Thomas 1997). Civilization matters for the world polity if there is conflict over whose belief systems will be represented in world culture. For instance, Western nation-states might join or form more international organizations than would Islamic nation-states, or they may exclude Islamic nation-states from existing organizations. Another possibility is that non-Western states and societies may resist joining international organizations if they perceive international organizations as being profoundly Western. Non-Western states and societies may have fewer world-polity ties out of resistance rather than exclusion.

#### **A CONFLICT MODEL OF THE WORLD POLITY**

Following world-polity theory, I conceptualize the world polity as a global network of intergovernmental organizations, states, international nongovernmental organizations, and societies that exhibits a distinct world culture and produces policy scripts (Boli and Thomas 1997, 1999a, 1999b; Meyer et al. 1997). Following world-systems theory and the civilizations approach, I view policy scripts and world culture as objects of and vehicles for material and symbolic struggles among nation-states (Boswell and Chase-Dunn 2000; Huntington 1996). This synthetic approach holds that states and societies attempt to dominate the world polity, and

that states and societies with privileged positions in the world polity are able, to a significant degree, to set agendas, frame debates, and promulgate policies that benefit them. In its assertion that states and societies use international organizations to advance their material and symbolic interests, this conflict model rests on neorealist accounts of international relations (Jacobson 1979; Jacobson et al. 1986; Waltz 1979). In its recognition of durable, powerful international institutions it adopts neoliberal institutionalist ideas (Keohane 1984). In its appreciation of policy scripts, a distinct world culture, and nonstate actors, it borrows from world-polity theory (Boli and Thomas 1997, 1999a, 1999b; Meyer et al. 1997).<sup>2</sup> The conflict model integrates these insights into a dynamic framework that emphasizes the process of world political participation and production.

In this conflict-driven process, materially and symbolically powerful states and societies hold privileged positions within the world polity, and this structural privilege affords substantial power to shape world culture. Once established, world culture exerts influence through policy scripts (Boli and Thomas 1999a). Because structural privilege brings influence over policy scripts, powerful states and societies seek to maintain their privileged positions. Dominant nation-states may maintain or extend their structural power in at least three ways: by forming new international organizations, by dominating the membership of existing ones, or by excluding less powerful nation-states from membership. Disadvantaged nation-states may resist domination by avoiding membership in international organizations, although world-polity theory views this as unlikely (Meyer et al. 1997). Poor, peripheral, non-Western states and societies may also establish exclusive organizations or attempt to dominate existing ones. The heterogeneity and demography of the field of international organizations are related to these options for domination and resistance. IGOs may be more costly to establish than INGOs, and it may be difficult for powerful states to ex-

<sup>2</sup> See Boli and Thomas (1997, 1999b) for treatments of these literatures from a world polity perspective.

clude weak states from them (Krasner 1985). If so, nation-states may seek to dominate the world polity through INGOs.

If the conflict model is correct, and core and Western states and societies maintain their privileged positions within the world polity, there should be significant inequality in world-polity ties, and this inequality should not decrease over time. Also, if powerful members of the world polity maintain their advantage by joining or forming more international organizations than do the weaker members, then core and Western states and societies should increase their involvement in the world polity relative to peripheral and non-Western states and societies. Furthermore, if the world polity becomes more structured along world-system and world-civilization divides as powerful states and societies maintain their powerful positions, then world-system position and civilization should become stronger predictors of membership in international organizations over time. Finally, if the model is correct and resources confer world political power, then economic development should correlate strongly with ties to international organizations (a finding established by the literature), and this correlation should increase with time (a possibility not explored in previous work). These structural hypotheses contrast with those drawn from world-polity theory, which implies that inequality in world-polity ties should decrease with time, and that if world-system and world-civilization cleavages exist in the world polity, they should fade over time.

## DATA AND METHODS

My analysis proceeds in three stages. First, I measure inequality in the world polity as the coefficient of variation in IGO and INGO memberships. Second, using panel regression analysis, I estimate the effects of GDP per capita, world-system position, and civilization on changes in world-polity ties since 1960. Third, I assess changes in the relationships between wealth, world system, civilization, and world-polity ties with random-effects models that include year-by-covariate interaction terms. Because of limitations on data availability, the first stage of the analysis uses a larger sample of countries, but

supplemental analysis shows that the first-stage results hold for the smaller sample. Details from this and all other supplemental analyses are available from the author.

## WORLD-POLITY TIES

Data on world-polity ties come from the *Yearbook of International Organizations*, published by the Union of International Associations (UIA). The UIA, founded in 1910 and headquartered in Brussels, is the standard source for world-polity data (Boli and Thomas 1999a). It obtains information on the membership, founding dates, aims, structures, finances, activities, publications, and other characteristics of international organizations from the organizations themselves as well as from other sources, including other international organizations, periodicals, and official documents (UIA 2000:ix).<sup>3</sup> The UIA aims to provide comprehensive coverage of "conventional" international organizations that meet the following criteria for inclusion: (1) international aims, (2) members from at least three countries, (3) a formally democratic constitutional structure, (4) officers from more than one country, (5) "substantial" membership contributions from at least three countries, (6) independence from affiliated organizations, and (7) evidence of activity within the last four years (UIA 2000:1463–64). Among the types of organizations excluded by these criteria are foundations and funds, internationally oriented national organizations, inactive and dissolved organizations, religious orders, and multilateral treaties. I use the 2000 edition of the *Yearbook of International Organizations* (UIA 2000), which gives world-polity ties by country for 1966, 1977, 1986, 1997, and 2000. I also use the 1998 edition for data from 1960, 1993, and 1998.

The UIA provides data on the two types of organization that bind the world polity: intergovernmental organizations (IGOs) and international nongovernmental organizations (INGOs). Examples of IGOs are the International Labor Organization, International Organization for Migration, Organization of

<sup>3</sup> Boli and Thomas (1997:174–75, 1999a:20–22) and UIA (2003) give further details on the UIA and its methods of data collection.

the Islamic Conference, and the United Nations. Examples of INGOs include the International Chamber of Commerce, International Islamic Charitable Organization, and the International Red Cross (UIA 2000). IGO members are states or pseudo-states. INGO members are civil society organizations and individual citizens, and the UIA registers a country as a "member" of an INGO if at least one organization or resident of that country belongs to the INGO. Only one membership per country is counted toward the total. Previous work shows IGO and INGO ties to be valid and reliable measures of involvement in the world polity (Boli and Thomas 1997, 1999a).

I acknowledge limitations of these data: Although the distinction between IGO and INGO ties is important, there is vast heterogeneity within each organizational type, and some organizations carry more world political weight than do others. Especially wide variation in visibility and aims exists within the INGO field of more than 5,000 organizations—some organizations are accredited by the United Nations and participate in international conferences, and a wide range of substantive sectors are represented (Boli et al. 1999:63; Boli and Thomas 1997:183). More fundamentally, the *structure* of participation in the world polity, as indicated by the number of memberships in international organizations, necessarily says little about the *content* of that participation. For instance, it would be unreasonable to assume that all of the 3,551 INGOs having French citizens as members would pursue the same interests or would be equally responsive to French interests. The same holds for IGOs: As governments change, policies toward international organizations may change as well (e.g., for the United States, compare the positions of the Clinton and Bush administrations toward various international agreements). Another limitation of the data is the definition of "country." The UIA's definition includes nation-states, regions, territories, and governments-in-exile, so it falls to the analyst to define "country" for a given application. Here, therefore, I use a subsample of United Nations members to exclude nonstates from the analysis. Coefficients of variation are shown for two samples: a full sample with 208 "countries," and a sample of 95 states

that were members of the United Nations throughout the period.<sup>4</sup>

IGO ties and INGO ties are the dependent variables in the regression analysis. I model them separately for several reasons. First, findings from the first-stage analysis are not identical for the two types of organization: There is much more inequality in INGO ties than in IGO ties, and the trends in inequality differ. Second, modeling them separately recognizes the organizational heterogeneity of the world polity: IGOs differ from INGOs in their membership, aims, and structures (Boli et al. 1999). Third, separate analysis allows the results reported here to be compared with previous work that examines IGOs and INGOs separately. Finally, separate analysis recognizes measurement uncertainty one finds in the literature on the effects of world-polity ties: Some studies employ measures that combine IGO and INGO ties (Frank et al. 2000), while others include only IGO ties (Finnemore 1993; Strang and Chang 1993), and still others include only INGO ties (Frank 1999; Ramirez et al. 1997; Schafer 1999).<sup>5</sup>

For the regression analysis, the square roots of the dependent variables are taken to reduce skew (Tukey 1977). The square root is the best normalizing transformation for these data. While this transformation is necessary to avoid violating the normality assumption of regression analysis, it does complicate the interpretation of coefficients. The transformation makes the effect on the number of world-polity ties (versus the square root of the number of world-polity ties) nonlinear. For instance, an increase of 2.0 in the transformed dependent variable implies an increase of 4.0 ties. But an increase in the dependent variable of 3.0 equals a larger, nonlinear increase of 9.0 ties. Likewise, a 4.0 unit increase in the dependent variable means an increase of 16 ties. This nonlinear transformation of the dependent variable is important to keep in mind because the effects on raw, untrans-

<sup>4</sup> Examples of "countries" included in the larger sample are the U.S. Virgin Islands and Northern Ireland.

<sup>5</sup> In one study, in which the effects of IGOs and INGOs can be compared, the effects of IGO versus INGO ties are similar in direction and size (Frank 1997:425).

formed ties increase in a nonlinear fashion as the effects on square-root transformed ties increase linearly. Appendices A and B show correlation matrices and descriptive statistics for all variables.

#### **GDP PER CAPITA**

Previous studies have shown that IGO ties and INGO ties are related to economic development (Boli et al. 1999; Jacobson et al. 1986). Here, as in other work, level of economic development is measured as real GDP per capita. Data on real GDP per capita come from the World Bank (2000). The GDP data are reported in constant 1995 dollars, converted using market exchange rates. Because the latest year of GDP data available from World Bank (2000) is 1997, the third-stage analysis is restricted to the 1960–1997 period. I log GDP to reduce skew.

#### **WORLD-SYSTEM POSITION**

Data on world-system position come from Bollen (1983) and Bollen and Appold (1993)—both studies are updates of Snyder and Kick (1979). Measurement of world-system position is contested. Although numerous measures have been proposed, including GDP per capita, economic growth, inequality, democracy, military power, foreign capital dependence, and combinations of these variables, I use Bollen's measure because it captures both economic and military relational power (see Kentor [2000:35–78] for a thorough treatment of the measurement of world system position).<sup>6</sup> Bollen's measure is a three-category ordinal variable that categorizes countries as core, semiperipheral, or peripheral. Note also that this measure of world system position correlates strongly with GDP per capita. Appendices A and B show these correlations. In the regression models, periphery is the reference category.<sup>7</sup>

<sup>6</sup> For six countries (Belize, Benin, Burkina Faso, Central African Republic, Iceland, and Lesotho), observations were not available, and world-system position was assigned based on the structure of foreign trade (World Bank 1997).

<sup>7</sup> Smith and White (1992) find evidence of a world system with a "continuum-like structure with a single main dimension and a strongly hierarchical nature" (p. 886). This suggests that

#### **CIVILIZATIONS**

Data on civilizations come from Huntington (1996). Huntington claims the nation-states of the world align with nine civilizations based on cultural affinities and religious traditions: Western, Latin American, African, Islamic, Sinic, Hindu, Orthodox, Buddhist, and Japanese. I constructed a nine-category nominal variable based on this (Huntington 1996:26–27). Western and Latin American civilizations represent the largest percentages of the 90 countries in the sample, with 24 percent each. Orthodox and Japanese civilizations each represent just 1 percent of the sample. In the regression models, Western civilization is the reference category.

#### **COEFFICIENT OF VARIATION**

Boli et al. (1999) use the coefficient of variation to assess inequality in ties to INGOs in 1977. The coefficient of variation represents the standard deviation as a percentage of the mean: The larger the coefficient, the more disperse the data (Griffiths, Hill, and Judge 1993). Here, I extend the work of Boli et al. (1999) by calculating the coefficients of variation for IGO memberships and INGO memberships in 1960, 1966, 1977, 1986, 1993, 1997, 1998, and 2000 to assess inequality in world-polity ties.<sup>8</sup>

#### **PANEL MODELS**

In the second stage of the analysis, I use panel regression models to estimate the effects of GDP per capita, world-system position, and civilization on world-polity ties in 2000, controlling for world-polity ties in

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world-system position could be operationalized as a continuous variable. Supplemental regression analysis with world-system position as a three-level continuous variable produced substantively identical results to those shown.

<sup>8</sup> Many other measures of inequality are available, including the Gini coefficient, the square of the coefficient of variation, Theil index, and the variance of the logarithm (Firebaugh 1999). The squared coefficient of variation and the Gini coefficient give results identical to those reported below. Many countries have no world-polity ties, preventing calculation of the Theil index and the variance of the log (Firebaugh 1999:1624).



1960. A panel model offers several advantages over a cross-sectional model: It rules out reciprocal causality, establishes temporal order, and explicitly models change in the endogenous variable (Finkel 1995).

The panel approach is appropriate for these data because several years may elapse before new memberships are reported in the UIA database (Boli and Thomas 1997:175). As Boli and Thomas (1997) cite 15 years as a conservative lag length, the lag between 1960 and 2000 (40 years) should be sufficient to eliminate any bias arising from this technical deficiency. Hypothesis tests are based on heteroscedasticity-consistent standard errors (Long and Ervin 2000).<sup>9</sup> In the tables, I show results from regressions of each dependent variable on, respectively, GDP per capita, world-system position, and world civilization. Then multivariate estimates are shown.<sup>10</sup>

#### RANDOM-EFFECTS MODELS

While a panel model can test for relationships between wealth, world system, world civilization, and world-polity ties, it cannot model *changes* in these relationships. To test hypotheses concerning change, I use random-effects models with data from 1960, 1966, 1977, 1986, 1993, and 1997.

The random-effects model (REM) offers several advantages. First, changes in the effects of the exogenous variables can be tested by interacting each with a year covariate. Second, the model incorporates available data on intervening years between 1960 and 1997, adding information and variation. Third, the REM adjusts for unmeasured differences between countries with a panel-specific error term. An alternative to the REM is the fixed-effects model (FEM), but the FEM cannot estimate the effects of time-invariant covariates like world civilization (see Greene [2000] and Petersen [1993] for details; see Alderson and Nielsen [1999]

<sup>9</sup> Results from models without robust standard errors are substantively identical to those shown.

<sup>10</sup> Population size might also be expected to affect world-polity ties. Using data from the *International Data Base* (U.S. Census Bureau 2000), I included (log) population size as a control in supplemental analyses. This control did not substantively alter the results.

and Gustafsson and Johansson [1999] for substantive examples). I estimate models that include an AR(1) correction for the serial autocorrelation that often arises in time-series cross-section data (Baltagi 1995; Greene 2000:582). The AR(1) correction adjusts for  $\rho$ , the autocorrelation between  $t$  and  $t-1$ . Estimates of the coefficient  $\rho$  are shown in the tables. I first show coefficient estimates for each covariate, its interaction effect with year, and the main effect for year. I then show multivariate results.

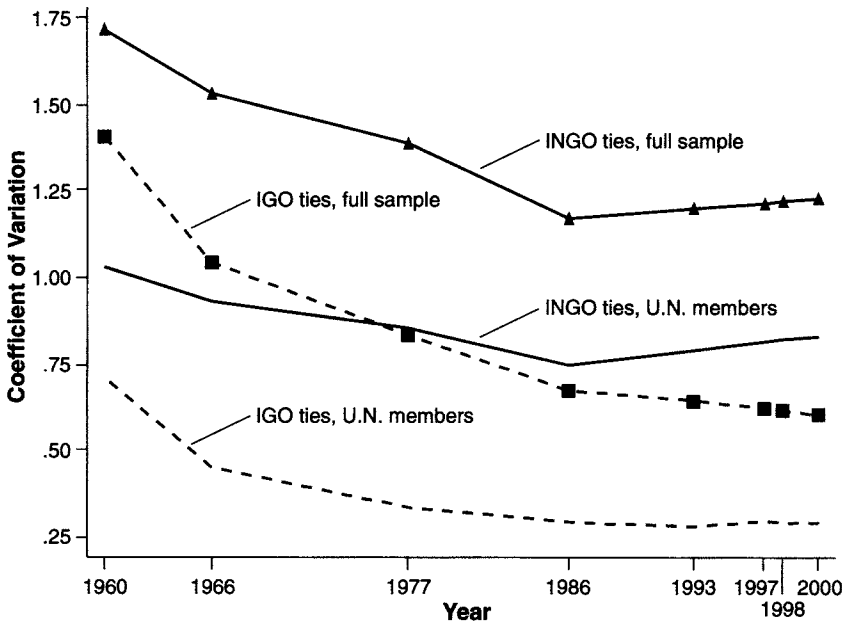
Restricting the sample to those countries for which observations are available on all variables for all years yields a sample of 91 countries. Outlier analysis following Hadi (1992, 1994) showed that Hong Kong was an outlier with respect to IGO ties. This is not surprising, as most IGOs restrict membership to independent states. To maintain consistent samples across the regression models, I excluded Hong Kong from the final sample of 90 countries.<sup>11</sup> Analysis was conducted with Stata software (StataCorp 2002).

## RESULTS

### INEQUALITY IN IGO TIES

Figure 1 plots coefficients of variation in IGO and INGO ties by year, for the full

<sup>11</sup> Retaining Hong Kong in the sample does not substantively affect the results. The 90 countries in the final sample include Algeria, Argentina, Australia, Austria, Bangladesh, Belgium, Belize, Benin, Bolivia, Botswana, Brazil, Burkina Faso, Burundi, Cameroon, Canada, Central African Republic, Chad, Chile, China, Colombia, Congo, Costa Rica, Cote d'Ivoire, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Finland, France, Gabon, Ghana, Greece, Guatemala, Guyana, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Ireland, Italy, Jamaica, Japan, Kenya, Lesotho, Luxembourg, Madagascar, Malawi, Malaysia, Mauritania, Mexico, Morocco, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Portugal, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Singapore, South Africa, South Korea, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syria, Thailand, Togo, Trinidad, United Kingdom, United States, Uruguay, Venezuela, Zambia, and Zimbabwe. Together, these 90 countries encompass over 75 percent of the world's population.



**Figure 1. Trends in Inequality in World-Polity Ties: Coefficient of Variation in Memberships in Intergovernmental Organizations (IGOs) and International Nongovernmental Organizations (INGOs): 1960, 1966, 1977, 1986, 1993, 1997, 1998, and 2000**

Source: Data are from the *Yearbook of International Organizations* (UIA 1998, 2000).

Note: The full sample includes those 208 states and pseudo-states for which data on world polity ties are available for all years. The United Nations member sample includes the 95 states that were members of the U.N. from 1960 onward and for which data are available for all years.

sample of 208 “countries” and a sample restricted to the 95 states that were members of the United Nations since 1960. Consistent with world-polity theory, inequality in IGO memberships has decreased: The standard deviation fell from 141 percent to 60 percent of the mean. Ties to IGOs were distributed more than twice as evenly in 2000 as they were in 1960.

To put this finding in context, consider world income inequality. As is well known, there is a great deal of inequality in income internationally (Firebaugh 2000). Firebaugh (1999) finds that the standard deviation of real GDP per capita was 117 percent of the mean in 1960, and 116 percent in 1989.<sup>12</sup> This suggests that in 1960 there was a great deal of inequality in IGO ties and that, now, IGO ties are distributed much more evenly than is world income.

Trends in other descriptive statistics on IGO ties for this sample (not shown) are also

consistent with world-polity theory. The average number of IGO memberships increased over the 40-year period, more than doubling from 14.29 in 1960 to 35.83 in 2000. However, neither the *maximum* nor the *minimum* number of IGO memberships changed significantly, suggesting that states join a limited number of IGOs. This is consistent with the regional character of many IGOs (e.g., the Organization of American States).

Because the full sample includes exiled governments and territories, it is possible that the coefficient of variation in IGO memberships could be biased by the inclusion of memberships of nonstates. To address this, I calculated coefficients of variation with a restricted sample of U.N. members. The results do not change: From 1960 to 2000, the coefficient of variation decreased from .71 to .29. Inequality in IGO ties among this restricted sample decreased by more than 50 percent—roughly the same percentage decrease that occurred in the full sample.

<sup>12</sup> These coefficients of variation were calculated from Firebaugh (1999, table 4, p. 1613).

The large decrease in inequality in IGO ties also appears in other sub-samples analyzed, including a sample in which the number of states varies by year according to data availability, a sample in which the number of U.N. members varies by year as new nation-states enter the world polity, and the regression sample of 90 states.

### INEQUALITY IN INGO TIES

Much world-polity research highlights the INGO (Boli and Thomas 1999a). Figure 1 shows coefficients of variation in INGO ties by year. Compared with IGO ties, inequality in INGO ties among the full sample decreases less: The coefficient of variation declines from 1.72 to 1.23, a 28 percent decrease. The finding that inequality in IGO ties decreased about twice as much as did inequality in INGO ties is somewhat surprising, given the usual view of IGOs as more closely bound to interstate political conflict (Boli 1999; Boswell and Chase-Dunn 2000). Also surprising is that INGO ties are much less evenly distributed than IGO ties: For both samples, it appears that the membership profile of IGOs is much flatter than that of INGOs.

Again, the comparison of world political inequality to world income inequality is revealing. These results indicate that there was even more inequality in ties to INGOs than in world income between 1960 and 1986. From 1960 to 1986, the coefficient of variation in INGO ties dropped from 1.72 to 1.17, compared with the decline in world income inequality from 1.17 to 1.16 (Firebaugh 1999).<sup>13</sup>

However, the "countries" caveat also applies to INGO memberships. I again calculated coefficients of variation including only the 95 states that were members of the United Nations and had data on INGO ties throughout the period. Results, shown in Figure 1, suggest that inequality in INGO ties among U.N. members decreased slightly, then increased very slightly since 1960. Overall, the coefficient of variation

decreased from 1.03 in 1960 to .83 in 2000. Of course, the membership of the United Nations changes over this period as new states enter the system. A sample in which the number of U.N. members varies by year gives different results: The coefficient of variation increases very slightly, from 1.03 to 1.05. Generally, the trend in inequality in INGO ties can be characterized as a slight decrease (or stability).

As noted above, INGO members are individuals or civil society organizations, so societies with large populations may have more INGO memberships than those with smaller populations simply because they have more "opportunities" to initiate world-polity ties. I adjust for this difference by calculating coefficients of variation in *per capita* INGO memberships. Per capita results show a decrease in inequality in INGO ties among the full sample, and stable inequality among the U.N. sample (the coefficient of variation actually increases very slightly, from 2.82 to 2.85). The general pattern of findings—decreases in inequality in IGO ties and INGO ties, a sharper decline in inequality in IGO ties than in INGO ties, and higher levels of inequality in INGO ties than in IGO ties—also holds for the regression sample of 90 countries.

Overall, the analysis of inequality suggests that: (1) There is significant inequality in world-polity ties—almost as much as in world income, (2) there is more inequality in ties to INGOs than to IGOs, (3) inequality in IGO ties decreased by about half from 1960 to 2000, while (4) inequality in ties to INGOs decreased slightly or remained stable over the period. The high *level* of inequality in world-polity ties is consistent with the conflict model, but the *trend* is not. In contrast, world-polity theory predicts the trend but not the level. World-polity theory explains the trend as resulting from normative pressure on all nation-states to join universalist international organizations (Meyer et al. 1997).

These findings are demonstrated less formally in Tables 1 and 2, which list the 10 states and societies with the most and fewest IGO and INGO ties in 1960 and 2000. France, which had the most IGO memberships in 2000, had 58 more IGO ties than Lesotho, which had the fewest. In contrast,

<sup>13</sup> Debate continues over the trend in world income inequality. Babones (2002:12–14) finds that world income inequality has increased if the uncertain income estimates for China are excluded.

**Table 1. Countries with Most and Fewest Ties to Intergovernmental Organizations (IGOs), 1960 and 2000**

| <i>Most IGO Ties, 1960</i>   |    | <i>Most IGO Ties, 2000</i>   |    |
|------------------------------|----|------------------------------|----|
| France                       | 90 | France                       | 88 |
| Belgium                      | 78 | Sweden                       | 87 |
| Italy                        | 76 | Denmark                      | 86 |
| Netherlands                  | 76 | Norway                       | 86 |
| United Kingdom               | 76 | Finland                      | 86 |
| Denmark                      | 61 | Netherlands                  | 76 |
| United States                | 59 | Spain                        | 76 |
| Luxembourg                   | 57 | United Kingdom               | 72 |
| Norway                       | 56 | Belgium                      | 72 |
| Sweden <sup>a</sup>          | 54 | Italy <sup>b</sup>           | 71 |
| <i>Fewest IGO Ties, 1960</i> |    | <i>Fewest IGO Ties, 2000</i> |    |
| Bangladesh                   | 0  | Zimbabwe                     | 38 |
| Belize                       | 0  | Malawi                       | 38 |
| Botswana                     | 0  | Burundi                      | 34 |
| Burundi                      | 0  | Belize                       | 34 |
| Malawi                       | 0  | Singapore                    | 33 |
| Papua New Guinea             | 0  | Papua New Guinea             | 33 |
| Sierra Leone                 | 0  | Botswana                     | 32 |
| Syria                        | 0  | Rwanda                       | 32 |
| Trinidad                     | 0  | Nepal                        | 30 |
| Zambia <sup>c</sup>          | 0  | Lesotho                      | 30 |

Source: Data are from the *Yearbook of International Organizations* (UIA 1998, 2000).

Notes: Shown are the 10 countries with the most and fewest IGO ties among the 90 countries in the regression sample (see footnote 11 for a complete list).

<sup>a</sup> Greece also had 54 IGO ties in 1960.

<sup>b</sup> Egypt also had 71 IGO ties in 2000.

<sup>c</sup> Guyana, Jamaica, Mauritania, and Niger also had no IGO ties in 1960.

France, which also had the most INGO memberships, had 3,361 more INGO ties than Chad, which had the fewest. There is much more inequality in INGO ties than there is in IGO ties.

#### PANEL MODELS OF IGO TIES

Table 3 shows results from panel regression models of IGO ties in which IGO ties in 2000 are regressed on IGO ties in 1960 and the other independent variables. The coefficient for the lagged dependent variable has a

**Table 2. Countries with Most and Fewest Ties to International Nongovernmental Organizations (INGOs), 1960 and 2000**

| <i>Most INGO Ties, 1960</i>   |     | <i>Most INGO Ties, 2000</i>   |       |
|-------------------------------|-----|-------------------------------|-------|
| France                        | 886 | France                        | 3,551 |
| Belgium                       | 835 | United Kingdom                | 3,388 |
| Netherlands                   | 833 | Italy                         | 3,257 |
| Italy                         | 808 | Netherlands                   | 3,203 |
| Switzerland                   | 750 | Belgium                       | 3,162 |
| United Kingdom                | 742 | Spain                         | 3,116 |
| Austria                       | 656 | Sweden                        | 2,975 |
| Sweden                        | 651 | Switzerland                   | 2,966 |
| United States                 | 612 | Denmark                       | 2,806 |
| Denmark                       | 611 | United States                 | 2,685 |
| <i>Fewest INGO Ties, 1960</i> |     | <i>Fewest INGO Ties, 2000</i> |       |
| Bangladesh                    | 0   | Gabon                         | 287   |
| Botswana                      | 0   | Guyana                        | 284   |
| Burundi                       | 0   | Lesotho                       | 268   |
| Jamaica                       | 0   | Niger                         | 253   |
| Malawi                        | 0   | Rwanda                        | 241   |
| Niger                         | 0   | Burundi                       | 226   |
| Papua New Guinea              | 0   | Mauritania                    | 225   |
| Syria                         | 0   | Belize                        | 212   |
| Trinidad                      | 0   | Central Afr. Rep.             | 207   |
| Zambia                        | 0   | Chad                          | 190   |

Source: Data are from the *Yearbook of International Organizations* (UIA 1998, 2000).

Notes: Shown are the 10 countries with the most and fewest INGO ties among the 90 countries in the regression sample (see footnote 11 for a complete list).

meaningful interpretation—it represents stability (or inertia) (Finkel 1995:7–12). In this context, a coefficient greater than 1.0 means that countries with more world-polity ties in 1960 increase their involvement in the world polity more than do countries with fewer world-polity ties (suggesting an unstable system, with rising variance). Conversely, a coefficient below 1.0 suggests stability and decreasing variance as countries with more world-polity ties add new ties at a slower pace than do countries with fewer ties. Given the findings for inequality discussed above, we should expect stability coefficients well below 1.0 in the models of IGO ties, as inequality in IGO ties decreases sharply over the period.

**Table 3. Unstandardized Coefficients from OLS Regressions of IGO Ties in 2000 on IGO Ties in 1960, GDP per Capita, World-System Position, and Civilization: 90 Countries**

| Independent Variable              | Model 1          | Model 2          | Model 3          | Model 4          | Model 5          |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|
| IGO ties, 1960 <sup>a</sup>       | .216*<br>(.024)  | .154*<br>(.030)  | .151*<br>(.029)  | .196*<br>(.038)  | .140*<br>(.033)  |
| GDP per capita, 1960 <sup>b</sup> | —                | .180*<br>(.071)  | —                | —                | .051<br>(.085)   |
| <i>World-System Position</i>      |                  |                  |                  |                  |                  |
| Core                              | —                | —                | .793*<br>(.236)  | —                | .490<br>(.384)   |
| Semiperiphery                     | —                | —                | .133<br>(.189)   | —                | .037<br>(.192)   |
| <i>Civilization</i>               |                  |                  |                  |                  |                  |
| Latin American                    | —                | —                | —                | -.733*<br>(.215) | —                |
| African                           | —                | —                | —                | -.458<br>(.327)  | —                |
| Islamic                           | —                | —                | —                | -.022<br>(.293)  | —                |
| Sinic                             | —                | —                | —                | -.631<br>(.418)  | —                |
| Hindu                             | —                | —                | —                | -.777<br>(.677)  | —                |
| Orthodox                          | —                | —                | —                | -.288<br>(.166)  | —                |
| Buddhist                          | —                | —                | —                | -.854<br>(.475)  | —                |
| Japanese                          | —                | —                | —                | -.055<br>(1.345) | —                |
| Western                           | —                | —                | —                | —                | .252<br>(.299)   |
| Constant                          | 6.276*<br>(.111) | 5.264*<br>(.416) | 6.378*<br>(.112) | 6.719*<br>(.344) | 6.079*<br>(.524) |
| R <sup>2</sup>                    | .48              | .53              | .55              | .61              | .56              |

Notes: Numbers in parentheses are standard errors. Dependent variable is square-root transformed. See text for data sources and footnote 11 for a list of countries in the sample.

<sup>a</sup> Square-root transformed.

<sup>b</sup> Log transformed.

\* $p < .05$  (two-tailed test)

The results confirm this expectation. In the IGO models shown in Table 3, the stability coefficient ranges from .140 to .216 and consistently reaches significance at the  $p < .05$  level, suggesting that states with more IGO memberships in 1960 increase their participation in IGOs more slowly than do states with fewer IGO memberships. Examples of this equalization can be seen in Table 1: Belize gained 34 IGO ties, but Den-

mark gained only 25, and France, Belgium, and Italy actually lost memberships. Again, these results are consistent with world-polity theory and inconsistent with the conflict model.

Net of 1960 IGO ties, GDP per capita has a significant positive effect on the change in IGO ties: Rich states increased their involvement in IGOs more than did poor states, controlling for differences in initial levels of in-

volvement in IGOs. Results offer some support for the conflict model of the world polity: The core gained significantly more IGO ties than did the periphery, and Western states gained significantly more IGO ties than did Latin American states. This support is qualified though, as the semiperiphery coefficient and seven of the eight civilization coefficients fail to reach significance.<sup>14</sup> Moreover, these effects, although statistically significant, are substantively small: Model 3 shows that core states increase their IGO ties by only .63 memberships (.793<sup>2</sup>) more than periphery states, controlling for 1960 IGO ties.

Model 5, which includes GDP per capita, world-system position, and a Western/non-Western indicator variable, shows less evidence that these predictors affect IGO ties. These null findings may arise from multicollinearity: The largest variance inflation factor (VIF) is 3.33, and the mean VIF is 2.54. Further evidence of multicollinearity can be found in Appendix A: The bivariate correlations among the covariates in the model are large. By some standards these variables are not "highly" collinear (Gujarati 1995:339), but the relatively high mean VIF and large bivariate correlations point to some collinearity. This is not without substantive meaning. Wealth, core status, and Western status covary, and the results show that a model incorporating all three dimensions of dominance in the world polity fits the data slightly better than does a model that includes only the lagged level of IGO ties or only wealth. Still, the full model casts doubt on the hypothesis that these factors matter independently for participation in IGOs.

#### PANEL MODELS OF INGO TIES

Although the conflict model of the world polity receives little support from models of IGO ties, it receives stronger support from models of INGO ties. In the models shown in Table 4, the stability coefficient is consistently above 1.0 and always reaches signifi-

<sup>14</sup> *F*-tests of the civilization comparisons implicit in Model 4 show that only 3 of the 28 civilization differences are significant.

cance.<sup>15</sup> Societies with more INGO ties in 1960 increased their participation in INGOs more than did those less involved in INGOs.

Model 2 shows that, net of this instability, rich societies increased their ties to INGOs more than poor societies: One unit increase in (log) GDP per capita yields an increase of 2.39 ties (1.545<sup>2</sup>), controlling for 1960 INGO ties. This would seem to contradict the finding that poor societies' ties to INGOs have grown at a faster rate than rich societies' ties (Boli et al. 1999:54), but this contradiction is easily explained. Returning to Table 2, we see that the United States had 2,073 more INGO ties in 2000 than it did in 1960, or 4.39 times as many ties. By comparison, Burundi had 226 more ties than it did in 1960. But Burundi held no memberships in INGOs in 1960, for an undefined (226/0) growth rate. If Burundi instead had 10 INGO ties in 1960, it would have 22.6 times as many ties in 2000 as it did in 1960. Thus, it is possible that rich societies gain more INGO ties than do poor societies, while poor societies increase their memberships at a faster *rate* because they begin with dramatically fewer INGO ties.

Results from Models 3 and 4 support the conflict model of the world polity. Societies in the core and semiperiphery increased their involvement in INGOs more than did those in the periphery. For instance, core societies increased their involvement in INGOs by 76.34 ties (8.737<sup>2</sup>) more than did peripheral societies. Western societies also increased their dominance of INGOs, gaining more ties than Latin American, African, and Islamic societies. However, *F*-tests (not shown) reveal that only seven of 28 civilization coefficient comparisons reach significance. It appears that the salient civilizational cleavage in the world polity is be-

<sup>15</sup> Results for the lagged dependent variable at first glance appear to contradict the findings from the analysis of inequality in world-polity ties. This seeming contradiction is explained by the large increase in the mean number of INGO ties from 212 ties in 1960 to 1,154 in 2000. Although it is true that societies closely tied to INGOs in 1960 increased their world political participation more than did societies loosely tied to INGOs in 1960, it is also true that countries with fewer ties now have a larger *share* of total INGO memberships than they did in 1960.

**Table 4. Unstandardized Coefficients from OLS Regressions of INGO Ties in 2000 on INGO Ties in 1960, GDP per Capita, World-System Position, and Civilization: 90 Countries**

| Independent Variable              | Model 1           | Model 2          | Model 3           | Model 4            | Model 5            |
|-----------------------------------|-------------------|------------------|-------------------|--------------------|--------------------|
| INGO ties, 1960 <sup>a</sup>      | 1.436*<br>(.055)  | 1.232*<br>(.085) | 1.102*<br>(.101)  | 1.182*<br>(.093)   | 1.013*<br>(.117)   |
| GDP per capita, 1960 <sup>b</sup> | —                 | 1.545*<br>(.558) | —                 | —                  | .206<br>(.704)     |
| <i>World-System Position</i>      |                   |                  |                   |                    |                    |
| Core                              | —                 | —                | 8.737*<br>(2.216) | —                  | 4.955<br>(2.531)   |
| Semiperiphery                     | —                 | —                | 4.988*<br>(1.554) | —                  | 3.927*<br>(1.455)  |
| <i>Civilization</i>               |                   |                  |                   |                    |                    |
| Latin American                    | —                 | —                | —                 | -9.129*<br>(1.450) | —                  |
| African                           | —                 | —                | —                 | -7.510*<br>(2.003) | —                  |
| Islamic                           | —                 | —                | —                 | -6.588*<br>(1.955) | —                  |
| Sinic                             | —                 | —                | —                 | .405<br>(3.537)    | —                  |
| Hindu                             | —                 | —                | —                 | -10.772<br>(5.944) | —                  |
| Orthodox                          | —                 | —                | —                 | .618<br>(4.086)    | —                  |
| Buddhist                          | —                 | —                | —                 | -7.833<br>(5.579)  | —                  |
| Japanese                          | —                 | —                | —                 | -.769<br>(.790)    | —                  |
| Western                           | —                 | —                | —                 | —                  | 5.666*<br>(1.755)  |
| Constant                          | 14.317*<br>(.945) | 5.806<br>(3.319) | 15.674*<br>(.971) | 22.852*<br>(2.322) | 14.789*<br>(4.202) |
| R <sup>2</sup>                    | .86               | .87              | .88               | .92                | .90                |

Notes: Numbers in parentheses are standard errors. Dependent variable is square-root transformed. See text for data sources and footnote 11 for a list of countries in the sample.

<sup>a</sup> Square-root transformed.

<sup>b</sup> Log transformed.

\* $p < .05$  (two-tailed test)

tween Western and non-Western societies, which is consistent with some of Huntington's (1996) arguments.

As with IGOs, the full INGO model shows evidence of multicollinearity: The mean VIF is 2.97, the largest VIF is 3.82, and bivariate correlations among the covariates are large. Even so, the semiperiphery and Western coefficients reach significance (and the core coefficient nearly

reaches significance at  $p = .054$ ), although the GDP coefficient does not. One interpretation of this model is that world-system position and civilization "explain away" the effect of wealth: All three are of course correlated, but power in the world system and belonging to hegemonic Western culture may trump simple wealth as explanations for access to and potential control over the world polity.

**Table 5. Unstandardized Coefficients from Random-Effects GLS Regressions of IGO Ties on GDP per Capita, World-System Position, Civilization, and Interaction Terms: 90 Countries, 1960, 1966, 1977, 1986, 1993, 1997**

| Independent Variable         | Model 1 | $\Delta$ | Model 2 | $\Delta$ | Model 3 | $\Delta$ | Model 4 | $\Delta$ |
|------------------------------|---------|----------|---------|----------|---------|----------|---------|----------|
| GDP per capita (log)         | 1.085*  | —        | —       | —        | —       | —        | .799*   | —        |
|                              | (.081)  |          |         |          |         |          | (.126)  |          |
| <i>World-System Position</i> |         |          |         |          |         |          |         |          |
| Core                         | —       | —        | 4.102*  | —        | —       | —        | 2.209*  | —        |
|                              |         |          | (.329)  |          |         |          | (.515)  |          |
| Semiperiphery                | —       | —        | 2.007*  | —        | —       | —        | 1.261*  | —        |
|                              |         |          | (.308)  |          |         |          | (.329)  |          |
| <i>Civilization</i>          |         |          |         |          |         |          |         |          |
| Latin American               | —       | —        | —       | —        | -1.578* | n.s.     | —       | —        |
|                              |         |          |         |          | (.357)  |          |         |          |
| African                      | —       | —        | —       | —        | -4.160* | +        | —       | —        |
|                              |         |          |         |          | (.366)  |          |         |          |
| Islamic                      | —       | —        | —       | —        | -3.332* | +        | —       | —        |
|                              |         |          |         |          | (.397)  |          |         |          |
| Sinic                        | —       | —        | —       | —        | -3.704* | +        | —       | —        |
|                              |         |          |         |          | (.644)  |          |         |          |
| Hindu                        | —       | —        | —       | —        | -3.333* | +        | —       | —        |
|                              |         |          |         |          | (.730)  |          |         |          |
| Orthodox                     | —       | —        | —       | —        | .066    | n.s.     | —       | —        |
|                              |         |          |         |          | (1.212) |          |         |          |
| Buddhist                     | —       | —        | —       | —        | -1.567  | n.s.     | —       | —        |
|                              |         |          |         |          | (.875)  |          |         |          |
| Japanese                     | —       | —        | —       | —        | -.199   | n.s.     | —       | —        |
|                              |         |          |         |          | (1.212) |          |         |          |
| Western                      | —       | —        | —       | —        | —       | —        | -.617   | +        |
|                              |         |          |         |          |         |          | (.434)  |          |
| Year                         | .252*   | —        | .096*   | —        | .027*   | —        | .237*   | —        |
|                              | (.017)  |          | (.005)  |          | (.007)  |          | (.025)  |          |
| Constant                     | -2.763* | —        | 3.870*  | —        | 7.200*  | —        | -1.224  | —        |
|                              | (.595)  |          | (.156)  |          | (.253)  |          | (.816)  |          |
| R <sup>2</sup>               | .50     | —        | .50     | —        | .51     | —        | .54     | —        |
| $\rho$                       | .17     | —        | .17     | —        | .15     | —        | .15     | —        |

*Notes:* Numbers in parentheses are standard errors. IGO ties are square-root transformed. See text for data sources and footnote 11 for a list of countries in the sample. A “+” in column “ $\Delta$ ” indicates a statistically significant year-by-covariate interaction effect; “-” indicates a statistically significant negative interaction; “n.s.” indicates a nonsignificant interaction. N = 540.

\* $p < .05$  (two-tailed tests)

### **RANDOM-EFFECTS MODELS OF IGO TIES**

Panel models offer evidence that wealth, world-system position, and world civilization affect involvement in the world polity, but these models use data from just two years, they do not account for unobserved heterogeneity among the countries, and most important, they cannot answer crucial

questions about changes in these relationships over time. To answer these important questions and address the other shortcomings of the panel models, I estimate random-effects models with corrections for serial autocorrelation. All models include a linear year term and a year-by-covariate interaction term. A “+” in the change column (“ $\Delta$ ”) indicates a statistically signifi-



**Table 6. Unstandardized Coefficients from Random-Effects GLS Regressions of INGO Ties on GDP per Capita, World-System Position, Civilization, and Interaction Terms: 90 Countries, 1960, 1966, 1977, 1986, 1993, 1997**

| Independent Variable         | Model 1 $\Delta$   | Model 2 $\Delta$     | Model 3 $\Delta$         | Model 4 $\Delta$        |
|------------------------------|--------------------|----------------------|--------------------------|-------------------------|
| GDP per capita (log)         | 2.516* +<br>(.317) | —                    | —                        | 1.300* +<br>(.372)      |
| <i>World-System Position</i> |                    |                      |                          |                         |
| Core                         | —                  | 16.617* +<br>(1.518) | —                        | 11.719* n.s.<br>(2.072) |
| Semiperiphery                | —                  | 7.605* +<br>(1.422)  | —                        | 5.884* +<br>(1.372)     |
| <i>Civilization</i>          |                    |                      |                          |                         |
| Latin American               | —                  | —                    | -9.362* -<br>(1.810)     | —                       |
| African                      | —                  | —                    | -15.175* -<br>(1.854)    | —                       |
| Islamic                      | —                  | —                    | -14.176* -<br>(2.010)    | —                       |
| Sinic                        | —                  | —                    | -12.911* n.s.<br>(3.262) | —                       |
| Hindu                        | —                  | —                    | -10.157* -<br>(3.694)    | —                       |
| Orthodox                     | —                  | —                    | -2.605 n.s.<br>(6.137)   | —                       |
| Buddhist                     | —                  | —                    | -9.477* -<br>(4.433)     | —                       |
| Japanese                     | —                  | —                    | -.725 n.s.<br>(6.137)    | —                       |
| Western                      | —                  | —                    | —                        | 1.298 +<br>(1.773)      |
| Year                         | .090*<br>(.035)    | .434*<br>(.009)      | .670*<br>(.014)          | .254*<br>(.049)         |
| Constant                     | -6.200*<br>(2.346) | 7.067*<br>(.721)     | 20.809*<br>(1.280)       | -1.233<br>(2.444)       |
| R <sup>2</sup>               | .72                | .79                  | .75                      | .83                     |
| $\rho$                       | .31                | .36                  | .29                      | .28                     |

*Notes:* Numbers in parentheses are standard errors. INGO ties are square-root transformed. See text for data sources and footnote 11 for a list of countries in the sample. A “+” in column “ $\Delta$ ” indicates a statistically significant year-by-covariate interaction effect; “-” indicates a statistically significant negative interaction; “n.s.” indicates a nonsignificant interaction. N = 540.

\* $p < .05$  (two-tailed tests)

cant positive interaction effect; “-” indicates a statistically significant negative interaction effect; and “n.s.” indicates a nonsignificant interaction. Table 5 shows results from the random-effects models of IGO ties.

Results for IGOs strongly support the hypothesis—derived from world-polity theory—that any effects of national wealth, posi-

tion in the world system, or civilization should decline over time. The coefficient for GDP per capita shows a statistically significant positive association with IGO ties in Models 1 and 4, but this association decreases over time. The same finding holds for world-system position in Models 2 and 4: Core states dominated IGOs, but less so over time. Results for civilization also sup-

port world-polity theory: Model 3 shows that Western states held significantly more IGO memberships than did states from five of the eight other civilizations, but the significant positive interaction effects between civilization and year show that four of these civilization differences weakened. The effect of "Western" fails to reach significance in the full model.

Broadly, these results are consistent with findings from the coefficient of variation and panel model analyses. From 1960 to 2000, IGO ties became much more evenly distributed, and although states' ties to IGOs were somewhat structured by wealth, world-system position, and civilization, these factors grew weaker as predictors of states' involvement in the world polity. These findings confirm the predictions of world-polity theory and offer little evidence in favor of the conflict approach.

#### **RANDOM-EFFECTS MODELS OF INGO TIES**

Once again, INGO results diverge from IGO results. Turning to Table 6, we again see statistically significant correlations between world-polity ties and wealth, world-system position, and world civilization, but in the INGO models these correlations strengthen rather than weaken over time. Wealthy societies had significantly more INGO ties than did poor societies and this relationship strengthened over time. The core and semi-periphery also had more INGO ties than the periphery, and this divide grew over time. Finally, Latin American, African, Islamic, Sinic, Hindu, and Buddhist societies had significantly fewer INGO ties than did Western societies, and five of these six differences have grown since 1960. Exceptions to the general pattern of significant main effects and significant interaction effects are the nonsignificant interaction effect for core and the nonsignificant main effect for Western in the full model.

The random-effects results are broadly consistent with the coefficient of variation analysis and the panel analysis above. From 1960 to 2000, inequality in INGO ties decreased slightly or remained stable; INGO ties are significantly structured by wealth, world-system position, and civilization, and

these factors became stronger as predictors of involvement in the world polity. If the IGO results support world-polity theory, then the INGO results support the conflict model.

#### **SUMMARY AND DISCUSSION**

I extend world-polity scholarship by analyzing inequality in ties to intergovernmental and international nongovernmental organizations (IGOs and INGOs) and testing explanations of involvement in the world polity. World-polity theory holds that nation-states are becoming universally and densely tied to the world polity through international organizations, implying that inequality in ties to IGOs and INGOs should be slight and should decrease over time. A conflict-centered model of the world polity suggests the opposite: If the world polity is an object of and vehicle for international conflict, then we would expect to find high and rising levels of world political inequality in membership. Results show an initially high but sharply declining level of inequality in IGO ties, and a higher, more stable level of inequality in INGO ties.

Tests of explanations of world-polity ties also extend the literature. Although previous work showed evidence of substantial correlations between INGO ties and measures of economic development (Boli et al. 1999), I analyze the relationship between the structure of the world polity and the structures of the world system and world civilizations and examine *changes* in these relationships using data from several years between 1960 and 2000. Findings from panel models suggest that rich, core, Western states and societies have increased their ties to IGOs and INGOs more than have poor, peripheral, and non-Western states and societies. Random-effects models show that these relationships have strengthened over time for INGOs, but weakened for IGOs.

Why the divergent findings for IGOs and INGOs? One explanation may be that the IGO field is more mature than the INGO field. The INGO population grew much faster over this period: From 1958 to 2000, the number of IGOs increased by 62 percent, but the number of INGOs increased by 460 percent (UIA 2000). Inequality in INGO ties may decline sharply if growth in

the field slows and marginalized nation-states intensify their ties to existing INGOs. Under this scenario, the strong predictors of world-polity involvement—wealth, world-system position, and civilization—would weaken.

Another intriguing explanation emphasizes the important distinction between states and societies that differentiates IGOs from INGOs. Recall that the conflict model points to several mechanisms for the maintenance of power in the world polity: New, exclusive international organizations may be formed; weaker states and societies may be excluded from existing organizations; or powerful states and societies may join more international organizations than weaker states and societies. The disparate findings for IGOs and INGOs, together with the entry of more INGOs than IGOs into the world polity since 1960, suggest that rich, core, Western states fail to exclude poor, peripheral, non-Western states from existing IGOs. This last inference is consistent with the argument that noncore states use IGOs to counter core states (Krasner 1985). But it appears that rich, core, Western societies are maintaining their powerful positions within the world polity by establishing new INGOs. If this inference holds, then some of the optimistic conclusions of “third force” international relations scholarship may be overstated (Florini 2000).

A third explanation also centers on the state-society distinction. There may be less inequality in IGO ties than in INGO ties because states resemble each other more than do societies (Meyer et al. 1997). It may also be the case that while state structures converged over this period, societies did not; this would explain the difference between the dramatic drop in inequality in IGO ties and the slight decline or stability in inequality in INGO ties. It would also account for the finding that economic, world-system and civilization differences became less powerful predictors of IGO ties while they became stronger predictors of INGO ties: If states are converging in their structures, one aspect of this convergence should be the detachment of involvement in the world polity from other differences between nation-states. Finally, if differences in participation arise from a process of resistance by

marginalized nation-states rather than a process of exclusion by dominant countries, it could be that states are more successful at discouraging their citizens from participating in INGOs than they are at resisting the pressure to join IGOs. It is important to note that states vary in how strictly they regulate the establishment of and participation in INGOs.

This study holds several implications for how sociologists understand the world polity. Wealth, the world system, and civilization structure the world polity. Rich, core, Western states and societies dominate the world polity, which implies that the world culture produced in the world polity—including its policy scripts—may be strongly influenced by powerful states. If international organizations listen more closely to their most active members, then the core/West probably has more influence than the periphery/non-West, although of course there is substantial variation in interests within the core (and within the periphery). This implies that world culture and the world polity may serve the interests of the core/West. Recall, however, that most world-polity research focuses on progressive policy changes, like pro-environment legislation (Frank et al. 2000). An intriguing resolution of this paradox might be that world-policy scripts contain a package of neoliberal economic policy and technical harmonization bundled with progressive policy in other domains.

If membership in international organizations affords some degree of agenda-setting or veto power, then the findings also suggest that the world culture constructed by IGOs is less susceptible to domination by the core/West than that constructed by INGOs. States are much more evenly integrated into IGOs than are the societies in INGOs. This implies that core/Western states may have difficulty advancing their interests through IGOs, although the possibility remains that core/Western states may hold memberships in more powerful IGOs than do peripheral/non-Western states, despite the fact that there is little inequality in the raw counts of states' IGO ties. The high level of inequality in INGO ties implies just the opposite: Core and Western interests might be successfully advanced through

INGOs. Detailed comparison of cultural products of IGOs and INGOs would be necessary to assess these conjectures.

Dynamically, this study reveals a complex image of the world polity. Participation in the world polity is becoming more evenly distributed, at least in IGOs. Wealth, position in the world system, and world civilization have become significantly weaker predictors of IGO ties, while they have become significantly stronger predictors of INGO ties. This implies that world culture may be polarizing, as states and IGOs construct culture and policy scripts that benefit powerful states less than they once might have, while core societies construct culture and policy scripts through INGOs that increasingly work to their own benefit. Of course, the proposition that closer ties to the world polity bring some control over world culture underlies this conjecture and itself warrants empirical scrutiny.

If states are becoming more evenly tied to IGOs, and IGO ties affect policy, then these findings suggest that policies should be converging in those domains where IGOs are most active. For instance, many IGOs pursue economic or security goals and thus policies in these areas should have converged since 1960. Indeed, the global liberalization of economic policy fits this scenario—such policies are advocated by core states, and as more states have developed closer ties to IGOs, many have adopted these policies (Boswell and Chase-Dunn 2000). Murphy (1994) also implicates international organizations in the international expansion of industrial markets. But because INGO ties are distributed so much more unequally, we would expect lower levels of policy isomorphism in domains dominated by INGOs. These findings also imply that policies in domains where INGOs are most active should have converged less over time than policies in IGO domains.

This study opens several avenues for future research. One promising project would be to integrate the vision of policy script diffusion from world-polity theory with the conflict model of the world polity derived from world-systems theory and the world civilization approach. There is much inequality in the world-polity web. Recognizing this structural inequality may offer a

new understanding of how policy scripts are generated and disseminated: Scripts may come from core states, then diffuse “down” to peripheral states. Or core states may conform more closely to global policy scripts, owing to their much denser world-polity ties. If world-polity ties are associated with position in the world system of political-economic exchange, then the *effects* of world-polity ties may also depend on world-system position. The world system may also structure the content of world culture. Finally, we need to know which states and societies benefit from the diffusion and implementation of world-policy scripts. Answers to these questions could draw on institutionalist conceptions of power and interests (DiMaggio and Powell 1983; Fligstein 1996).

Given the finding of a divide between Western and non-Western civilizations in world-polity ties, sociologists interested in theorizing the world polity should incorporate cultural conflict. Symbolic conflict over world culture should be considered. Also, the policy effects of scripts may depend on civilization: For instance, Western states may more readily adopt world-policy scripts than Islamic states, and Islamic states may generate and receive scripts that differ from Western scripts. Narrative and case-based approaches should be exploited in pursuit of these and other questions. Cultural conflict over world-policy scripts could also be explored by comparing states' positions on United Nations agreements and INGOs' positions on international conferences.

Sociological understanding of the world polity would also be advanced by further examination of organizational heterogeneity within the world polity. A limitation of the IGO and INGO membership data used here is that they aggregate ties across diverse organizations (Boli and Thomas 1999b). A more detailed analysis of intercountry inequality in IGO and INGO ties would be useful. This study shows that there is a great deal of inequality in world-polity ties, but we do not know how the level of inequality varies among sectors of IGOs and INGOs. In the field of INGOs, for instance, ties in the education sector may be distributed more equally than ties in the political ideology

sector. The question of historical change in structural inequality in the various world-polity sectors also deserves attention.

These questions are important, but I conclude by emphasizing the key findings of this study. Memberships in international nongovernmental organizations are distributed as unequally as is world income, and this inequality has decreased only slightly, or remained stable, since 1960. Conversely, memberships in intergovernmental organizations are distributed relatively evenly, and these ties have become even more equally distributed since 1960. Rich, core, Western states and societies dominate both IGOs and INGOs. This dominance has increased for INGOs, but decreased for IGOs. Far from being a perfectly even field of international

association, the world polity has an uneven structure powerfully shaped by material and symbolic conflict. The world polity, increasingly influential in shaping national policies, has not yet broken free from global stratification.

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#### Appendix A. Correlations and Descriptive Statistics for Variables in the Panel Regression Models: 90 Countries, 1960 and 2000

| Variables                        | (1)  | (2)  | (3)   | (4)   | (5)   | (6)  | (7)  | (8)  | (9)  | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
|----------------------------------|------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| (1) IGO ties, 2000 <sup>a</sup>  | 1.00 | —    | —     | —     | —     | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| (2) IGO ties, 1960 <sup>a</sup>  | .69  | 1.00 | —     | —     | —     | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| (3) INGO ties, 2000 <sup>a</sup> | .80  | .79  | 1.00  | —     | —     | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| (4) INGO ties, 1960 <sup>a</sup> | .79  | .90  | .93   | 1.00  | —     | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| (5) GDP per capita <sup>b</sup>  | .63  | .67  | .78   | .76   | 1.00  | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| (6) Core <sup>c</sup>            | .60  | .57  | .72   | .71   | .70   | 1.00 | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| (7) Semiperiphery <sup>c</sup>   | .08  | .21  | .25   | .21   | .12   | -.24 | 1.00 | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| (8) Periphery <sup>c</sup>       | -.54 | -.62 | -.77  | -.73  | -.65  | -.58 | -.65 | 1.00 | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| (9) Latin American <sup>d</sup>  | -.13 | .18  | -.18  | -.02  | .04   | -.26 | -.04 | .24  | 1.00 | —    | —    | —    | —    | —    | —    | —    | —    |
| (10) African <sup>d</sup>        | -.39 | -.52 | -.41  | -.43  | -.42  | -.25 | -.15 | .32  | -.30 | 1.00 | —    | —    | —    | —    | —    | —    | —    |
| (11) Islamic <sup>d</sup>        | .02  | -.24 | -.25  | -.29  | -.32  | -.21 | -.09 | .23  | -.25 | -.24 | 1.00 | —    | —    | —    | —    | —    | —    |
| (12) Sinic <sup>d</sup>          | -.12 | -.08 | .05   | -.07  | -.07  | -.10 | .28  | -.16 | -.12 | -.12 | -.10 | 1.00 | —    | —    | —    | —    | —    |
| (13) Hindu <sup>d</sup>          | -.13 | -.07 | -.08  | .00   | -.20  | -.09 | .06  | .02  | -.11 | -.10 | -.08 | -.04 | 1.00 | —    | —    | —    | —    |
| (14) Orthodox <sup>d</sup>       | .08  | .12  | .12   | .09   | .08   | .23  | -.05 | -.13 | -.06 | -.06 | -.05 | -.02 | -.02 | 1.00 | —    | —    | —    |
| (15) Buddhist <sup>d</sup>       | -.05 | .06  | -.02  | .00   | -.13  | -.07 | .11  | -.03 | -.09 | -.08 | -.07 | -.03 | -.03 | -.02 | 1.00 | —    | —    |
| (16) Japanese <sup>d</sup>       | .09  | .08  | .12   | .11   | .14   | .23  | -.05 | -.13 | -.06 | -.06 | -.05 | -.02 | -.02 | -.01 | -.02 | 1.00 | —    |
| (17) Western <sup>d</sup>        | .57  | .54  | .75   | .67   | .75   | .68  | .09  | -.61 | -.32 | -.30 | -.25 | -.12 | -.11 | -.06 | -.09 | -.06 | 1.00 |
| <i>Statistics</i>                |      |      |       |       |       |      |      |      |      |      |      |      |      |      |      |      |      |
| Mean                             | 7.19 | 4.22 | 31.37 | 11.88 | 7.07  | .18  | .21  | .61  | .24  | .22  | .17  | .04  | .03  | .01  | .02  | .01  | .24  |
| Standard deviation               | .89  | 2.87 | 13.10 | 8.44  | 1.46  | .38  | .41  | .49  | .43  | .42  | .37  | .21  | .18  | .11  | .15  | .11  | .43  |
| Minimum                          | 5.48 | .00  | 13.78 | .00   | 4.74  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00  |
| Maximum                          | 9.38 | 9.49 | 59.59 | 29.77 | 10.17 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

*Data sources and transformations:* <sup>a</sup> UIA (1998, 2000), square root. <sup>b</sup> World Bank (2000), logarithm. <sup>c</sup> Bollen (1983); Bollen and Appold (1993); World Bank (1997). <sup>d</sup> Huntington (1996).

**Appendix B. Correlations and Descriptive Statistics for Variables in the Random-Effects Models: 90 Countries, 1960, 1966, 1977, 1986, 1993, and 1997**

| Variables                       | (1)   | (2)   | (3)   | (4)  | (5)  | (6)  | (7)  | (8)  | (9)  | (10) | (11) | (12) | (13) | (14) | (15) | (16)  |
|---------------------------------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| (1) IGO ties <sup>a</sup>       | 1.00  | —     | —     | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —     |
| (2) INGO ties <sup>a</sup>      | .73   | 1.00  | —     | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —     |
| (3) GDP per capita <sup>b</sup> | .50   | .72   | 1.00  | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —     |
| (4) Core <sup>c</sup>           | .42   | .59   | .68   | 1.00 | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —     |
| (5) Semiperiphery <sup>c</sup>  | .08   | .19   | .16   | -.24 | 1.00 | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —     |
| (6) Periphery <sup>c</sup>      | -.40  | -.62  | -.67  | -.58 | -.65 | 1.00 | —    | —    | —    | —    | —    | —    | —    | —    | —    | —     |
| (7) Latin American <sup>d</sup> | -.01  | -.09  | .01   | -.26 | -.04 | .24  | 1.00 | —    | —    | —    | —    | —    | —    | —    | —    | —     |
| (8) African <sup>d</sup>        | -.27  | -.33  | -.43  | -.25 | -.15 | .32  | -.30 | 1.00 | —    | —    | —    | —    | —    | —    | —    | —     |
| (9) Islamic <sup>d</sup>        | -.06  | -.22  | -.31  | -.21 | -.09 | .23  | -.25 | -.24 | 1.00 | —    | —    | —    | —    | —    | —    | —     |
| (10) Sinic <sup>d</sup>         | -.11  | -.02  | -.01  | -.10 | .28  | -.16 | -.12 | -.12 | -.10 | 1.00 | —    | —    | —    | —    | —    | —     |
| (11) Hindu <sup>d</sup>         | -.09  | -.05  | -.20  | -.09 | .06  | .02  | -.11 | -.10 | -.08 | -.04 | 1.00 | —    | —    | —    | —    | —     |
| (12) Orthodox <sup>d</sup>      | .06   | .09   | .10   | .23  | -.05 | -.13 | -.06 | -.06 | -.05 | -.02 | -.02 | 1.00 | —    | —    | —    | —     |
| (13) Buddhist <sup>d</sup>      | -.01  | -.01  | -.08  | -.07 | .11  | -.03 | -.09 | -.08 | -.07 | -.03 | -.03 | -.02 | 1.00 | —    | —    | —     |
| (14) Japanese <sup>d</sup>      | .06   | .10   | .17   | .23  | -.05 | -.13 | -.06 | -.06 | -.05 | -.02 | -.02 | -.01 | -.02 | 1.00 | —    | —     |
| (15) Western <sup>d</sup>       | .38   | .59   | .72   | .68  | .09  | -.61 | -.32 | -.30 | -.25 | -.12 | -.11 | -.06 | -.09 | -.06 | 1.00 | —     |
| (16) Year                       | .48   | .56   | .14   | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —     |
| <i>Statistics</i>               |       |       |       |      |      |      |      |      |      |      |      |      |      |      |      |       |
| Mean                            | 6.41  | 21.60 | 7.47  | .18  | .21  | .61  | .24  | .22  | .17  | .04  | .03  | .01  | .02  | .01  | .24  | 19.83 |
| Standard deviation              | 1.97  | 12.08 | 1.62  | .38  | .41  | .49  | .43  | .42  | .37  | .21  | .18  | .10  | .15  | .10  | .43  | 13.55 |
| Minimum                         | .00   | .00   | 4.72  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00  | .00   |
| Maximum                         | 10.20 | 57.68 | 10.71 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 37.00 |

*Data sources and transformations:* <sup>a</sup>UIA (1998, 2000), square root. <sup>b</sup>World Bank (2000), logarithm. <sup>c</sup>Bollen (1983); Bollen and Appold (1993); World Bank (1997). <sup>d</sup>Huntington (1996).

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