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## Culture rules: The foundations of the rule of law and other norms of governance

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**Licht, Amir N., Goldschmidt, Chanan, and Schwartz, Shalom H.**—Culture rules: The foundations of the rule of law and other norms of governance

This study presents evidence about relations between national culture and social institutions. We operationalize culture with data on cultural dimensions for some 50 nations adopted from cross-cultural psychology and generate testable hypotheses about three basic social norms of governance: the rule of law, corruption, and democratic accountability. These norms correlate systematically and strongly with national scores on cultural dimensions and also differ across cultural regions of the world. Using a linguistic variable on pronoun drop as an instrument for cultural emphases on autonomy versus embeddedness points to a significant influence of culture on governance. Using cultural profiles of a previous generation as an instrument indicates relative stability of cultural orientations and of their correlates. The results suggest a framework for understanding the relations between fundamental institutions. *Journal of Comparative Economics* 35 (4) (2007) 659–688. Interdisciplinary Center Herzliya, Kanfe Nesharim Street, Herzliya 46150, Israel; Department of Psychology, Hebrew University of Jerusalem, Jerusalem 91905, Israel.

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## 1. Introduction

Culturally diverse views on the rule of law date from antiquity. 2500 years ago, the city of Athens sentenced Socrates to death for religious heresy and corrupting the youth. In Plato's *Crito*, Socrates refuses to escape from jail. The "Laws," he argues, would come and tell him that by escaping he would break his agreement with them and undermine the stability of the state. Socrates thus restates the classic case for the importance of the rule of law for social order. At about the same time, in equally powerful terms Confucius derided the rule of law as a means for establishing social order in China. In the Confucian vision, not justice but righteousness and social harmony based on role obligations are the symbol of the ideal society.

Today, a central theme in economic research is the quest for social institutions that promote development. The literature focuses on three such institutions, namely, the rule of law, absence of corruption, and democracy.<sup>1</sup> The question whether institutions matter for development is not much in dispute. Using different methodologies, authors hold that institutions exert a profound influence on economic performance and other measures of development, above and beyond feedback effects.<sup>2</sup> The World Bank "views good governance and anti-corruption as central to its poverty alleviation mission" (World Bank, 2007).

In a modern reflection of the divide between Socrates and Confucius, the notion that this set of governance institutions is somehow linked with culture continues to feature in academic and policy-making discussions. "Asian values"—a term that vaguely connotes authoritarian governance—were invoked during the 1990s as an alternative to "Western" governance (e.g., Zakaria, 1994; see Sen, 1999). The idea that bribery has different normative implications across cultures is well known (e.g., Rose-Ackerman, 1999). More generally, Glaeser et al. (2004) contend that beneficial outcomes from colonial settlement in the New World were due less to formal institutions than to imported human capital, which, we would note, includes cultural values and beliefs. At the same time, the experience of many countries with implementing institutional reforms towards curbing corruption and strengthening the rule of law has been mixed (Kaufmann, 2004). The question what are good institutions is being revisited (Glaeser et al., 2004; Bardhan, 2005).

The economics literature has hesitated to address the internal structure of informal institutions. Values and norms are "taken as given by most institutional economists" (Williamson, 2000, p. 596; Becker, 1996); culture is often treated as a "black box" (Acemoglu and Johnson, 2005). Lack of sufficient theory as well as the methodological challenges of operationalizing informal institutions and discerning causality have contributed to the paucity of research on this issue until recently (see Guiso et al., 2006 for a survey).

This study seeks to identify the foundations of informal institutions of governance, in particular, their roots in national culture. We view the rule of law, curbing corruption, and democratic accountability as part of a general category of social norms referred to as "norms of governance." Norms of governance prescribe desirable modes of wielding power—physical, political, economic, or other. Guided by the logic of systemic consistency among social institutions (Roland, 2004; Williamson, 2000), we hypothesize that the prevalence of such norms depends upon the prevailing cultural value orientations in a society. In societies whose primary social institutions

<sup>1</sup> The literature on this subject is burgeoning. See Easterly and Levine (2003) for a review. For sample early works, see Knack and Keefer (1995), Hall and Jones (1999), La Porta et al. (1999), Mauro (1995, 1997), Kaufmann et al. (1999).

<sup>2</sup> See Acemoglu et al. (2001, 2005), Acemoglu and Johnson (2005), Alvarez et al. (2000), Barro (1997), Kaufmann and Kraay (2002), Rodrik et al. (2004), Rigobon and Rodrik (2005).

(culture) legitimize individuals' expression of their own preferences and emphasizes the moral equality of individuals, more specific norms of governance are expected to promote legal entitlements, authority undistorted by bribes, and feedback mechanisms of accountability.

To test these hypotheses, we operationalize the cultural profiles of nations with established theories and empirical data from psychology. We find that such profiles meaningfully predict perceived national differences in adherence to governance norms. Particularly prominent is a cultural dimension addressing the place of individuals in the group as autonomous, bounded entities (autonomy) versus entities embedded in the social fabric (embeddedness).

To assess causality between culture and governance, we draw on the literature on culture and language. According to the Sapir–Whorf hypothesis, language and culture constitute one another, with language being the stable factor that constrains the development of cultural norms. An important feature of languages is the grammatical rule on pronoun drop. In languages that require inclusion of pronouns ('I', 'you') in a sentence, the subject is distinguished from the general context, whereas in languages that license pronoun drop, the subject needs to be discerned from the context. We use the pronoun drop license rule in different languages as an instrument for cultural emphases on autonomy versus embeddedness. The results indicate a significant influence of culture on governance. Cultural emphasis on autonomy and de-emphasis on embeddedness positively affects perceived levels of the rule of law, non-corruption, and the praxis of democracy in nations. Tentative results suggest that democratic accountability norms may also be negatively linked with cultural hierarchy. In line with recent studies on the institutional heritage of different colonial powers, we document a positive effect of British rule on governance. To this familiar observation we add evidence that, among other things, a history of British rule also affects governance through a cultural channel.

## 2. Theory and hypotheses

### 2.1. Relations among informal institutions

The relations among informal social institutions are mostly *terra incognita* in economic theory, notwithstanding their importance to economic performance and policy-making (Guiso et al., 2006; Roland, 2004). New institutional economists view informal institutions, namely, norms, customs, mores, and traditions, as the informal rules of the game (North, 1990). Institutions constitute a stratified system, in which more general institutions constrain the development of more specific ones; informal institutions (i.e., culture) are located at the most basic level (Williamson, 2000). General and more specific social institutions must be systemically consistent (compatible) in order to function (Roland, 2004). In addition to constraining the development of more specific institutions, the prevailing informal institutions in a society may also serve as sources of motivation for and justification of such institutions (Nee, 2005). Culture subsumes both facets of such institutions. It operates as a constraint because it encompasses the unwritten, unspoken rules of the game, and it coordinates people's epistemics and expectations. It is the "societal common knowledge" (Greif and Laitin, 2004). Values directly define what is desirable and create taken-for-granted perceptions of what is "natural" in social relations. Culture operates to motivate and justify action consistent with its values through its impact on policies and on the values of individual actors (Schwartz, 2004).

## 2.2. Dimensions of culture

Definitions of culture abound. Core elements of these definitions—in particular, shared values and beliefs—are shared by all social sciences, including economics and psychology. A common postulate guiding cross-cultural analysis is that all societies confront similar basic issues or problems when they come to regulate human activity (Kluckhohn and Strodtbeck, 1961). Cultures differ in the stances they adopt for coping with these basic issues. These strategies may be seen as societies' primary institutions. Since the classic definition of culture highlights shared values (Kroeber and Kluckhohn, 1952), most mappings of cultures have used values to derive cultural stances. A cultural value dimension refers to a bipolar set of possible cultural stances (orientations) on a basic issue, reflected in emphasis on certain values and de-emphasis on others. It is thus possible to characterize the cultures of different societies by (1) defining the key issues and the corresponding dimensions; (2) measuring the prevailing value emphases representing these key dimensions. This yields unique profiles of countries' most basic institutions.

Schwartz (1994, 1999) has provided the set of cultural value dimensions we mainly use in this study. Based on theories in the social sciences, Schwartz defined three basic issues that confront all societies and derived three corresponding cultural value dimensions. We briefly describe these three value dimensions, the basic issues with which they deal, and the polar orientations of each dimension. The Schwartz framework is currently considered the most advanced in social psychology for several reasons. First, the framework is theory-driven; its central elements are derived from earlier work in the social sciences. Second, and most important, it uses value measures shown to have cross-culturally equivalent meanings at the individual level to operationalize the cultural dimensions. Finally, the data that validate it were collected relatively recently (see Smith et al., 2006).

*Embeddedness/Autonomy:* This dimension concerns the desirable relationship between the individual and the group. Embeddedness refers to a cultural emphasis on the person as embedded in the group and committed to maintaining the status quo, propriety, and restraint of actions or inclinations that might disrupt group solidarity or the traditional order. The opposite pole of autonomy describes cultures in which the person is viewed as an autonomous, bounded entity who finds meaning in his or her own uniqueness. It is possible to distinguish conceptually between two types of autonomy. *Intellectual Autonomy:* A cultural emphasis on the desirability of individuals independently pursuing their own ideas and intellectual directions. *Affective Autonomy:* A cultural emphasis on the desirability of individuals independently pursuing affectively positive experience. Note that autonomy does not imply selfishness.

*Hierarchy/Egalitarianism:* This dimension concerns the ideal way to elicit cooperative, productive activity in society. Hierarchy refers to a cultural emphasis on obeying role obligations within a legitimately unequal distribution of power, roles, and resources. Egalitarianism refers to an emphasis on transcendence of selfish interests in favor of voluntary commitment to promoting the welfare of others whom one sees as moral equals.

*Mastery/Harmony:* This dimension concerns the relation of humankind to the natural and social world. Mastery refers to a cultural emphasis on getting ahead through active self-assertion in order to master, change, and exploit the natural and social environment. Harmony refers to an emphasis on accepting the social and physical world as it is, trying to comprehend and fit in rather than to change or exploit it.

Hofstede (1980, 2001) advanced an earlier dimensional framework for characterizing cultures featuring four dimensions: individualism/collectivism, power distance, uncertainty avoidance,

and masculinity/femininity. His theory and the findings based on it dominate current international business studies. We use this framework for robustness checks below.<sup>3</sup>

### 2.3. Norms of governance and cultural orientations

In a world of asymmetric information and incomplete contracting, power—namely, one's ability unilaterally to affect the interests of others—is ubiquitous. Governance is necessary for curbing the socially intolerable use of power either by ordinary individuals or by ruling elites (what Djankov et al., 2003a define as disorder and dictatorship, respectively). As Bowles (1998 p. 78) notes, “where contracts are incompletely specified or costly to enforce, the ex post terms of an exchange may depend on the normative commitments and psychological makeup of the parties to the exchange.” This suggests a central role for cultural orientations in shaping governance norms because the former affect people's normative commitments and psychological makeup. This also implies, however, that—though societies' need for governance is universal—governance institutions may vary with culture.

Our general hypothesis is that, in the long run, widespread modes of wielding power (governance) should be conceptually consistent with the prevailing cultural orientations in a society (Williamson, 2000; Roland, 2004). Specifically, the requirement for systemic consistency suggests that societies whose cultures emphasize individual uniqueness and view individual persons as moral equals are likely to develop norms that promote societal transparency as a means for social coordination. This better enables societal members to plan their independent moves. In contrast, societies whose cultures view the individual as an embedded part of hierarchically organized groups will discourage such independent moves as inconsistent with socially approved values. These societies are more likely to accommodate exercise of power from above as a means for social coordination. This may compromise legal entitlements (property, contracts, etc.) of individual persons and likely limits transparency.

The rule of law, corruption, and democratic accountability are all social norms of governance in that they prescribe legitimate modes of wielding power. The rule of law limits the freedom of all people with power to use their power only in ways allowed by formal legal rules. In contrast, corruption is a social norm that accepts the use of authority for deriving private gain, notwithstanding legal prohibitions. Democratic accountability subjects holders of political power to duties of disclosure and consultation. Although the rule of law, corruption, and democratic accountability share conceptual similarities, the literature often treats them separately. Following suit, we next briefly overview each of these institutions and derive specific hypotheses regarding their relations to cultural dimensions.

#### 2.3.1. The rule of law

In current economic parlance, the “rule of law” primarily connotes what North (1990) called “protection of property rights” and is generally referred to as a “law and order tradition” or “legality.” This institution encompasses broad societal respect for and protection of legal entitlements including ownership in tangible and intangible property (contractual rights, patents, etc.) and, equally important, personal safety from crime. Legal philosophers advance highly nuanced

<sup>3</sup> Another framework, based on the World Values Survey, is based on post hoc analysis of a broad spectrum opinion poll (see Inglehart and Baker, 2000), and is less appropriate for the purposes of this study. For a detailed comparison of the three frameworks, see Schwartz (2007, 2004).

analyses of the rule of law and its contours. At the core, however, there is law and order, often called the formal or procedural aspect of the rule of law (Fuller, 1964/1969; Rawls, 1971; Raz, 1979). This aspect deals with the degree to which the behavior of individual persons and government authorities follows formal legal rules. The essence of the rule of law is that power ought to be used only in ways allowed by the law (Dicey, 1915). This core meaning is the one we focus on, sidestepping fine distinctions among national legal systems and extreme cases of moral dilemmas.

The logical consequence of cultural emphases on autonomy is to promote the rule of law as an overarching norm. Cultural autonomy defines people as bounded entities who should be encouraged to cultivate their unique ideas and feelings. In high autonomy cultures, individuals need the law as a transparent, a-contextual source of guidance. This would support societal endorsement of law-abidingness and law-based dispute resolution in courts. In contrast, a culture that emphasizes embeddedness is less likely to promote a rule-of-law norm. Obligations and behavior are highly contextual in such societies and are not subject to rigid rules. Enforcement is more likely to be community-based (Greif, 1994). The key values in such cultures—respect for tradition, honoring elders, and obedience—encourage people to seek guidance in sources other than the law. Insistence on one's legal entitlements may be seen as a-social in such cultures.

A cultural emphasis on egalitarianism is also likely to promote a rule-of-law norm, one that entitles all to equal protection under the law. This is because egalitarianism is based upon socialization and exhortation of societal members to treat one another as moral equals. The relations of the rule of law to the harmony/mastery dimension are more ambiguous. Mastery emphasizes assertiveness that could translate into support for people standing up for their rights. But mastery also legitimizes exploiting people to advance personal or group interests, behavior that legal rights are intended to curb. Harmony emphasizes acceptance and preservation of the physical and social world, an approach neither compatible nor incompatible with a rule-of-law norm.

### *2.3.2. Corruption*

Although there is no universal definition of corrupt behavior, the prominent definitions emphasize the use of public office or power for private gain (Bardhan, 1997; Rose-Ackerman, 1998). Corruption is antithetical to the rule of law. Widespread corruption entrenches disrespect for the law (Fisman and Miguel, 2006), renders law enforcement agencies and the judiciary dysfunctional, and distorts private transactions by infiltrating into the sphere of private law (cf. Herzfeld and Weiss, 2003).

Several economic models seek to explain how corruption may emerge and become a stable equilibrium despite its undesirability.<sup>4</sup> History—particularly a colonial heritage—may account for some international variation in the incidence of corruption (Treisman, 2000). But corruption researchers generally agree that culture is a major determinant of corruption (e.g., Rose-Ackerman, 1999). Some take a country's predominant religion as a proxy for its culture, noting that corruption is lower in Protestant countries. There is no agreement, however, about the mechanisms through which religion may affect the incidence of corruption.<sup>5</sup>

<sup>4</sup> See, e.g., Andvig and Moene (1990), Cadot (1987), Ehrlich and Lui (1999), Shleifer and Vishny (1993), Tirole (1996).

<sup>5</sup> The literature is burgeoning. See, e.g., La Porta et al. (1997), Ades and Di Tella (1999), Lipset and Lenz (2000), Treisman (2000), Paldam (2001), see Gerring and Thacker (2004) and You and Khagram (2005) for good surveys. Numerous studies have linked corruption to various political institutions. These studies do not apply to the full set of governance institutions studied here. Some even use one (democracy) to predict the other (corruption). Likewise, some factors mentioned in connection with corruption, like minerals, seem unrelated to governance in general.

We relate corruption to culture directly by drawing on cultural value dimensions (cf. Husted, 1999). Corruption, in the sense of deriving material gain from a power position, entails disrespect for the interest of the less-powerful. Hence it is incompatible with cultural emphases on autonomy and egalitarianism. These cultural emphases therefore support a social norm against bribe-taking. Corruption is more compatible with cultural hierarchy and mastery because they legitimize the use of power and the exploitation of others.

Note, that a culture high on autonomy and egalitarianism does not entail zero incidence of bribe-taking; nor does a culture high on embeddedness and hierarchy entail high esteem for such behavior. The above analysis suggests that the former culture is more likely to socialize its members to restrain themselves from taking bribes and to rebuke those who do. The latter culture is more likely to socialize people to accept bribery as a fact of life.

### 2.3.3. *Democratic accountability*

Accountability is a pervasive concept with a rich history—from Athenian democracy through religious injunctions to the evolution of democratic institutions. Today, accountability features highly in “good governance” programs, oftentimes as shorthand for “democratic accountability.” A norm of accountability obliges holders of power to give an account of their decisions or actions (“transparency”). They are expected to explain or justify them and, in cases of misconduct, to bear responsibility and make amends. A norm of accountability creates feedback channels between the relevant parties.

The sources we use to operationalize accountability concentrate on democratic accountability in the public sphere. They weave together aspects of representative democracy, civil liberties, and voice in general. The cultural orientation of autonomy clearly and directly implies a norm of democratic accountability. Various facets of this norm—including freedom of expression (speech, press, assembly, and demonstration) and of religion as well as rights for information—express values like freedom and broadmindedness that are central to intellectual autonomy. In contrast, embeddedness calls for circumscribing individual freedoms in the name of protecting the social order, security, and interests of the wider social group.

Democratic accountability is also compatible with cultural emphases on egalitarianism. Egalitarianism emphasizes the moral equality of those subject to state power and those who exercise it. An egalitarian culture exhorts all voluntarily to promote the interests of all, despite formal status differences. In contrast, cultural hierarchy legitimizes the pursuit of authority together with submission to authority. This orientation is diametrically opposed to requiring accountability from superiors. Similar to the reasoning about the rule of law, accountability appears less compatible with cultural mastery, which legitimizes self-promotion even at the expense of others. Some societies high on mastery may nonetheless develop norms of accountability to curb excessive exploitation.

## 2.4. *Relations of governance with culture and other factors*

Numerous factors, interwoven with culture, also influence governance. These include economic factors, historical events, and the legal institutions. It is difficult to disentangle the causal relations among all these factors. As feedback mechanisms operate among governance, culture, and economics (Bowles, 1998), many of the social phenomena discussed in this study are determined endogenously. Two aspects of causality arise: (1) between culture and governance and (2) between culture, governance and economic conditions.

Regarding the first aspect, the present framework enables us to draw on the psychology of values to shed light on the mechanism underlying these effects. Cultural value emphases can promote or undermine law-abidingness, for instance, through the personal values that members of society acquire. There is substantial evidence that value acquisition occurs largely during childhood and early adolescence (Goodnow, 1997; Knafo and Schwartz, 2004). Hence, the major influence of culture on individuals' "normative commitments and psychological makeup" (Bowles, 1998) largely occurs before people have reached an age where they recognize the rule-of-law norm, etc. The current average level of law-abidingness in a society is unlikely, therefore, to feed back directly into adults' current value emphases.

With regard to the second aspect, the literature contains numerous discussions about causal relations among culture (sometimes loosely defined), governance institutions, and economic factors. Beyond the oft-stated view that cultures are stable, most economic writers hold that causality runs from governance to economic development, while acknowledging the possibility of positive mutual effects.<sup>6</sup> Advocates of modernization theory in political science argue that economic development leads to value change, which, in turn, affects democracy (Inglehart and Welzel, 2005). Robinson (2006), however, maintains that best-practice econometrics techniques show no evidence that economic development has a causal effect on democracy. Recent works mentioned in the introduction also question whether "virtuous circles," in which higher incomes lead to further improvements in governance, actually exist.

Easterly (2001) reviews a large literature that documents negative associations between economic inequality and economic development. He presents evidence suggesting that inequality causes underdevelopment through, among other things, inferior governance institutions (see also You and Khagram, 2005, with regard to corruption). The negative relations between economic inequality and governance are consistent with our hypotheses, as governance constrains opportunities for exploiting economic power.

Of the numerous historical factors that might relate to governance, we focus on episodes of British rule in countries' history. This factor subsumes several accounts that link initial conditions (e.g., climate and diseases, land and crops) and colonization on the one hand with social institutions and economic development on the other hand (Acemoglu et al. 2001, 2002; Engerman and Sokoloff 2002, 1997; Treisman, 2000). As noted, Glaeser et al. (2004) surmise that such beneficial effect may be due to imported human capital. These works suggest that countries that experienced British rule have enjoyed greater development than countries that did not (see also Easterly and Levine, 2003). We therefore expect a history of British rule to have a generally positive relation to good governance.

### 3. Data

#### 3.1. Measures of culture

##### 3.1.1. The Schwartz data

To measure cultural orientations one needs valid observable markers for these latent variables. The Schwartz framework uses value preferences for this purpose. In earlier work, Schwartz developed an inventory of 57 items intended to include all the motivationally distinct values likely

<sup>6</sup> See Barro (1999), Kaufmann et al. (1999), Mauro (1995), Treisman (2000), Chong and Calderon (2000), Acemoglu and Johnson (2005). Glaeser et al. (2004), who question whether institutions cause growth, focus on formal legal institutions.

to be recognized across cultures. A survey questionnaire asking respondents to rate each of these value items as “a guiding principle in MY life” was administered to respondents on every inhabited continent, anonymously, in their native language. Separate multidimensional scaling analyses of the value items established that 45 items have reasonably equivalent meanings in each country. Only these items are used as markers for cultural orientations. This is critical in order to avoid a situation in which apparent differences might be due to different understandings of the concepts across groups.

Means of ratings of each of the 45 value items within each sample were computed. A multidimensional scaling analysis of the correlations between the sample means confirmed the presence of the cultural orientations and their link to the value items selected a priori to represent each orientation. Orientation scores are the average importance of the value items that represent each orientation. For cross-national comparisons, sample differences in scale use were eliminated by centering the importance ratings of all seven orientations within each sample around its mean. Crucially, the analyses are at the country (culture) level, not the individual level—individuals are unaware of the societal average value emphases (for more detail see Schwartz, 1999, 2004; Smith et al., 2006). Culture scores in the present study are based on a sample of over 15,000 urban teachers who teach the full range of subjects in grades 3–12 in the most common type of school system, surveyed in 1988–1998.

Schwartz (2004) further analyzed the profiles of nations in this sample on the seven cultural orientations using a co-plot method. This analysis, together with judgment based on geographical considerations, suggests that these nations form six major cultural groups (the number of countries is in parentheses): Sub-Saharan African (3), East-Central European (10), English-speaking (6), Far Eastern (10), Latin American (6), and West European (13). Each cultural region differs from all other regions on at least one cultural orientation. We return to this grouping toward the end of this study.<sup>7</sup>

### *3.1.2. The Hofstede data*

Hofstede's (1980, 2001) study originated in an audit of company morale among the employees of the IBM corporation around the world at two points of time: around 1968 and around 1972. Factor analysis of country mean scores in 50 countries and three regions produced the four dimensions mentioned above. Hofstede asserts that comparing IBM subsidiaries shows national culture differences with unusual clarity because they were so homogeneous in terms of employer, kind of work, and education level (Hofstede, 2001).

## *3.2. Measures of governance*

The measures of governance are drawn from the World Bank's Governance Indicators dataset. We use the first round data on three indices called ‘Rule of Law,’ ‘Graft,’ and ‘Voice and Accountability’ (Kaufmann et al., 2003).<sup>8</sup> The items constituting each index reflect how well life in the country succeeds in meeting the expectations implied by the three norms specified above. The rule of law index mainly gauges the traditional concept of “law and order,” incidence of

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<sup>7</sup> In the regressions we also use data for Cyprus (Greek part), Turkey, which may be viewed as Mediterranean, and for Israel (Jewish sample), which is hard to classify.

<sup>8</sup> There is virtually no variability among the different rounds of the Governance Indicators. For example, the data for corruption correlate between 0.96 and 0.99. Kaufmann et al. (2006) note that there has been no worldwide improvement in governance on average.

crime, respect for property rights, and enforceability of private and government contracts. The non-corruption index gauges corruption among public officials and the frequency of “additional payments” to “get things done.” The democratic accountability index concentrates on aspects of democracy, civil liberties, and political rights. Scores on these indices range from about –2.5 to 2.5, with a mean of zero and a standard deviation of one.

The governance indicators are widely used in the literature as measures of institutional quality. The indicators consist primarily of qualitative data, covering a wide range of topics, obtained from varied organizations, and representing the perspectives of diverse observers. The polls used by Kaufmann et al. enabled them to integrate more indicators and to cover a broader set of issues than indices like those constructed by the International Country Risk Guide (ICRG) or Transparency International.<sup>9</sup> Because they are substantially based on perceived measures, these indicators can be seen as approximations of the actual informal institutions we predict. As latent variables, informal institutions cannot be measured directly. These indicators might therefore suffer from cultural biases. Validating the use of perceptions data to measure governance, Kaufmann et al. (2006) find little evidence of ideological biases in expert assessments of corruption. Below, we control for possible overrepresentation of Western perceptions by controlling for religion and British heritage. Unlike the Schwartz indices of culture, however, the governance indicators are not based on data whose consistency of meaning across nations was evaluated.

### 3.3. Other data

To represent economic development in each country, we use the natural logarithm of the average of per capita gross domestic product (GDP) in the period 1990–1998. The data are from the World Bank’s World Development Indicators. Averaging GDP data over a decade-long period serves two goals: First, it smooths out short-term fluctuations. This is particularly appropriate because we deal with long lasting social phenomena. Second, this time frame covers the early 1990s, during which most of Schwartz’s cultural measures were sampled, and the late 1990s (specifically, 1997–1998) to which the governance indices refer. Economic inequality is measured with Gini coefficients based on surveys conducted between 1990 and 1998, taken from the World Bank’s World Development Indicators. As a measure of societal heterogeneity we use a variable for ethnic fractionalization drawn from Alesina et al. (2003). A dummy variable based on Treisman (2000) and the CIA World Factbook indicates whether a country has been under British rule of any kind (United Kingdom, colony, mandate area, etc.).

## 4. Results

This section explicates the extent to which cultural orientations can predict the prevalence of governance norms. Before presenting the results, a few methodological points are in place. First, in the regressions, we enter nations’ full cultural profile in the Schwartz framework by entering all three dimensions. We use only one polar orientation from each dimension to avoid collinearity. Countries’ autonomy orientation that appears in some specifications is the average of their affective and intellectual autonomy scores. Second, readers will note that the findings for the rule of law and non-corruption are very similar. This was to be expected because country scores for these

<sup>9</sup> See, for example, La Porta et al. (1999) (using ICRG’s index); Treisman (2000) (using Transparency International’s index).

two norms correlate very highly in our sample ( $r = 0.94$ ). It may derive from the fact that corruption and the rule of law are antithetical (see Fisman and Miguel, 2006). We report results for both norms throughout because the literature treats them separately. Moreover, the survey items used to construct the respective indices do not overlap. While the two indices purport to gauge separate institutions, the present findings suggest that legality and corruption are two facets of a single social institution. Third, although Kaufmann et al.'s poll-of-polls methodology allows for weighing score variance in the regressions, doing so with the current data increases the overall predicted variance only slightly. We therefore opted to use the more conservative and familiar OLS method.

#### 4.1. General relations of culture and governance

**Table 1** gives a first approximation of the central finding of this study: Social norms of governance correlate strongly and systematically with cultural value dimensions. Summary statistics and a fuller correlation matrix are given in [Appendix Tables A.2 and A.1](#). Countries with high scores for the prevalence of the rule of law and non-corruption are also high on affective and intellectual autonomy and on egalitarianism, and low on embeddedness and hierarchy. Democratic norms exhibit similar and even stronger associations with culture. We also note, without elaboration, that governance norms correlate significantly with cultural dimensions distinguished by Hofstede.

Thus, widespread respect for legal entitlements—a “law and order” tradition—is associated with a distinct profile of cultural values. Apparently, the rule of law is not a universal principle of equal importance regardless of cultural diversity. The same holds for perceived corruption. Finally, the praxis of democracy varies considerably across cultures and is intimately linked with

Table 1  
Relations of norms of governance to cultural value dimensions across countries (Pearson correlations)

Cultural dimension	Norm of governance		
	Rule of law	Non-corruption	Democratic accountability
<i>A. Dimensions from Schwartz</i>			
Embeddedness	-0.66 ***	-0.64 ***	-0.70 ***
Hierarchy	-0.51 ***	-0.57 ***	-0.73 ***
Mastery	-0.19	-0.22	-0.34 **
Affective autonomy	0.55 ***	0.56 ***	0.53 ***
Intellectual autonomy	0.52 ***	0.51 ***	0.62 ***
Egalitarianism	0.50 ***	0.58 ***	0.59 ***
Harmony	0.17	0.21	0.45 ***
Observations	51	50	51
<i>B. Dimensions from Hofstede</i>			
Individualism	0.66 ***	0.71 ***	0.72 ***
Power distance	-0.61 ***	-0.67 ***	-0.66 ***
Uncertainty avoidance	-0.31 **	-0.36 **	-0.11
Masculinity	-0.10	-0.15	-0.02
Observations	49	49	49

*Notes.* Two-tailed Pearson correlations are presented.

\*\* Significant at the 5% level.

\*\*\* Idem, 1%.

particular cultural emphases. The overall consistency of the findings for the three governance norms suggests that they all draw their injunctive force from similar cultural orientations.

**Table 2** presents OLS regressions of norms of governance on culture and other major factors. While not indicative of causality, these regressions are informative about the relative strength of such factors as predictors of governance. National culture alone explains almost half the variance in the level of law-abidingness (columns (1) and (2)) and absence of corruption (columns (5) and (6)) and nearly two thirds of the variance in democratic accountability (columns (9) and (10)). The results are similar whether we use embeddedness or autonomy to represent the respective dimension but the coefficient for embeddedness is somewhat stronger.

A British heritage predicts higher levels of governance (columns (3), (7), (11)), in line with the several accounts in the literature on the positive long-term effect of British colonization. Introducing this historical factor eliminates the effects of the harmony (mastery) dimension—an issue we return to below. The other two cultural dimensions, embeddedness (autonomy) and hierarchy (egalitarianism), continue to predict significantly. The association between these cultural emphases and the rule of law is thus unrelated to a heritage of British rule and to other factors such heritage may reflect, like a common law system or bio-ecological circumstances. Economic inequality predicts both the rule of law (column (3)) and democratic accountability (column (11)) negatively.

Next, we present regressions that include additional factors that might provide alternative accounts of national variation in governance norms (columns (4), (8), (12)). Of the many potential candidates, we include three variables that are commonly used in the literature and thought to have a broad impact on all three social institutions. First, we introduced a dummy variable for Protestantism as a country's dominant religion. [Weber \(1904/1930\)](#) associated Protestantism with individualism. Others (e.g., [La Porta et al., 1999](#)) distinguish Protestantism as less hierarchical than other religions. Protestantism might promote good governance either through its impact on national culture or through other channels. We included ethnic fractionalization because it might put strain on good governance ([Mauro, 1995](#)). We also included a dummy variable for a common law origin of the country's legal system. This variable captures differences in the content of legal rules as well as societal propensities for procedural formalism ([Djankov et al., 2003b](#)). British heritage, however, is a more stringent robustness check on the cultural factors so should be usually preferred.

In brief, none of these control variables substantially reduces the power of cultural embeddedness (autonomy) to predict the governance norms. Hierarchy (egalitarianism) weakens as a predictor of the rule of law and non-corruption but not of democracy. Protestantism predicted the rule of law and non-corruption, but with weaker coefficients than embeddedness. Adding variables for Catholic or Muslim denominations did not change this picture. A heritage of British rule and a common law origin overlap substantially, making it difficult to draw conclusive inferences. For the rule of law and non-corruption the broader variable of British heritage dominates legal origin; for democratic accountability these variables split the variance they accounted for, yielding only weak coefficients.

The low coefficient for ethnic fractionalization in the presence of variables for culture does not mean that the ethnic composition of society is unimportant (see [Mauro, 1995](#); [Hall and Jones, 1999](#); [Easterly, 2001](#)). Ethnic fractionalization increases the salience of people's in-group affiliation and is associated with embeddedness ([Schwartz, 2004](#)). Societal fractionalization is also associated with lower egalitarianism ([Alesina and La Ferrara, 2005](#)). This suggests that national cultural orientations may mediate effects of ethnic heterogeneity on norms of governance.

Table 2  
OLS regressions of norms of governance on Schwartz cultural dimensions and other factors

	Rule of law				Non-corruption				Democratic accountability			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Embeddedness	-0.59 [0.11] ***		-0.60 [0.08] ***	-0.44 [0.14] ***	-0.53 [0.11] ***		-0.60 [0.08] ***	-0.42 [0.12] ***	-0.44 [0.11] ***		-0.40 [0.12] ***	-0.36 [0.11] ***
Autonomy		0.48 [0.11] ***				0.44 [0.13] ***				0.34 [0.09] ***		
Harmony	-0.32 [0.09] ***	-0.27 [0.09] ***	0.01 [0.13]	0.06 [0.16]	-0.32 [0.08] ***	-0.28 [0.09] ***	-0.10 [0.15]	0.12 [0.16]	-0.06 [0.11]	-0.02 [0.09]	0.09 [0.16]	0.17 [0.15]
Hierarchy	-0.37 [0.10] ***	-0.42 [0.10] ***	-0.24 [0.11]	-0.16 [0.11]	-0.48 [0.10] ***	-0.51 [0.11] ***	-0.42 [0.10] ***	-0.23 [0.13] *	-0.52 [0.16] ***	-0.56 [0.15] ***	-0.41 [0.14] ***	-0.40 [0.15] **
British heritage			0.39 [0.12] ***	0.36 [0.13] ***			0.31 [0.12] **	0.55 [0.23] **			0.26 [0.13] *	0.10 [0.16]
Gini			-0.22 [0.13] *				-0.11 [0.10]				-0.21 [0.10] **	
Protestantism				0.26 [0.08] ***				0.27 [0.07] ***				0.17 [0.07] **
Fractionalization					-0.18 [0.11]			-0.12 [0.09]				-0.04 [0.11]
Common law					0.03 [0.09]			-0.10 [0.22]				0.13 [0.14]
R-squared	0.49	0.42	0.75	0.66	0.51	0.46	0.79	0.71	0.64	0.59	0.71	0.67
F-statistic	24.62 ***	19.28 ***	46.46 ***	40.54 ***	24.16 ***	20.78 ***	47.37 ***	42.89 ***	31.04 ***	28.76 ***	16.76 ***	16.82 ***
Observations	51	51	43	51	50	50	42	50	51	51	43	51

Notes. Standardized beta coefficients are presented. Robust standard errors are presented in brackets.

\* Significant at the 10% level.

\*\* Idem, 5%.

\*\*\* Idem, 1%.

#### 4.2. Identifying causality

The mechanisms linking culture with governance do not preclude reverse causality. Taking advantage of this study's theoretical underpinnings in psychology, we argued above that the mechanisms of value acquisition support stability in cultural orientations. Roland (2004) thus classifies culture as a “slow-moving institution.” Putnam (1993) noted the centuries long impact of culture in Italy on the emergent social institutions (see also Tabellini, 2006). The little evidence regarding historical trends in national culture suggests that cultural change is very slow. Guiso et al. (2005) find that biases in cross-national trust that may have been caused by cultural stereotypes formed centuries ago persist to this day. Schwartz et al. (2000) reported very little change in national values in East-Central European countries during the 1990s, despite major changes in legal and economic institutions. The World Values Survey gathered parallel data in a number of countries around the world several times during the past 15 years. Although values did change somewhat, *differences* between nations remained stable (Inglehart and Baker, 2000).

To formally assess causality in the present setting we use two different strategies for constructing instrumental variables in two-stage least squares (2SLS) regressions. First, we use a third variable that is related to culture but not to governance (other than through culture). Second, we use a lagged-period proxy for the central cultural variable of interest.

Our main instrumentation strategy for the embeddedness/autonomy dimension, which looms largest in the preceding analyses, uses a variable derived by analyzing the language spoken in societies. A large literature, often referred to as the Sapir–Whorf hypothesis or Linguistic Relativity hypothesis, holds that culture and language are entwined and mutually constitute one another (Whorf, 1956; Sapir, 1970; Lucy, 1992; Gumperz and Levinson, 1996). According to Whorf (1956, p. 156), “in this partnership [of language, culture, and behavior] the nature of the language is the factor that limits free plasticity and rigidifies channels of development in the more autocratic way . . . Language thus represents the mass mind; it is affected by inventions and innovations, but affected little and slowly.”

A full survey of the relevant literature is beyond the scope of this study. Some of the evidence originally marshaled for this theory has been questioned—e.g., by Pullum (1991), on the number of Eskimo words for snow. The legacy of Chomsky's (1965) Universal Grammar has led many linguists to believe that human language is largely independent of other aspects of cognitive processing or social functioning (MacWhinney, 1998). Psychologists, however, have amassed substantial evidence consistent with the Sapir–Whorf hypothesis with regard to culture and language on the one hand and with cognition, decision making, and behavior on the other hand (see Lehman et al., 2004 for a survey). The upshot is that language affects people's social inferences and value judgments. The grammar of a language may transmit and reproduce culture and social categories (Hill and Mannheim, 1992). Restated in economic parlance, as a relatively stable repository of aspects of the societal “common knowledge,” language functions as a constraint on cultural change.

The cultural dimension of central interest here, embeddedness vs. autonomy, deals with the relations between the individual and the group. This is also the most critical cultural dimension in general (Schwartz, 1999). Kashima and Kashima (1998) have linked this dimension to the linguistic phenomenon known as pronoun drop with regard to person-indexing pronouns ('I', 'you', etc.). Languages vary on the grammatical license to drop the pronoun. While English insists on including a pronoun in a clause in most cases, Spanish licenses pronoun drop but information about the subject can be recovered from the verb. Many South- and East Asian languages, however, license pronoun drop freely while leaving the subject obscured.

Kashima and Kashima (1998) postulate that the requirement to use pronouns in a language or the license to drop them is linked to the degree of psychological differentiation between the speaker and the social context of speech. For example, requiring explicit use of ‘I’ or ‘you’ signals that the person is highlighted as a figure against the context. The license to drop pronouns, particularly to omit ‘I’, reduces the conceptual differentiation between person and context. It should therefore occur more frequently in societies whose cultures emphasize the contextualization of persons more and their uniqueness less. A pronoun drop license constitutes a link between language and cultural knowledge: People who grow up in a society whose language licenses pronoun drop will have honed their skill for discerning the subject individual in the social context from speech or text. This will entrench the view of individuals as embedded in social contexts.

Kashima and Kashima (1998) analyzed pronoun use in 39 dominant languages in 71 countries. They coded whether or not the grammatical rules licensed person-indexing pronoun drop. As expected, such license correlated positively with Schwartz’s embeddedness orientation and negatively with Schwartz’s autonomy and with Hofstede’s individualism. The pronoun drop variable lends itself to use as an instrument for culture in the present study. First, theory and evidence from linguistics and psychology support the assumption that the grammar instrument affects the key cultural variable of embeddedness/autonomy sufficiently exogenously. This instrument, moreover, is unlikely to be susceptible to reverse causal effects from governance norms (the dependent variables) or from related factors such as economic development. Second, it is plausible to assume that the language instrument satisfies the exclusion restrictions in that it does not exert an influence on governance other than through culture. We find no claims that link grammar to governance or to any of the factors mentioned as relevant to governance institutions in the literature (cf. Acemoglu et al., 2001; Miguel et al., 2004; see Acemoglu, 2005 for a discussion).

Table 3 reports first stage results, showing a strong coefficient and significant *F*-tests for the instrument, that indicate that the grammar variable is an appropriate instrument for the cultural variable (subject to the exclusion restrictions). Table 4 presents second stage 2SLS regressions for the three norms of governance, with cultural embeddedness or autonomy instrumented with a dummy variable adopted from Kashima and Kashima (1998) (pronoun drop license present—1, absent—0). For the rule of law and non-corruption (Table 4, panels A and B) both embeddedness and autonomy exhibit strong coefficients, consistent with the hypotheses.<sup>10</sup> British heritage too remains positively linked with these norms of governance but with weaker coefficients than embeddedness/autonomy. Hierarchy, however, is not significant, and neither are economic inequality and ethnic fractionalization. For democratic accountability (panel C) the results are similar, with hierarchy (which is not instrumented) now exhibiting a significant negative sign too. These results indicate a significant influence of culture on governance.

As a robustness check, we repeated the regressions in Table 4 with the rule of law and corruption indices from ICRG for 1999 and with the corruption index from Transparency International for 1999 (not shown). Embeddedness and autonomy retained their strong and significant coefficients throughout. The British heritage variable was significant only with the Transparency International index, however.

The 2SLS framework allows us to assess the effect of culture on governance while considering the influence of economic development. Such an inquiry in an OLS framework would

<sup>10</sup> The IV coefficient estimates are larger than the OLS estimates nearly throughout Table 4. Bearing in mind that some imprecision is inevitable in operationalizing cultural orientations, it is likely that this difference is due to measurement error (see Acemoglu, 2005; cf. Miguel et al., 2004).

Table 3  
First stage regressions of cultural orientations on instrumental variables

Dependent variable	Embeddedness							Autonomy	Harmony	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)			
<i>Instruments</i>										
Pronoun drop	0.43 [0.103]***	0.41 [0.103]**	0.43 [0.10]***	0.36 [0.08]***				-0.45 [0.13]**		
Individualism					-0.58 [0.00]***	-0.56 [0.00]***	-0.58 [0.00]***			
British heritage								-0.53 [0.08]***	-0.55 [0.09]***	
<i>Control variables</i>										
Embeddedness								-0.10 [0.10]	-0.06 [0.15]	
Harmony	-0.35 [0.20]	-0.40 [0.22]*	-0.2 [0.20]	-0.2 [0.20]	-0.26 [0.17]	-0.26 [0.19]	-0.15 [0.16]	0.28 [0.25]		
Hierarchy	0.16 [0.12]	0.1 [0.13]	0.19 [0.12]	-0.14 [0.14]	0.15 [0.09]	0.13 [0.13]	0.14 [0.13]	-0.14 [0.13]	-0.46 [0.08]***	-0.42 [0.08]***
British heritage	0.06 [0.13]	0.03 [0.13]	0.12 [0.13]	0.26 [0.11]	0.21 [0.13]	0.24 [0.13]	0.29 [0.10]**	-0.08 [0.12]		
Gini	0.09 [0.005]				0.11 [0.00]					
Fractionalization		0.23 [0.21]*					0.21 [0.18]*			
In GDP/capita			-0.54 [0.07]***						0.08 [0.08]	
R-squared	0.54	0.54	0.58	0.66	0.66	0.66	0.70	0.47	0.65	0.65
F-statistic	8.39***	7.00***	9.62**	11.57***	12.19***	12.55***	14.83***	8.39***	25.02***	18.98***
F-test for instrument	8.45***	4.88**	8.29**	9.36***	21.87***	10.17***	22.35***	6.45**	29.93***	23.69***
Observations	41	37	41	40	34	30	34	41	51	50

Notes. First stage regressions. Robust standard errors are presented in brackets.

\* Significant at the 10% level.

\*\* Idem, 5%.

\*\*\* Idem, 1%.

Table 4  
Second stage regressions of norms of governance on Schwartz dimensions—language instrument

	A. Rule of law					B. Non-corruption					C. Democratic accountability					
	OLS	(1)	(2)	(3)	(4)	(5)	OLS	(6)	(7)	(8)	OLS	(9)	(10)	(11)	(12)	(13)
Embeddedness	-0.60	-0.86		-0.84	-0.86	-0.79	-0.60	-0.85		-0.88	-0.40	-0.67	-0.36	-0.67	-0.68	
IV: Pronoun drop	[0.08]***	[0.27]***		[0.28]***	[0.29]***	[0.76]**	[0.08]***	[0.27]***		[0.23]***	[0.12]***	[0.23]***	[0.26]	[0.23]***	[0.64]**	
Autonomy		0.83						0.81				0.64				
IV: Pronoun drop		[0.29]***						[0.29]***				[0.23]***				
Harmony	0.01	0.09	0.15	-0.09	0.04	0.03	-0.10	-0.01	0.05	-0.23	0.09	0.04	0.09	0.07	0.05	0.04
	[0.13]	[0.26]	[0.25]	[0.17]	[0.24]	[0.43]	[0.15]	[0.17]	[0.25]	[0.16]	[0.16]	[0.15]	[0.14]	[0.18]	[0.18]	[0.32]
Hierarchy	-0.24	-0.03	-0.05	-0.16	-0.04	0.10	-0.42	-0.16	-0.18	-0.33	-0.41	-0.37	-0.39	-0.47	-0.37	-0.40
	[0.11]**	[0.21]	[0.18]	[0.14]	[0.19]	[0.27]	[0.10]***	[0.19]	[0.19]	[0.18]**	[0.14]***	[0.18]**	[0.16]**	[0.14]***	[0.18]**	[0.27]**
British heritage	0.39	0.57	0.59	0.38	0.54	0.48	0.31	0.51	0.53	0.29	0.26	0.29	0.30	0.31	0.29	0.32
	[0.12]***	[0.21]***	[0.21]***	[0.13]***	[0.20]**	[0.25]***	[0.12]**	[0.21]**	[0.21]**	[0.13]**	[0.13]*	[0.14]**	[0.13]**	[0.14]**	[0.14]*	[0.27]**
Gini	-0.22		-0.15			-0.11				-0.03	-0.21			-0.18		
	[0.13]*		[0.16]			[0.10]				[0.15]	[0.10]**			[0.12]		
Fractionalization			-0.09											0.01		
			[0.11]											[0.09]		
In GDP/capita				0.3											-0.02	
				[0.25]												[0.22]
R-squared	0.75	0.57	0.48	0.72	0.57	0.67	0.79	0.63	0.57	0.77	0.71	0.69	0.65	0.75	0.69	0.71
F-statistic	46.46***	15.16***	15.62***	19.20***	14.48***	19.56***	47.37***	23.60***	31.64***	24.59***	16.76***	15.09***	15.96***	14.78***	13.73***	14.52***
Observations	43	41	41	37	41	40	42	41	41	37	43	41	41	37	41	40

Notes. Second stage regressions. Instrumental variable for embeddedness and autonomy is pronoun drop. Standardized beta coefficients are presented. Robust standard errors are presented in brackets. OLS regressions from Table 3 are provided for comparison.

\* Significant at the 10% level.

\*\* Idem, 5%.

\*\*\* Idem, 1%.

suffer from bias problems due to endogeneity among economic development, governance, and culture (see Beck et al., 2003 for a similar position). For all three norms of governance the coefficient for economic development is not significant; it is virtually nil for democratic accountability (cf. Robinson, 2006). Recall that economic development is represented with the log of average GDP/capita in 1990–1998. This specification stacks the deck against the cultural variables as it allows the influence of economic development to trickle down to cultural values. (Using GDP/capita for 1998 yielded similar results). The present analyses do not prove that economic development is unimportant for governance—a question that has been dealt with extensively and lies outside the present focus. Yet these analyses indicate that culture affects governance above and beyond economic factors.

Ideally, one would want to use a language instrument for the hierarchy/egalitarianism dimension as well. Languages differ in the number of second-person singular pronouns ('you') and the social contexts in which they are used, e.g., *vous* and *tu* in French, *du* and *Sie* in German. Asian languages too feature a variety of second-person pronouns to be used in different hierarchical contexts (Brown and Gilman, 1960; Hall, 1976). Motivated by these observations, Kashima and Kashima (1998) coded whether a language has one or more words for the second-person singular pronoun. This dummy variable exhibited no correlation with Schwartz's hierarchy or Hofstede's power distance in the language sample, rendering it unsuitable for use as an instrument.

Next, consider harmony. In the absence of a linguistic instrument for harmony/mastery, we experimented with an historical variable for British heritage on the theory that a British rule experience may have impacted not only the formal institutions of countries through the introduction of common law (e.g., La Porta et al., 1999) but perhaps also their culture (cf. Schwartz et al., 2000 with regard to Soviet rule experience). The United Kingdom and countries formerly under British rule score significantly lower on harmony than other countries. In fact, the harmony scores of non-English speaking countries with a history of British rule do not differ from those of English-speaking countries, and they are significantly ( $p < 0.01$ ) lower than the harmony scores of other countries.

Explanations for the strong emphasis on mastery and de-emphasis of harmony in English-speaking former British colonies call upon the frontier experience, active development, and the centrality of entrepreneurship. This applies to the settlement colonies including Australia, Canada, New Zealand, and the United States (Schwartz and Ros, 1995). In non-settlement colonies too, British rulers engaged in physical development, including land-use planning and major transportation infrastructures, in addition to transplanting the common law. Lower cultural emphasis on harmony was associated with greater reliance on court litigation in corporate governance disputes and with lower procedural formalism in civil litigation in general (Licht et al., 2005). Today, these countries share an enhanced cultural inclination toward venturing, pragmatic change, and self-assertion.

As already noted, there are several accounts of the reasons behind the different development paths taken by former colonies, including past settler mortality, current bio-ecological conditions, and physical endowments. The historical fact of having been under British rule can serve as an instrument for current cultural emphases on harmony as it is not susceptible to reverse causality from current economic or institutional conditions. Such a dummy variable is consistent with each and any of the accounts that distinguish British from other (mostly Latin) colonization.

Table 5 reports second stage 2SLS regressions of governance on cultural dimensions and economic development. Embeddedness or autonomy are instrumented with pronoun drop and harmony is instrumented with British heritage. (Table 3 reports the first stage results.) We note first that the coefficients for embeddedness/autonomy remain largely intact.

Table 5

Second stage regressions of norms of governance on Schwartz cultural dimensions—pronoun drop and British heritage instruments

	Rule of law			Non-corruption			Democratic accountability		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Embeddedness	−0.92		−0.80	−0.90		−0.79	−0.70		−0.69
IV: Pronoun drop	[0.39] **		[0.99] *	[0.38] **		[1.09] *	[0.27] **		[0.77] **
Autonomy		0.88			0.86			0.67	
IV: Pronoun drop		[0.41] **			[0.39] **			[0.28] **	
Harmony	−0.88	−0.84	−0.73	−0.88	−0.84	−0.74	−0.45	−0.42	−0.46
IV: British heritage	[0.26] ***	[0.26] ***	[0.47] ***	[0.25] ***	[0.24] ***	[0.55] ***	[0.19] **	[0.18] **	[0.52] *
Hierarchy	−0.43	−0.47	−0.14	−0.52	−0.56	−0.26	−0.58	−0.61	−0.56
	[0.25] *	[0.23] *	[0.31]	[0.23] **	[0.21] **	[0.36]	[0.25] *	[0.23] *	[0.36] **
In GDP/capita			0.43			0.38			0.06
			[0.34]			[0.37]			[0.26]
R-squared	0.26	0.15	0.49	0.38	0.31	0.56	0.61	0.56	0.63
F-statistic	10.16 ***	11.78 ***	18.56 ***	16.61 ***	23.18 ***	26.17 ***	14.31 ***	14.44 ***	11.19 ***
Observations	41	41	40	41	41	40	41	41	40

Notes. Second stage regressions. Instrumental variable for embeddedness and autonomy is pronoun drop; instrumental variable for harmony is British heritage.

Standardized beta coefficients are presented. Robust standard errors are presented in brackets.

\* Significant at the 10% level.

\*\* Idem, 5%.

\*\*\* Idem, 1%.

The portion of variance in countries' harmony orientation that is linked to a history of British rule predicts negatively for all three norms of governance. This makes logical sense. In societies that rely more extensively on dispute resolution through flexible and volatile adjudication in a common law system, a culture compatible with such processes (one low on harmony) would likely evolve. This finding supports the notion that in addition to formal legal reform, British colonization may have also impacted the informal institutions of countries, including their culture.<sup>11</sup> We believe, however, that the British heritage variable should usually enter as a direct regressor rather than as an instrument. Since a history of British rule may have impacted governance norms through channels other than cultural harmony the above 2SLS specification might not satisfy the exclusion restrictions.

As a further robustness check, we draw on the Hofstede cultural value dimensions, focusing on individualism/collectivism. Recall that the Hofstede data were gathered in the late 1960s. We use them to predict governance norms some 30 years later. Table 6 presents OLS regressions of the three governance norms on three value dimensions identified by Hofstede, on British heritage, and on economic inequality. These Hofstede dimensions showed significant correlations with governance norms in Table 1. Only the coefficients of individualism are significant in all the specifications; power distance is significant in all but one specification.

Since panel data for the Schwartz cultural dimensions are not available, these results suggest a second strategy for instrumenting culture based on lagged period variables (cf. Barro, 1999). The individualism/collectivism dimension refers to the relationship between individual and group. An individualist orientation values loosely knit social relations in which individuals are expected to care only for themselves and their immediate families. A collectivist orientation values tightly knit relations in which people expect their broad in-group (e.g., extended family, clan) to look after them in exchange for unquestioning loyalty. Schwartz's autonomy/embeddedness dimen-

Table 6  
OLS regressions of norms of governance on Hofstede cultural dimensions and other factors

	Rule of law		Non-corruption		Democratic accountability	
	(1)	(2)	(3)	(4)	(5)	(6)
Individualism	0.41 [0.14]***	0.56 [0.15]***	0.43 [0.12]***	0.62 [0.11]***	0.54 [0.11]***	0.60 [0.14]***
Power distance	-0.32 [0.12]***	-0.25 [0.17]	-0.35 [0.10]***	-0.37 [0.15]**	-0.33 [0.11]***	-0.29 [0.12]**
Uncertainty avoidance	-0.11 [0.17]	0.06 [0.12]	-0.15 [0.15]	0.01 [0.10]	0.13 [0.09]	0.10 [0.12]
British heritage		-0.13 [0.13]		-0.15 [0.10]		-0.13 [0.09]
Gini		-0.21 [0.15]		-0.03 [0.10]		-0.07 [0.10]
R-squared	0.50	0.69	0.59	0.77	0.59	0.65
F-statistic	25.14 ***	18.76 ***	40.97 ***	29.22 ***	30.53 ***	25.32 ***
Observations	49	43	49	43	49	43

Notes. Standardized beta coefficients are presented. Robust standard errors are presented in brackets.

\*\* Significant at the 5% level.

\*\*\* Idem, 1%.

<sup>11</sup> We experimented with instrumenting British heritage with the log of expected settler mortality drawn from Acemoglu et al. (2001). The results are consistent with their account but the small sample size ( $N = 18$ ) prevents reliable inference.

sion and Hofstede's individualism/collectivism overlap conceptually to a degree. (There is less conceptual overlap between other dimensions of the two frameworks; see Schwartz, 2004 for a detailed analysis.) Both concern relations between the individual and the collective and both contrast an autonomous with an interdependent view of people. However, the dimensions also differ. For instance, individualism implies self-interested pursuit of personal goals while selfishness is not a characteristic of cultural autonomy (Schwartz, 2004). The correlation between these dimensions ( $r = -0.57$ ) is substantial but far from complete. With these reservations in mind, we experimented with individualism as a crude lagged instrument for embeddedness and autonomy.

**Table 7** reports second stage 2SLS regressions of governance norms on culture, controlling for British heritage and additional factors. (**Table 3** reports first stage results indicating that individualism is an appropriate instrument.) Both embeddedness and autonomy exhibit significant coefficients in the expected direction, with particularly high ones in the models for democratic accountability. These results suggest that a social institutional environment of law abidingness, absence of corruption, and general adherence to democratic practices is linked to a broad cultural endorsement of individual autonomy, which appears to sustain itself over decades.

#### 4.3. Cultural regions

Lastly, we look at variation in governance from a different perspective by considering culturally similar groups of nations (cultural regions). **Table 8** presents mean scores for governance norms in each of the world's cultural regions identified by Schwartz and the differences in such scores between regions. These differences are tested with Tukey tests, appropriate for post hoc pair-wise comparisons, and with the less stringent  $t$ -tests, that are commonly used in the institutions literature. With regard to all three norms of governance, the English-speaking and West European regions exhibit similar high levels. These two regions score significantly higher than the African, East European, Far Eastern, and Latin American regions on the rule of law and non-corruption. There are no significant differences among the latter sets of nations. With regard to democratic accountability, the English-speaking and West European regions again score higher than all the other regions.

These results point to the existence of two cultural mega-regions in the world in terms of governance. One mega-region consists of the English-speaking and West European nations; the other consists of the remaining regions. This finding supports the notion that the social institutions captured by the indices draw on cultural values that prevail in Western societies but not in others. Although not all nations in each mega-region may differ from all the nations in the other mega-region, overall, compliance with norms of governance is substantially higher in the first mega-region than in the second.

This pattern in the data enriches recent discussions of Western influence on countries' economic outcomes through institutions. Hall and Jones (1999) used the fraction of population with English or other European language as native tongue as an instrument for institutions' quality, on the theory that European influence had been positive or benign. Acemoglu (2005) criticized Hall and Jones's theory, arguing that the positive influence on former colonies may have been due more to European (mostly British) settlement than to formal institutional reforms. Glaeser et al. (2004) also argue that colonists brought about positive outcomes by coming themselves with their better education, a form of human capital. The present findings suggest an extension to these views: The capital European settlers brought with them may have included social

**Table 7**  
Second stage regressions of norms of governance on Schwartz cultural dimensions—individualism

	Rule of law			Non-corruption			Democratic accountability		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Embeddedness	-0.61		-0.81	-0.62		-0.92	-0.99		-0.94
IV: Individualism	[0.31] <sup>*</sup>		[0.31] <sup>**</sup>	[0.30] <sup>**</sup>		[0.29] <sup>***</sup>	[0.20] <sup>***</sup>		[0.21] <sup>***</sup>
Autonomy		0.54			0.55			0.87	
IV: Individualism		[0.30] <sup>*</sup>			[0.30] <sup>*</sup>			[0.24] <sup>***</sup>	
Harmony	0.18	0.28	-0.09	0.05	0.16	-0.26	-0.16	0.00	-0.22
	[0.27]	[0.25]	[0.20]	[0.24]	[0.25]	[0.66]	[0.12]	[0.10]	[0.13]
Hierarchy	-0.11	-0.15	-0.14	-0.24	-0.29	-0.30	-0.21	-0.29	-0.27
	[0.22]	[0.21]	[0.18]	[0.21]	[0.21]	[0.16] <sup>*</sup>	[0.14]	[0.18]	[0.13] <sup>*</sup>
British heritage	0.62	0.65	0.40	0.56	0.60	0.32	0.25	0.30	0.27
	[0.21] <sup>***</sup>	[0.22] <sup>***</sup>	[0.14] <sup>**</sup>	[0.21] <sup>**</sup>	[0.22] <sup>***</sup>	[0.15] <sup>**</sup>	[0.55] <sup>*</sup>	[0.17] <sup>*</sup>	[0.14] <sup>*</sup>
Gini			-0.15			0.02			-0.01
			[0.18]			[0.14]			[0.11]
R-squared	0.56	0.51	0.70	0.62	0.58	0.74	0.70	0.56	0.77
F-statistic	10.10 <sup>***</sup>	8.24 <sup>***</sup>	13.24 <sup>***</sup>	20.53 <sup>***</sup>	18.75 <sup>***</sup>	15.10 <sup>***</sup>	14.16 <sup>***</sup>	11.57 <sup>***</sup>	16.57 <sup>***</sup>
Observations	34	34	30	34	34	30	34	34	30

Notes. Second stage regressions. Instrumental variable for embeddedness and autonomy is Hofstede's individualism.

Standardized beta coefficients are presented. Robust standard errors are presented in brackets.

\* Significant at the 10% level.

\*\* Idem, 5%.

\*\*\* Idem, 1%.

Table 8

Comparison of differences in mean scores on the rule of law, non-corruption and accountability across cultural regions identified by Schwartz

	Mean	AF	EE	ES	FE	LA
<i>A. Rule of Law</i>						
Africa	0.21					
Eastern Europe	0.16	0.05				
English-speaking	1.47	1.26***#	1.30***			
Far East	0.50	0.29	0.34	0.97***#		
Latin America	-0.05	0.26	0.21	11.52***	0.55	
Western Europe	1.41	1.2***	1.24***	0.06	0.91***	1.46***
<i>B. Non-Corruption</i>						
Africa	-0.23					
Eastern Europe	0.07	0.30				
English-speaking	1.67	1.90***	1.60***			
Far East	0.40	0.63*	0.33	1.27***		
Latin America	-0.11	0.12	0.17	1.78***	0.51	
Western Europe	1.58	1.81***	1.51***	0.09	1.18***	1.69***
<i>C. Democratic Accountability</i>						
Africa	-0.33					
Eastern Europe	0.62	0.95***#				
English-speaking	1.43	1.76***	0.82***#			
Far East	0.04	0.37	0.58	1.39***		
Latin America	0.35	0.68	0.26	1.08***	0.31	
Western Europe	1.47	1.80***	0.85***	0.04	1.43***	1.12***

Notes. Differences between mean scores of cultural regions are presented. Cultural regions' codes and number of countries: Africa—AF (3); Eastern Europe—EE (10); English-speaking—ES (6); Far East—FE (10); Latin America—LA (10); Western Europe—WE (13).

\* Significant by both Tukey and *t* tests at the 10% level.

\*\* Idem, 1%.

\*\*\*# Significant by *t*-test alone at the 1% level.

capital in the form of cultural values and beliefs that support beneficial governance institutions.

## 5. Conclusion

Past examinations of culture in institutional economics have tended to treat culture as a black box or to focus on aspects of hierarchy and authority in social institutions (e.g., La Porta et al., 1999; Tabellini, 2006). Identifying “culture” with differences in authoritarianism has also been prevalent in policy writings—in particular, on “Asian values.” In many cases, national culture has been represented with measures relating to religion. This study deploys a new analytical framework to investigate the structure of informal institutions, drawing on theory and data from psychology. Integrating modes of analysis from a different discipline is a taxing enterprise. Yet the findings gained justify this effort as they offer new insights into fundamental questions.

We document a substantial influence of cultural orientations on governance. We find partial support for the relevance of aspects of authority and hierarchy to governance. Yet this cultural factor constitutes only part of the picture. We find that the cultural dimension of autonomy ver-

sus embeddedness affects governance most significantly. This finding was possible thanks to the cross-cultural psychological framework. Indeed, we conjecture that the economics literature may have overlooked this dimension because notions of different construals of the self, now established in social psychology (Markus and Kitayama, 1991), are still somewhat foreign in economics (cf. Greif, 1994).

Cultural orientations represent general societal emphases that are deeply ingrained in the functioning of major societal institutions, in widespread practices, in symbols and traditions, and, through adaptation and socialization, in the values of individuals. This process of value acquisition is sensitive to actual circumstances more than to formal reform and indoctrination. As a result, cultural value emphases may preserve and perpetuate the imprint of ancient intellectual legacies and historical initial conditions (Inglehart and Baker, 2000; Putnam, 1993; Schwartz and Ros, 1995; Schwartz et al., 2000). Cultural differences along the autonomy/embeddedness dimension, at least when North American and Confucian-influenced cultures are compared, are further accompanied by markedly different epistemologies and cognitive styles (Nisbett et al., 2001; Peng et al., 2001).

The present findings may have significant implications for development projects around the world and, in particular, for institutional reform programs. But how culture should be factored into development programs is far from obvious. Particular cultural profiles in major world regions are less compatible with “good governance,” as defined in these programs, than the profiles in West European and English-speaking countries. These findings may warrant rethinking of development programs. For instance, providing people with comprehensive rights and freedoms—and, more fundamentally, with ample individual choice—runs counter to the societal emphasis on embeddedness that is common in many Asian, African and other countries. It follows that policies that champion strengthening individual agency—such as Sen’s (1999) “development as freedom” thesis or the World Bank’s empowerment strategy—may be difficult to implement in these countries.

Our limited knowledge at this point makes it difficult to prescribe alternative reform strategies. The strength of linkage between governance norms and culture documented here lends support to the view that perhaps, for some countries, culture might create vicious circles of underdevelopment (Harrison and Huntington, 2000). However, as Djankov et al. (2003a) argue, there may be different yet equally efficient combinations of social institutions.<sup>12</sup>

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<sup>12</sup> We are grateful to an anonymous reviewer for suggesting this point.

Appendix Table A.1

Correlation matrix of main explanatory variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Embeddedness	1.00												
(2) Hierarchy	0.59	1.00											
(3) Mastery	0.11	0.39	1.00										
(4) Affective autonomy	-0.77	-0.28	0.10	1.00									
(5) Intellectual autonomy	-0.90	-0.58	-0.35	0.60	1.00								
(6) Egalitarianism	-0.66	-0.72	-0.33	0.25	0.61	1.00							
(7) Harmony	-0.54	-0.53	-0.36	0.11	0.61	0.57	1.00						
(8) Individualism	-0.57	-0.38	-0.06	0.58	0.42	0.41	0.01	1.00					
(9) British heritage	0.25	0.25	0.45	0.11	-0.40	-0.26	-0.71	0.40	1.00				
(10) Gini coefficient	0.58	0.44	0.13	-0.59	-0.55	-0.28	-0.37	-0.51	0.13	1.00			
(11) Fractionalization	0.46	0.29	0.11	-0.32	-0.38	-0.42	-0.33	-0.30	0.02	0.43	1.00		
(12) ln GDP/capita	-0.74	-0.72	-0.17	0.54	0.68	0.61	0.26	0.74	0.07	-0.59	-0.48	1.00	
(13) Pronoun drop	0.62	0.49	0.26	-0.69	-0.47	-0.36	-0.09	-0.82	-0.22	0.49	0.26	-0.69	1.00

Appendix Table A.2

Descriptive statistics of main variables

	Mean	Median	Standard deviation	Minimum	Maximum	Observations
Embeddedness	3.79	3.82	0.35	3.04	4.50	51
Hierarchy	2.26	2.16	0.50	1.41	3.63	51
Mastery	3.79	3.75	0.20	3.39	4.41	51
Affective autonomy	3.28	3.29	0.46	2.16	4.31	51
Intellectual autonomy	4.41	4.38	0.40	3.70	5.42	51
Egalitarianism	4.81	4.83	0.29	4.25	5.39	51
Harmony	4.22	4.25	0.37	3.35	4.91	51
Individualism	43.94	38.50	25.85	6.00	91.00	50
British heritage	0.26	0.00	0.44	0.00	1.00	69
Gini coefficient	38.16	36.10	10.39	19.50	60.00	59
Fractionalization	0.37	0.39	0.24	0.00	0.93	69
In GDP/capita	9.01	9.05	0.93	6.35	10.30	69
Pronoun drop	0.65	1.00	0.48	0.00	1.00	57

Appendix Table A.3

Schwartz cultural orientation scores and regions, and pronoun drop

Country	Cultural region <sup>*</sup>	Embed-dedness	Hierarchy	Mastery	Affective autonomy	Intellectual autonomy	Egalitar-iianism	Harmony	Pronoun drop <sup>**</sup>
Argentina	LA	3.625	1.799	3.720	3.426	4.551	5.098	4.266	1
Australia	ES	3.847	2.156	3.748	3.391	4.197	4.921	4.129	0
Austria	WE	3.186	1.661	3.721	3.889	4.965	5.059	4.622	0
Bolivia	LA	4.214	2.693	3.694	2.362	4.834	4.834	4.260	
Bulgaria	EE	3.800	2.318	3.774	3.113	4.263	5.037	4.040	1
Brazil	LA	4.026	2.589	3.838	3.035	4.269	4.249	4.251	1
Canada	ES	3.521	1.688	3.930	3.707	4.572	4.985	4.199	0
Chile	LA	3.902	2.103	3.540	2.465	4.384	5.109	4.493	1
China	FE	3.738	3.630	4.407	3.203	4.311	4.312	3.762	1
Cyprus	ME	4.194	1.982	3.658	2.661	3.833	5.061	4.323	
Czech Republic	EE	3.768	2.067	3.447	3.069	4.594	4.589	4.661	0
Denmark	WE	3.289	1.732	3.740	4.083	4.772	5.147	4.320	0
Estonia	EE	4.078	1.880	3.444	2.924	4.106	4.752	4.663	
Finland	WE	3.532	1.696	3.393	3.612	4.843	5.026	4.586	0
France	WE	3.097	1.976	3.574	4.310	5.367	5.183	4.495	0
Georgia	EE	4.245	2.462	3.624	3.255	3.863	4.742	4.094	
Germany	WE	3.183	1.905	3.752	3.751	4.919	5.140	4.706	0
Ghana	AF	4.300	2.651	4.149	2.163	3.941	4.854	3.433	0
Greece	WE	3.469	1.775	4.126	3.828	4.427	4.979	4.683	1
Hong Kong	FE	3.872	2.817	3.935	2.970	4.233	4.612	3.611	1
Hungary	EE	3.727	2.044	3.740	3.349	4.461	4.507	4.384	0
India	FE	3.913	3.371	4.162	3.541	4.019	4.494	3.979	1
Indonesia	FE	4.503	2.652	3.619	3.118	3.696	4.325	3.992	1
Ireland	ES	3.598	1.858	3.835	3.616	4.383	4.987	3.897	0
Israel	NC	3.823	2.467	3.867	3.512	4.416	4.857	3.352	1
Italy	WE	3.611	1.467	3.6	2.842	4.863	5.376	4.905	1
Japan	FE	3.547	2.582	3.973	34.73	4.731	4.466	4.302	1
Macedonia	EE	4.048	2.947	3.879	2.676	4.272	4.475	4.140	
Malaysia	FE	4.332	2.352	3.830	2.994	4.095	4.497	3.681	1
Mexico	LA	3.792	2.298	3.841	3.125	4.476	4.774	4.576	1
Namibia	AF	4.020	2.491	4.055	3.291	4.003	4.599	3.561	

Appendix Table A.3 (*continued*)

Country	Cultural region *	Embed-dedness	Hierarchy	Mastery	Affective autonomy	Intellectual autonomy	Egalitar-ianism	Harmony	Pronoun drop **
Nepal	FE	4.276	3.159	4.119	2.890	3.905	4.703	4.156	
Netherlands	WE	3.355	1.997	3.801	3.651	4.776	5.083	4.192	0
New Zealand	ES	3.471	2.155	3.856	3.862	4.469	5.027	4.193	0
Norway	WE	3.550	1.411	3.619	3.291	4.667	5.285	4.635	0
Philippines	FE	4.071	2.570	3.727	2.898	3.983	4.603	4.084	1
Poland	EE	4.051	2.505	3.638	3.038	4.237	4.546	4.235	1
Portugal	WE	3.513	1.845	3.901	3.407	4.514	5.388	4.570	1
Russia	EE	4.043	2.499	3.657	2.946	4.242	4.641	4.254	1
Singapore	FE	4.213	2.728	3.619	2.947	3.782	4.691	3.979	1
Slovakia	EE	4.049	2.113	3.706	2.611	4.145	4.578	4.526	
Slovenia	EE	3.816	1.438	3.466	3.416	4.927	4.581	4.774	
Spain	WE	3.363	1.840	3.681	3.587	4.984	5.203	4.636	1
Sweden	WE	3.234	1.728	3.610	3.965	5.072	4.960	4.540	0
Switzerland	WE	3.043	2.085	3.740	4.132	5.420	4.979	4.526	0
Taiwan	FE	4.048	2.618	3.873	2.963	3.8732	4.394	4.224	1
Turkey	ME	4.026	3.049	3.777	3.076	4.288	4.909	4.309	1
United Kingdom	ES	3.552	2.337	3.876	3.862	4.423	4.998	3.814	0
United States	ES	3.771	2.073	3.924	3.513	4.212	4.799	3.694	0
Venezuela	LA	3.943	2.095	3.859	3.086	4.359	4.734	4.026	1
Zimbabwe	AF	4.068	2.779	4.115	3.502	3.850	4.311	3.573	

\* AF, EE, ES, FE, LA, ME, NC, WE—respectively: Africa, Eastern Europe, English-speaking, Far East, Latin America, Mediterranean, Not Classified, Western Europe.

\*\* 0 = no pronoun drop license; 1 = pronoun drop license. Source: Kashima and Kashima (1998).

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