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Working Paper

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ILE Working Paper Series, No. 85

Provided in Cooperation with:

University of Hamburg, Institute of Law and Economics (ILE)

Suggested Citation: Gutmann, Jerg; Lewczuk-Czerwińska, Anna; Lewkowicz, Jacek; Voigt, Stefan (2025) : Culture and constitutional compliance, ILE Working Paper Series, No. 85, University of Hamburg, Institute of Law and Economics (ILE), Hamburg

This Version is available at:

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INSTITUTE OF LAW AND ECONOMICS
WORKING PAPER SERIES

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Working Paper 2025 No. 85

Oktober 2025



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Culture and constitutional compliance

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This research is part of a Beethoven project funded by the Polish National Science Centre (NCN, #2016/23/G/HS4/04371) and the Deutsche Forschungsgemeinschaft (DFG, #381589259). The authors thank Abishek Choutagunta, Marek Endrich, Niclas Berggren, Katharina Luckner, Hashem Nabas, Eva Nissioti, Dina Rabie, Eman Rashwan, Roee Sarel, Betül Simsek, and participants of the Association for the Study of Religion, Economics, and Culture Conference, the German Law and Economics Association Conference, the European Public Choice Society Conference, NOUS, and research seminar participants in Hamburg, Milan, and Paris for helpful comments and suggestions.

Culture and constitutional compliance

Abstract

Constitutions as the formal foundation of a country's legal and political system have important economic and political effects. Yet, we still know little about why constitutions set effective constraints on politicians in some societies, while being largely disregarded in others. Here, we ask if national culture matters for constitutional compliance. We study a cross-section of 115 countries, making use of novel indicators of constitutional compliance. We find that societies with a more individualistic population exhibit higher levels of compliance. These results are robust and extend to instrumental variable estimations. They imply a novel transmission channel from cultural traits to long-term economic development: individualistic national culture increases the credibility of constitutional self-commitments. Our analysis also supports the more general idea that the effects of formal institutions depend on the informal institutional environment in which they are embedded. Regarding religion, our results are consistent with past research that attributes the lack of development in the modern Muslim world to deficient institutional quality.

Keywords: Constitutional compliance; culture; individualism; Islam; long-term orientation; moral universalism; power distance; rule of law.

JEL-Codes: H11; K10; K42; P48; Z10; Z12; Z18.

1. Introduction

Reading a country's constitution to learn about its political and legal system is informative in some cases and unenlightening in many others. But why do some governments behave strictly in accordance with the rules laid down in their country's constitution, while others do not? Although this question concerns the basic functioning of countries' political and legal systems and is, therefore, of great policy relevance, we still know surprisingly little about the causes of constitutional compliance.

Economists have for some time pointed toward the effectiveness of government constraints as a key challenge in economic development. Acemoglu and Robinson (2019, 2023) call states that are strong enough to enforce laws while simultaneously being restrained in their actions "shackled Leviathans". They represent a desirable but fragile equilibrium between too much state capacity and too much capacity of society. Acemoglu and Robinson (2022) argue that a culture that is conducive to sustaining a shackled Leviathan should have three traits: (1) a suspicious attitude towards those who are politically powerful, (2) trust in impersonal institutions and the political hierarchy that is associated with them, and (3) a strong belief in popular sovereignty. Here, we are interested in empirically evaluating which national cultural traits are conducive to putting the Leviathan in constitutional shackles. While a shackled Leviathan could, in theory, exist without an effectively enforced constitution, modern societies predominantly rely on formal law to organize their social and political order and to set limits on legitimate government action (Elkins et al. 2009; North and Weingast 1989). In line with this reasoning, empirical evidence confirms that countries in which the government respects the constitution enjoy higher growth rates (Lewczuk and Metelska-Szaniawska 2025).

For a long time, culture has been ignored in mainstream economics. This has radically changed in recent years (see, e.g., Acemoglu and Robinson 2025; Alesina and Giuliano 2015; Giuliano 2020; Guiso et al. 2006; Kuran 2018). The academic quest for the deep determinants of economic development has certainly contributed to economists' newfound interest in the economic and social consequences of culture. Tabellini (2008a, 2008b, 2010) conducted some of the seminal studies on how culture, institutions, and economic development are linked to each other. He shows that having a favorable national culture is associated with better legal enforcement and higher income. Recent research by Gorodnichenko and Roland (2011, 2017, 2021) is also closely related to our research question. They find that one particular cultural trait, namely individualism, not only explains cross-country differences in growth and productivity, but also in innovativeness and the establishment of democracy.

We add to the extant literature on culture, institutions, and development by focusing on the relationship between culture and a very specific group of institutions, namely those codified in constitutions (Elkins and Ginsburg 2021). Constitutions frequently include the most important institutions used to organize a society's economic, political, and social life. If institutions are defined as commonly known rules for structuring recurrent interactions that are endowed with a sanctioning mechanism, then constitutions can be thought of as the most fundamental layer of a society's codified institutions. Thus, our research question deals with an under-researched aspect of the relationship between culture and formal institutions (see Alesina and Giuliano 2015 for a survey of that literature). More specifically, we are interested in the cultural traits of societies that determine whether a government is likely to comply with the promises made in the constitution. In terms of constitutional promises, we focus on protections granted to

citizens (e.g., regarding property ownership, physical integrity, free political association, or free expression), particularly vis-à-vis their government.

While a literature has emerged in recent years that has sought to explain differences in constitutional compliance across countries (e.g., Bologna Pavlik and Young 2025; Choutagunta et al. 2024; Grajzl et al. 2025; Gutmann et al. 2024a; Kantorowicz and Voigt 2025; Lewkowicz and Lewczuk 2023; Lewkowicz et al. 2024), these studies have not analyzed its possible deep (or long-run) determinants—most of them exclude such factors explicitly from their analysis by controlling for country fixed effects. In other words, they have focused on factors that can change from year to year, whereas we are interested here in the relevance of fundamental cultural traits, which typically vary little, even over the course of decades (Schulz et al. 2019; Williamson 2010). This is, therefore, the first study to ask whether factors outside political decision makers' control shape the extent to which governments comply with their country's national constitution.

Our sample covers up to 115 countries for which data on both culture and constitutional compliance are available. To measure national culture, we rely on data sources that are widely recognized in the economics literature. "Generalized morality" is an indicator capturing values relevant to economic transactions and was introduced by Tabellini (2008a, 2010). Individualism, power distance, and long-term orientation have been measured by Hofstede et al. (2010) and are the most well-established indicators of culture in cross-national economic studies. Finally, Muslim population shares are used as a proxy for the influence of the most important major religion that has been linked to systematic cross-country differences in institutional quality and political accountability (Kuran 2010, 2018). To measure constitutional compliance, we rely on an indicator developed by Gutmann et al. (2024b). It captures the degree to which the provisions in a

national constitution are implemented in practice. The 14 types of constitutional rules underlying the indicator cover four distinct legal areas (property rights and the rule of law, political rights, civil liberties, and basic human rights). To address endogeneity concerns that may arise even though the fundamental cultural traits we are interested in hardly vary over time, we estimate instrumental variable regression models with instrumental variables that have been validated in past studies.

We find that having an individualistic population is conducive to higher constitutional compliance by the government, whereas a higher Muslim population share is linked to reduced constitutional compliance. These results are robust to different estimators and model specifications. Both effects are even robust to controlling for democracy, although that reduces the effect size by almost 50%. Generalized morality, power distance, and long-term orientation exhibit the expected sign and are significant in individual estimations, but their estimated effects are not robust. Among other major religions, only Protestantism also seems to be associated (positively and robustly) with constitutional compliance. That seems consistent with claims about Protestant doctrine encouraging independent thought and religious individualism.

The remainder of this article is structured as follows. In the next section, we define our key terms and discuss general theoretical connections between culture and constitutional compliance, before hypothesizing which cultural traits are particularly conducive or detrimental to constitutional compliance. Section 3 describes our data and the estimation approach. In Section 4, we discuss our empirical results, and Section 5 concludes.

2. Concepts and Theory

2.1. Definitions

Culture has been defined in countless ways. Here, we follow Guiso et al. (2006) in defining culture as “those customary beliefs and values that ethnic, religious and social groups transmit fairly unchanged from generation to generation” (Guiso et al. 2006, p. 23). Two aspects of this definition are worth emphasizing. First, it includes both beliefs and values. Whereas beliefs describe people’s understanding of how the world works, values refer to their convictions concerning how it ought to be organized. The second aspect is that culture is largely time-invariant (or slow-moving, as described by Roland 2004). Williamson (2010) proposes the very crude rule of thumb that culture and informal institutions change once in a century, whereas formal institutions, such as constitutions, change about once in a decade. This feature of culture is important to consider when studying its potential influence on institutions or on economic development. In line with this definition, many empirical studies treat culture as plausibly exogenous. However, there are also some established instrumental variables, based on geography or major historical events, that can make causal identification even more credible.

Constitutions define constitutional actors and allocate competences and obligations to them. In modern times, constitutions typically also contain a catalog of rights that the country’s citizens or inhabitants are supposed to enjoy. We speak of constitutional compliance, if the members of the executive branch of government follow and enforce the rules laid down in the constitution. To ascertain the level of constitutional compliance, one has to compare the *de jure* provisions of a constitution with the constitutional reality, as implemented by the executive (see, e.g., Voigt 2021).

Two aspects of our definition of constitutional compliance are noteworthy: First, we do not resort to some universal rights standard as a benchmark, but we consider only the rules in the national constitution of each country. This implies that every country defines its own benchmark. Second, constitutional compliance is related to but not synonymous with the rule of law. The central trait of the rule of law is that all members of society are subject to the same general and predictable rules. If a government complies with the national constitution, its actions do not automatically follow the rule of law, and vice versa.

Although constitutional compliance, as operationalized in this study, leaves the decision which rights and principles shall be protected to every nation, its measurement is still partially based on a normative judgement—in the sense that the list of rights and principles under consideration is comprised of important elements of a Western conception of limited government. A government that is, for example, in full compliance with a totalitarian constitution or with religious scripture that enjoys constitutional status might still not reach a high constitutional compliance score, because these rules might not be among the 14 rules on which the constitutional compliance indicator is based.¹

¹ While highlighting this information is important for the correct interpretation of our results, it is by no means accidental that constitutional compliance is not based on a more nihilistic operationalization. If the strict enforcement of a totalitarian constitution that prescribes, e.g., a fascist political and social order would be considered constitutional compliance, then the expected benefits of an enhanced credibility of the government would be largely irrelevant (see Bernholz 1991).

2.2. Culture and Constitutional Compliance

Although constitutions are the most basic layer of the formal institutions of society, their implementation is not guaranteed, as there is no formal authority that could ensure the proper implementation of constitutional rules. Constitutions must be self-enforcing, i.e., members of the executive cannot make themselves better off by overstepping constitutional constraints (Mittal and Weingast 2013; Weingast 1997, 2005). Compliance with constitutional rules, thus, critically depends on politicians' expectation that others are willing to incur costs to punish transgressions against the constitution (Gutmann et al. 2025; Hurwicz 2008; Weingast 1997, 2005). This trait of constitutional rules makes culture a potentially important factor in explaining constitutional compliance.²

Even if members of the executive consider reneging on constitutional rules, constitutional compliance can still be secured via four mechanisms: violations can be sanctioned by (1) the citizens, (2) veto players, (3) the politicians themselves, and (4) the international community. Any behavior that increases the cost of noncompliance from the point of view of the executive can serve as a sanction. Our analysis focuses on the first three of those mechanisms, as they can be influenced by national culture.

Citizens can react to constitutional noncompliance by politicians in a variety of ways. They can, for example, participate in demonstrations or strikes or they can organize themselves in civil society organizations (see, e.g., Gutmann et al. 2021). To organize protest that is costly to the members of the executive, citizens need to coordinate their behavior. The ability to overcome the dilemma of collective action might be aided by specific cultural norms, which may, for example, set focal points (Olson 1965; Schelling

² See also our discussion of Acemoglu and Robinson's "narrow corridor" in the introduction.

1960; Weingast 1997). Solidarity norms prescribing that one should come to support those who have been treated wrongly, in particular by representatives of the state, are but one example of such norms (see also Guiso et al. 2011 on civic capital). Cultural norms may not only facilitate protest, but they can also affect the propensity of citizens to vote, to participate in civil society organizations, as well as their preferences as voters. At least in democracies, citizens can punish politicians or their parties by voting them out of office (Fiorina 1978). All these potential actions by citizens can set incentives for politicians to comply with the constitution. This is the primary idea of Acemoglu and Robinson (2019, 2022) for how the leviathan can be put in shackles, as discussed in the introduction.

The second mechanism is related to the behavior of veto players. Veto players are actors who have the capacity to block a change to the political *status quo* (Tsebelis 2002). Applied to constitutional compliance, this could refer to the ability of the legislature or the judiciary to stop members of the executive from violating constitutional rules. If cultural norms demand or encourage such interventions from the members of these branches of government, this incentivizes constitutional compliance by the executive.

It is not necessarily only constraints imposed by others that make politicians follow constitutional prescriptions. If their ethics dictate strict compliance with rules, then breaking a rule to make oneself better off might be prohibitively costly in many cases. This is the third mechanism by which culture can change the likelihood of constitutional compliance (Congleton 2020 analyzes the relevance of ethics for politicians' behavior).

Although these three mechanisms can be clearly delineated from each other in theory, it is close to impossible to ascertain their individual relevance empirically. Rather than probing into such transmission channels, we ask next which cultural traits are likely to enhance or hinder compliance with the constitution by members of a country's executive.

2.3. Cultural Norms Conducive to Constitutional Compliance

Today, most constitutions claim that everybody is to be treated alike, independent of their personal characteristics, such as age, gender, race, religion, or income (Elkins et al. 2009, p. 86). Cultural norms congruent with such stipulations may be expected to lead to higher constitutional compliance (see, e.g., Berkowitz et al. 2003a, 2003b on the effectiveness of legal transplants). However, we are not interested in measuring the match between cultural norms and constitutional rules (as, e.g., stressed by Acemoglu and Jackson 2017). Instead, we try to identify cultural norms that are conducive (or detrimental) to constitutional compliance largely independent of the constitutional rule in question. We argue that three common national cultural traits can be expected to play an important role: (1) the level of differentiation between ingroups and outgroups in society, (2) the rate at which future benefits of today's compliance are discounted, and (3) whether a dominant religion claims supremacy over humanly devised law and demands state enforcement of inequalities among members of society.

Individualism describes a preference for a loosely knit social framework in which individuals are expected to take care of themselves and their immediate family. In contrast, collectivism describes a preference for a tightly knit social framework in which individuals expect their relatives or members of their in-group to look after them in exchange for loyalty to that family or social group (Hofstede et al. 2010). Individualistic societies are characterized by moral values that reflect universal impersonal principles, such as fairness, individual rights, and justice. These principles emphasize the welfare of all individuals in society equally. Collectivistic societies exhibit a morality that is based on communal values, such as in-group loyalty or the moral relevance of betrayal and respect tied to particular identities, groups, and relationships (see Enke 2019).

Citizens in individualistic societies are, thus, more likely to expect constitutional compliance from their political representatives. In the language of Acemoglu and Robinson (2002), they trust impersonal institutions and political hierarchies built on them. In contrast, keeping up tradition plays an important role in collectivistic cultures with their emphasis on time-honored community values. A constitution that attempts to legitimize the state with rational thought might be met with indifference or be outright rejected by large parts of collectivistic societies, if the constitution's content does not match society's often discriminatory informal norms. Therefore, we expect that:

H1: Constitutional compliance is higher in more individualistic societies.

Cultures emphasizing that different people ought to have different roles in life and especially cultures endorsing a strict social hierarchy among people are likely incompatible with both equal rights guaranteed by a constitution and constitutional constraints imposed on the political class. This can be a major reason for constitutional noncompliance, especially if forms of equal treatment are explicitly stipulated in the constitution. As explained above, such rules are typically part of modern constitutions.

Power distance expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. It implies the acceptance of established rules and a hierarchical order in which everyone has their place without further justification. In contrast, members of societies with low power distance strive to equalize the distribution of power and demand justification for any remaining inequalities in power (Hofstede et al. 2010). According to Acemoglu and Robinson (2022) that skepticism is important for the ability to shackle the Leviathan. The unconditional acceptance of hierarchical orders gives politicians leeway in dealing with the

constitution, whereas citizens in societies with low power distance would challenge politicians for such transgressions. Thus:

H2: Societies characterized by higher levels of power distance exhibit lower levels of constitutional compliance.

Van de Vliert (2020) describes collectivism and power distance as two manifestations of the same latent cultural trait: intergroup differentiation—the extent to which people are treated as members of either ingroups (same family, clan, community, tribe, nation, ...) or outgroups, rather than as individuals. More intergroup differentiation implies sharper us vs. them-boundaries, larger psychosocial distance and greater behavioral differences between familiars and strangers (collectivism) and between higher-ups and lower-downs (power distance). We can, thus, summarize the argument behind our first two hypotheses as low intergroup differentiation being conducive to the acceptance and appreciation of a system of universal (constitutional) rules that governs interpersonal relationships in an impartial fashion. However, that does not imply that one of these dimensions cannot be more important than the other for constitutional compliance.

The second type of cultural trait that we argue is relevant for constitutional compliance is impatience, i.e., a high time discount rate, as those not complying might want to reach a certain goal immediately and irrespective of its longer-term opportunity costs. Falk et al. (2018) show that patience is the single most important standard preference in explaining economic development. Doepke and Zilibotti (2008) even use the term patience capital to underscore the relevance of patience for productivity (see also Galor and Özak 2016). We argue that if a culture attributes high value to patience, this should favor constitutional compliance, as legal certainty created today generates benefits for

many years to come. Following Hofstede et al. (2010), we refer to this national cultural trait as long-term orientation and hypothesize that:

H3: More long-term oriented societies exhibit more constitutional compliance.

Religions are important in transmitting beliefs and values from generation to generation and are, therefore, often treated as a form of culture. Two traits of religions seem particularly relevant here. The first is that some religions prescribe that not all members of society should enjoy the rights typically found in modern constitutions. Apostates, members of other religions, or women might be subject to religiously motivated legal discrimination. The second trait depends on how a religion conceptualizes the relationship between individuals and the state. If a religion, for example, endorses obedience to rulers, even if they do not comply with the constitution, then constitutional compliance would be seriously undermined. That is consistent with Acemoglu and Robinson's (2022) emphasis on the importance of a strong belief in popular sovereignty for constraining the Leviathan.

Among the major contemporary world religions, Islam is best-known for prescribing inequalities in legal status (Gouda and Potrafke 2016; Gutmann and Voigt 2015, 2018a; Powell et al. 2021). Moreover, Islamic constitutions frequently declare the supreme constitutional status of Islamic law, which demands noncompliance with parts of the constitution that appear to contradict Islamic legal principles (e.g., Bernholz 1991; Gouda and Gutmann 2021). Therefore, we hypothesize that:

H4: Societies strongly influenced by Islam exhibit less constitutional compliance.

3. Empirical Analysis

3.1 Data and Empirical Design

In our empirical analysis, we estimate cross-sectional models of the form:

$$Compliance_i = \alpha + \beta \times Culture_i + \gamma \times X_i + \varepsilon_i \quad (1)$$

where *Compliance* is an indicator of the government's average constitutional compliance in country *i* between 2010 and 2019. *Culture* is an indicator of the extent to which a particular cultural trait is prevalent in that country. The vector *X* comprises control variables that are plausibly related to both culture and constitutional compliance.

Our dependent variables measure the extent to which a government complies with its national constitution. We rely on the novel Comparative Constitutional Compliance Database (CCCD, see Gutmann et al. 2024b), which combines information from two publicly available sources. The Comparative Constitutions Project (CCP) records *de jure* constitutional rules and the Varieties of Democracy (V-Dem) project measures their *de facto* implementation. Information from CCP is used to establish whether a country's constitution includes a specific rule, such as prescribing an independent judiciary or the prohibition of torture. Variables from V-Dem are then matched to these dummy variables to ascertain if the rules that are part of the constitution are complied with in practice. Scores are highest when all constitutional rules are complied with and lowest if none of them are.

The CCCD measures compliance in four legal areas based on 14 types of *de jure* constitutional rules and their *de facto* implementation. Principal factors are calculated for (1) property rights and the rule of law, (2) political rights, (3) civil liberties, and (4) basic human rights. These four indicators are then aggregated into one overall indicator of constitutional compliance, which serves as the main dependent variable in our empirical

analysis. As we are interested in the long-run cultural determinants of constitutional compliance, we eliminate noise in the form of short-run fluctuations in the data by taking the mean value for the period 2010 to 2019, i.e., the period between the Great Recession and the COVID-19 pandemic.

To measure the prevalence of national cultural traits, we rely on data by Geert Hofstede, who initially surveyed IBM employees in the 1960s and over time extended the indicators and data sources (see Hofstede et al. 2010). Although Hofstede's original data were collected to measure corporate culture, they have since been validated in numerous studies as a measure of national culture. The indicators have been used extensively in the social psychology literature and are increasingly used in economic research (see, e.g., Debski et al. 2018; Falk et al. 2018; Galor and Özak 2016; Gorodnichenko and Roland 2011, 2017, 2021; Gründler and Köllner 2020; Herrmann et al. 2008). Beugelsdijk et al. (2015) find that countries' scores on the Hofstede dimensions replicated from surveys have not changed much between birth cohorts, relative to the scores of other countries. Therefore, cross-country differences in culture are generally very stable over time, as theory would predict (see also Khesali et al. 2025). Among the six cultural dimensions identified by Hofstede, three are relevant for our study: individualism, power distance, and long-term orientation.

To test our fourth hypothesis, we control for Islam's influence on a society using the Muslim population share in 2010 as a proxy. Finally, in our analysis, we also consider a popular indicator of economically favorable cultural traits that was introduced by Tabellini (2008a). Generalized morality combines information on generalized trust and whether children ought to be taught tolerance and respect for others. As there is no strong theoretical link between generalized morality and constitutional compliance, a

statistical relationship between them could be interpreted as suggesting that it is the general ability to cooperate and create economic prosperity that is promoted by generalized morality and, in turn, favors constitutional compliance.

Data on the Muslim population share is available for many more countries than the data from Hofstede et al. (2010) and Tabellini (2008a). To ensure comparability of our results across models, we limit our sample to countries for which at least one of the other cultural traits is observed. This results in a sample size of 115 observations for which information on the dependent variable is also available. However, some instrumental variable (IV) regression models are based on as few as 63 observations.

Our baseline models are estimated using OLS. Although cultural traits are generally very stable over time (Beugelsdijk et al. 2015; Khesali et al. 2025; Roland 2004; Williamson 2010), one might question whether a conditional correlation between constitutional compliance and present-day cultural traits allows for a causal interpretation. Here, we employ two additional identification strategies to address concerns about endogeneity. First, we employ two-stage least squares (2SLS) IV regression based on established external instruments for different cultural dimensions, which are introduced in the following paragraphs. Second, we augment the first approach by applying Lewbel's (2012) method for exploiting model heteroskedasticity to construct internal instruments using the available regressors in the model. These internal instruments can be used instead of external instruments, for example, when none are available. They can also be used to supplement external instruments, as will be the case here, in order to enhance estimation efficiency and to allow for formally testing the exclusion restriction when only one external instrument is available. Lewbel's method achieves identification by having regressors that are uncorrelated with the product of heteroskedastic errors, which is a

feature of many models where error correlations are due to an unobserved common factor. This assumption is highly plausible in our application.

Gorodnichenko and Roland (2017, 2021) use two instruments to explain the global distribution of individualism: historical pathogen prevalence and blood distance, the Mahalanobis distance between the frequency of blood types in a country and their frequency in the United Kingdom. Fincher et al. (2008) argue that specific behavioral manifestations of collectivism inhibit the transmission of pathogens and, therefore, more often characterize cultures in areas with historically higher pathogen prevalence. Blood distance serves as a proxy for historical cultural distance, since genes and culture are simultaneously passed on from parents to their offspring and, thus, coevolve (see, e.g., Chiao and Blizinsky 2010). Blood distance from the UK, one of the most individualistic countries, is therefore a suitable proxy for the level of intergenerationally transmitted individualism in a country.

To instrument power distance, we rely on an IV introduced by Gründler and Köllner (2020), which exploits regional patterns in the spatial distribution of culture. While spatial instruments are convenient, as they can easily be constructed based on any assumed spatial dependence patterns, their main drawback is their reliance on more demanding identifying assumptions (see, e.g., Betz et al. 2020). To construct the IV, Gründler and Köllner (2020) divide each continent into four disjoint (mutually exclusive) regions. The IV is then calculated for each country as the average level of power distance of all other countries located in the same region.

As IVs for long-term orientation, we rely on three geographic characteristics established by Galor and Özak (2016). The first two indicators capture the historical potential yield and duration of the growth cycle for the crop that maximizes potential yield on local land,

measured in calories per hectare per year and averaged at the country level. In populations exposed to a higher crop yield, for a given growth cycle, the rewarding experience in agricultural investment should have triggered selection, adaptation, and learning processes which promoted the population's long-term orientation (Galor and Özak 2016). The third IV captures the years that elapsed since the onset of the Neolithic Revolution. A longer time since the onset of the Neolithic Revolution is associated with reduced long-term orientation, because the rise of institutionalized statehood after the transition to agriculture was associated with the taxation of crop yield and, thus, with reduced incentives to invest. All three IVs are ancestry adjusted to account for distortions caused by historical population movements. Galor and Özak (2016) provide evidence that crop yield is not related to any other standard metrics of culture, including individualism and power distance.

We instrument the Muslim population share with the distance between a country's capital and Mecca and an indicator for lasting historical conquest by Arab armies. Distance from Mecca is preferred here over the geographical distribution of historical trade routes, which Michalopoulos et al. (2018) claim has better predictive power, because the latter is potentially endogenous to various factors and, thus, less likely to meet the exclusion restriction as an IV. It has been argued that Arab conquest and the subsequent establishment of lasting Islamic empires were responsible for spreading the long-run legacy of control structures developed in the early Islamic world (Chaney 2012). As instruments for generalized morality, we rely, as in the case of power distance, on IVs developed by Gründler and Köllner (2020). Specifically, we use two indicators of trust and tolerance in other countries in the same region. Tabellini (2008a) instead uses pronoun drop grammar rules as an IV for generalized morality. This approach has since

drawn criticism (Murphy 2025) and pronoun drop is in any case an IV for individualism rather than for generalized morality (Kashima and Kashima 1998). Tabellini (2010) proposes historical executive constraints and literacy rates as alternative IVs, but he concedes that it is far from evident that the identifying assumptions hold.

We also account for a set of factors that are both exogenous to a country's culture and potentially relevant to its level of constitutional compliance. We include four dummy variables for whether a country has been a colony for a long period of time and with significant influence of the colonial power in governance and whether it was, more specifically, under significant Spanish, French, or British colonial influence (Mayer and Zignago 2011).³ Distinguishing different colonial powers is important, as they had fundamentally different colonization strategies with important consequences for political development in former colonies (e.g., Lange 2004). Moreover, we control for ethnic fractionalization as a general determinant of social accountability mechanisms that may force politicians to comply with the constitution (Alesina et al. 2003). Ethnic fractionalization affects the social fabric of society not via the presence of a particular cultural trait but through the diversity of the population. Finally, we add two binary variables proposed by Spolaore and Wacziarg (2013), identifying whether a country is on an island or whether it is landlocked. Both have been linked to cross-country differences in institutional quality (e.g., Carmignani 2015; Congdon Fors 2014). Variable descriptions and summary statistics for all variables are provided in Table OA.1 in the Online Appendix and Table A.1 in the Appendix, respectively. Table A.2 shows the bivariate correlations between our culture variables. Table OA.2 lists the countries covered by our

³ Note that these dummies are not disjoint. Unlike indicators that only record the single most important colonial power, we also account for countries that had different major colonizers over time.

analysis and the levels of constitutional compliance and cultural characteristics for each country. Figure OA.1 visualizes the global distribution of our main dependent variable.

3.2 Estimation Results – Ordinary Least Squares

Table 1 presents our baseline estimation results without control variables, based on ordinary least squares (OLS) estimation and heteroskedasticity-robust standard errors. All coefficient estimates exhibit the theoretically expected sign. However, the correlation between generalized morality and constitutional compliance is the only one that is not statistically significant. As a robustness test, we estimate the same model in Table OA.3 using the robust regression estimator by Hamilton (1991), which corrects for influential observations, and the results are virtually identical. Our baseline results, thus, suggest that individualism, the absence of power distance, long-term orientation and a low Muslim population share are associated with higher levels of constitutional compliance.

Table 1: Effect of culture on compliance, no controls

	(1) CC	(2) CC	(3) CC	(4) CC	(5) CC
Morality	0.015 (0.109)				
Individ.		0.221** (0.081)			
Power dist.			-0.254* (0.106)		
Long-term				0.227* (0.111)	
Muslim					-0.518*** (0.070)
Controls	No	No	No	No	No
Estimator	OLS	OLS	OLS	OLS	OLS
Obs.	79	101	67	89	115
R-sq.	0.00	0.05	0.08	0.05	0.27

Note: OLS regression coefficient estimates with robust standard errors in parentheses. Dependent variable: constitutional compliance. Constant omitted. + p<.1, * p<.05, ** p<.01, *** p<.001.

Table 2 shows the results of estimating the baseline model with control variables added. The key difference compared to Table 1 is that long-term orientation does not exhibit a statistically significant correlation with constitutional compliance after we include control variables. In terms of our control variables, we find little evidence that geography, colonial history, and fractionalization matter systematically for constitutional compliance. It may come as a surprise that specifically British colonial influence is associated with reduced constitutional compliance. However, British colonies were exceptional in their use of indirect rule, under which political control was not centralized. Instead, tribalism was reinforced, parallel (modern and customary) legal systems were established, the market was replaced with customary possession of land, and no separation of powers existed on the local state level (Mamdani 1996, p. 22). Tribal customs were used to counter demands from the native population for equal treatment and equal civil status (p. 92).

In Tables OA.4 and OA.5, we further explore the influence of the Muslim population share, which is highly statistically significant in Column 5 of Tables 1 and 2. This serves to ensure that what we observe is not the indirect effect of the presence of other major monotheistic religions where the Muslim population share is low. Table OA.4 adds the shares of Catholic and Protestant Christians as well as the share of the nonreligious population one by one and then all of them together with the Muslim population share. Table OA.5 shows estimates based on (disjoint) dummy variables identifying whether the majority of the population belongs to a particular group. Together, the results in Tables OA.4 and OA.5 support that Islam has a robust and highly statistically significant negative association with constitutional compliance.

Table 2: Effect of culture on compliance, with controls

	(1) CC	(2) CC	(3) CC	(4) CC	(5) CC
Morality	0.031 (0.130)				
Individ.		0.333** (0.111)			
Power dist.			-0.349** (0.120)		
Long-term				0.200 (0.157)	
Muslim					-0.539*** (0.083)
Island	0.217 (0.242)	0.184 (0.250)	0.037 (0.274)	0.199 (0.254)	-0.024 (0.200)
Landlocked	-0.273 (0.320)	0.274 (0.286)	0.186 (0.335)	-0.327 (0.290)	-0.379 (0.262)
Colony: ESP	-0.074 (0.305)	0.120 (0.224)	-0.267 (0.216)	0.146 (0.334)	-0.401+ (0.224)
Colony: FRA	-0.644 (0.474)	-0.884** (0.329)	-0.819 (0.633)	-0.267 (0.414)	-0.159 (0.321)
Colony: GBR	-0.809* (0.309)	-0.691** (0.254)	-0.942** (0.338)	-0.504 (0.308)	-0.512* (0.199)
Colonized	0.277 (0.328)	0.682* (0.281)	0.823** (0.282)	0.264 (0.285)	0.307 (0.226)
Fractional.	-0.073 (0.560)	-0.189 (0.466)	-0.161 (0.591)	0.142 (0.489)	0.086 (0.369)
Estimator	OLS	OLS	OLS	OLS	OLS
Obs.	79	101	67	89	115
R-sq.	0.13	0.21	0.31	0.11	0.32

Note: OLS regression coefficient estimates with robust standard errors in parentheses. Dependent variable: constitutional compliance. Constant omitted. + $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Protestants are the only other category that exhibits a robustly significant correlation with constitutional compliance. A stronger influence of Protestantism on society is associated with a higher level of constitutional compliance. This is not surprising, as already Durkheim (1987) pointed out that Protestant doctrine encourages independent thought and religious individualism (see also Becker et al. 2018). Therefore, Protestantism functions here merely as an alternative indicator of individualism, which

so far exhibits a robust positive association with constitutional compliance in line with H1.

3.3 Estimation Results – Instrumental Variable Regression

Thus far, we have discussed ordinary least squares estimates. Although a causal interpretation of these conditional correlations is not implausible, as discussed in Section 2, we have avoided causal language. We now compare our baseline results to those derived from instrumental variable estimation, using the IVs introduced and rationalized in Section 3.1. Table 3 shows the results of 2SLS IV regression. As before, all coefficients exhibit the theoretically expected signs in line with Hypotheses 1 to 4. However, all coefficient estimates in Table 3 are statistically significant. None of the reported Hansen J statistics indicate a violation of the exclusion restriction. A test of the exclusion restriction is not possible for power distance, as the model is exactly identified, i.e., the number of IVs is equal to the number of endogenous regressors. The model for long-term orientation in Column 4 is the only one showing signs of weak instruments. Its first-stage F-statistic is below the Stock-Yogo critical value for 20% maximal IV size (Stock and Yogo 2005). It is also below the less refined and indiscriminate rule of thumb proposed by Stock and Staiger (1997) that the F-statistic should exceed 10. In Table 3 and all the following regression tables, we report where possible weak-IV robust confidence sets as proposed by Andrews (2018) and calculated following Sun (2018). These allow for reliable inference, even if the F-statistic is below the corresponding Stock-Yogo critical value. If that is not the case, the weak-IV robust confidence set may still be of interest, as the Stock-Yogo values are calculated under the assumption of homoskedasticity. The

weak-IV robust confidence set in Column 4 does not enclose 0, suggesting that long-term orientation does indeed have a statistically significant positive effect on compliance.

Table 3: Effect of culture on compliance, 2SLS

	(1) CC	(2) CC	(3) CC	(4) CC	(5) CC
Morality	0.369* (0.161)				
Individ.		0.684*** (0.184)			
Power dist.			-0.737* (0.294)		
Long-term				0.795* (0.333)	
Muslim					-0.700*** (0.089)
Controls	Yes	Yes	Yes	Yes	Yes
Estimator	2SLS	2SLS	2SLS	2SLS	2SLS
Obs.	68	98	63	86	115
R-sq.	0.04	0.11	0.11	-0.08	0.30
F-stat	17.08	27.73	11.79	6.61	102.17
Stock-Yogo	8.75	8.75	6.66	9.54	8.75
Robust CI	[.09],[.81]	[.38],[1.10]	[-1.64],[-.30]	[.24],[1.81]	[-.88],[-.53]
J-stat	1.18	0.98	.	4.28	0.35

Note: 2SLS regression coefficient estimates with robust standard errors in parentheses. Dependent variable: constitutional compliance. “F-stat” refers to the Kleibergen-Paap rk Wald F statistic. Stock and Yogo (2005)-critical values for weak identification are reported for 20% maximal IV size. Instruments are considered weak if the F-test falls below the “Stock-Yogo” critical value. “Robust CI” refers to an identification-robust confidence set of the independent (culture) variable of interest that is robust to weak instruments (see Andrews 2018; Sun 2018). The weak-IV robust estimate is significant at the 5%-level if the confidence set does not enclose zero. “J-stat” refers to the Sargan-Hansen test of overidentifying restrictions. A * on J-stat indicates that the null hypothesis of instrument validity can be rejected at the 5%-level. Column 3 does not report a J-statistic, as the model is exactly identified. Constant omitted. + $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

In Table 4, we reproduce the results from Table 3 with the same external instruments and adding internal instruments constructed following the Lewbel method. These heteroskedasticity-based internal IVs can increase the estimation efficiency and allow us to test the exclusion restriction in all models.

Table 4: Effect of culture on compliance, Lewbel estimator

	(1)	(2)	(3)	(4)	(5)
	CC	CC	CC	CC	CC
Morality	0.109 (0.134)				
Individ.		0.579*** (0.156)			
Power dist.			-0.360+ (0.185)		
Long-term				0.269 (0.186)	
Muslim					-0.539*** (0.081)
Controls	Yes	Yes	Yes	Yes	Yes
Estimator	Lewbel	Lewbel	Lewbel	Lewbel	Lewbel
Obs.	68	98	63	86	115
R-sq.	0.13	0.16	0.28	0.11	0.32
F-stat	14.04	7.28	2.62	12.33	7181.07
Stock-Yogo	6.65	6.65	6.69	6.61	6.65
Robust CI	[.08],[.30]	[.40],[1.06]	.	[.14],[.78]	[-.63],[-.46]
J-stat	14.96	9.89	8.05	13.74	13.57

Note: 2SLS regression coefficient estimates with robust standard errors in parentheses. Dependent variable: constitutional compliance. External instruments are supplemented with heteroskedasticity-based instrumental variables constructed using Lewbel's (2012) method (see Baum and Schaffer 2024). "F-stat" refers to the Kleibergen-Paap rk Wald F statistic. Stock and Yogo (2005)-critical values for weak identification are reported for 20% maximal IV relative bias. Instruments are considered weak if the F-test falls below the "Stock-Yogo" critical value. "Robust CI" refers to an identification-robust confidence set of the independent (culture) variable of interest that is robust to weak instruments (see Andrews 2018; Sun 2018). The weak-IV robust estimate is significant at the 5%-level if the confidence set does not enclose zero. "J-stat" refers to the Sargan-Hansen test of overidentifying restrictions. A * on J-stat indicates that the null hypothesis of instrument validity can be rejected at the 5%-level. A weak-IV robust confidence set could not be calculated for the model in Column 3. Constant omitted. + $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

All models reported in Table 4 pass the exclusion restriction test, but the estimated effect of power distance suffers from instrument weakness and a weak-IV robust confidence set could not be calculated. Considering the results in Table 4 and adopting a conservative interpretation, our findings suggest that only two cultural traits have a robust effect. Increasing individualism by one standard deviation or decreasing the Muslim population

share by one standard deviation, respectively, increases constitutional compliance by more than half a standard deviation.

In the remainder of the empirical analysis, we want to answer four questions regarding the effects of individualism and Islam on constitutional compliance: (1) Does their effect operate (exclusively) via their effect on democracy? (2) Do the two cultural traits affect constitutional compliance in particular legal areas or across the board? (3) Do individualism and Islam have separate effects, although they are (negatively) correlated with each other? And (4) are other cultural dimensions, which are frequently linked to individualism and Islam, correlated with constitutional compliance?

In Tables A.3 and OA.6, we re-estimate the models in Tables 3 and 4 while controlling for democracy, based on the minimalist indicator by Bjørnskov and Rode (2020). Given that individualism (Gorodnichenko and Roland 2020) and Islam (Gouda and Hanafy 2022; Potrafke 2012, 2023) have already been linked to democracy, and that democracy, in turn, is conducive to constitutional compliance (Gutmann et al. 2024b), this analysis can clarify if there is a direct effect of culture on constitutional compliance or if the effect works only indirectly via promoting democracy. Applying a minimalist definition of electoral democracy here is critical to prevent the democracy indicator from measuring elements of constitutional compliance itself, for example, in the form of executive constraints or the strength of *de facto* political rights. The (direct) effects of individualism and Islam shrink by 20% to 50%, but they remain statistically significant.⁴ The democracy indicator itself also exhibits a statistically significant correlation. Democracies have a level of constitutional compliance that is more than one standard deviation higher than

⁴ The model for individualism based on the Lewbel estimator appears to suffer from weak IVs, but the weak-IV robust confidence set confirms that the effect of individualism is significant at the 5%-level.

in nondemocracies. Thus, at least half of the effects of individualism and Islam are direct, but between a quarter and a half of the effects appear to be mediated by democratization. In Tables A.4 and A.5, we reproduce the estimates from Columns 2 and 5 in Table 4. However, we swap the dependent variable of overall constitutional compliance for the four constitutional compliance indicators for the specific legal domains (1) property rights and the rule of law, (2) political rights, (3) civil liberties, and (4) basic human rights. We find significant effects of both individualism and Islam on all four dimensions. The effect sizes are also very similar, except the effect of Islam on compliance with constitutional basic human rights, which is about half the effect size compared to the other dependent variables. Table OA.7 presents the same analysis, but with the effect of individualism and Islam measured in the same model. Both exert a statistically significant effect on overall constitutional compliance (Column 1). The effects of individualism and Islam on compliance in the four legal areas are statistically significant at least at the 10%-level, again except for the effect of Islam on compliance with basic human rights in the constitution. These results are confirmed by the weak-IV robust confidence sets, as the F-statistic is below the Stock-Yogo critical value. We interpret these results as clearly suggesting that both individualism and Islam have their own effect on governments' compliance with the national constitution. The effect of individualism appears most pronounced in the domain of property rights and the rule of law. The effect of Islam, in contrast, is more uniformly distributed.

Finally, we take a closer look at two additional well-established cultural dimensions: "kinship tightness" and "tightness/looseness". They are related to but distinct from individualism and Islam, regarding their association with constitutional compliance. For this extension, we estimate a set of models as in Table 2 (results available on request).

First, we rely on an indicator by Enke (2019) for the historical prevalence of kinship tightness in preindustrial societies. It captures the extent to which people were interconnected in tightly structured, extended family systems. The historical prevalence of tight kinship favors communal values at the expense of universalistic values that would allow cooperation with strangers outside the kinship structure (Enke 2019). Hence, countries in which the population's ancestors relied on tight kinship should be less individualistic to this day (see also Schulz et al. 2019). Henrich et al. (2010) stress the importance of kinship tightness for the broader concept of WEIRD (western, educated, industrialized, rich, and democratic) populations. They argue that the moral reasoning based on abstract ethical principles regarding justice and individual rights and inherent in most Western constitutions can only be commonly found in WEIRD populations. We find that a one standard deviation higher historical kinship tightness is associated with a one-third standard deviation decline in constitutional compliance. The estimated coefficient and standard error are almost identical with those reported for individualism in Table 2. We also measure the conditional correlation between constitutional compliance and tightness as in the cultural tightness-looseness dimension. Superficially, one might expect that tight societies, which are characterized by having many strong norms and a low tolerance of deviant behavior, also expect their government to comply with the constitution. However, these societies tend to exhibit rule by law rather than rule of law. Although these societies have many laws and strict law enforcement (Gelfand et al. 2011) it is not clear that political leaders are held to the same standard as citizens. Using tightness data by Gelfand et al. (2011) and Eriksson et al. (2021), we find no significant association with constitutional compliance.

4. Conclusion

Constitutions can be interpreted as sets of promises. If constitutional provisions are reliably enforced, they are conducive to economic and political stability and can help citizens form accurate expectations. This is a crucial precondition for long-term investments, which, in turn, promote growth and development. Constitutional compliance is, therefore, of high value to a society.

The results of our empirical study show that culture is relevant for constitutional compliance. More individualistic societies have governments that comply more with their national constitution. More Islamic societies, in the sense that they have a higher Muslim population share, experience significantly less constitutional compliance. These effects are largely independent of each other and not mediated via the effect of culture on democracy. Other cultural dimensions—specifically power distance, long-term orientation, and generalized morality—are not robustly related to constitutional compliance levels. Overall, our results can be interpreted as evidence that constitutional compliance constitutes a transmission channel between cultural factors and economic development.

Beyond a better understanding of the long-run causes of economic growth, our results can be interpreted as providing a warning that the effectiveness of formal constitutional rules (and by extension legislation) depends at least to some extent on the cultural context in which they are embedded. The literature on legal transplants has emphasized that formal laws need to match the setting in which they are implemented. We, in contrast, provide evidence that some cultural traits are conducive or detrimental to constitutional compliance, largely independent of the constitutional rules in question.

Future research might inquire further into how a mismatch between the choice of constitutional rules and national culture affects constitutional compliance, especially with those mismatched rules. If negative effects are observable, it is important to understand why mismatched rules are adopted in the first place. One possible explanation is that in the past, some constitution-makers simply copied successful constitutions, without considering that their effects are conditional on the cultural and social fabric of a society. Political and economic institutions that are effective in a high-trust environment, for example, might quickly fail when adopted by a low-trust society (Djankov et al. 2003). A second possible explanation for the adoption of poorly adapted constitutional rules could be the technical assistance provided by international organizations, such as UNDP. Finally, micro-level survey evidence could complement our macro-level analysis by shedding light on how individual values relate to attitudes toward constitutional compliance.

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Appendix

Table A.1: Descriptive statistics

	N	Mean	SD	Min	Max
CC	115	0	1	-2.16	1.39
Prop	115	0	1	-1.76	1.45
Polit	114	0	1	-2.16	1.26
Civil	115	0	1	-2.38	0.99
Basic	115	0	1	-2.54	1.12
Morality	79	0	1	-1.89	2.93
Individ.	101	0	1	-1.54	2.28
Power dist.	67	0	1	-2.27	2.07
Long-term	89	0	1	-1.77	2.25
Muslim	115	0	1	-0.66	2.24
Island	115	0.14	0.35	0	1
Landlocked	115	0.20	0.40	0	1
Colony: ESP	115	0.13	0.34	0	1
Colony: FRA	115	0.11	0.32	0	1
Colony: GBR	115	0.25	0.44	0	1
Colonized	115	0.77	0.43	0	1
Fractional.	115	0.43	0.24	0.00	0.93
Democracy	115	0.69	0.47	0	1
Catholic share	115	0.28	0.31	0.00	0.96
Protestant share	115	0.13	0.19	0.00	0.87
Muslim share	115	0.23	0.34	0.00	0.99
Non-religious share	115	0.10	0.13	0.00	0.76
Catholic majority	115	0.27		0	1
Protestant majority	115	0.05		0	1
Muslim majority	115	0.22		0	1
Non-religious majority	115	0.02		0	1
Trust, Spatial	68	27.34	12.20	6.50	50.50
Tolerance, Spatial	68	67.29	5.74	54.40	77.26
Blood dist. UK	98	1.57	0.83	0.00	3.59
Pathogen prev.	101	0.02	0.66	-1.31	1.16
Power dist., Spatial	63	59.78	15.32	30.36	84.25
Crop yield	88	0.01	1.00	-3.44	2.30
Crop growth cycle	88	-0.01	1.01	-6.38	2.54
Neolithic trans.	86	-0.00	0.99	-2.38	2.35
Arab conquest	115	0.13	0.33	0.00	1.00
Dist. to Mecca	115	1.55	0.65	-0.24	2.75

Table A.2: Correlations between culture indicators

	Morality	Individ.	Power dist.	Long-term	Muslim
Morality	1.00				
Individ.	0.49	1.00			
Power dist.	-0.60	-0.63	1.00		
Long-term	0.01	0.15	0.03	1.00	
Muslim	-0.04	-0.22	0.20	-0.22	1.00

Note: Pearson correlation coefficients.

Table A.3: Effect independent of democracy, 2SLS

	(1) CC	(2) CC	(3) CC	(4) CC	(5) CC
Morality	0.048 (0.104)				
Individ.		0.410* (0.163)			
Power dist.			-0.447 (0.334)		
Long-term				0.298 (0.272)	
Muslim					-0.434*** (0.114)
Democracy	1.594*** (0.268)	1.206*** (0.238)	1.319* (0.547)	1.421*** (0.242)	1.096*** (0.230)
Controls	Yes	Yes	Yes	Yes	Yes
Estimator	2SLS	2SLS	2SLS	2SLS	2SLS
Obs.	68	98	63	86	115
R-sq.	0.50	0.43	0.43	0.42	0.53
F-stat	14.74	21.48	7.37	6.39	61.33
Stock-Yogo	8.75	8.75	6.66	9.54	8.75
Robust CI	[-.15],[.33]	[.14],[.77]	[-1.80],[.05]	.	[-.67],[-.22]
J-stat	3.69	2.12	.	4.78	0.01

Note: 2SLS regression coefficient estimates with robust standard errors in parentheses. Dependent variable: constitutional compliance. “F-stat” refers to the Kleibergen-Paap rk Wald F statistic. Stock and Yogo (2005)-critical values for weak identification are reported for 20% maximal IV size. Instruments are considered weak if the F-test falls below the “Stock-Yogo” critical value. “Robust CI” refers to an identification-robust confidence set of the independent (culture) variable of interest that is robust to weak instruments (see Andrews 2018; Sun 2018). The weak-IV robust estimate is significant at the 5%-level if the confidence set does not enclose zero. “J-stat” refers to the Sargan-Hansen test of overidentifying restrictions. A * on J-stat indicates that the null hypothesis of instrument validity can be rejected at the 5%-level. Column 3 does not report a J-statistic, as the model is exactly identified. A weak-IV robust confidence set could not be calculated for the model in Column 4. Constant omitted. + p<.1, * p<.05, ** p<.01, *** p<.001.

Table A.4: Effect of individualism on compliance dimensions

	(1) Prop	(2) Polit	(3) Civil	(4) Basic
Individ.	0.573*** (0.158)	0.462*** (0.134)	0.536** (0.165)	0.433** (0.147)
Controls	Yes	Yes	Yes	Yes
Estimator	Lewbel	Lewbel	Lewbel	Lewbel
Obs.	98	97	98	98
R-sq.	0.24	0.20	0.14	0.05
F-stat	7.28	7.10	7.28	7.28
Stock-Yogo	6.65	6.65	6.65	6.65
Robust CI	[.43],[1.11]	[.33],[.90]	[.30],[.99]	[.21],[.84]

Note: 2SLS regression coefficient estimates with robust standard errors in parentheses. Dependent variables: constitutional compliance dimensions. External instruments are supplemented with heteroskedasticity-based instrumental variables constructed using Lewbel's (2012) method (see Baum and Schaffer 2024). "F-stat" refers to the Kleibergen-Paap rk Wald F statistic. Stock and Yogo (2005)-critical values for weak identification are reported for 20% maximal IV relative bias. Instruments are considered weak if the F-test falls below the "Stock-Yogo" critical value. "Robust CI" refers to an identification-robust confidence set of the independent (culture) variable of interest that is robust to weak instruments (see Andrews 2018; Sun 2018). The weak-IV robust estimate is significant at the 5%-level if the confidence set does not enclose zero. Constant omitted. + $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

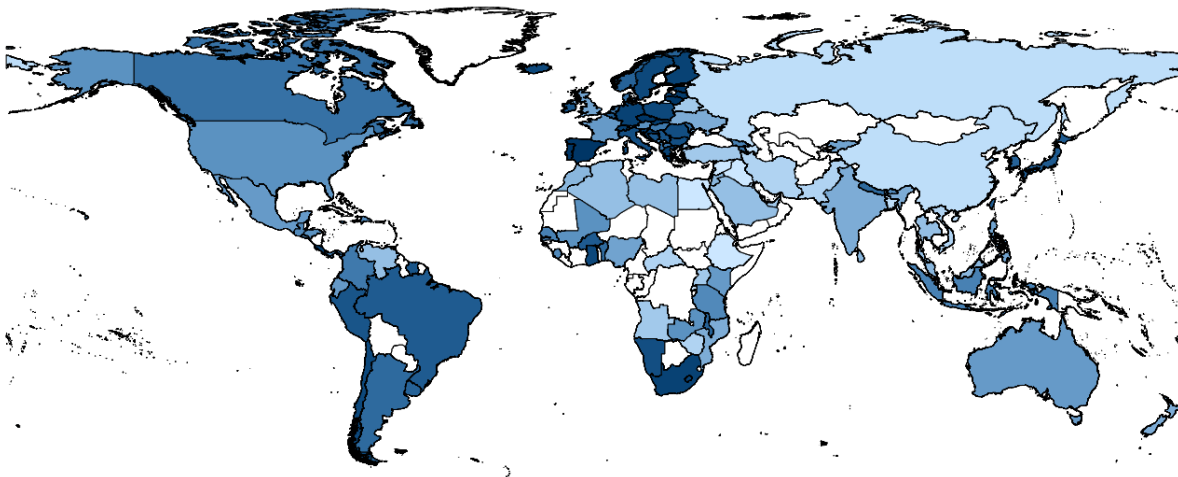
Table A.5: Effect of Muslim share on compliance dimensions

	(1) Prop	(2) Polit	(3) Civil	(4) Basic
Muslim	-0.528*** (0.074)	-0.484*** (0.086)	-0.571*** (0.089)	-0.285** (0.097)
Controls	Yes	Yes	Yes	Yes
Estimator	Lewbel	Lewbel	Lewbel	Lewbel
Obs.	115	114	115	115
R-sq.	0.31	0.32	0.36	0.16
F-stat	7181.07	6803.05	7181.07	7181.07
Stock-Yogo	6.65	6.65	6.65	6.65
Robust CI	[-.61],[-.47]	[-.59],[-.39]	[-.67],[-.49]	[-.42],[-.14]

Note: 2SLS regression coefficient estimates with robust standard errors in parentheses. Dependent variables: constitutional compliance dimensions. External instruments are supplemented with heteroskedasticity-based instrumental variables constructed using Lewbel's (2012) method (see Baum and Schaffer 2024). "F-stat" refers to the Kleibergen-Paap rk Wald F statistic. Stock and Yogo (2005)-critical values for weak identification are reported for 20% maximal IV relative bias. Instruments are considered weak if the F-test falls below the "Stock-Yogo" critical value. "Robust CI" refers to an identification-robust confidence set of the independent (culture) variable of interest that is robust to weak instruments (see Andrews 2018; Sun 2018). The weak-IV robust estimate is significant at the 5%-level if the confidence set does not enclose zero. Constant omitted. + p<.1, * p<.05, ** p<.01, *** p<.001.

Online Appendix

Figure OA.1: Global distribution of constitutional compliance



Note: Displayed are constitutional compliance values for the 115 countries in our sample. Darker blue colors indicate higher levels of constitutional compliance.

Table OA.1: Variable description and data sources

Variable name	Description	Data Source
CC	Constitutional compliance: Extent to which <i>de jure</i> constitutional rules are complied with <i>de facto</i> by the government. Based on 14 types of constitutional rules representing four legal dimensions, mean value 2010-2019.	Gutmann et al. (2024b), v2.0
Prop	Constitutional compliance, subdimension: property rights and the rule of law (e.g., private property rights), mean value 2010-2019.	Gutmann et al. (2024b), v2.0
Polit	Constitutional compliance, subdimension: political rights (e.g., freedom of assembly), mean value 2010-2019.	Gutmann et al. (2024b), v2.0
Civil	Constitutional compliance, subdimension: civil rights (e.g., freedom of speech), mean value 2010-2019.	Gutmann et al. (2024b), v2.0
Basic	Constitutional compliance, subdimension: basic human rights (e.g., prohibition of torture), mean value 2010-2019.	Gutmann et al. (2024b), v2.0
Morality	Generalized morality: First principal component of generalized trust and tolerance towards others (standardized).	Tabellini (2008a)
Individ.	Individualism: The extent to which people feel independent, as opposed to being interdependent as members of larger wholes (standardized).	Hofstede et al. (2010)
Power dist.	Power distance: The extent to which the less powerful members of groups or organizations accept and expect that power is distributed unequally (standardized).	Hofstede et al. (2010)
Long-term	Long-term orientation: Extent to which the world is thought of as being flux and preparing for the future is always needed.	Hofstede et al. (2010)

	In a short-time-oriented culture, the past provides a moral compass and adhering to it is morally good (standardized).	
Muslim	Muslim population share, 2010 (standardized).	Maoz and Henderson (2013)
Island	Country is an island (1=yes, 0=no).	Spolaore and Wacziarg (2013)
Landlocked	Country is landlocked (1=yes, 0=no).	Spolaore and Wacziarg (2013)
Colony: ESP	Spain was a colonizer over a long period and with substantial participation in governance (1=yes, 0=no).	Mayer and Zignago (2011)
Colony: FRA	France was a colonizer over a long period and with substantial participation in governance (1=yes, 0=no).	Mayer and Zignago (2011)
Colony: GBR	Great Britain was a colonizer over a long period and with substantial participation in governance (1=yes, 0=no).	Mayer and Zignago (2011)
Colonized	Colonized over a long period and with substantial participation in governance by at least one colonial power (1=yes, 0=no).	Mayer and Zignago (2011)
Fractional.	Probability that two randomly selected individuals from the population belong to different ethnic groups.	Alesina et al. (2003)
Democracy	Electoral democracy, 2010 (1=yes, 0=no).	Bjørnskov and Rode (2020)
Catholic share	Catholic population share, 2010.	Maoz and Henderson (2013)
Protestant share	Protestant population share, 2010.	Maoz and Henderson (2013)
Muslim share	Muslim population share, 2010.	Maoz and Henderson (2013)
Non-religious	Non-religious population share, 2010.	Maoz and Henderson (2013)
Catholic majority	Over 50% Catholic, 2010 (1=yes, 0=no).	Maoz and Henderson (2013)
Protestant majority	Over 50% Protestant, 2010 (1=yes, 0=no).	Maoz and Henderson (2013)
Muslim majority	Over 50% Muslim, 2010 (1=yes, 0=no).	Maoz and Henderson (2013)
Non-religious majority	Over 50% non-relig., 2010 (1=yes, 0=no).	Maoz and Henderson (2013)
Trust, Spatial	Mean generalized trust level among the countries in the same geographic region.	Gründler and Köllner (2020)

Tolerance, Spatial	Mean tolerance level among the countries in the same geographic region.	Gründler and Köllner (2020)
Blood dist. UK	Mahalanobis distance of the frequency of blood types A and B relative to the frequency of these blood types in the UK.	Gorodnichenko and Roland (2017)
Pathogen prev.	9-item index of historical disease prevalence.	Murray and Schaller (2010)
Power dist., Spatial	Mean power distance level among the countries in the same geographic region.	Gründler and Köllner (2020)
Crop yield	Potential crop yield, adjusted for ancestral population movements.	Galor and Özak (2016)
Crop growth cycle	Potential crop growth cycle, adjusted for ancestral population movements.	Galor and Özak (2016)
Neolithic trans.	Number of years since the onset of the Neolithic Revolution, adjusted for ancestral population movements.	Ashraf and Galor (2011) and Galor and Özak (2016)
Arab conquest	Share of a country's landmass that was ruled by Muslim dynasties in 1100 CE. Set to zero for Israel or if less than half of the country's landmass was under Muslim rule in 1900 CE.	Chaney (2012)
Dist. to Mecca	Natural log. of the distance between the country's capital and Mecca in 1,000 km.	Gouda and Gutmann (2021)

Note: Standardized variables are subject to linear transformation such that their mean value is zero and their standard deviation is one, which simplifies the comparison of effect sizes.

Table OA.2: List of countries and main variables

Country	CC	Morality	Individ.	Power dist.	Long-term	Muslim
Albania	0.548	0.586	-0.911	.	0.613	1.186
Algeria	-1.039	-1.661	.	.	-0.852	2.242
Angola	-1.451	.	-1.001	.	.	-0.631
Argentina	0.617	-0.453	0.256	-0.499	-1.103	-0.617
Armenia	0.345	-1.223	.	.	0.613	-0.660
Australia	-0.265	1.402	2.232	-1.013	-1.062	-0.596
Austria	0.042	0.293	0.660	-2.273	0.571	-0.522
Azerbaijan	-1.766	-0.864	.	.	0.613	2.125
Bangladesh	-1.643	-0.113	-0.911	0.949	0.027	1.970
Belarus	-1.394	0.063	.	.	1.450	-0.655
Belgium	0.724	0.230	1.558	0.248	1.492	-0.515
Benin	0.597	.	1.693	.	.	0.115
Bhutan	0.134	.	0.525	.	.	-0.632
Bosnia and Herzegovina	0.804	.	.	.	0.990	0.659
Brazil	0.713	-1.484	-0.103	0.435	-0.099	-0.661
Bulgaria	0.961	-0.873	-0.462	0.482	0.948	-0.283
Burkina Faso	0.708	.	-1.136	.	-0.810	1.037
Canada	0.536	1.422	1.783	-0.966	-0.434	-0.604
Central African Republic	-1.639	.	1.468	.	.	-0.221
Chile	1.009	0.071	-0.777	0.155	-0.643	-0.660
China	-1.748	1.008	-0.911	0.949	1.701	-0.588
Colombia	0.357	-0.862	-1.226	0.341	-1.396	-0.660
Costa Rica	1.271	.	-1.136	-1.153	.	-0.661
Croatia	1.244	-0.377	-0.328	0.622	0.487	-0.618
Czech Republic	1.390	-0.203	0.795	-0.125	0.990	-0.661
Denmark	0.518	2.105	1.513	-1.947	-0.475	-0.544
Dominican Republic	0.156	-0.039	-0.462	.	-1.396	-0.661
Ecuador	-0.168	.	-1.450	0.855	.	-0.661
Egypt	-1.999	0.501	-0.103	.	-1.648	1.874
El Salvador	0.166	-1.197	-0.956	0.295	-1.103	-0.660
Estonia	1.289	-0.181	0.885	-0.919	1.492	-0.657
Ethiopia	-1.855	.	-0.597	.	.	0.349
Fiji	-0.641	.	-1.181	.	.	-0.485

Finland	1.081	2.443	1.019	-1.246	-0.350	-0.648
France	-0.229	0.144	1.379	0.388	0.697	-0.430
Georgia	0.254	-1.247	.	.	-0.350	-0.371
Germany	1.089	0.868	1.199	-1.153	1.534	-0.518
Ghana	1.017	.	-0.911	.	-1.773	-0.145
Greece	1.170	-1.168	-0.238	0.015	-0.057	-0.591
Guatemala	0.095	.	-1.540	1.649	.	-0.661
Honduras	-0.023	.	-0.911	.	.	-0.661
Hungary	0.289	-0.862	1.783	-0.639	0.487	-0.660
Iceland	0.984	1.347	0.885	.	-0.769	-0.647
India	-0.458	-0.017	0.346	0.808	0.194	-0.268
Indonesia	0.288	0.862	-1.181	0.855	0.655	1.802
Iran	-1.638	0.896	0.032	-0.079	-1.355	2.242
Iraq	-1.837	1.741	-0.103	.	-0.894	2.125
Ireland	0.817	0.908	1.334	-1.480	-0.936	-0.644
Italy	0.971	0.090	1.603	-0.452	0.613	-0.627
Jamaica	0.498	.	-0.058	-0.686	.	-0.660
Japan	0.725	0.199	0.256	-0.266	1.743	-0.657
Jordan	-0.653	0.012	-0.462	.	-1.271	2.184
Kenya	-0.080	.	-0.687	.	.	-0.355
Korea, South	0.671	-0.709	-1.001	0.015	2.245	-0.657
Kuwait	-1.684	.	-0.103	.	.	2.036
Kyrgyzstan	-0.367	-0.677	.	.	0.822	1.598
Latvia	1.271	-0.176	1.334	-0.732	0.948	-0.661
Lebanon	-0.658	.	-0.103	.	.	0.922
Libya	-1.106	.	-0.103	.	.	2.182
Lithuania	1.390	-0.653	0.885	-0.826	1.492	-0.659
Luxembourg	0.567	0.382	0.885	-0.919	0.738	-0.603
Malawi	0.676	.	-0.462	.	.	-0.233
Malaysia	-0.866	.	-0.642	2.069	-0.224	1.128
Mali	0.048	.	.	.	-1.103	2.096
Malta	0.683	-1.585	0.840	-0.172	0.027	-0.632
Mexico	-0.168	-0.170	-0.462	0.995	-0.936	-0.661
Moldova	0.618	-0.311	.	.	1.031	-0.556
Montenegro	0.268	.	.	.	1.199	-0.101

Morocco	-0.939	-0.395	0.256	0.482	-1.355	2.240
Mozambique	-0.521	.	-1.136	.	.	0.053
Namibia	0.891	.	-0.462	.	.	-0.647
Nepal	0.654	.	-0.462	.	.	-0.533
Netherlands	0.308	1.964	1.783	-1.013	0.864	-0.491
New Zealand	-0.556	1.831	1.738	-1.760	-0.559	-0.629
Nigeria	-0.443	-0.500	-0.911	.	-1.396	0.829
North Macedonia	0.467	-0.619	.	.	0.655	0.342
Norway	0.661	1.286	1.289	-1.339	-0.475	-0.602
Pakistan	-1.544	-0.834	-1.181	-0.219	0.152	2.145
Panama	0.433	.	-1.315	1.649	.	-0.652
Peru	0.801	-1.019	-1.091	0.201	-0.894	-0.661
Philippines	-0.304	-1.888	-0.373	1.602	-0.810	-0.499
Poland	1.002	0.279	0.885	0.388	-0.350	-0.661
Portugal	1.289	-0.559	-0.597	0.155	-0.769	-0.636
Romania	0.860	-0.954	-0.462	1.415	0.236	-0.650
Russia	-1.734	0.112	-0.058	1.556	1.450	-0.322
Rwanda	-2.164	.	.	.	-1.187	-0.526
Saudi Arabia	-1.139	0.807	-0.103	.	-0.434	2.090
Senegal	0.215	.	-0.687	.	.	2.092
Serbia	0.811	-0.531	-0.687	1.229	0.236	-0.570
Sierra Leone	0.126	.	-0.911	.	.	0.961
Singapore	-0.325	-0.601	-0.911	0.668	1.073	-0.244
Slovakia	1.258	-0.954	0.525	2.069	1.283	-0.661
Slovenia	1.244	-0.241	-0.597	0.528	0.111	-0.573
South Africa	1.209	-0.491	1.109	.	-0.517	-0.612
Spain	1.289	0.418	0.481	-0.125	0.069	-0.572
Sri Lanka	-0.736	.	-0.238	.	.	-0.380
Suriname	0.849	.	0.301	1.182	.	-0.086
Sweden	1.054	2.928	1.379	-1.339	0.278	-0.485
Switzerland	1.158	0.814	1.244	-1.199	1.157	-0.541
Syria	-1.816	.	-0.238	.	.	1.984
Taiwan	0.724	0.167	-1.046	-0.079	1.952	-0.648
Tanzania	0.084	-0.186	-0.597	.	-0.517	0.395
Thailand	-1.342	.	-0.911	0.201	-0.601	-0.368

Trinidad and Tobago	0.960	.	-1.091	-0.592	-1.396	-0.514
Turkiye	-1.366	-1.066	-0.148	0.295	-0.015	2.230
Uganda	-1.539	-1.690	.	.	-0.936	-0.309
Ukraine	-0.641	-0.175	-0.687	.	1.659	-0.632
United Arab Emirates	-1.533	.	-0.103	.	.	1.318
United Kingdom	-0.439	1.137	2.187	-1.153	0.194	-0.534
United States	0.055	0.841	2.277	-0.919	-0.852	-0.635
Uruguay	0.683	-0.098	-0.193	0.061	-0.852	-0.660
Venezuela	-1.096	-0.628	-1.271	0.995	-1.271	-0.658
Vietnam	-1.544	0.756	-0.911	0.482	0.445	-0.658
Zambia	-0.020	.	-0.597	.	-0.685	-0.645
Zimbabwe	-1.564	-0.376	.	.	-1.313	-0.630

Table OA.3: Robust regression

	(1)	(2)	(3)	(4)	(5)
	CC	CC	CC	CC	CC
Morality	0.034 (0.126)				
Individ.		0.218* (0.105)			
Power dist.			-0.235* (0.114)		
Long-term				0.255* (0.111)	
Muslim					-0.562*** (0.080)
Controls	No	No	No	No	No
Estimator	Robust	Robust	Robust	Robust	Robust
Obs.	79	101	67	89	115
R-sq.	0.00	0.04	0.06	0.06	0.30

Note: Robust regression coefficient estimates (see Hamilton 1991) with robust standard errors in parentheses. Dependent variable: constitutional compliance. Constant omitted. + $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table OA.4: Effect of religious adherence on compliance

	(1) CC	(2) CC	(3) CC	(4) CC	(5) CC
Catholic share	1.173*** (0.295)				0.757* (0.355)
Protestant share		1.268*** (0.349)			0.793* (0.387)
Muslim share			-1.580*** (0.244)		-1.073** (0.335)
Non-religious share				1.704* (0.700)	0.641 (0.743)
Controls	Yes	Yes	Yes	Yes	Yes
Estimator	OLS	OLS	OLS	OLS	OLS
Obs.	115	115	115	115	115
R-sq.	0.19	0.15	0.32	0.14	0.36

Note: OLS regression coefficient estimates with robust standard errors in parentheses. Dependent variable: constitutional compliance. Independent variables are (non-standardized) religion population shares. Constant omitted. + p<.1, * p<.05, ** p<.01, *** p<.001.

Table OA.5: Effect of religious majority on compliance

	(1) CC	(2) CC	(3) CC	(4) CC	(5) CC
Catholic majority	0.417+ (0.248)				0.333 (0.260)
Protestant majority		0.706*** (0.183)			0.673** (0.209)
Muslim majority			-1.121*** (0.216)		-0.993*** (0.223)
Non-religious majority				1.248*** (0.217)	1.159*** (0.245)
Controls	Yes	Yes	Yes	Yes	Yes
Estimator	OLS	OLS	OLS	OLS	OLS
Obs.	115	115	115	115	115
R-sq.	0.12	0.12	0.27	0.12	0.31

Note: OLS regression coefficient estimates with robust standard errors in parentheses. Dependent variable: constitutional compliance. Independent variables are binary indicators for religious majorities. Constant omitted. + p<.1, * p<.05, ** p<.01, *** p<.001.

Table OA.6: Effect independent of democracy, Lewbel estimator

	(1)	(2)	(3)	(4)	(5)
	CC	CC	CC	CC	CC
Morality	-0.030 (0.085)				
Individ.		0.268* (0.134)			
Power dist.			-0.057 (0.168)		
Long-term				0.065 (0.140)	
Muslim					-0.332*** (0.089)
Democracy	1.607*** (0.260)	1.297*** (0.225)	1.787*** (0.357)	1.480*** (0.224)	1.177*** (0.205)
Controls	Yes	Yes	Yes	Yes	Yes
Estimator	Lewbel	Lewbel	Lewbel	Lewbel	Lewbel
Obs.	68	98	63	86	115
R-sq.	0.50	0.47	0.51	0.44	0.53
F-stat	12.10	5.51	2.33	12.46	6149.45
Stock-Yogo	6.61	6.61	6.65	6.56	6.61
Robust CI	[-.11],[.13]	[.14],[.65]	.	[-.15],[.36]	[-.44],[-.25]
J-stat	13.00	12.55	13.29	9.35	9.80

Note: 2SLS regression coefficient estimates with robust standard errors in parentheses. Dependent variable: constitutional compliance. External instruments are supplemented with heteroskedasticity-based instrumental variables constructed using Lewbel's (2012) method (see Baum and Schaffer 2024). "F-stat" refers to the Kleibergen-Paap rk Wald F statistic. Stock and Yogo (2005)-critical values for weak identification are reported for 20% maximal IV relative bias. Instruments are considered weak if the F-test falls below the "Stock-Yogo" critical value. "Robust CI" refers to an identification-robust confidence set of the independent (culture) variable of interest that is robust to weak instruments (see Andrews 2018; Sun 2018). The weak-IV robust estimate is significant at the 5%-level if the confidence set does not enclose zero. "J-stat" refers to the Sargan-Hansen test of overidentifying restrictions. A * on J-stat indicates that the null hypothesis of instrument validity can be rejected at the 5%-level. A weak-IV robust confidence set could not be calculated for the model in Column 3. Constant omitted. + p<.1, * p<.05, ** p<.01, *** p<.001.

Table OA.7: Effect of individualism & Muslim share on dimensions

	(1) CC	(2) Prop	(3) Polit	(4) Civil	(5) Basic
Individ.	0.369* (0.171)	0.404** (0.154)	0.284+ (0.164)	0.292+ (0.175)	0.309+ (0.171)
Muslim	-0.468*** (0.112)	-0.430*** (0.100)	-0.419*** (0.108)	-0.550*** (0.118)	-0.226 (0.138)
Controls	Yes	Yes	Yes	Yes	Yes
Estimator	Lewbel	Lewbel	Lewbel	Lewbel	Lewbel
Obs.	98	98	97	98	98
R-sq.	0.38	0.40	0.37	0.42	0.14
F-stat	5.27	5.27	5.26	5.27	5.27
Stock-Yogo	6.14	6.14	6.14	6.14	6.14
Rob. CI (IDV)	[.47],[1.08]	[.80],[1.19]	[.48],[0.96]	[.29],[.85]	[.19],[.77]
Rob. CI (ISL)	[-.47],[-.20]	[-.31],[-.14]	[-.49],[-.15]	[-.63],[-.32]	[-.31],[.03]

Note: 2SLS regression coefficient estimates with robust standard errors in parentheses. Dependent variables: constitutional compliance dimension. External instruments are supplemented with heteroskedasticity-based instrumental variables constructed using Lewbel's (2012) method (see Baum and Schaffer 2024). "F-stat" refers to the Kleibergen-Paap rk Wald F statistic. Stock and Yogo (2005)-critical values for weak identification are reported for 20% maximal IV relative bias. Instruments are considered weak if the F-test falls below the "Stock-Yogo" critical value. "Rob. CI" refers to an identification-robust confidence set of one of the independent (culture) variables of interest that is robust to weak instruments (see Andrews 2018; Sun 2018). Constant omitted. + $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Additional References

Hamilton, Lawrence C. (1991). How robust is robust regression? *Stata Technical Bulletin* 2, 21-26.