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THE INDIGENOUS ROOTS OF REPRESENTATIVE DEMOCRACY

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**ABSTRACT**

We document that rules for leadership succession in ethnic societies that antedate the modern state predict contemporary political regimes; leadership selection by election in indigenous societies is associated with contemporary representative democracy. The basic association, however, is conditioned on the relative strength of the indigenous groups within a country; stronger groups seem to have been able to shape national regime trajectories, weaker groups do not. This finding extends and qualifies a substantive qualitative literature, which has found in local democratic institutions of medieval Europe a positive impulse towards the development of representative democracy. It shows that contemporary regimes are shaped not only by colonial history and European influence; indigenous history also matters. For practitioners, our findings suggest that external reformers' capacity for regime-building should not be exaggerated.

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# 1 Introduction

Representative democracy is a modern European invention, traced commonly to the Glorious Revolution of 1688 in England (e.g., Narizny 2012; Przeworski 2010, 3). Yet democratic practices such as popular assemblies, leadership succession by election, and public deliberation are neither modern nor European. Indeed, such practices have been found in societies that antedate the modern state in most parts of the world.<sup>1</sup> This paper demonstrates that one such democratic practice – leadership succession by election or communal consensus – in indigenous societies robustly predicts contemporary representative democracy at the national level.<sup>2</sup> This finding is consistent with a substantive qualitative literature, which has found that proto-democratic institutions of medieval Europe facilitated the development of modern, representative democracy. (Blockmans 1978; Blum 1971a; Downing 1989, 1992; Ertman 1997). To take a few examples, Robert Dahl (2000) traced contemporary Norwegian democracy to the premodern assemblies, the *tings*, and Brian M. Downing (1988) traced the ancestry of the Swedish national parliament to informal village assemblies. Indeed, Esposito and Voll (1996, 22) found that in most of Europe, the existence of proto-democratic indigenous institutions provided democratic reformers with a narrative of historical continuity, which lended legitimacy to democratic rule.<sup>3</sup>

It is not obvious that a similar link would exist between modern political institutions and indigenous institutions also outside Europe. If representative government was a European invention, how can one trace it to indigenous institutions outside of Europe? In this vein, Adam Przeworski (2010, 20), for example, writes that

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<sup>1</sup>A few examples, listed in Muhlberger and Paine 1993, include the *kampong* assemblies of Malaysia, the councils of the Amerindian confederacies, the *gumlao* of the Kachin in Burma, the Maori *hapus*, the *kokwet* of the east African Sebei, the *panchayats* of India, and the *kgotla* of the Tswana in Botswana. See, also, Sabetti 2004; and Sen 2003.

<sup>2</sup>Some of the issues investigated in this paper were independently researched by Giuliano and Nunn (2013) who also discovered the positive cross country correlation between contemporary democracy and the extent to which a country had democratic ethnographic societies. This is not the focus of our paper since, as we show, the simple correlation is driven by regional differences.

<sup>3</sup>One of the leading scholars on Athenian democracy, Mogens Herman Hansen, finds few – if any – traces of ancient Athens in contemporary democratic institutions but identifies “an unbroken tradition which connects modern legislatures with medieval parliaments of the 13th century onwards Hansen (2010, 30).

“it is easy to find elements of democracy in ancient India, medieval Iceland, or precolonial Africa, but the implication that modern polities in these places owe something to their own political traditions is farfetched. Indeed, modern Greek democracy has no roots in the democracy of Ancient Greece. English constitutional monarchy had more impact on modern Greek political history than Athens did.”<sup>4</sup>

We show below that such indigenous elements of democracy are in fact associated with contemporary democracy also outside the European continent. This suggests that there is nothing particularly “European” about the historical link from early subnational institutions to modern national institutions; on the contrary, the European experience seems to generalize well outside the continent.

The modern state did not arise *ex nihilo*. States were built on top of and usually in conflict with existing political units. In its simplest form, this article argues that the way these indigenous political units were governed mattered for how the state came to be governed. We show that the ability of indigenous units to shape subsequent regime developments was conditioned on their relative strength; politically stronger units were able to shape national institutions, weaker units were not. To make this argument, we rely on Murdock’s (1967) Ethnographic Atlas as well as the Standard Cross Cultural Sample (Murdock and White 1969) to measure rules of leadership selection in 871 indigenous societies across 106 countries. We code indigenous societies as proto-democratic if leaders are selected by election or consensus and undemocratic otherwise. We use Polity IV to measure contemporary democracy at the country-level. We use three different proxies for the relative strength of indigenous political units. The first is a group’s proximity to the country’s capital. We find that only the institutions of groups located “close” to the capital are associated with subsequent regime developments. This finding confirms the notion that political influence and power in many countries are disproportionately

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<sup>4</sup>Karl Wittfogel (1957, 108-26) also did not expect participatory government at the local level to lead to democracy at the country level. On the contrary, despotic state-level institutions are fully compatible with pockets of subnational participatory government. Wittfogel dubbed this the “beggar’s democracy”.

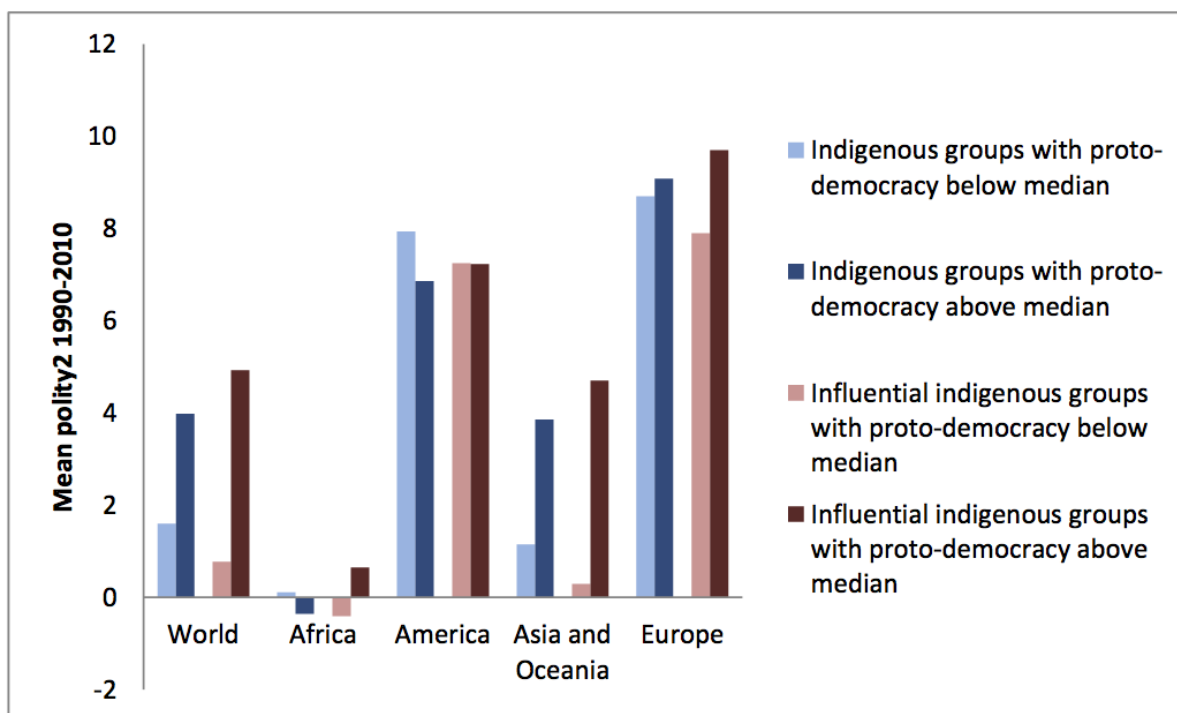
centered on the capital (e.g., Bates 1981, Herbst 2000). The second proxy is the complexity of the indigenous settlement. We show that the institutions of groups with more complex settlement patterns are more strongly associated with national democracy. Our last proxy for political influence is economic activity, measured at the level of the indigenous group using satellite data on light density at night. Nighttime luminosity has been shown to correlate strongly with economic activity (e.g., Henderson, Storeygard, and Weil 2011; Michalopoulos and Papaioannou 2011). We show that the higher the current economic activity in the local area of the indigenous group, the larger the association between the institutions of the group and the national institutions.

With all three measures of political influence, we document a substantively relevant and statistically significant association between indigenous rules for leadership succession and contemporary national institutions. Figure 1 illustrates that the association between current and indigenous democracy depends on the political strength of the indigenous group. The figure shows the average polity2-scores by strength (proximity to the capital) and by continent. There are two sets of bars for each continent: The blue bars show average democracy scores for all ethnic groups in a continent, and the red bars show the same for influential groups only. Each color is again divided into ethnicities with indigenous democracy below median (light colors) and above median (dark colors). When we look at the world as a whole, there is a clear positive association between contemporary and indigenous democracy: countries with a more proto-democratic indigenous history are more democratic today. This association does not, however, generally obtain when we compare countries within continents (i.e., the difference between the dark and light blue bars is rather small). Yet when we zoom in on influential indigenous groups, defined here as groups located within 400 kilometres of the capital, there is generally a positive association between indigenous and national institutions (i.e., the difference between the dark and light red bars is larger).<sup>5</sup>

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<sup>5</sup>The exception to the rule is America, where the association is negative within the full sample and insignificant within the influential sample. However, the American sample is small: There are only between 5 and 9 countries in each group.

Figure 1: Current and indigenous Democracy across Continents



*Notes.* The figure shows the mean polity2-scores across countries by continents. Within each continent, the sample of countries is split in two based on the degree of indigenous democracy. Darker colors represent countries with above median levels of indigenous democracy, lighter colors indicate below median. Indigenous democracy is measured based on the variable “succession of the local headman” (described in the data section) and calculated across all 871 ethnographic societies in all the blue bars and across the 251 ethnographic societies located within 400 km of the capital city in the red bars. The number of countries behind the bars is as follows (<median,>median): World 53,53 in the full sample (blue bars) and 51,35 in the influential sample (red bars); Africa 22,22 and 29,10; America 8,9 and 5,7; Asia and Oceania 18,17 and 16,11; Europe 4,6 and 2,6.

The regression analyses show that the association between current and indigenous democracy for influential societies is statistically significant, obtains for the three proxies for political power, and robust to a broad set of controls, including historical European influence and colonization, geographical controls, as well as a set of common correlates of democracy. In general, the association doubles when we focus the analysis on the influential societies compared to the entire sample. Furthermore, increasing democracy among the politically influential indigenous societies by one standard deviation, increases the polity IV index by 1.7 units on the 21 unit scale (amounting to a third of a standard deviation). We show, also, that the association between indigenous democracy and

current democracy disappears in the European settlement colonies as expected, where the dominant position of the settlers severed the link from indigenous to contemporary institutions.

Examining the effect of local ethnic institutions on national institutions is complicated by endogeneity; national institutions may affect indigenous institutions, and unobserved cultural or historical factors may plausibly affect both. To alleviate concerns of reverse causation, note that we find a robust association between indigenous institutions and national institutions only for ethnic groups that were relatively strong. For reverse causation to explain this finding would require that national institutions affect only local institutions in relatively strong ethnic societies. While such a selective effect of national institutions on local institutions is not impossible, we find it hard to rationalize. A more straightforward interpretation of our results is that stronger groups are better able to influence national regime trajectories. To alleviate concerns of omitted variable bias, we used generalized sensitivity analysis (Imbens 2003; Harada 2013) and show that, for omitted factors to explain our findings, these would have to show an exceptionally strong association with both national and local institutions.

We propose three channels through which indigenous institutions might have affected national regime developments. First, the existence of local assemblies provided a source of resistance against the state. Popular assemblies could facilitate coordination and collective action and allow local communities to raise resources (or even a local militia) to oppose the state. This argument is much in line with the large literature that sees the origins of representative institutions as the outcome of a bargain between a revenue-seeking ruler and society. The stronger are societal actors *vis-à-vis* the ruler, the more likely were rulers to grant political rights in return for revenue (e.g., Bates and Lien 1985; Hoffman and Rosenthal 1997; Tilly 1975). Second, subnational democratic institutions might affect regime developments by teaching citizens locally the merits and mores of democracy. This view is naturally associated with Tocqueville (2000 [1835]) who famously likened participatory local government to a “primary school for democracy”. Third, we argue

that dynamics of institutional path dependence may explain the mapping of subnational institutions into national institutions. Such dynamics, we argue, are likely to be more prevalent when the ethnic group and the state are more congruent.

One broad implication of our findings is that modern regimes may be more deeply grounded in indigenous societies than previous theories have suggested.<sup>6</sup> Much of the literature on comparative regime development outside Europe has focused on the colonial legacies, effectively treating indigenous political history as secondary.<sup>7</sup> When carried over into the prescriptive realm, our findings suggest that external reformers' capacity for regime-building should not be exaggerated. While our results suggest an indigenous grounding of national regimes, they also show that weaker groups are not generally able to influence a country's regime trajectory. They therefore call for caution before too much potential for change is attached to local regime dynamics.

The remainder of the paper is structured as follows. Section 2 develops the argument from historical observation and presents three potential channels through which indigenous institutions might affect national ones. In section 3 we describe the data and the following section shows the basic association. In section 5 we discuss how institutions at the level of the ethnic group can be aggregated to the country-level and propose to attach more weight to "influential" groups. We then document that the institutions of relatively "strong" groups are associated with subsequent regime developments. In section 6, we show that the association is robust to various measures of colonization, and that it disappears in European settlement colonies. Sections 7 and 8 perform robustness checks and address endogeneity concerns. The last section concludes.

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<sup>6</sup>The importance of indigenous institutions for contemporary economic performance has been explored by, e.g., Acemoglu, Reed, and Robinson (2014); Dell (2010); Gennaioli and Rainer (2007); Michalopoulos and Papaioannou (2013).

<sup>7</sup>See, e.g., Chabal (1986, 3); Herbst (2000, 28f.) for similar points.



## 2 From Indigenous Assemblies to Representative Government

The historical roots of representative government in Europe have been traced to medieval assemblies of king and feudal lords (e.g., Myers 1975; Downing 1992; Ertman 1997; Tilly 1975) as well as to local village assemblies (e.g., Dahl 2000; Downing 1988). Yet the existence of village - or tribal assemblies was clearly not unique to Europe (e.g., Muhlberger and Paine 1993; Sabetti 2004; Sen 2003); nor were the structure and functions of such assemblies. Rulers have convoked assemblies to give solemnity to ceremonial events and obtain council in all parts of the world.<sup>8</sup> Such assemblies were often unconstitutional and *ad hoc*: They were called irregularly, not held in any fixed place, and without formal legal authority (Blockmans 1978, 196; Blum 1971a 554-5; Lewis 1961, 189-9; Marongiu 1968, 24). The councils often had both advisory and judicial functions. Participation was usually restricted to adult males, and elders held a privileged position. Among their areas of responsibility were the maintenance of order, adjudication of disputes, management of communal resources, and public goods provision (Blum 1971a, 545-7; Downing 1988, 31; Lewis 1961, 228, 234). To meet these costs, the local communities made regular levies upon its members; possibly by requiring able men to work for the community (Blum 1971a, 547; Lewis 1961, 234).

Brian M. Downing (1988, 10) found in such local assemblies of medieval Europe “not only the obstacle to absolutism [...], but also a positive impulse towards popular government.” Yet if the characteristics of these assemblies were not unique to Europe, neither, perhaps, were their impulse towards popular government? In the remainder of this section, we present three ways in which the existence of proto-democratic indigenous assemblies might have influenced a country’s political regime trajectory.

First, it is an integral part of the process of state formation that states seek to eradicate competing institutions (e.g. Hui 2004; Spruyt 1994; Tilly 1985). If societal actors are

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<sup>8</sup>See, e.g., Marongiu (1968, 46) for medieval Europe. See Schapera (1967, 64) for the Sotho tribes of the Nguni and the Tsonga.

relatively strong, state makers may be forced to concede rights to societal representatives (e.g., Bates and Lien 1985; Ertman 1997; Finer 1997, e.g. 1036; Hoffman and Rosenthal 1997; Levi 1988; North and Weingast 1989; North 1990; Stasavage 2003, 2010). Many factors have been argued to shape the relative bargaining power of societal actors and state makers, including the existence of indigenous or local government (e.g., Downing 1992; Ertman 1997) and the cohesiveness of local societies (e.g., Blum 1971b, 164-5; Boone 2003, 22; Moore 1966, 475). The existence of local government allowed communities to coordinate actions *vis-à-vis* the state, and the right to tax allowed them to mount the resources needed to oppose state power. Thus, Thomas Ertman (1997, 22) argued that local assemblies provided “the resources needed to mount an effective defense [...] against overweening royal ambition: A ready-made forum in which all of the local elite could meet and discuss a common course of action; financial resources such as local taxes; and even armed forces in the form of the local militia.” As well, the participatory nature of the assemblies likely increased the cohesiveness of indigenous societies and thus their ability and citizens’ willingness to take concerted action against the state.<sup>9</sup> In Latin America, the *cabildos* (town councils) of colonial Spanish America serve to illustrate. Here, men of some social standing could participate in local government (e.g., Diamond et al. 1989, 3) and elect leaders (Finer 1997, 1387). In matters of importance, the local council convoked the public in *cabildos abierto* (public assemblies); it was at such public assemblies that collective resistance and the wars of independence against the Spanish Crown were begun in Argentina and Venezuela in 1810.<sup>10</sup>

Turning to the second channel, local assemblies with popular participation and elected leaders may also affect national regime trajectories by forming citizen attitudes. This perspective is naturally associated with Alexis de Tocqueville who saw participatory local government as a training school where citizens could develop democratic mores (e.g., 2000 [1835], 46): “Municipal institutions are to liberty what primary schools are to knowledge;

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<sup>9</sup>Boone (2003, ch. 3) used the Diola society in southern Senegal to show how horizontally cohesive groups can exhibit a considerable capacity for collective action.

<sup>10</sup>Specifically, the *cabildo abierto* in Buenos Aires on May 22, 1810, and in Caracas on April 19, 1810.

they place it within reach of the people; they give the experience of the peaceful exercise of it and habituate them to make use of it. Without municipal institutions a nation may give itself a free government, but it does not have the spirit of liberty.”<sup>11</sup> A contemporary perspective on the merits of local government was given in 2005 by Wen Jiabao, then Premier in China, stating that “if the Chinese people can manage a village, I believe in several years they can manage a township” (Gilley 2013, 406).

Also, proto-democratic indigenous institutions may provide democratic reformers with a narrative of historical continuity, which lends legitimacy to democratic rule. To illustrate, the idea of a Scandinavian proto-democracy was first invoked in public discourse in Denmark, Norway, and Sweden in the 1930s to counter the totalitarian ideological currents of Communism and Fascism (Jakobsen 2010, 322). Similarly, in early 20<sup>th</sup> century England, the Anglo-Saxon polity was said in *Encyclopedia Britannica* to provide “all the constituent parts of parliament” (Esposito and Voll 1996, 22).<sup>12</sup> According to Esposito and Voll (*ibid.*), such “reconceptualizations of premodern institutions played an important role in the development of democratic attitudes in Europe.” Tradition and historical continuity brings legitimacy, which may induce people to struggle for democracy and support it once it is there.

Lastly, the link from indigenous institutions to national ones may also be a result of path dependence: Political institutions can be highly persistent; once in place, they are hard to change. This is empirically well documented (e.g., Acemoglu, Johnson, and Robinson 2001; Putnam 1993), and many mechanisms have been proposed to explain this fact.<sup>13</sup> The argument here concerns institutional persistence from one polity (the ethnic group) into another, which contains the first (the state). Whatever the mechanisms that underlie it, the dynamics of path dependence are likely to be more prevalent if the two

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<sup>11</sup>John Stuart Mill expressed a similar perspective on the merits of local government. He held that “free and popular local and municipal institutions” are part of “the peculiar training of a citizen, the practical part of the education of a free people.” Quoted in Elkin (1987, 1).

<sup>12</sup>A similar attempt to legitimize national institutions is Lee Kwan Yew’s famous claim that democracy was incompatible with Asian values. This, Przeworski, Cheibub, and Limongi (1998, 25) found was “a thin veneer over his desire to hold on to power.”

<sup>13</sup>See Scott Page (2006) for a thorough and rigorous discussion of the causes of path dependence.

polities, the state and the ethnic group, are more congruent. This was the case, for example, in the Scandinavian countries.

In summary, local assemblies, may provide an impetus to toward national democratic institutions as a source of resistance against repressive state power (cf., e.g., Ertman 1997, 22), as a training school for democratic practices and ideals (cf., e.g., Tocqueville), and by the dynamics of path dependence. These channels are of course, mutually compatible.

### 3 Data

To measure the existence of early democratic institutions at the level of the indigenous society, we use the Ethnographic Atlas (Murdock 1967) and the Standard Cross Cultural Sample (SCCS) (Murdock and White 1969). The Atlas holds data on a broad set of characteristics for 1265 societies across 148 countries.<sup>14</sup> It was published in successive installments of the journal *Ethnology* from 1962 onwards. The original coding was done by Yale Professor of Anthropology George Peter Murdock based on the ethnographic sources listed in the notes to each installment in *Ethnology*. About a fifth of the original codings were checked by graduate students and collaborators (Murdock 1967, 110), and the data have been updated and corrected many times since its first publication in 1967 (e.g., Gray 1999; Peregrine 2003). It seems fair to say that the Ethnographic Atlas is now becoming a standard reference in social science research (e.g., Alesina et al. 2013; Englebert et al. 2002; Gerring et al. 2011; Giuliano and Nunn 2013; Nunn and Wantchekon 2011).

For each society, the information in the Atlas reflects “the earliest date for which satisfactory ethnographic data are available or can be reconstructed [in order to] avoid insofar as possible the acculturative effects of contacts with Europeans” (Murdock and White 1969, 340). In the sample used here, 1919 is the median year to which the ethnographic information pertains (the average is 1896). While these years do not generally

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<sup>14</sup>The SCCS is a subsample of 186 more thoroughly investigated societies from the Ethnographic Atlas.

antedate modern statehood, the sources describing each society were “chosen so that cultural independence of each unit in terms of historical origin and cultural diffusion could be considered maxima” (ibid., abstract). The data have thus been recorded to reflect characteristics that predate modern statehood as well as European contact. In section 8 we discuss at some length the possibility – against the intention of the coders – that indigenous institutions were influenced by national institutions.

The independent variable is early democratic institutions at the level of the ethnic group. This was coded using the variable *Succession to the office of the local headman* (variable v276 in SCCS and v72 in the Ethnographic Atlas). Societies are coded as democratic if leaders are selected by election or consensus and undemocratic otherwise. Table 1 shows the distribution of the categories of local leadership succession in the data.

[Table 1 about here]

The dependent variable is contemporary democracy, measured using the 21-point scaled variable *polity2* from Polity IV. To avoid having short spells of regime instability affect the results, *polity2* is averaged over the post-Cold War period (1990-2010). Robustness checks are done using the dichotomous democracy indicator originally constructed by Przeworski et al. (2000) and more recently updated by Cheibub et al. (2009). With this data, our sample consists of 871 societies in 106 countries.

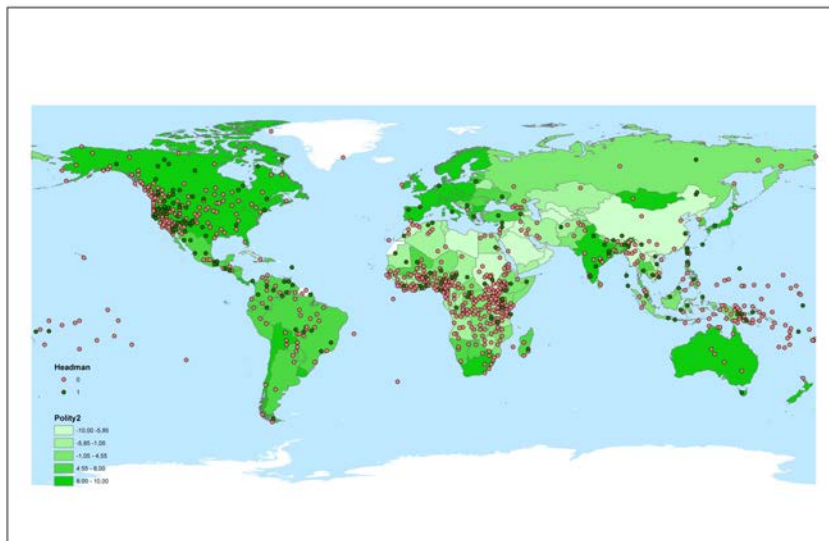
Figure 2 shows the geographical distribution of the 871 societies in our sample.<sup>15</sup> The indigenous societies are represented by dots; the darker ones are coded as democratic, lighter ones are coded as undemocratic. The coloring of countries represents the dependent

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<sup>15</sup>In order to match the societies to countries, we used an ESRI shapefile of country borders. For each indigenous society, the SCCS and the Ethnographic Atlas report the latitude and longitude of its position. For the majority of the societies, the precision is 1 degree, amounting to an error of +/- 55 km in every direction. If we matched societies to countries exclusively by way of being located exactly within a country's borders, we would lose societies that were mistakenly located in the ocean barely outside the country borders. 1107 of the 1265 societies lie exactly within country borders, 1231 lie within 55 km of country borders. We therefore match each society to a country by identifying the closest country of each ethnographic society. 10 of the original 1265 societies are located more than 200 km from a country border, which we interpret as a reporting error and exclude them from the analysis. Results are robust to including them and also to choosing a different cutoff.

variable, contemporary democracy (1990-2010) as measured by Polity IV. Again, darker is more democratic.

Figure 2. Indigenous Democracy and Representative Government



*Notes.* The dots show the 871 ethnographic societies in our sample. The darker dots represent indigenous democracy, where the local headman was selected by means of elections or communal consensus. Countries are colored to represent contemporary democracy as measured by Polity IV.

The figure reveals regional clustering. For example, the proportion of ethnic societies with local democracy is comparatively large in Europe (62 percent of all societies in Europe are coded as democratic) and in North America (31 percent) and comparatively limited in Africa (9 percent). Thus, the map immediately suggests that between-regional variation would drive a positive association between indigenous democracy and contemporary political regimes.

### 3.1 Measuring Indigenous Institutions at the Country-Level

Our dependent variable is democratic institutions at the country level, and we therefore need a country-level measure of the indigenous institutions within a country. Local institutions can be aggregated in different ways. Giuliano and Nunn (2013), for example,

manually match each ethnic group to a language group. They then calculate the country average by weighting each ethnic group with the current population-size of the language group, such that ethnographic societies belonging to larger language groups are given more weight. These language groups can be quite broad, and the implicit assumption is that indigenous institutions are identical within language groups (even across societies and countries). Against this assumption, however, the renowned anthropologists, Meyer Fortes and Evans-Pritchard (1940, 3), warned that “[i]t is well to bear in mind that within a single linguistic or cultural area we often find political systems which are very unlike each other in many important features.”

Our approach to aggregation is different because we only record indigenous institutions for the country in which a society was located. With this, a simple measure of indigenous proto-democracy in country  $c$  would be the share of societies within that country where leadership succession is by election, formal or informal consensus. Formally,  $indig_c = \frac{1}{N} \sum_{s=1}^N indig_{sc}$  for all  $N$  societies  $s$  within country  $c$ , where  $indig_{sc}$  is a dummy equal to 1 if society  $s$  had rules for leadership succession by either “election or formal consensus” or “informal consensus”, zero otherwise. Note that this approach weighs all groups within a country equally; implicitly assuming that the groups in a country mattered equally for subsequent regime developments. We relax this assumption in section 5.

## 4 Basic Correlations

Table 2 reports coefficients from OLS regressions of contemporary democracy on a country’s history of indigenous democracy corresponding to the following equation:

$$D_c = \alpha + \beta indig_c + \mathbf{X}'_c \delta + \epsilon_c \quad (1)$$

where  $D_c$  is contemporary democracy in country  $c$ ,  $indig_c$  is the share of democratic ethnic societies in country  $c$ , and  $\mathbf{X}'_c$  is a vector of controls. The coefficient of interest is  $\beta$ , which measures the association between local indigenous institutions and national

institutions.

[Table 2 about here]

Column (1) documents a highly significant, unconditional association of 3.96 between contemporary democracy and a history of indigenous democratic institutions. Substantively, this suggests that if Angola or Kazakhstan ( $indig_c = 0$ ) had had the same level of indigenous democracy as, say, Italy ( $indig_c = 1$ ), one should expect contemporary democracy to be 3.96 polity2-units higher, all else equal.

Column (2) controls for the (absolute) value of latitude. This is informed by Jared Diamond’s argument that, throughout history, technological and institutional diffusion were easier at similar latitudes where the length of the day and climate were not drastically different (Diamond 1997, ch. 10). This specification compares countries along the historically important East-West axis rather than the disparate experiences of the North to the South. Column (3) controls for the “approximate time level to which the ethnographic data pertains” (Murdock 1967, 116), since this might have a bearing on how local institutions map into national ones. Column (3) thus compares countries for which the timing of the ethnographic information is roughly similar. Column (4) adds a control for historical development, proxied by settlement complexity. In line with Alesina et al. (2013) and Nunn and Wantchekon (2011), we proxy development by the variable “Settlement Patterns” (variable v30 in the Ethnographic Atlas and v234 in the SCCS), which measures the permanency and density of settlements ranging from “Nomadic or fully migratory” to “Complex settlements” on an 8-point scale. Comparing countries at similar levels of latitude, timing of the ethnographic data collection, and societal complexity does not affect the coefficient of interest.

Reassuringly, the results in columns (1)-(4) are entirely consistent with those presented in Giuliano and Nunn (2013), despite the differences in aggregation techniques, control variables and the time-frame in which contemporary democracy is measured. The magnitude of the estimated association is even quite similar. Guillano and Nunn’s estimates



range from 2.0 to 3.6 and ours lie between 2.7 and 3.96; the intervals are statistically indistinguishable.

In column (5), we include a full set of regional dummies.<sup>16</sup> Figure 2 suggested that the proportion of ethnic groups with popularly elected headmen is not evenly distributed geographically: The highest proportion of ethnic groups with leadership succession by election or consensus was found in Europe; the lowest was found in Africa. When regional fixed effects are included, the coefficient measures the average intra-regional association between indigenous and national institutions, effectively comparing European countries to other European countries, and so on. This nearly cuts the estimated association in half and it is no longer statistically significant at conventional levels. This does not invalidate the finding, however; indeed, it is the central claim in a historical-sociological literature (e.g., Downing 1989, 1992; Ertman 1997) that contemporary Europe is comparatively democratic precisely because of its early modern history of local, proto-democratic assemblies.

## 5 Whose Indigenous Institutions Matter?

We now relax the assumption that all groups within a country matter equally for its political regime dynamics. Some groups are inevitably more powerful than others and better able to influence the national regime trajectory. In North America, for example, European settlers were more powerful than the indigenous groups and better able, therefore, to impose their preferred institutions on the country as a whole. In the late 19<sup>th</sup> century, villagers in contemporary Ukraine elected their own district leader, but attempts at regime change from below were crushed by the tsar (Gilley 2013, 397). Similarly in China, where initiatives for township elections were brought to a halt by the government (ibid., 397). These examples illustrate how subnational institutions that are not backed by sufficiently powerful groups likely do not map into national institutions.

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<sup>16</sup>The regions included are sub-Saharan Africa, Asia, Europe, Oceania, North America, South America, and the Middle East and North Africa.

Even if the idea is theoretically straightforward, measuring the relative power or influence of indigenous groups is not. We propose three different proxies for groups' relative political power. The first is proximity to the current capital. This is based on the idea that if power is concentrated in the capital, proximity to the capital likely facilitates political influence. The two second proxies are measures of past and current economic development; the basic motivation being that more developed societies were likely to be more influential. Strictly speaking, of course, all proxies measure the *base* of power (e.g., Dahl 1957, 202; Simon 1953, 507f.), i.e. the resources and conditions for the exercise of power or influence; not the power relation itself. All three proxies yield identical results. Summary statistics for all three proxies are shown in Appendix Table A1.

***Proximity to the capital*** Usually, a country's capital is home to its highest political offices and decision-making authority. It is home also to the means of coercion and law enforcement (or the administration of it, at a minimum) and the central bureaucracy. Physical proximity to this centre of authority likely increases political influence (e.g., Campante, Do, and Guimaraes 2013; Ades and Glaeser 1995, 198f; Herbst 2000; Olsson and Hansson 2011).<sup>17</sup> First, the threat of violence or rebellion is less urgent from a distance, and groups' ability to exchange force for political influence should thus increase with their proximity to the capital. Second, since influential public offices are concentrated in the capital, public officials are likely to be recruited from the groups located in the vicinity of the capital. Third, groups closer to the capital are better able to monitor what happens there. The state, therefore, is likely to be more responsive to the demands of groups living closer to the capital. Finally, the location of the capital is itself endogenous to an underlying distribution of power among different groups in a country. The dominant group, we argue, is likely to set up the institutional infrastructure in its own vicinity.

In many European colonies, capital cities were externally imposed: Colonizers often

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<sup>17</sup>Herbst (2000) and Olsson and Hansson (2011) focus on the projection of power *from* the capital, arguing that the state's ability to broadcast power decreases with the distance from the capital. Campante, Do, and Guimaraes (2013) and Ades and Glaeser (1995) focus on how distance matters for the ability to project influence *into* the capital. Our perspective is the latter.

centralized authority in capitals that were either built from scratch or relocated to a new city that met better the logistical needs of the colonial power.<sup>18</sup> However, capitals were also the locus of power in colonies. Thus, the relocation served to weaken the ties between the capital-region and the rest of the country, and Europeans often only made limited efforts to extend the power and political reach of the capital into the countryside. Politics in former colonies is therefore widely regarded as being disproportionately centered on the capital (e.g., Bates 1981; Herbst 2000). This capital-bias often continued into the post-colonial period, because the urban population and the capital region in particular were critical to leaders' political survival (e.g., Alence 2004; Bates 1981; Bratton and de Walle 1992). Regardless of whether countries were colonized or not, we hypothesize that societies located closer to the capital are better able to affect a country's regime trajectory than groups located further away. The association between national political institutions and indigenous institutions should thus increase when we zoom in on indigenous societies located closer to the capital.

To introduce the empirical model, assume to start with that we do have information on current democracy at the level of indigenous societies,  $D_{sc}$ . Let the indicator variable  $I_{sc}$ , described in detail below, equal one if the society is located "close" to the capital, zero otherwise. To see if the association between indigenous and national institutions is conditioned on societies' relative proximity to the capital, one can estimate the following equation:

$$D_{sc} = \alpha + \beta_1 \text{indig}_{sc} + \beta_2 \text{indig}_{sc} \times I_{sc} + \gamma I_{sc} + \mathbf{X}'_{sc} \delta + \epsilon_{sc} \quad (2)$$

If indigenous democracy is positively associated with current democracy in politically influential societies, we expect that  $\beta_2 > 0$ . Yet by construction, contemporary national democracy does not vary at the level of the indigenous groups, but only at the country level. Therefore, we aggregate all variables to the country-level and obtain the following:<sup>19</sup>

<sup>18</sup>Lusaka, Nairobi, and Harare were all, for example, built *de novo*, whereas, e.g., Lagos and Accra were upgraded to capitals by the British.

<sup>19</sup>We arrive at equation (3) by:  $\frac{1}{N} \sum_{s=1}^N D_{sc} = \alpha + \beta_1 \frac{1}{N} \sum_{s=1}^N \text{indig}_{sc} + \beta_2 \frac{1}{N} \sum_{s=1}^N \text{indig}_{sc} \times$

$$D_c = \alpha + \beta_1 \text{indig}_c + \beta_2 \text{indig}_c^p + \gamma \text{close}_c + \mathbf{X}'_c \delta + \epsilon_c \quad (3)$$

where  $D_c$  is contemporary democracy in country  $c$ ,  $\text{indig}_c^p = \frac{1}{N} \sum_{s=1}^N \text{indig}_{sc} \times I_{sc}$  is the average level of democracy among indigenous societies interacted with whether the society is located close to the capital city.  $\text{close}_c$  measures the fraction of societies located close to the capital city of country  $c$ . In order to estimate the significance of the association between current democracy and indigenous democracy among politically powerful societies, one needs to estimate the significance of the composite estimate  $\beta_1 + \beta_2$ . Instead, we estimate the equivalent model to get a direct estimate of the association of interest:

$$D_c = \alpha + \beta_3 \text{indig}_c^p + \beta_4 \text{indig}_c^{np} + \gamma \text{close}_c + \mathbf{X}'_c \delta + \epsilon_c \quad (4)$$

where  $\text{indig}_c^{np} = \frac{1}{N} \sum_{s=1}^N \text{indig}_{sc} \times (1 - I_{sc})$  is the average level of democracy among indigenous societies interacted with whether the society is located far from the capital city. Now, the estimate of interest,  $\beta_3$  measures the direct impact of indigenous democracy in politically influential societies. We allow “close” to vary at increments of 100 kilometers ranging from a distance of 1,000 kilometers (or more) to 100 (or less). In the few cases where a capital was relocated, we focus on the contemporary capital.<sup>20</sup> The capital of interest here must have served as capital at the moment in which the foundations of a political regime are laid. And since we focus on the contemporary regime, we focus also on the contemporary capital.

All models include the following controls in addition to the controls from Table 2: A control for (log of) the country area, since democratic rule may be more viable in smaller countries (e.g., Dahl and Tufte 1973; Stasavage 2010) and since indigenous groups are

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$I_{sc} + \gamma \frac{1}{N} \sum_{s=1}^N I_{sc} + \frac{1}{N} \sum_{s=1}^N \mathbf{X}'_{sc} \delta + \frac{1}{N} \sum_{s=1}^N \epsilon_{sc}$ .

<sup>20</sup>In our sample of 106 countries, eight capitals have moved since 1960. These are Cote d’Ivoire (Abidjan to Yamoussoukro in 1983; Kazakhstan (Almaata to Astana in 1997); Malawi (from Zomba to Lilongwe in 1974); Micronesia (Kolonias to Palikir in 1989); Myanmar (Rangoon to Naypyidaw in 2005); Nigeria (from Lagos to Abuja in 1991); Pakistan (Karachi to Islamabad in 1974); Tanzania (Dar es Salaam to Dodoma in 1996).

closer to the capital in smaller countries.<sup>21</sup> Further, since many capitals are located close to the ocean, which may itself improve the prospects for democracy by, e.g., facilitating economic integration with the outside world, we control for the (log of) average distance to the coast from all ethnographic societies within a country. Lastly, since the measure is based on the societies located “close” and “far” from the capital as defined in each column, we control for the share of ethnographic societies located “close” to the capital.<sup>22</sup> Table 3 shows the results.<sup>23</sup>

[Table 3 about here]

The table documents that the indigenous institutions of societies located in the proximity of a country’s capital are more strongly associated with its national institutions than are the institutions of societies located further away. Panels A and B are identical except that, in Panel B, regional fixed effects are included. Column (2) shows that the indigenous institutions of ethnic groups located within 1,000 kilometers of the capital are significantly and positively correlated with national institutions (a point estimate of 3.65); institutions in societies located further away are uncorrelated with national institutions. Moreover, when the average proximity to the capital is increased gradually (shown in column (2)-(11)), the association between indigenous and national institutions increases almost monotonically. When regional fixed effects are included in panel B, the parameter estimate becomes significant for indigenous institutions located within 800 kilometers of the capital. The squared brackets below the estimates indicate the number of ethnic societies located “close” and “far” from the capital city.

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<sup>21</sup>Campante, Do, and Guimaraes (2013) show that capital isolation is associated with misgovernance. They operationalize capital isolation as the natural log of the average distance of a country’s population to its capital. Controlling for the natural log of the average distance of a country’s ethnographic societies to its capital instead of country size does not affect the results in Table 3.

<sup>22</sup>Results are robust to excluding either of these controls.

<sup>23</sup>Instead of this interaction model, a naïve way to test the hypothesis would be to let the measure of indigenous proto-democracy be based only on the societies located close to the capital city, throwing away the information on all other societies. The results in Table 3 hold in this model.

The results in Table 3 are thus consistent with the discussion above; if political power and the ability to shape the subsequent national regime trajectory are centered on the capital, we should expect the estimated coefficient to increase for ethnic societies located in relative proximity to the capital.<sup>24</sup> In the rest of the paper, we use the specification in column (8) where “close” is defined as being within 400 kilometres of the capital. As measured by  $R^2$ , this specification provides the best fit with the data.<sup>25</sup>

***Settlement complexity*** Our second proxy for the indigenous groups’ ability to influence country-level institutions is the complexity of their settlements.<sup>26</sup> Settlement patterns are usually taken by archaeologists as an indication of political and social development (e.g., Steponaitis 1981).<sup>27</sup> More developed societies are better able to raise the resources needed to build armies and coordinate war-making efforts (cf. Crone 1986, 171). More generally, economic capability is a fungible source of power that can be used in disparate areas (e.g., Waltz 1979, 131).

To examine if settlement complexity conditions the association between indigenous institutions and national institutions, we estimate the following equation:

$$D_c = \alpha + \beta_1 \text{indig}_c^c + \beta_2 \text{indig}_c^{nc} + \gamma \text{complex}_c + X'_c \delta + \epsilon_c \quad (5)$$

Equation (5) is similar to equation (4) except that  $\text{indig}_c^c = \frac{1}{N} \sum_{s=1}^N \text{indig}_{sc} \times I_{sc}$ , where  $I_{sc}$  now equals one if the particular society is complex, zero otherwise. Similarly for  $\text{indig}_c^{nc}$ . We allow the definition of *complex* to vary in increments from more complex than “nomadic or fully migratory” to more complex than “compact permanent” settlements.

<sup>24</sup>This result is tangent to the study by Stasavage (2010), who finds that the ability to sustain national assemblies declines with the average distance from the capital. It is tangent, also, to the study by Wantchekon and Poncé (2011), who find that, in Africa, urban insurgencies are followed by democratic regime transitions whereas rural insurgencies are followed by autocracy.

<sup>25</sup>Note that the results are not driven by societies within 100 kilometres of the capital; excluding these (48) societies does not alter the conclusion (results available upon request).

<sup>26</sup>The variable is an eight-point scale ranging from “Nomadic or fully migratory” to “Complex settlements”.

<sup>27</sup>Population density is another oft used proxy for economic development. While data on population density is not available at the level of the ethnic group, it should be mentioned that settlement complexity is strongly and significantly correlated with the total population size of a society (0.58, p-value 0.00 for the 582 available societies).

$complex_c$  measures the share of societies that are defined as complex according to the particular cutoff. Table 4 reports the results.

[Table 4 about here]

In the first column, all societies that are more complex than “nomadic or fully migratory” are defined as politically strong. Moving towards the right in the table, the definition of “politically strong” is gradually tightened, until column (7) where only societies that are coded as having complex settlements in the Atlas are defined as politically strong. The table shows that the indigenous institutions in relatively complex societies are associated with contemporary national institutions, whereas those in less complex societies are not. This suggests that more developed indigenous groups were better able to influence national regime trajectories.<sup>28</sup> In the analyses that follow, we used the specification in column (6), since this provides the best description of the data as measured by  $R^2$ .

***Economic activity at the grid level*** Our third proxy for the relative power of indigenous groups is their level of contemporary economic development. Since official statistics (e.g., GDP per capita) are not constructed for ethnic groups, we proxy economic activity using satellite data on light density at night. The usefulness of this measure has recently been established by Henderson, Storeygard, and Weil (2011), who demonstrate a strong within-country correlation between light density at night and GDP levels. The measure was further corroborated by Michalopoulos and Papaioannou (2011, 11), who show that within countries in sub-Saharan Africa, light density correlates strongly with household income. At the level of the ethnic society (where income data is unavailable), they further document that light density correlates with educational attainment.

The data on light density at night in year 2000 is provided by the National Geophysical Data Center at NASA.<sup>29</sup> For each grid cell of  $0.5 \times 0.5$  degrees, the data measures the

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<sup>28</sup>In column (7) the estimated association remains positive, but insignificantly so. This is likely due to the small number of complex settlements in our data (only about 3 percent of the societies in our sample are coded as complex settlements).

<sup>29</sup>Available online at <http://ngdc.noaa.gov/eog/>.

degree of luminosity at night. For each indigenous society, we calculated the average light density within a circle of 200 km radius.

Light density reflects the contemporary level of development in the area of an ethnic group. The motivation behind this proxy is that societies that managed to (later) generate higher economic activity were also more likely to influence national regime trajectories.<sup>30</sup>

One caveat is in order: Light density likely reflects urbanization as much as economic activity. Luminosity is likely therefore to be centered on a country’s capital meaning that two of our proxies for political power (proximity to capital and night-time luminosity) might in fact capture the same underlying reality. As it turns out, however, the two proxies are essentially orthogonal (the correlation is -0.02; the p-value is 0.50).<sup>31</sup>

To examine whether the ability of ethnographic societies to influence national political institutions is conditioned on their relative economic development, we estimated the following OLS regression:

$$D_c = \alpha + \beta_1 \text{indig}_c + \beta_2 \text{indig}_c^{\text{light}} + \gamma \text{light}_c + \mathbf{X}'_c \delta + \epsilon_c \quad (6)$$

where  $\text{indig}_c$  is the fraction of proto-democratic indigenous societies in country  $c$ ,  $\text{indig}_c^{\text{light}} = \frac{1}{N} \sum_{s=1}^N \text{indig}_{sc} \times \text{light}_{sc}$  for the  $N$  societies  $s$  within country  $c$ .  $\text{light}_{sc}$  is the  $(0.01 + \log)$  average light density within a circle of 200 km of the centre of society  $s$  in country  $c$ .<sup>32</sup>  $\text{light}_c$  is the average night-time luminosity across the societies in country  $c$ .  $\mathbf{X}'_c$  represents controls. The coefficients of interest are a composite of  $\beta_1$  and  $\beta_2$ .

<sup>30</sup>Using contemporary light density implicitly assumes that the contemporary homeland of an ethnic group is the same as identified in Murdock’s (1967) atlas. This does seem justifiable, however. Focusing on the individual level, Nunn and Wantchekon (2008, 36) find a strong correlation of 0.62 between the location of individuals in 2005 and the historical homeland of their ethnic group. Presumably, entire societies are less susceptible to relocation than are individuals. This arguably makes the assumption of constant location less demanding here than in, e.g., Nunn and Wantchekon (2008, 2011) or Michalopoulos and Papaioannou (2013). Further, the fact that some societies obviously did change location over the period of analysis will bias our estimate of interest towards zero. In this respect, our results can be seen as a lower bound of the impact of indigenous democracy.

<sup>31</sup>Moreover, Michalopoulos and Papaioannou (2011, 10-11) show that the association between luminosity and economic development is strengthened once the effect of urbanization has been partialled out.

<sup>32</sup>The natural log of  $0.01 + \text{light density}$  was used to account for a few extreme observations in the right tail of the distribution and to ensure that observations were not lost when log transforming. This is similar to Michalopoulos and Papaioannou (2013, 125). The results are robust to excluding the societies with zero light density.



[Table 5 about here]

Column (1) in Table 5 shows the results from a simple model that includes only indigenous democracy, light density, and the interaction between the two. As hypothesized, the coefficient on the interaction term is positive and highly significant. This means that the local institutions of more economically developed groups are associated more strongly with national institutions. At the sample mean of light density (-1.43), the marginal association between local and national institutions is  $3.54 + 1.16 \times (-1.43) = 1.88$ . For societies with higher luminosity, the marginal association is higher. Columns (2) and (3) add our standard controls (latitude; the average year to which the ethnographic information pertains; societal complexity) and a full set of regional fixed effects. This did not change the conclusion.

In sum, across all three proxies, the association between indigenous institutions and contemporary regimes is increasing in the (proxy for the) relative power of the indigenous groups. We proceed to examine the robustness of this finding.

## **6 Outside Europe: Colonization and Indigenous Democracy**

Colonialism caused profound disjunctures in authority structures and social hierarchy in most of the world outside Europe. Even if the colonial state rarely lasted more than a few centuries, it is not obvious, therefore, that one can find deep continuities from precolonial indigenous institutions to contemporary, postcolonial institutions. Moreover, if representative institutions are a European invention, how can one trace it to indigenous institutions outside of Europe? In Table 6, we demonstrate that, outside Europe and after controlling for the influence of European colonization, indigenous institutions are still associated with contemporary institutions. Columns (1)-(3) control for a set of plausible determinants of European colonization; columns (4)-(10) control for indicators of different

colonial experiences. Political influence is proxied by luminosity in Panel A; proximity to the capital in Panel B; and settlement complexity in Panel C. The three proxies yield qualitatively identical results.

[Table 6 about here]

The first column adds a control for precolonial state development. Hariri (2012) shows that precolonial state development was an historical impediment to the development of democracy, because of the way it shaped European colonization. If local democracy was an obstacle to political centralization (cf., e.g., Ertman 1997, 22) and political centralization was an historical obstacle to the transmission of institutions and ideals from Europe, this could be driving our findings. Column (1) shows, however, that the result is robust to comparing countries at similar levels of precolonial state development.

Much work has established that geographical factors can shape (indigenous) institutional choices (e.g., Alsan 2013; Bentzen et al. 2012) as well as colonial experiences (e.g., Acemoglu, Johnson, and Robinson 2001; Nunn and Puga 2012). Controlling for a set of geographical variables in column (2), however, leaves the coefficients on local democracy and local democracy interacted with light density positive and highly statistically significant. Controlling for precolonial population density in column (3) (cf. Acemoglu, Johnson, and Robinson 2002) does not affect the parameter of interest.

Columns (4)-(6) include, in turn, a dummy for countries that were colonized, colonial duration, and a set of colonizer fixed effects. None of these controls change the coefficients of interest. In column (7) we control for the extent of 'indirect rule' in colonial governance. Under indirect rule, colonial powers ruled through existing institutions, which often reinforced the traditional authority structures (e.g., Boone 2003) or destroyed participatory, traditional institutions (e.g., Ashton 1947; Mamdani 1996).<sup>33</sup> As expected, the extent

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<sup>33</sup>Matthew Lange (2004) proposed to measure indirect rule by the number of colonially recognized customary court cases divided by the total number of court cases. The idea is that colonial powers would not recognize customary courts under direct rule, but rather implement a uniform legal system

of indirect colonial rule is negatively associated with contemporary democracy. But the coefficients on indigenous democracy remain positive and highly significant in Panels A-C.

Column (8) in Table 6 zooms in on European settler colonies, defined as former colonies where at least 10 percent of the population is of European descent. This definition yields 22 settler colonies. For this group of countries, there was no association between indigenous institutions and national institutions. This is unsurprising. To take but one example, the founding fathers at the Constitutional Convention in Philadelphia were influenced by Enlightenment ideals, not indigenous American institutions. Column (9) shows that all results obtain when settlement colonies are excluded. Column (10), finally, includes an interaction between European settlement and indigenous democracy. The negative coefficient shows that European settlement significantly weakens the association between indigenous institutions and contemporary institutions.

## 7 Robustness

The model in column (1), Table 7, excludes countries in Europe as well as the European offshoots (Australia, Canada, New Zealand, and the USA). If the link from early institutions to national democracy is particular to Europe (as argued by, e.g., Downing (1992, 18ff) and consistent with Figure 2), these countries could be driving the finding. This does not seem to be the case, though. For all three measures of political power, the conclusion remains; indigenous democracy in politically strong societies is positively associated with current democracy levels, also outside Europe and neo-Europe.

[Table 7 about here]

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based on metropolitan laws. Under indirect rule, however, the colonial legal system would incorporate the indigenous legal structure. In our sample this measure unfortunately only exists for 20 former colonies, but because the form of colonial rule varied very systematically with the number of settlers (Lange 2004, 908; Gerring et al. 2011, 388), we used our measures of settlement to predict the extent of indirect rule for the countries with missing values. While this is a crude measure of indirect rule, we should emphasize that we reach the same conclusion for the 20-country sample with Lange's original measure as with the imputed measure of indirect rule.

The historical span of the data in the Ethnographic Atlas is wide: The first percentile is year 1570 BC; the 99<sup>th</sup> is 1960. In columns (2) and (3) we exclude in turn the earliest decile (1860) and latest decile (1950) to see if the basic conclusion obtains also for a more temporally focused sample. We exclude societies recorded early since early information is presumably less precise and because the assumption that ethnographic societies have not relocated since they were coded in the Atlas seems more demanding for these societies. Excluding the late decile is more a check for reverse causality, which should be more of an issue among the societies where the ethnographic information was recorded later. Columns (2) and (3) show that our results are robust to excluding these societies.

Finally, in columns (4) and (5), we exclude influential observations.  $DFBETA$  measures the difference in the estimated coefficient for local democracy when a country is included and when it is excluded from the sample. Following Besley, Kuh, and Welsch (1980, 28), the model in column (4) omits the countries for which  $|DFBETA_i| > 2/\sqrt{n}$ , where  $n$  is the number of observations. The model in column (5) excludes all high-leverage countries. In both cases, the coefficient on local democracy remains positive and significant as does the light density-interaction. As shown in Panel B, for all controls and sample manipulations, the basic conclusion obtains also when political influence is proxied by relative proximity to the capital.

Table 8 compares countries at similar levels of a number of common correlates of democracy. Lipset (1959, 80) found that “economic development carries with it the political correlate of democracy??, while Acemoglu et al. (2008) found that this association disappears once country-fixed effects are controlled for. Nevertheless, it is possible that indigenous democracy is associated with modern representative democracy across countries because it fostered economic development. Yet column (1) shows that the basic association is robust to controlling contemporary economic development.

[Table 8 about here]

Protestant Christianity has been argued to be particularly conducive to democracy (e.g., Bruce 2006), and Islam is commonly argued to be particularly inimical to democracy (e.g., Huntington 1993, 40). If Protestant individualism was conducive to participatory political institutions at both a local and a national level (and Islam the opposite), the association we have uncovered would be spurious, driven by culture. Column (2), however, rejects this view: If anything the association is strengthened when the influence of religion is partialled out.

Column (3) controls for societal heterogeneity, which is commonly seen as inimical to democracy. If countries with a higher proportion of democratic indigenous societies are more homogenous, this would bias upwards the estimated coefficients. Column (3) shows that this is not the case, however. Lastly, column (4) controls for natural resources. At all levels of political order, the availability of natural resource rents raises the cost of sharing power. Yet as shown in column (4), this does not drive our basic conclusion.

Panels A, B, and C in Table 8 thus show that whether we proxy political influence by economic current wealth, proximity to the capital, or historical societal density, the basic association between indigenous democracy and national representative institutions is robust to controlling for indicators of a set of alternative theories of the causes and correlates of democracy.

## 8 Endogeneity Concerns

The rules for leadership selection were not assigned randomly across indigenous groups, and the coefficients presented are thus more properly seen as conditional correlations than causal estimates. There are two challenges to causal identification here: National institutions may shape indigenous institutions (reverse causation), and unobservable omitted factors may confound the association between the two. Beginning with the first, many scholars have documented instances where dynamics at the state-level shape indigenous institutions. One example is Mahmood Mamdani's important *Citizen and Subject* (1996),

which shows how the colonial and postcolonial state in Africa transformed traditional authority. The public assembly, for example, “was turned into a forum where decisions were announced but not debated” (Mamdani 1996, 46). While many such examples can be found,<sup>34</sup> reverse causation does not in our view adequately account for the findings presented above. For reverse causation to account for our findings would require that national institutions only shape the indigenous institutions in stronger groups and have no effect on the institutions in weaker indigenous units. As well, our three proxies for the strength of indigenous units are essentially orthogonal.<sup>35</sup> This means that – while one can easily imagine that national institutions shaped the institutions of groups located closer to the capital compared to those further away – reverse causation requires that national institutions should affect indigenous institutions in the vicinity of the capital *and* in economically developed areas *and* in groups with higher historical settlement density – but not elsewhere. Rationalizing such a “selective effect” of national institutions on indigenous institutions is not straightforward. Moreover, it should be remembered that the data on indigenous societies were collected to reflect each unit’s *indigenous* traits and thus be independent of state-level influence (or the influence from, e.g., colonists).

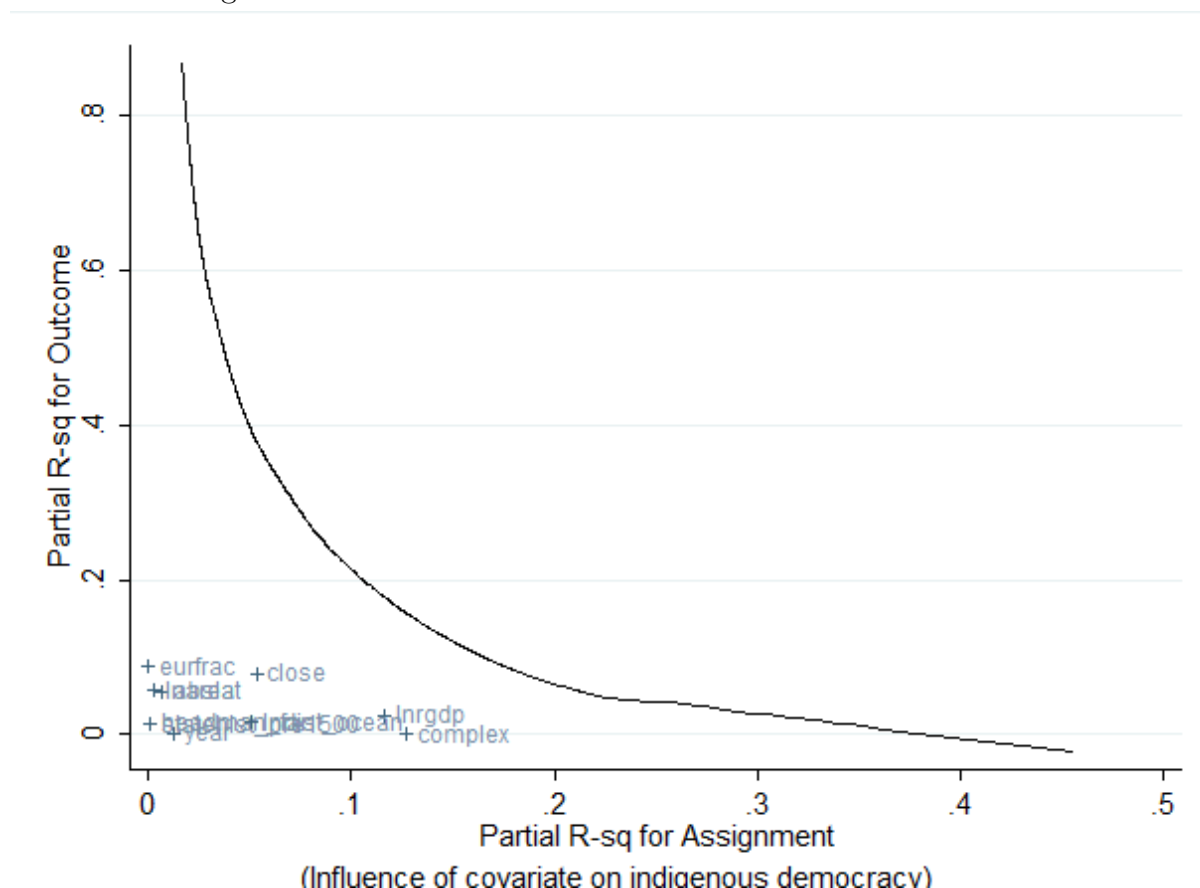
Turning to the problem of omitted variables, the analyses above showed the association between indigenous - and contemporary democracy to be robust to a broad set of observable potential confounders. The obvious limitation is that we cannot observe unobservables and cannot assess their confounding effects. To understand if unobserved confounding could be driving our findings, we used the Generalized Sensitivity Analysis developed by Imbens (2003) and Harada (2013), depicted in Figure 3. This method simulates unobserved variables and asks how influential such variables would have to be in order to substantively change the estimated association between indigenous democracy

<sup>34</sup>For example, Jerome Blum (1971a, 586ff) documented how the central governments in medieval England, Saxony, and Northwest Germany weakened the village community through well-meaning policies of *Bauernschutz* (peasant protection). In a recent and interesting literature, local pockets of authoritarianism in otherwise democratic countries are also explained from central dynamics (e.g., Gervasoni 2010; Gibson 2005; Giraudy 2012).

<sup>35</sup>Across the 869 societies where data is available for the three proxies for political strength, proximity to the capital correlates 0.03 with (log 0.01+) light intensity and -0.36 with settlement complexity. Settlement complexity and light intensity correlates at -0.03.

and contemporary democracy.

Figure 3: The Potential Influence of Unobserved Confounders



*Notes.* The figure shows the results of a generalized sensitivity analysis (Imbens 2003; Harada 2013). The pluses represent the covariates that were included when we estimated the association between indigenous democracy and contemporary democracy. These covariates are plotted according to their partial association with the dependent variable (contemporary democracy) on the vertical axis and with the regressor of interest (indigenous democracy) on the horizontal axis. The downward sloping curve shows how much a covariate (observed or unobserved) should be correlated with both indigenous and contemporary democracy in order to halve the observed association.

The downward sloping curve in Figure 3 shows the required partial association between an unobserved factor and contemporary democracy (vertical axis) and indigenous democracy (horizontal axis) that would cut the coefficient of interest in half. The figure shows that an unobserved factor should explain more than twice as much of the variation in both indigenous and contemporary democracy than do our most influential observed covariates. Thus, it would have to be more influential than 'close' (an indicator for societies located within 400 kilometers of the capital), which is correlated with indigenous democracy by

construction. It would also have to be much more influential than any of the existing theories of democracy pertaining to, e.g., GDP per capita, European language fraction or societies' (average) distance to the ocean. This strikes us as unlikely.

The Generalized Sensitivity Analysis does not rule out that omitted variables could explain our findings. It does show, however, that we would have to assume a very strong unobserved confounding effect for an unobservable factor to substantively change our findings. We performed a similar analysis to see if omitted variables could turn the estimated association insignificant at a ten percent level. The conclusion here was the same: The omitted variable in question would have to be much more strongly correlated with indigenous and contemporary democracy than any of the theoretically motivated variables considered thus far.

## 9 Conclusion

This article has documented a substantial and robust association between indigenous political institutions and contemporary national regimes: Territories where indigenous groups selected their leaders through elections or consensus are more likely to be democratic countries today. However, this basic association was conditioned on the relative strength of the indigenous groups within a country; stronger groups seem to have been able to shape national regime trajectories, weaker groups have not.

At the broadest level, our findings document the weight of history in explaining contemporary political outcomes and suggest that we ought to be careful to avoid accounting for these only by processes developing since the beginning of modernity. Moreover, in addition to colonial history and historical European influence, our results show that indigenous history seems to have shaped the contemporary spread of democracy. Some observers have seen in Chinese village democracy a model for national democracy in China (e.g., *Financial Times*, January 30, 2013). Yet our results suggest caution here: Subnational institutions do not seem to translate into national institutions unless the subnational



group in question is powerful enough to impose its institutions on the country as a whole.

While we have emphasized the role of history, we do not want to suggest historical determinism in political regime developments. Our argument is clearly not that democracy cannot become consolidated in countries that did not have proto-democratic indigenous institutions. While the evidence suggests that indigenous institutions are an independently important factor in explaining contemporary regimes – it is not the only factor, nor is it the principal one.

This article has presented three ways in which proto-democratic indigenous institutions might shape subsequent regime developments. Future research should focus on tracing empirically the mediating mechanisms that link countries' national institutions to their indigenous ones.

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Table 1. Succession to the Office of the Local Headman

	Obs
Patrilineal heir	408
Matrilineal heir	101
Appointment by higher authority	42
Seniority or age	28
Influence, wealth or social status	42
Election or other formal consensus	100
Informal consensus	87
Absence of any such office	102
Total	910

*Source.* The variable is constructed from variables v276 from the SCCS and v72 from the Ethnographic Atlas.

Table 2. OLS-Regressions of Contemporary Democracy on Indigenous Democracy

	(1)	(2)	(3)	(4)	(5)
	<i>Dependent variable is mean polity2 1990-2010</i>				
Indigenous democracy	3.96*** (1.43)	2.91** (1.36)	2.90** (1.35)	2.71* (1.42)	1.56 (1.41)
Absolute latitude		0.11*** (0.03)	0.12*** (0.03)	0.12** (0.03)	0.11*** (0.00)
Year			0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)
Societal complexity				0.15 (0.35)	0.20 (0.32)
Region FE	No	No	No	No	Yes
Observations	106	106	106	106	106
R-squared	0.07	0.16	0.16	0.16	0.43

*Notes.* All models include a constant term.

The regions included in column (5) are sub-Saharan Africa, Asia, Europe, North America, and the Middle East and North Africa.

Robust standard errors in parentheses.

\*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent levels.

Table 3. Contemporary and Indigenous Democracy Interacted with Distance from the Capital

	Distance, $d$ , from the capital (in kilometers)										
	(1)	1000 (2)	900 (3)	800 (4)	700 (5)	600 (6)	500 (7)	400 (8)	300 (9)	200 (10)	100 (11)
<i>Panel A</i>											
Dependent variable: Mean polity2 1990-2010											
Indigenous democracy	2.70*										
	(1.44)										
Indigenous democracy within $d$ distance from capital	3.65**	3.63**	4.17***	4.83***	5.01***	5.83***	6.43***	5.44***	5.14***	5.10***	
	(1.53)	(1.55)	(1.41)	(1.51)	(1.52)	(1.45)	(1.41)	(1.51)	(1.62)	(1.83)	
	[515]	[485]	[454]	[411]	[370]	[307]	[251]	[186]	[120]	[48]	
Indigenous democracy outside $d$ distance from capital	0.03	0.39	-3.23	-3.22	-3.29	-3.34	-2.94	0.28	1.26	2.48	
	(8.80)	(8.27)	(7.21)	(4.67)	(4.44)	(2.92)	(2.43)	(2.79)	(2.73)	(1.87)	
	[356]	[386]	[417]	[460]	[501]	[564]	[620]	[685]	[751]	[825]	
Region FE	No	No	No	No	No	No	No	No	No	No	No
Observations	106	106	106	106	106	106	106	106	106	106	106
R-squared	0.23	0.23	0.23	0.24	0.25	0.25	0.29	0.32	0.25	0.24	0.23
<i>Panel B</i>											
Dependent variable: Mean polity2 1990-2010											
Indigenous democracy	2.02										
	(1.47)										
Local democracy within $d$ distance from capital	2.20	2.25	3.02**	3.59**	3.46**	3.68***	4.30***	3.68**	3.38**	3.57*	
	(1.48)	(1.49)	(1.32)	(1.51)	(1.49)	(1.38)	(1.33)	(1.44)	(1.58)	(1.94)	
Local democracy outside $d$ distance from capital	-1.77	-2.30	-6.73	-4.32	-3.57	-2.49	-2.78	-0.50	0.19	1.14	
	(7.80)	(7.48)	(5.69)	(3.77)	(3.66)	(3.15)	(2.44)	(2.63)	(2.46)	(1.90)	
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	106	106	106	106	106	106	106	106	106	106	106
R-squared	0.47	0.47	0.47	0.49	0.49	0.48	0.50	0.52	0.48	0.47	0.47

*Notes.* All models include a constant term, controls for absolute latitude, timing (the average year to which the ethnographic information in a country pertains), average societal complexity in a country, country size (log), average distance to the coast from each ethnographic society (log), and the share of societies located “close” to the capital city according to the particular cutoff level (the latter variable is not included in col 1). The number of ethnographic societies with non-missing headman and non-missing polity2-score within distance  $d$  of the capital are in square brackets. Robust standard errors in parentheses.

\*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent levels.

Table 4. Contemporary and Indigenous Democracy Varying the degree of Settlement Complexity

	Level of settlement complexity, $c$						
	Semi-nomadic (1)	Semi-sedentary (2)	Compact, impermanent (3)	Dispersed homesteads (4)	Single community (5)	Compact permanent (6)	Complex settlement (7)
<i>Panel A</i>							
Dependent variable: Mean polity2 1990-2010							
Indigenous democracy with complexity level $\geq c$	2.70* (1.52)	3.88*** (1.47)	3.89*** (1.42)	3.83*** (1.41)	3.17** (1.49)	4.21*** (1.59)	3.28 (4.28)
Indigenous democracy with complexity level $< c$	-1.02 (4.10)	-2.22 (3.77)	-0.90 (3.80)	-0.48 (3.88)	1.11 (3.94)	-1.71 (3.53)	2.31 (1.46)
Region FE	No	No	No	No	No	No	No
Observations	106	106	106	106	106	106	106
R-squared	0.17	0.18	0.17	0.17	0.16	0.18	0.18
<i>Panel B</i>							
Dependent variable: Mean polity2 1990-2010							
Indigenous democracy with complexity level $\geq c$	1.42 (1.50)	2.81 (1.70)	3.01* (1.58)	3.08* (1.56)	2.51 (1.69)	3.60** (1.72)	0.98 (3.76)
Indigenous democracy with complexity level $< c$	-1.76 (2.62)	-3.06 (3.36)	-2.43 (3.16)	-2.06 (2.91)	-2.47 (2.26)	-4.13* (2.35)	1.69 (1.46)
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	106	106	106	106	106	106	106
R-squared	0.45	0.44	0.44	0.45	0.45	0.46	0.43

*Notes.* All models include a constant term, controls for absolute latitude, timing (the average year to which the ethnographic information in a country pertains), average societal complexity in a country, and the share of societies above complexity level  $c$  as a share of all societies within a country. Robust standard errors in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent levels.

Table 5. Contemporary and Indigenous Democracy: Luminosity Interactions

	<i>Mean polity2 1990-2010</i>		
	(1)	(2)	(3)
Indigenous democracy	3.24** (1.37)	3.28** (1.35)	2.36* (1.34)
Indigenous democracy × light density	1.37*** (0.47)	1.36** (0.53)	1.14** (0.49)
Light density	0.28 (0.37)	0.02 (0.39)	0.46 (0.44)
Regional FE	No	No	Yes
Baseline controls	No	Yes	Yes
Observations	106	106	106
R-squared	0.16	0.20	0.47

*Notes.* All models include a constant term. 'Baseline controls' refers to latitude, timing (the average year to which the ethnographic information in a country pertains), and average societal complexity in a country. Robust standard errors in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent levels.

Table 6. Indigenous Roots and colonialism

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Panel A</i>										
	Political influence proxied by economic activity									
Indigenous democracy	3.98** (1.61)	4.13** (1.70)	4.41*** (1.64)	4.71*** (1.72)	4.52** (1.73)	4.84*** (1.77)	5.06*** (1.66)	-0.52 (1.53)	6.11*** (2.01)	5.39*** (1.97)
Indigenous democracy x light density	1.50** (0.61)	1.71** (0.71)	1.79*** (0.65)	2.02*** (0.63)	1.81*** (0.62)	1.91*** (0.63)	2.08*** (0.62)	0.18 (0.53)	2.57*** (0.76)	2.04*** (0.62)
Precolonial state development	-2.29 (2.09)									
p-value for geographical controls		[0.16]								
Population density 1500			0.07 (0.07)							
Colony				-0.47 (1.90)						
p-value for colonizer FE					[0.91]					
Colonial duration						0.01*** (0.00)				
Indirect rule							-3.41 (2.17)			
Indigenous democracy x settle										-4.44* (2.39)
Settlement colonies										3.49 (3.74)
R-squared	0.45	0.51	0.46	0.43	0.43	0.49	0.46	0.93	0.34	0.44
<i>Panel B</i>										
	Political influence proxied by proximity to the capital									
Indigenous democracy within 400 km. of capital	4.64*** (1.68)	4.54** (1.83)	5.17*** (1.75)	4.63*** (1.72)	5.42*** (1.85)	5.04** (1.95)	5.04*** (1.78)	2.48 (1.67)	6.16*** (2.05)	5.36** (2.08)
Indigenous democracy outside 400 km. of capital	-2.66 (3.15)	-3.15 (2.77)	-3.73 (2.82)	-3.12 (2.92)	-2.76 (3.01)	-2.32 (3.15)	-2.77 (2.97)	-6.32 (3.62)	-4.32 (3.29)	-2.25 (3.16)
<i>Panel C</i>										
	Political influence proxied by societal complexity									
Indigenous democracy in compact or complex soc	4.06** (1.98)	4.65*** (1.75)	4.19** (1.88)	4.92** (2.06)	5.19** (2.01)	6.14*** (2.06)	5.08** (2.01)	0.24 (1.39)	6.60*** (2.48)	5.09** (2.33)
Indigenous democracy in less than compact soc	-3.68 (2.47)	-4.59* (2.36)	-3.73 (2.27)	-3.99* (2.38)	-3.28 (2.28)	-4.73** (2.35)	-4.15* (2.27)	-2.72 (2.04)	-7.10** (2.88)	-3.30 (2.71)
Observations	91	93	91	94	96	90	93	22	74	96
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample	Full	Full	Full	Full	Full	Full	Full	Settle	non-settle	Full

*Notes.* All models include a constant term, controls for latitude, timing (the average year to which the ethnographic information in a country pertains), and average societal complexity in a country. The geographical controls in column (2) are ruggedness, average temperature, average precipitation, a dummy for landlocked countries, and share of the country area located within 100 km of the coast. The colonizer fixed effects in column (5) are dummies for English, French, Portuguese, Spanish, and other European colonies. The model specifications in Panels A, B, and C are identical except that political influence is proxied by wealth in panel A; proximity to the capital in panel B, and societal complexity in C. Robust standard errors in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent levels.

Table 7. Robustness With Respect to Sample and Influential Observations

<i>Dependent variable is mean polity2 1990-2010</i>					
	Excl. Europe and neo-Europe	Excl. early decile	Excl. late decile	Excl. DFBETA	Excl. Leverage
	(1)	(2)	(3)	(4)	(5)
<i>Panel A</i> Political influence proxied by economic activity					
Indigenous democracy	4.44** (1.73)	2.12 (1.52)	2.50* (1.42)	2.32* (1.23)	3.21** (1.38)
Indigenous democracy × light density	1.89*** (0.62)	1.01* (0.60)	1.09** (0.50)	0.93** (0.39)	1.07* (0.62)
Light density	0.31 (0.47)	0.37 (0.49)	0.46 (0.45)	0.52 (0.42)	0.49 (0.45)
Regional FE	Yes	Yes	Yes	Yes	Yes
Baseline controls	Yes	Yes	Yes	Yes	Yes
Observations	92	102	103	96	98
R-squared	0.37	0.48	0.46	0.53	0.46
<i>Panel B</i> Political influence proxied by proximity to the capital					
Indigenous democracy within 400 km. of capital	4.89*** (1.75)	4.29*** (1.30)	4.09*** (1.36)	3.61*** (1.30)	5.34*** (1.47)
Indigenous democracy outside 400 km. of capital	-2.94 (2.89)	-2.79 (2.44)	-2.08 (2.59)	-2.73 (2.92)	-1.20 (2.80)
<i>Panel C</i> Political influence proxied by societal complexity					
Indigenous democracy with complexity level ≥ 7	4.77** (2.12)	3.12* (1.82)	3.63** (1.67)	2.28 (1.62)	5.11*** (1.79)
Indigenous democracy with complexity level < 7	-3.97 (2.46)	-4.49* (2.57)	-4.79* (2.58)	-2.90 (2.31)	-3.32 (2.57)

*Notes.* All models include a constant term. Baseline controls refers to controls for latitude, timing (the average year to which the ethnographic information in a country pertains), and average societal complexity in a country. The models in Panels B and C are identical to those in Panel A, except that Panel B controls for country size (log). The model in column (5) excludes the 194 societies for which the information in the Ethnographic Atlas refers to years before 1860. Column (6) excludes the 54 societies with information from after year 1950.

Robust standard errors in parentheses.

\*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent levels.



Table 8. Controlling for Alternative Drivers of Democracy

	(1)	(2)	(3)	(4)
<i>Panel A</i> Political influence proxied by economic activity				
Indigenous democracy	2.29*	2.94**	2.96**	2.35*
	(1.36)	(1.34)	(1.48)	(1.28)
Indigenous democracy x light density	1.15**	0.95*	1.17*	1.04**
	(0.48)	(0.50)	(0.65)	(0.49)
GDP per capita	0.96*			
	(0.56)			
Protestant share		0.86		
		(4.50)		
Muslim share		-2.95		
		(2.23)		
Ethnic fractionalization			-1.33	
			(3.52)	
Linguistic fractionalization			1.74	
			(3.30)	
Religious fractionalization			-0.84	
			(2.33)	
Oil (1000 barrels)				-0.73**
				(0.30)
R-squared	0.50	0.50	0.49	0.52
<i>Panel B</i> Political influence proxied by proximity to the capital				
Indigenous democracy within 400 km. of capital	3.92***	4.33***	4.71***	4.20***
	(1.44)	(1.39)	(1.46)	(1.32)
Indigenous democracy outside 400 km. of capital	-3.25	-1.37	-1.86	-2.68
	(2.22)	(2.48)	(2.72)	(2.40)
<i>Panel C</i> Political influence proxied by societal complexity				
Indigenous democracy in compact or complex soc	3.35*	3.38*	3.80**	3.20*
	(1.71)	(1.85)	(1.87)	(1.70)
Indigenous democracy in less than compact soc	-3.46	-1.81	-3.23	-3.64
	(2.38)	(2.62)	(3.13)	(2.42)
Regional FE	Yes	Yes	Yes	Yes
Observations	101	102	99	102

*Notes.* All models include controls for latitude, timing (the average year to which the ethnographic information in a country pertains and the average societal complexity in a country). All models include a constant term (not reported). Robust standard errors in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent levels.

Table A1. Summary statistics of main variables

Variable	Obs	Mean	Std.Dev.	Min	Max
Polity IV	106	2.787	5.570	-10	10
Indigenous democracy	106	0.263	0.350	0	1
Distance to capital city	106	589.2	703.4	8.32	3946
Share of societies within 400 km of capital	106	0.563	0.389	0	1
Indigenous democracy within 400 km of capital	106	0.159	0.316	0	1
Indigenous democracy outside 400 km of capital	106	0.103	0.208	0	1
Societal complexity	106	5.540	1.665	1	8
Share of societies compact or complex	106	0.575	0.351	0	1
Indigenous democracy in compact or complex societies	106	0.120	0.338	0	1
Indigenous democracy in less than compact societies	106	0.065	0.165	0	1
(log 1+) Light density at night	106	-1.342	2.000	-4.605	2.932
Year	106	1878.9	191.123	654	1958