

DO ISLAND REGIONS LAG BEHIND? GEOGRAPHY, CULTURAL REMOTENESS AND SECOND NATURE*

This version: January 13, 2017

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Accepted version

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Please cite as:

Del Gatto, M., Mastinu, C. (2018), "Geography, cultural remoteness and the second nature of within-country economic development: do island regions lag behind?", *Regional Studies*, Vol. 52 No. 2, pp. 212-224.

<https://doi.org/10.1080/00343404.2017.1284310>

This is a PDF file of an unedited version of the manuscript that has been accepted for publication. The manuscript will undergo copyediting and typesetting before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content

*A replication package (data + STATA codes) for the linguistic index used in this paper, together with the full set of computed bilateral distance measures (geographical, linguistic and ethnic distances), can be downloaded from the first author's website.

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Abstract

Using a unique dataset that encompasses island regions worldwide (76 regions) and all the other regions of the countries (22 countries) to which they belong (474 regions in total), we document that the within-country GDP per capita delay of island regions (on average -21.7% of their national mean), while not explained by regional (neither geographical nor cultural) distance to the (neither global nor local) frontier of economic development - i.e. remoteness -, is associated with 'second-nature' regional factors (human capital and institutional quality) not specific to island regions. However, the condition of being an island is strongly associated with worst second-nature characteristics.

Keywords: Insularity, remoteness, cultural distance, regional economic development, first-nature, second-nature.

J.E.L. Classification: R11, R12, R58, O10

1 Introduction

According to the Euroislands 2010 report (ESPON, 2010), the GDP (gross domestic product) per capita of the European islands is about 79.2% of the European average, and most islands display a level of development that is lower than that of the country to which they belong. Although the economic development of islands is officially part of the European Union (EU) Regional Policy² and is gaining growing importance from the policy point-of-view (see, for example, EU Commission, 2010 and 2014), economic literature in the field (see Section ??) provides input that is far from being unequivocal.

In this paper, we construct a unique dataset that encompasses all island regions worldwide (76 regions), as well as all the other regions of the countries (22 countries) to which they belong (474 regions in total)³, and start with documenting, for the first time based on extensive data, that, apart from some notable exceptions (Galapagos Islands, Bermuda, Bay and Cayman Islands), the GDP per capita of island regions is in most cases well below the national average.

We then adopt a regional, within-country, perspective to shed light on whether and how being an island region explains within-country differences in GDP per capita after controlling for a number of ‘first-nature’ and/or ‘second-nature’ characteristics that may be typical not only for islands, but also for non-insular regions. To identify these characteristics we draw from different strands of literature.

Building on the literature on regional economic development, we follow the idea that, as well as to given geographical conditions (e.g. natural resource endowments, average temperature, etc), within-country regional disparities can be associated with second-nature regional features such as differences in human capital, quality of local institutions and degree of autonomy (Gennaioli et al., 2013; Mitton, 2016; Acemoglu et al., 2014).

In addition, we study whether the economic delay of the island regions in our database can be traced back to a relatively high geographical and/or cultural (either linguistic or ethnic) ‘remoteness’ (measured as distance from a local frontier of economic development). This view is inspired by the literature on the “deep determinants”

²Distinctive policies for islands were first mentioned at the time of the Maastricht Treaty (1992), in which the necessity to link islands, landlocked, and peripheral regions with the central regions of the European Community (cfr. art. 154) was highlighted. The Treaty also established a category of regions (‘ultra-peripheral’ or ‘outermost’ regions) that needed special treatment by the EU legislator: the French overseas departments, the Azores, Madeira and the Canary Islands. Later, the treaties of Amsterdam (1997) and Lisbon (2007) recognized the specific economic and social situation of the overseas departments, “which is compounded by their remoteness, insularity, small size, difficult topography and climate, and economic dependence on a few products, the permanence and combination of which severely restrain their development” (cfr. Art. 299(2)). The economic development of these areas is explicitly recognized in the policies of economic and social cohesion (see, for example, the analysis of the EU policies concerning the economic sustainability of islands by Moncada et al., 2010).

³Regions are identified at the second administrative level. We include thirty-one “overseas islands,” - i.e. special administrative entities, compared to the ordinary regions of the countries to which they belong (cfr. the categories ‘overseas countries and territories’ and ‘most remote regions’ in official EU documents - see Moncada et al., 2010)

of economic development (initiated by Spolaore and Wacziarg, 2009), which connects the differences in GDP per capita across countries to their distance from a global technological frontier. While this concept has hitherto been postulated and studied at the country level, we put it in a regional context.

The empirical analysis shows that, although remoteness is strongly significant when we only control for regional size, the within-country disparities in GDP per capita are no longer explained by the extent of regional remoteness, neither geographical nor cultural, and are only partially associated to a few *first-nature* characteristics other than size (namely elevation, access to the ocean, terrain ruggedness, percent of tropical land, percentage of day length with sunshine, and the availability of precious metals and alloyants), once the being an island is controlled for. Instead, an island-effect always emerges (in addition, being a relatively smaller or more remote overseas island further delays economic development). However, the condition of being an island becomes insignificant when *second-nature* regional characteristics⁴, such as human capital, regional institutions and regional autonomy, are considered. This clearly points to a prominent role of second-nature features.

We finally ask what role, if any, geography and other first-nature regional features may have played over centuries in shaping the regional articulation of the second-nature characteristics. This analysis reveals that, while remoteness is never significant, the condition of being an island is strongly associated with a worst second-nature.

The above results remain valid when, from our measure of remoteness, we turn to a measure of ‘accessibility’ (measured as the GDP reachable from the region, weighted by the ease of access to the other regions), of the type suggested by the New Economic Geography literature (Krugman, 1991; Venables, 1996; Krugman and Venables, 1995).

Arguably, our analysis provides an explanation for the documented within-country GDP delay of island regions that is very in line with the country-level findings by Gallup et al. (1999), who suggest that geography might affect economic policy choices, and by Rodrik et al. (2004), who shows that conventional measures of geography have at best weak direct effects on income, although they have a strong indirect effect by influencing the quality of institutions.

⁴In disentangling between first-nature and second-nature factors, we are mainly concerned with the extent to which they are the result of human activity. In the case of remoteness, man is responsible for technological progress and for the location of the development frontier, but not for the distance from it. Thus, we are just a step away from the idea of first-nature in a strict sense. To be more rigorous, one might think of remoteness as a second-nature characteristic, and talk about ‘third-nature’ to refer to factors such as human capital and institutions. However, this would unnecessarily complicate the exposition.

2 Related literature

Whether the condition of being an island by itself constitutes a limit to economic development, or whether it should be placed in the context of other penalizing factors that are not specific to islands, is a question that extant literature does not provide with a definitive answer, from neither a theoretical and an empirical point of view. In fact, although being an island is usually associated with lower economic development, this relationship weakens or becomes insignificant when considering some characteristics that are commonly attributed to the condition of insularity, but are not specific to islands. These include the distance from major markets (see: Read, 2004; Armstrong and Read, 2004; Borgatti, 2008) and the small size of the local market (Armstrong and Read, 1995; Briguglio, 1995). Moreover, several authors highlight how some socio-economic features linked to insularity, such as cohesion and social homogeneity, may have a positive impact on development and foster economic growth (Armstrong e Read 2000; Bertarm and Karagediki, 2004; Baldacchino, 2006).⁵

In this paper, the potential economic delay of island regions is conceived as part of the general debate on the determinants of regional economic development. Within this literature, a number of papers focus on the economic determinants of within-country regional disparities. Among these, Gennaioli et al. (2013) highlight the role of human capital. In addition to noting that favourable geography (lower average temperature, proximity to the ocean, and greater natural resource endowments) is, within countries, associated with higher income per capita, they document that differences in educational attainment account for most of these income differences, thereby suggesting that the second-nature regional map dominates the first-nature map in explaining the within-country economic disparities. While Gennaioli et al. (2013) de-emphasize the importance of first-nature features, the recent analysis by Mitton (2016) shows that geography has a significant impact on development even after controlling for country-level factors. At the same time, Mitton documents the importance of having good regional institutions when these are not dominated by the national ones (that is, when the region is recognized a certain degree of autonomy). Acemoglu et al. (2014) use cross-country and cross-regional regressions to show that when one focuses on historically determined differences in human capital and controls for institutional quality, the impact of the latter on long-run development is robust, whereas the effect of human capital weakens.

Our benchmark identification of the first-nature potential factors of regional development, common to island

⁵The economic aspects of insularity have been mainly studied with a focus on small islands and/or microstates (Armstrong and Read, 1995; Armstrong et al., 1998; Bertram 2004; Bertram and Karagedikli, 2004; Feyrer and Sacerdote, 2009; McElroy and Medek, 2012), and from the point of view of single countries (see for example, Briguglio, 1995 and Dimou, 2006).

and non island regions, is inspired by the vein of literature dealing with the “deep determinants” of economic development (Diamond, 1997; Fearon, 2003; Desmet et al., 2009; Easterly and Levine, 2003, 2012; Acemoglu et al., 2001, 2002; Olsson and Hibbs, 2005; Spolaore and Wacziarg, 2013a). This literature follows the idea that cultural traits that are strongly associated with economic development exist and tend to be extremely persistent over time. In particular, Spolaore and Wacziarg (2009, 2013a, 2013b) assume that technology and innovation flow from a technological frontier to the rest of the world, being first adopted by populations that are culturally (that is, genetically) similar to those present within the frontier.⁶ Under this view, *remoteness*, intended as distance (either geographical or cultural) from the technological frontier, functions as a barrier to economic development.

3 Conceptual framework for the first-nature analysis

Our reference framework is a variant of the model suggested by Spolaore and Wacziarg (2009) to explain the diffusion of development across countries. As in the latter, we can consider three periods - o (i.e. origin), p (i.e. prehistory) and h (i.e. history) - and start with no differentiation in terms of both population characteristics and technology: only one population exists at time o and economies have equal income levels, fully determined by the basic technology A_0 . In period p , populations start splitting into different populations. These settle in different regions, with one and only one population represented in each region. This allows us to use index r to identify both a generic region and a generic population, so that the genetic similarity (i.e. distance) between any two regions, r and j , can be expressed in terms of number of common branches in a phylogenetic tree⁷, say $d_g(r, j)$. In period h , a given population happens to become the technological frontier, thanks to finding a more productive technology $A_{f_{c^*}} = A_0 + \Delta_{f_{c^*}}$, where c^* is used to refer to the country in which the frontier region is located and $\Delta_{f_{c^*}}$ represents the technological ‘shift’. The new technology flows from the technological frontier to the rest of the world, being first adopted by regions that are more ‘similar’ to the frontier region. The type of similarity that we focus on refers to a set of (vertical) characteristics that are passed on across generations over the very long run (i.e. the time horizon along which populations have diverged): sharing similar characteristics with the frontier region results into a higher capability (i.e. lower costs and obstacles) to adopt the frontier technology. As in Spolaore and Wacziarg

⁶These populations are capable of encoding the innovations and adapting them to a new context more easily. The reason for this is that the inter-generational transmission (vertical transmission) of values typical of a given population is a complex phenomenon and occurs first in the familial sphere. As a consequence of this, the intensity of the dissemination of values between populations (horizontal transmission) decreases with “cultural” distance.

⁷The phylogenetic tree is a diagram that shows the relationship between groups of progeny derived from a single parent. The term “branches” describes the points where populations divide.

(2009), we can assume that these characteristics are proportional to genetic distance⁸. We further assume that, once, in a country, the new technology has been adopted by a given region, arguably the most similar to the world frontier (i.e. lowest $d_g(r_c, f_{c^*})$ in country c), that region starts acting as a gateway for all the other regions in the country and becomes the local frontier of economic development (referred to as f_c), so that the chance to take advantage of technological progress (i.e. the $\Delta_{f_{c^*}}$ that took place in region f_{c^*}) is, for region r_c somehow ‘filtered’ by its genetic distance from the local frontier, $d_g(r_c, f_c)$. Accordingly, following Spolaore and Wacziarg (2009), the GDP of region r , located in country c , can be written as:

$$y_{r_c} = A_0 + \underbrace{[1 - \beta_r d_g(r_c, f_c)]}_{\Delta_{r_c}} \underbrace{[1 - \beta_c d_g(f_c, f_{c^*})] \Delta_{f_{c^*}}}_{\Delta_{f_c}} \quad (1)$$

with β_r and β_c referring to obstacles to technology adoption that increase or reduce the effectiveness of genetic distance at the regional and the country level, respectively. Note that, whenever $\beta_r > 0$, we have that $\Delta_{r_c} < \Delta_{f_c}$, entailing that the development opportunities of the generic region r_c are lower than in the local frontier region f_c .

In the following sections, we bring the above mechanism to the data focusing on the within-country dimension of the diffusion of development, using country fixed-effects to control for the term Δ_{r_c} .

4 Data and Variables

Our unit of observation is the region, as identified by the second administrative tier in the country, and the island-effect is studied with reference to island regions. These can correspond to a single island, be composed of a few islands, or be part of an island that contains other regions.⁹

The analysis takes advantage of a unique dataset that covers all the island regions worldwide, and all the other regions of the countries to which they belong. The final database is composed of 474 regions, distributed in 22 countries, of which 76 are island regions. Among these, 45 are continental island regions, while 31 comprise overseas islands, which are special administrative entities compared to the ordinary regions of the countries to which they belong. This definition mirrors the classification used in official EU documents, according to which the European

⁸Spolaore and Wacziarg (2009) formalize this step by assuming that populations inherit characteristics from their ancestor populations according to a random walk. This entails that the distance in vertical characteristics between two populations is, on average, increasing in their genetic distance.

⁹This is consistent with the Fifth Report on Economic, Social and Territorial Cohesion (EU Commission, 2010), which defines island regions as “one or more regions that consist of one or more islands.”

islands are divided into three categories: overseas countries and territories, most remote regions, and continental EU islands (Moncada et al., 2010). Three of the 22 countries encompass archipelagos (Japan, Indonesia, and the Philippines). In such cases, the regions of the mainland, localized on principal islands, were kept separate from the insular regions, localized on minor islands. The distinction between major (mainland) and minor islands is based on the surface area.¹⁰ The same criterion has been followed for the UK. Figure ?? lists the countries and the island regions included in the dataset.

Distance measures. We uses three measures of bilateral distance between regions: geographical, linguistic, and ethnic distance. The second and the third measures are used to describe the idea of *cultural distance*.

The *geographical distance* is calculated, by utilizing a GIS software, as the geodesic distance between the centroids of any two regions (see Picard, 2010).¹¹

The *linguistic distance* is the measurement of the linguistic differences between populations that live in two different regions. The index is based on two building blocks: i) the regional distribution of languages (that is, the number of speakers of each language in each region), collected from different sources, and ii) the matrix of linguistic distance, including all possible language pairs. The latter measures the similarity between two tongues in terms of number of common branches in the phylogenetic linguistic tree provided by “*Ethnologue: Languages of the World*” (hereafter referred to as Ethnologue). We use the approach conceived by Fearon (2003), also adopted by Desmet et al. (2009), to construct the final index. A detailed description of this phase is provided in Appendix ?. The full list of the sources used is reported in Appendix ?.

It is worth noting that, while other datasets, such as Alesina and Zhuravskaya (2011), treat autochthonous languages on par with languages of recent immigration (for example, Chinese and Filipino in Italy), our measure is constructed on the basis of indigenous languages.

In some cases, linguistic similarity may fail to reflect cultural similarity. This is evident in the case of populations that, following colonization, underwent the process of linguistic assimilation, but not a process of cultural integration (as in some indigenous populations of South America). To circumvent such instances, the analysis takes into consideration another proxy of cultural distance, the *ethnic distance* calculated by replacing the linguistic composition of each region with the corresponding ethnic composition. Information on the ethnic groups is drawn

¹⁰In details, Shikoku, Kyushu, Hokkaido, and Ryukyu are Japan’s minor islands. The minor islands of Indonesia comprise Maluku, East Timor, Bali, East Nusa Tenggara, and West Nusa Tenggara, while those of the Philippines are Visayas and Sulu.

¹¹For homogeneity with other measurements, the variable was subsequently rescaled in order to fall between 0 and 1.

from the Ethnologue database, whenever possible, and from a number of other sources, listed in Appendix ??.

The full (474x473) bilateral matrix of the three distance measure used (geographic, linguistic, and ethnic) can be downloaded from the first author’s website, together with a replication package that includes all the basic data and STATA codes used.

Remoteness. The computed geographic, linguistic, and ethnic distances are used to derive as many measures of *remoteness*, for each region. For a given region, we define remoteness as distance from the local frontier of economic development. Operationally, the identification of the frontier regions follows the approach of Acemoglu et al. (2005). Based on Bairoch et al. (1998) using data on the evolution of populations within major world cities from the Middle Ages to the modern age, Acemoglu et al. (2005) describe modern economic development as the result of a process that started in the port cities of the Atlantic countries of Northern Europe. This approach suggests that local technological frontiers should have two characteristics: the first of growing faster than other areas and the second of reaching a large size in the modern age.

Consistent with this view, we express remoteness as distance from the cities (that is, from the region in which the cities are located) with the highest rate of urbanization in 1850, selected from ones that, between 1500 and 1850, had a growth rate higher than the median value of the distribution within each country. One local technological frontier is identified within each country. To this end, we take advantage of the urbanization data reported by Acemoglu et al. (2005) for Europe and Asia. For the other countries, the local frontier is defined considering the most populous cities in 1850. The frontier cities identified in this way are: Melbourne, Montreal, Copenhagen, Tallinn, Helsinki, Paris, Thessaloniki, Turin, Amsterdam, Lisbon, Madrid, Stockholm, London, New York, Canton, Bombay, Jakarta, Tokyo, Manila, Quito, Tegucigalpa, and Dodoma.¹²

Other data. We also use data on GDP per capita, area, and population. GDP per capita is the dependent variable used for the analysis. The regional distribution is largely taken from a database created by La Porta et

¹²Two comments are in order. First, new technologies can arguably come from a number of frontiers, and not necessarily from the one within the national borders. The choice of defining a single frontier region per country is an approximation of such a continuous process of technological exchange. Second, the identification of the frontier regions might sound strange in some cases. For example, the Italian frontier is not Rome (located in the centre) but Turin, located in northern Italy (in the Piemonte region). Several southern Italian regions (such as Sicily) were not part of Italy in 1850, so that their distance to Turin might not seem fully meaningful. However, it is worth noting that what matters for our purposes is the subsequent evolution, given the situation in 1850. For example, Sicily was merged with the Kingdom of Sardinia in 1860, which became the Kingdom of Italy in 1861, and the capital was Turin. Although Rome became the capital in 1871, the economic core of Italy never moved away from northern Italy, which is where innovation still comes through. By contrast, some countries in the developing world became independent after 1850 and, although some of them are still economically attached to their colonizing countries, their own centres/capitals suddenly became important nodes for the process of technology diffusion. This is the case of Jakarta, in Indonesia, where the Dutch tactics to keep control of the region that were imposed during the XIX and early XX century required that virtually all exports from all over the region were shipped through Jakarta, giving this town the overwhelming political and economic dominance that it still maintains.

al. (2013). The database includes GDP per capita at purchasing power parity (PPP) as of 2005 for 438 out of the 474 regions included in our distance database. For 31 of the remaining regions, GDP per capita is obtained from various sources: CIA World Factbook, IMF World Economic Outlook Database, and OECD Regions at a Glance (2011) (see Appendix ?? for details). For 5 of them it was impossible to recover the information on GDP.

Area, expressed in square kilometres, was calculated using a GIS software.

Population, used for computing the linguistic index and the GDP per capita in some cases, was obtained from the national Census Bureau (see Appendix ??).

In the analysis of Section ??, we also take advantage of the regional data recently assembled by Gennaioli et al. (2013) and Mitton (2016).

From Gennaioli et al. (2013) we draw information on human capital, measured in terms of years of education (that is, the variable *Years of Education*). This variable measures the average years of schooling from primary school onward for the population aged 15 years or older.¹³ Forty-four sub-national regions are lost in the merging process. Thirty-five of these observations concern islands. All the overseas territories in our original dataset are lost in this merging process.

From the Mitton (2016) database we draw information on institutional quality and degree of regional autonomy, as well as on a number of first-nature regional characteristics, as listed in Section ?. The variable *Institutions* is computed by Mitton (2016) combining the information on four institutional variables (that is, Property Rights, Corruption Control, Law and Order, and Regulatory Efficiency) recovered from different survey data.¹⁴ Mitton (2016) also collects information on the degree of regional autonomy using the List of Autonomous Areas by Country maintained on Wikipedia. The resulting variable, *Autonomy*, is a dummy variable taking the value one if the region is on list, and zero otherwise. Sixty-three regions of our original database are lost in the merging process with the Mitton data, 27 of which are islands.

¹³The most recent information available from 1990 to 2006 is used and, to make levels of educational attainment comparable across countries, the educational statistics are translated into the International Standard Classification of Education (ISCED) standard and the UNESCO data are used to determine the duration of school levels in each country for the year for which educational attainment data is available.

¹⁴Each survey provides separate measurements for different sub-national regions within each country. This information is aggregated by first averaging the (standardized) data for all questions that fall within each of the four categories within each survey, and then aggregating the institutional variables across the different surveys to obtain one measure of each of the four categories of institutions.

5 Analysis

Figure ??, which shows the GDP per capita of the island regions as a percentage of the national average (considered 100), highlights how the GDP per capita in the majority of island regions is below their national average. In fact, the figure is less than one hundred in most island regions, with some notable exceptions such as the Galapagos Islands in Ecuador (with a GDP per capita almost four times the national average) or the Bermuda, Bay, and Cayman Islands.

A t-test performed on regional differentials in the GDP per capita points to a highly significant difference between the two groups of regions with respect to the national mean: on average, GDP per capita is -21.7% of the national mean in islands (against $+4.4\%$ in non-island regions), and -49.4% of the national mean in overseas islands (against $+3.6\%$ in the rest of regions).

Starting with this anecdotal evidence, we investigate the extent to which an island-effect in terms of GDP per capita can still be identified once other regional characteristics, common to island and non-island regions, are controlled for. We operationalize Equation (??) by focusing on geographic and cultural (either linguistic or ethnic) remoteness, together with a number of geographical, climatic and natural resource controls. We then introduce second-nature determinants, such as human capital, institutions, and regional autonomy. The analysis is based on the following specification

$$\begin{aligned}
 gdp_{r_c} = & \alpha + \beta_1 Area_{r_c} + \beta_2 S_r + \beta_3 O_r + \beta_4 O_r * Area_{r_c} + \beta_5 Remote_{r_c,fc} + \beta_6 O_r * Remote_{r_c,fc} + \\
 & + \beta_7 First_{r_c} + \beta_8 Second_{r_c} + \beta_9 C_c + \epsilon_{r_c}
 \end{aligned} \tag{2}$$

in which the dependent variable gdp_{r_c} is the (log of) GDP per capita of region r , located in country c , and the explanatory variables consist of: a (0,1) dummy identifying the island regions (that is, $S_r = 1$ if region r is an island and $S_r = 0$ otherwise); a (0,1) dummy that identifies the overseas island regions, determined as described in section 2 (that is, $O_r = 1$ if region r is an overseas island and $O_r = 0$ otherwise); the logarithm of regions r 's area ($Area_{r_c}$); the log-distance between region r and the country c 's frontier region fc (that is, $Remote_{r_c,fc}$). Depending on the specification adopted, $Remote_{r_c,fc}$ can either be the geographic remoteness (that is, $GeoRemote_{r_c,fc}$) or the cultural remoteness measure. The latter is either based on linguistic (that is, $LingRemote_{r_c,fc}$) or ethnic (that is, $EthnRemote_{r_c,fc}$) distance. To understand if the smaller or more remote overseas islands are further

penalized, we interact the overseas dummy with region r 's area (that is, $O_r * Area_{r_c}$) and with its distance to the national frontier (that is, $O_r * Remote_{r_c, f_c}$). $First_{r_c}$ and $Second_{r_c}$ are vectors of first-nature and second-nature regional characteristics, respectively. C_c is a country level fixed-effect. ϵ_{r_c} is the i.i.d. error term. All regression computations exclude the Galapagos Islands (outliers in terms of GDP)¹⁵, as well as the five regions with missing GDP. This leaves us with 468 sub-national regions observed.

We finally estimate Equation (??) using the second-nature characteristics $Second_{r_c}$ as the dependent variable.

A description of the main variables, together with a correlation analysis, is reported in Appendix ??.

Remoteness and first-nature characteristics. In this section we investigate on the role played by remoteness, controlling for a number of 'first-nature' regional characteristics that are common to island and non-island regions.

We start with estimating Equation (??) with regional size as the only first-nature control. The results of the ordinary least squares (OLS) estimation are shown in Table ??.¹⁶ The first, fourth, and seventh columns show that remoteness adversely affects GDP per capita. In columns 2, 5 and 8 we add the two dummy variables for islands and overseas islands, referred to as the *Island* (dummy) and *Overseas Island* (dummy) respectively, together with the interacted variables. The significance of the relationship between remoteness and economic development, in both a geographical and a cultural sense, disappears, while a negative influence of being an island emerges. It is also worth noting that being a relatively small (variable $O_r * Area_{r_c}$) and/or more remote (variable $O_r * Remote_{r_c, f_c}$) overseas island, increases the delay in development.¹⁷

In Appendix ?? we discuss how the island-effect is robust to taking a number of geomorphological characteristics into account (data drawn from Mitton, 2016). In addition to the *Island* dummy, some of these characteristics are found significant: elevation, access to the ocean, terrain ruggedness, percent of tropical land, percentage of day length with sunshine, and the availability of precious metals and alloys.

¹⁵The island-effect in Table ?? disappears when Galapagos Islands are included, while the significativeness of the *Island* dummy in Table ?? is only slightly affected.

¹⁶The number of observations in Table ?? drops from 468 to 446 because one region for each country (that is, the frontier region) is lost under this specification.

¹⁷These regressions may suffer from endogeneity if one accepts the idea that, in the long run, geography itself, including being an island, may have played a role in determining the degree of cultural remoteness. To investigate this aspect, we run additional regressions in which we use the two measures of cultural remoteness (*LingRemote* and *EthnRemote*) as dependent variables and geographical remoteness, together with the same controls for insularity used above, as explanatory variables. While the geographical remoteness is significant, entailing that including geographical and cultural remoteness in the same regression would be problematic, being an island does not seem to significantly impact the degree of cultural remoteness of the regions. This result is fully confirmed in regressions in which the additional first-nature factors mentioned above are included one by one (see Supplemental material - Part ??): the island dummy is never significant, while geographical remoteness always significantly affects linguistic remoteness and, in most regressions, also ethnic remoteness.

Into the island-effect: second-nature characteristics. Having seen that remoteness (neither geographical nor cultural) does not explain the within-country GDP gaps when the condition of being island is controlled for, we might wonder to what extent the documented island-effect is related to second-nature determinants that are common to islands and non-island regions. Institutional quality might be an example of such determinants: if the quality of the regional institutions is correlated with remoteness and per capita GDP, all remote regions (irrespective of whether they are islands or not) are affected by this condition and the positive coefficient on the island dummy is likely to capture factors not necessarily restricted to islands.

To investigate such issues, human capital, institutional quality and degree of regional autonomy (i.e. the variables *Years of Education*, *Institutions* and *Autonomy* described in Section ??), together with the interaction term *Institutions*Autonomy* (as suggested by Mitton, 2016) are included in columns 3, 6 and 9. It is worth noting that, after the merge with the Mitton data, only 49 island regions remain, 8 of which are overseas islands. Just 9 of the islands are classified as autonomous regions by Mitton, with none of them belonging to the overseas islands group.

Results show that, irrespective of including geographic or cultural remoteness, *Years of Education* and *Institutions*Autonomy* are strongly significant, while the island dummy and the remoteness indicators (neither geographical nor cultural) are no longer significant.¹⁸

In Appendix ?? we show that these results are not driven by the merge with the Gennaioli et al. (2013) and Mitton (2016) data. In Supplemental material - Part ?? we show that they are also confirmed when the other first-nature controls are controlled for (the island dummy is still significant in some cases - i.e. with ethnic remoteness).

The effect of first-nature on second-nature. As a result of the analysis in Table ??, we can say that the within-country delay of island regions is better understood in terms of second-nature regional features not specific to island regions. This clearly points to a prominent role of second-nature.

One might wonder what role, if any, geography and other first-nature regional features may have played over the centuries in shaping the regional articulation of the second-nature characteristics. We thus use *Years of Education* and *Institutions*Autonomy* as dependent variables in regressions in which the first-nature controls are included as

¹⁸Consistent with Mitton (2016), *Institutions* and *Autonomy* are not significant when the interacted term is not included (see Supplemental material - Part ??). Regressions run with only human capital or only the institutional variables provide with exactly the same information.

explanatory variables. The analysis reported in Table ?? reveals that, while remoteness is never significant, the being an island is strongly associated to a worst second-nature. This is true also when (see Supplemental material - Part ??) other first-nature factors are included (the additional first-nature conditions are in general not, or only slightly, significant).

To understand whether our conclusions are driven by our identification strategy concerning the technological frontier, we perform three types of check. First, we consider the regional remoteness with respect to a single global frontier (the London region); second, we treat all the regions in island countries as island regions; third, we run regressions without island countries. Results prove quite robust (see Appendix ??).

The conclusions drawn in this section remain valid when our measure of remoteness is replaced by a measure of ‘accessibility’ (i.e. the GDP reachable from region r , weighted by the ease of access to all the other regions), as suggested by the New Economic Geography literature (Krugman, 1991; Venables, 1996; Krugman and Venables, 1995). Appendix ?? discusses this approach in details and shows the results.

6 Conclusions

With regions identified at the second administrative level, the GDP per capita of island regions is in most cases well below the national average.

In this paper we studied whether and how being an island explains the within-country differences in GDP per capita after controlling for a number of first-nature and/or second-nature features that may be typical not only for islands, but also for non-insular regions.

We find that the within-country disparities in GDP per capita are not explained by the extent of regional remoteness (or accessibility), neither geographical nor cultural, and are only partially associated to other first-nature characteristics, once the condition of being an island is taken into account. Instead, an island-effect always emerges (and, in addition, being a relatively smaller or more remote (either geographically or culturally) overseas island further delays economic development). However, this island-effect vanishes when second-nature factors - i.e. human capital and institutional quality (the latter only if interacted with regional autonomy) - are included.

Finally, while neither remoteness (or accessibility) nor other first-nature conditions (such as geography, climate, and natural resource) seem to be correlated with the regional articulation of human capital and institutions, *the*

second-nature regional map is negatively affected by the condition of being an island. Although other second-nature factors not specific to islands, which are omitted by the analysis, might still be responsible for the human capital and institutional gap of island regions, this negative impact might explain the within-country delay of island regions.

This explanation is fairly in line with the country-level findings by Rodrik et al. (2004), who shows that, once institutions are controlled for, conventional measures of geography have at best weak direct effects on incomes, although they have a strong indirect effect by influencing the quality of institutions.

Overall, our analysis seems to suggest that the sub-national disparities in economic development are associated to a series of political, social, economic, and cultural reactions (see Hache, 1987) to first-nature conditions, among which the condition of being an island deserves special attention. These reactions can be thought of as fostering the emergence of regional differences in a number of second-nature factors. These factors, which include human capital and good institutions associated with regional autonomy, can be seen as the ultimate ‘markers’ of the within-country differentials in economic development.

Several hypotheses can be generated to explain this effect. Some authors, for example, emphasize the aspect of vulnerability, that is the potential attribute of a system to be damaged by exogenous shocks (Briguglio, 1995; Adrianto and Matsuda, 2004) or stress the role of territorial discontinuity (according to Eurisles (2002), insularity can be regarded as a permanent phenomenon of physical discontinuity). Others (Gloersen et al., 2012) claim that the being an island might result into a generalized “lack of local coherence between natural resources, human capital, and the institutional context”. More in general, our findings are in line with the country level analysis by Gallup et al. (1999), suggesting that geography might affect economic policy choices. This view offers new research perspectives.

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Table 1: First-nature, second-nature and remoteness

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Area</i>	0.00279 (0.0247)	-0.0693** (0.0239)	-0.0239 (0.0257)	0.0126 (0.0268)	-0.0717** (0.0234)	-0.0305 (0.0257)	0.0170 (0.0277)	-0.0743** (0.0232)	-0.0306 (0.0257)
<i>Island (dummy)</i>		-0.170** (0.0591)	0.00793 (0.0725)		-0.180*** (0.0514)	-0.0229 (0.0700)		-0.183*** (0.0511)	-0.0248 (0.0701)
<i>Overseas Island (dummy)</i>		-1.861*** (0.440)	0 (.)		-1.903*** (0.356)	0 (.)		-1.901*** (0.347)	0 (.)
<i>Overseas Island * Area</i>		0.0988 (0.0551)	0 (.)		0.147*** (0.0418)	0 (.)		0.147*** (0.0406)	0 (.)
<i>GeoRemote</i>	-0.150*** (0.0259)	0.00360 (0.0277)	-0.0385 (0.0221)						
<i>Overseas Island * GeoRemote</i>		-0.504*** (0.150)	0 (.)						
<i>LingRemote</i>				-0.0699*** (0.0167)	0.0219 (0.0149)	-0.0143 (0.0114)			
<i>Overseas Island * LingRemote</i>					-0.263*** (0.0481)	0 (.)			
<i>EthnRemote</i>							-0.0569*** (0.0157)	0.0280 (0.0158)	-0.0165 (0.0103)
<i>Overseas Island * EthnRemote</i>								-0.271*** (0.0476)	0 (.)
<i>Years of Education</i>			0.320*** (0.0347)			0.321*** (0.0352)			0.322*** (0.0352)
<i>Institutions</i>			-0.0184 (0.0569)			-0.0154 (0.0569)			-0.0142 (0.0568)
<i>Autonomy</i>			-0.00734 (0.0158)			-0.00657 (0.0158)			-0.00610 (0.0157)
<i>Institutions*Autonomy</i>			0.0490* (0.0217)			0.0523* (0.0215)			0.0518* (0.0214)
Constant	9.249*** (0.243)	10.48*** (0.256)	7.259*** (0.572)	9.315*** (0.237)	10.64*** (0.228)	6.519*** (0.530)	9.369*** (0.231)	10.70*** (0.229)	6.502*** (0.528)
N	446	446	291	446	446	291	446	446	291
adj. R ²	0.887	0.899	0.965	0.880	0.905	0.965	0.877	0.906	0.965

Standard errors in parentheses. Country fixed-effects included in all regressions.
 Dependent variable: log GDP per capita. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2: The influence of first-nature on second-nature

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Education</i>	<i>Inst*Aut</i>	<i>Education</i>	<i>Inst*Aut</i>	<i>Education</i>	<i>Inst*Aut</i>	<i>Education</i>	<i>Inst*Aut</i>
<i>Area</i>	-0.193*** (0.0623)	-0.0169 (0.0440)	-0.184*** (0.0575)	-0.0398 (0.0420)	-0.184*** (0.0575)	-0.0386 (0.0418)	-0.184*** (0.0574)	-0.0361 (0.0409)
<i>Island (dummy)</i>	-0.425*** (0.177)	-0.563*** (0.283)	-0.376*** (0.159)	-0.676*** (0.290)	-0.377*** (0.159)	-0.669*** (0.289)	-0.377*** (0.158)	-0.661*** (0.286)
<i>Overseas Island (dummy)</i>	0 (.)	-0.123 (0.676)	0 (.)	-0.429 (0.742)	0 (.)	-0.329 (0.712)	0 (.)	-0.258 (0.684)
<i>Overseas Island * Area</i>	0 (.)	0.160* (0.0934)	0 (.)	0.156 (0.101)	0 (.)	0.146 (0.101)	0 (.)	0.148 (0.0962)
<i>GeoRemote</i>	0.0536 (0.0661)	-0.0993 (0.0826)						
<i>Overseas Island * GeoRemote</i>	0 (.)	-0.114 (0.214)						
<i>LingRemote</i>			-0.00327 (0.0444)	0.0352 (0.0306)				
<i>Overseas Island * LingRemote</i>			0 (.)	-0.109 (0.155)				
<i>EthnRemote</i>					-0.000372 (0.0411)	0.0245 (0.0278)		
<i>Overseas Island * EthnRemote</i>					0 (.)	-0.112 (0.162)		
Constant	12.98*** (0.828)	0.206 (0.706)	9.019*** (0.586)	0.791 (0.710)	9.040*** (0.566)	0.747 (0.702)	12.66*** (0.601)	0.705 (0.689)
<i>N</i>	407	309	407	309	407	309	407	309
<i>R</i> ²	0.949	0.183	0.949	0.180	0.949	0.179	0.949	0.183

Standard errors in parentheses. Country fixed-effects included in all regressions.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

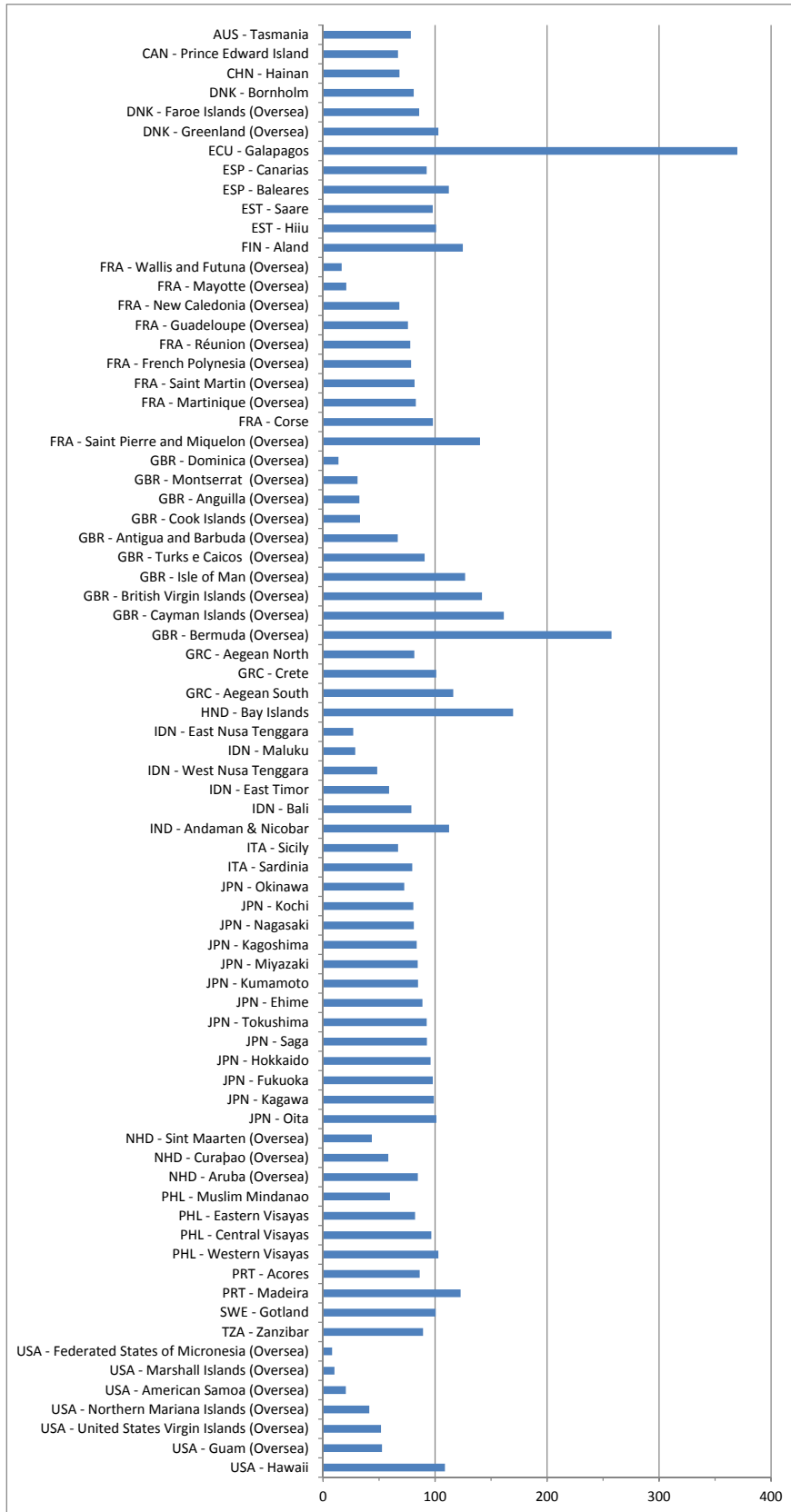


Figure 1: GDP per capita in the island regions included in the database

A Appendix: Construction of the Linguistic Distance Matrix.

As explained in Section ??, the *linguistic distance* is the measurement of the linguistic differences between populations that live in two different regions.

We use the approach conceived by Fearon (2003), also adopted by Desmet et al. (2009), to construct this indicator. It is based on the study of a phylogenetic linguistic tree and measures the similarity between two tongues in terms of the number of common branches¹⁹. Fearon (2003) proposed the following index to measure the distance between two languages i and j :

$$d_l(i, j) = 1 - \left(\frac{l}{m}\right)^\alpha \quad (3)$$

where l is the number of shared branches between i and j , m is the maximum number of shared branches between any two languages contained in the database, and α is a parameter with an assigned value of 0.5.²⁰

The linguistic distance between A and B regions is calculated with the given formula:

$$\sum_{k=1}^K [Q_i^A Q_j^B d_l(i, j)]_k \quad (4)$$

where Q_i and Q_j denote the number of language i and language j speakers with respect to the regional total, respectively, and K represents all possible combinations of languages spoken in A and B . The index varies between 0 (maximal linguistic similarity) and 1 (maximal linguistic inequality).

Computing the measure in Equation (??) requires two main blocks of information: i) the matrix of linguistic distance (including all possible language pairs) and ii) the regional distribution of languages (that is, the number of speakers of each language in each region). This information is needed for all the regions of the 22 countries to which the 76 island regions belong (474 regions in total).

The linguistic distance matrix can be fully derived by applying Equation (??) to the information drawn from the phylogenetic linguistic tree provided by Ethnologue. The phylogenetic tree is a diagram reflecting the tree model of language origination. The first level of the tree consists of a certain number of language families.²¹ A family is a monophyletic unit in which all members derive from a common ancestor; all attested descendants of that ancestor

¹⁹The phylogenetic tree is a diagram that shows the relationship between groups of progeny derived from a single parent. The term “branches” describes the points where languages divide.

²⁰See Desmet et al. (2009), p.1301, for explanation concerning the meaning and estimation of α .

²¹Ethnologue identifies 141 different language families (that is, top-level genetic groups). Six of these (namely, Afro-Asiatic, Austronesian, Indo-European, Niger-Congo, Sino-Tibetan, and Trans-New Guinea), each of which has at least 5% of the speakers of the world's languages, stand out as the major language families of the world. Together they account for nearly two-thirds of all languages and five-sixths of the world's population.

are included in the family. Language families can be divided into smaller phylogenetic units, conventionally referred to as “branches”. The position of each language in the tree is identified by a code from which the common number of branches can be identified. The maximum number of branches in the Ethnologue tree is 15. As an example, since English and Standard German share tree branches (3.5.2.1.1 is the code for English and 3.5.2.3.1.1.1.1 is the code for Standard German), their distance, according to Equation (??), amounts to $1 - \left(\frac{3}{15}\right)^{0.5}$.

To obtain the regional distribution of languages, we had to restore to different sources. For five out of our 22 countries, we took advantage of the information provided by Alesina and Zhuravskaya (2011). As for the other countries, some of them were not covered by the database (the number of island regions included in Alesina and Zhuravskaya (2011) is indeed fairly small (only 11 countries possessing at least one island region: 22 regions in total) and for others, although included, the reported information was not sufficiently detailed (the level of precision mainly depends on the sources used for individual countries, the coverage of which is frequently heterogeneous between regions of the same country).²² We thus used the Alesina and Zhuravskaya database only for the countries where the national distribution obtained by aggregating the regional distributions coincided with the national distribution reported by Ethnologue. For the (regions of the) other countries, we drew information from Ethnologue. The problem with Ethnologue is that information on the number of speakers is only reported at the country-level. Thus, whenever possible, we reported it at the regional level using a number of secondary, mainly national, sources (listed in Appendix ??). In the remaining cases, the regional language distribution was estimated on the bases of further geographical information reported by Ethnologue. Indeed, for the majority of languages, Ethnologue also indicates geographic zones of diffusion. These, however, normally do not coincide with administrative units, so that we had to report this sub-national information to regions. We proceeded as follows. In some cases, Ethnologue uses large areas, for which only the total number of speakers is reported. In these cases (such as Japan), we allocated the total number of speakers to the regions included in the area proportionally to their population (sources listed in Appendix ??). In other cases, Ethnologue reports smaller geographic zones of diffusion, listed in order of importance. In these cases, we associated each Ethnologue zone to a region and estimated the shares of speakers of each language using an arithmetic progression.²³

Finally, it is noteworthy that, for each country, Ethnologue registers both traditional languages and languages

²²For example, Alesina and Zhuravskaya identify 17 languages in Italy, against the 23 identified by Ethnologue.

²³We assumed that the number of speakers in the regions listed constitute an arithmetic progression in which the first element (the number of speakers in the first region) is equal to a fixed figure of the average number of speakers in the region. The parameter that represents the fixed figure was given a value of 0.25. Tests were also performed with other values (such as 0.014 that corresponds to the median value within our sample), but did not result in notable effects in the final results.

of recent immigration. The latter, however, were excluded from the analysis in order to limit potential problems of endogeneity with respect to regional income, and obtain a realistic representation of the cultural relations that developed among regions in the course of their history. Table ?? reports the number of languages considered in the definition of the distance matrix (column 1) and the number of languages spoken in at least two regions (column 2)²⁴, which are also listed in the last column.

The final index, calculated on the basis of 220 languages distributed across 474 regions and 22 countries, is available, together with the other measures of distance, on the first author's website. From the website, is also possible to download a replication package with all the data and the STATA codes used to compute the index.

²⁴While, for example, if one considers the USA, a number of languages is spoken in at least 5 states (Swahili, spoken in 24 regions; Gaelic, spoken in 49 regions; German Standard, spoken in 49 regions; Spanish, spoken in 64 regions; English, spoken in 84 regions; Norwegian, spoken in 7 regions; Russian, spoken in 7 regions; Italian, spoken in 8 regions and Navajo, spoken in 11 regions), in the UK only two languages are spoken in more than one region (Scots and English, spoken in 2 and 22 regions respectively).

B Appendix: the list of sources used.

- **Australia**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Australian Bureau of Statistics (<http://www.abs.gov.au>)

POPULATION: Census 2011

- **Canada:**

SPEAKERS: Statistics Canada (www.statcan.gc.ca) - English and French Speakers

ETHNIC GROUPS: Statistics Canada (www.statcan.gc.ca)

POPULATION: Census 2011

- **China**

SPEAKERS: Alesina and Zhuravskaya 2011; Wikipedia (Hainan island)

ETHNIC GROUPS: Alesina and Zhuravskaya 2011; Wikipedia (Hainan island)

POPULATION: Census 2010

- **Denmark**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Main Land: Ethnologue; Faroe Islands: Statistics Faroe Islands (<http://www.hagstova.fo>);

Greenland: Greenland in Figures 2012, Statistics Greenland.

POPULATION: Census 2006; Faroe Islands: Statistics Faroe Islands (<http://www.hagstova.fo>); Greenland:

Greenland in Figures 2012, Statistics Greenland

- **Ecuador**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Ethnologue

POPULATION: Census 2011

- **Estonia**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Statistics Estonia (<http://pub.stat.ee>)

POPULATION: Census 2010

- **Finland**

SPEAKERS: Ethnologue; Åland in Brief. CGiForm - Mariehamns Tryckeri 8 - 2008

ETHNIC GROUPS: Ethnologue

POPULATION: Census 2003

- **France**

SPEAKERS: Ethnologue; Distribution of Italian and Portuguese: C. Borrel and B. Lhommeau - Insee premiere, 2010

ETHNIC GROUPS: Ethnologue; Distribution of Italian and Portuguese: C. Borrel and B. Lhommeau - Insee premiere, 2010

POPULATION: Census 2008

- **Greece**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Ethnologue

POPULATION: Census 2005

- **Honduras**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Ethnologue

POPULATION: Census 2001

- **India**

SPEAKERS: Alesina e Zhuravskaya (2011)

ETHNIC GROUPS: Alesina e Zhuravskaya (2011)

POPULATION: Census 2001

- **Indonesia**

SPEAKERS: Alesina e Zhuravskaya (2011)

ETHNIC GROUPS: Alesina e Zhuravskaya (2011)

POPULATION: Census 2010

- **Italy**

SPEAKERS: Ethnologue; Census 2001. Alto Adige: M. Brigaglia, S. Tola, Dizionario storico-geografico dei Comuni della Sardegna, Sassari, Carlo Delfino editore, 2006

ETHNIC GROUPS: Ethnologue; Census 2001. Alto Adige: M. Brigaglia, S. Tola, Dizionario storico-geografico dei Comuni della Sardegna, Sassari, Carlo Delfino editore, 2006

POPULATION: Census 2011

- **Japan**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Ethnologue

POPULATION: Census 2011

- **Netherlands**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Ethnologue

POPULATION: Census 2006/2011

- **Philippines**

SPEAKERS: Alesina e Zhuravskaya (2011)

ETHNIC GROUPS: Alesina e Zhuravskaya (2011)

POPULATION: Census 2000

- **Portugal**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Ethnologue

POPULATION: Census 2011

- **Spain**

SPEAKERS: Alesina e Zhuravskaya (2011)

ETHNIC GROUPS: Alesina e Zhuravskaya (2011)

POPULATION: Census 2011

- **Sweden**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Ethnologue

POPULATION: Census 2006

- **Tanzania**

SPEAKERS: Alesina e Zhuravskaya (2011)

ETHNIC GROUPS: Alesina e Zhuravskaya (2011)

POPULATION: Census 2002

- **United Kingdom**

SPEAKERS: Ethnologue

ETHNIC GROUPS: Ethnologue

POPULATION: Census 2004 and 2011

- **United States of America**

SPEAKERS: Ethnologue; Spanish Speakers (year 2000): "Redistricting Data, First Look at Local 2010 Census Results", US Census Bureau; "Population by Race and Hispanic or Latino Origin, for the United States, Regions, Divisions, and States, and for Puerto Rico: 2000", US Census Bureau

ETHNIC GROUPS: US Census Bureau, Ancestry 2000 (<http://www.census.gov>)

POPULATION: Census 2000

C Appendix: Descriptive statistics

Tables ??, ?? and ?? describe the main variables used in the analysis. Substantial heterogeneity emerges, on average, both across countries and, within countries, between island and non-island regions. Table ?? shows the correlation analysis.

D Appendix: New Economic Geography and analysis with ‘Accessibility’

As an alternative framework for the identification of the regional characteristics not specific to island regions, we follow the idea that, in the post-industrial revolution, economic development at a country level may have resulted, through the agglomeration forces highlighted by New Economic Geography literature (Krugman, 1991; Venables, 1996; Krugman and Venables, 1995), in wealth concentration in certain core regions to the detriment of the periphery.

If, on the one hand, New Economic Geography models show how increasing returns to scale, agglomeration economies, transport costs, and product differentiation can lead to the emergence of regional disparities even when the underlying geography is undifferentiated, on the other hand, they show that the emergence, and persistence, of regional disparities can be brought back to any factor, either related to first- or second-nature geography, affecting the determinants of agglomeration and dispersion (Gallup et al., 1999). Once the agglomeration process is set into motion, it yields (Ottaviano, 2003; Brakman and Garretsen, 2003) permanent effects on regional disparities and growth rates differentials, with the actual growth opportunities of a region depending on agglomeration forces such as the relative size of the local market (market-seeking attraction), comparative advantages (cost-seeking attraction) and proximity to the relevant markets (accessibility).

This framework, already used (Behrens and Gaigné, 2006; Rodríguez-Pose and Faber, 2005; Behrens et al., 2007) to analyze aspects that can be typical of peripheral and ultra-peripheral regions.²⁵, complements the explanation associated to the idea of cultural remoteness: within-country regional disparities can be thought of to emerge because of an initial technology gap arising from a relatively high remoteness and continue to thrive because of

²⁵In the language of the New Economic Geography, different categories of regions can be identified: central regions (strong attraction and good accessibility), marginal regions (weak attraction but good accessibility), peripheral regions (strong attraction but bad accessibility), ultra-peripheral regions (weak attraction and bad accessibility).

agglomeration economies.

Thus, following the idea that a region’s proximity to the most profitable markets (accessibility) is one of the major drivers in such a process, we can replace remoteness with an accessibility indicator measuring the GDP reachable from the region, weighted by the ease of access to the other regions, in which the *Accessibility* of region j_c , located in country c , is defined as $Access_{j_c} = \frac{\sum_r^{R_c} geodist_{j_c,r_c} * GDP_{r_c}}{\sum_r^{R_c} GDP_{r_c}}$, where R_c is the number of regions in the country, $geodist_{j_c,r_c}$ denotes the geographical distance between region j and region r , GDP_{r_c} is the GDP of region r .

Table ?? reports the results of the rerun benchmark estimation in the first three columns, and the analysis on the influence of first-nature on second-nature in columns 4 and 5. While the analysis concerning the second-nature markers of regional GDP differentials points to a dominant role of education, the main message is broadly confirmed.

E Appendix: Geomorphological characteristics.

Other first-nature characteristics not specific to island regions might be responsible of the island-effect documented in Table ?. To explore this possibility, we draw from the Mitton (2016) database (see Section ??) to run regressions in which a number of first-nature factors are added one by one to the regressions in Table ?. These regressions, reported in the Supplemental material (Part ??), show that, in line with Mitton (2016), some factors, namely *Elevation*, *Ocean Access*, *Terrain Ruggedness*, percent of tropical land (that is, *Percent Tropical*), percentage of day length with sunshine (that is, *Sunshine*) and *Wind Speed*, and the availability of *Precious Metals* and *Alloyants* (see the definitions in the Supplemental material) are found to significantly affect the within-country patterns of economic development. Beside this, the island-effect always persists.

F Appendix: Robustness checks

Robustness on second-nature regressions. In Table ?? we perform some robustness checks on the second-nature results discussed in Section ?? (columns 3, 6 and 9 of Table ??). Results are reported in Table ??.

First, we run the benchmark specification without remoteness. The output (see column 1), very similar to Table ??, suggests that benchmark results on the second-nature effects are not driven by the inclusion of remoteness.

Second, we show that results are robust to i) replacing our GDP measure with the one built by Mitton (2016); ii) using (as in Mitton, 2016) the population of regions (log of regional population in 2005), instead of their area, to control for size (see column 2); iii) using the Mitton dataset (cfr. column 3) instead of ours. We finally show that the disappearing of the island-effect is not associated to the change in the data, as the island dummy is still significant when the regressions with the second-nature controls are run (this time without institutional controls and remoteness) on our set of 301 observations (column 4) or on the whole Mitton dataset, which includes many more regions but a lower number of islands (column 5).

We also show (see Supplemental material - Part ??) that the results in columns 3, 6 and 9 of Table ?? are also valid when the second-nature characteristics are added one by one and regressions are run on the merged databases (ours plus the Gennaioli et al. (2013) database for human capital; ours plus the Mitton (2016) database for institutional quality and autonomy), on which we also run, for comparison with the results in Table ??, the first-nature regressions.

Alternative identification of the technological frontier. Our benchmark results might be driven by the concept of frontier adopted in the analysis. To test the robustness with respect to this aspect, we move from a local to a global frontier, as identified by Spolaore and Wacziarg (2009) in the USA and UK. In our case, this means considering, for every region, the distance from a region of the USA or UK where 100% of the population speaks English and belongs to the dominant ethnicity of the country. The results obtained using the London region, shown in Tables ?? and ?? (to be compared to Tables ?? and ??), fully confirm our benchmark results.

Dealing with island countries. By working at the second administrative level, we are able to include the entire set of island regions, worldwide, in the analysis. This choice has pros and cons. For example, if, on the one hand, it might seem correct to treat island countries such as Ireland, New Zealand, Japan or Britain as cases of successful island regions, on the other hand, one might argue that dealing with countries on par with regions would be problematic, due to the huge social, economic and political differences associated to these two administrative levels. Moreover, our within-country focus imposes a disentangling between island and non island regions even in island countries. However, the physical nature of some countries (Japan, Indonesia, Philippines) required a choice in this respect. Our criterion was that to deal with the major (in term of area) islands as the mainland (i.e. non island regions) and the minor islands as the island regions. Although the regions are always identified at the second

administrative level, this again introduces a certain degree of arbitrariness. In fact, one might argue that some mainland regions (e.g. London or Tokyo) represent cases of wealthy islands and that, by neglecting their successful story, we are somehow overestimating the island-effect.

To deal with such issue, we perform two robustness checks.

First, we run again the analysis of Table ?? dealing with all the regions in the island countries as island regions. In this way, the within-country GDP variability cannot be attributed to the condition of being an island. The results of this exercise are reported in Table ??. The coefficient of the island dummy is still significant in columns 2, 5 and 8 and not significant, as in our benchmark regressions, in columns 3, 6 and 9.

Second, to somehow understand the role played by island countries in the analysis, we report the regression results obtained without Australia, Indonesia, Japan, Philippines and UK. Results, displayed in Table ??, show that the island-effect is slightly less significant but still present in columns 2-5-8 and disappears, as in our benchmark regressions, in columns 3-6-9.

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Table 3: Regional distribution of languages (description by country)

COUNTRY	# of languages spoken in > 1 region	# of languages spoken in > 1 region (in ascending order of diffusion)
Australia	9	Italian; German, Standard; Gaelic; Scots; English
Canada	14	Italian; Norwegian; Welsh; Polish; Ukrainian; Cree, Woods; Danish; Inuktitut; German, Standard; Gaelic; Scots; French; English
China	18	Tai; Uyghur; Nuosu; Hlai; Bouyei; Hani; Tujia; Iu; Dong; Bai; Tibetan; Korean; Miao; Zhuang; Mongolian; Manchu; Chinese, Mandarin
Denmark	5	Danish
Ecuador	8	Quichua, Chimborazo Highland; Spanish
Estonia	10	Yiddish; Tatar; Estonian; Ukrainian; Belarusian; Finnish; Polish; German, Standard; Russian; Lithuanian
Finland	7	Karelian; Swedish; Finnish; Finnish, Tornedalen; Livvi
France	44	Wallisian; Futuna, East; English; Occitan; Portuguese; Italian; French
Greece	8	Turkish; Slavic; Aromanian; Albanian, Arvanitika; Greek
Honduras	6	Garifuna; English; Spanish
India	30	Chin; Nepali; Konkani; Marathi; Malayalam; Gujarati; Bhili; Naga; Kannada; Telugu; Tamil; Panjabi; Bengali; Urdu; Hindi
Indonesia	17	Tetun; Sasa; Makasar; Aceh; Ngu; Bali; Banjar; Madura; Batak Toba; Chinese, Mandarin; Betawi; Minangkabau; Bugis; Sunda; Javanese; Indonesian
Italy	23	Greek; Neapolitano-Calabrese; Ligurian; Cimbrian; Franco-Provenal; Venetian; Emiliano-Romagnolo; Albanian; Arbresh; Italian
Japan	9	Japanese; Korean
Netherlands	12	Papiamentu; English; Dutch
Philippines	19	Magindanao; Tausug; Bicolano, Central; Maranao; Kankanaey; Ilocano; Hiligaynon; Waray-Waray; Tagalog; Cebuano
Portugal	5	Galician; Portuguese
Spain	4	Basque; Catalan-Valencian-Balear; Galician; Spanish
Sweden	4	Saami; Finnish; Swedish
Tanzania	29	Iraqw; Swahili; Maasai; Kinga; Kagulu; Jita; Luguru; Pogolo; Zaramo; Makonde; Makhwua-Meetto; Asu; Haya; Fipa; Zigula; Shambala; Hehe; Nilamba; Bena; Ha; Zinza; Gogo; Zanaki; Mochi ; Sukuma; Nyakyusa-Ngonde; Nyamwezi; Ngoni; Kuria
UK	15	Scots; English
USA	33	Chamorro; Swedish; Yiddish, Eastern; Polish; Norwegian; Russian; Italian; Navajo; French; Swahili; Gaelic; German, Standard; Spanish; English

Source: Ethnologue.

Table 4: Descriptive statistics

COUNTRY	CODE	# REGIONS	GDP per capita			GeoRemote		
			mean	min	max	mean	min	max
Australia	AUS	6	34596	28569	41267	0.070	0.023	0.123
	Islands	1	26017	26017	26017	0.030	0.030	0.030
Canada	CAN	11	25971	2270	55040	0.103	0.038	0.186
	Islands	1	24918	24918	24918	0.050	0.050	0.050
China	CHN	28	4112	1447	13521	0.062	0.004	0.136
	Islands	1	2962	2962	2962	0.121	0.121	0.121
Denmark	DNK	12	29287	23769	33956	0.008	0.001	0.012
	Islands	3	26674	24011	30551	0.077	0.009	0.155
Ecuador	ECU	20	5597	3312	8721	0.011	0.004	0.022
	Islands	1	24545	24545	24545	0.068	0.068	0.068
Estonia	EST	12	10050	7296	14889	0.006	0.002	0.010
	Islands	2	11104	10935	11274	0.008	0.007	0.009
Finland	FIN	3	25451	22753	27164	0.020	0.012	0.035
	Islands	1	37193	37193	37193	0.017	0.017	0.017
France	FRA	20	26583	23999	30593	0.016	0.005	0.030
	Islands	11	18148	4066	34352	0.445	0.045	0.834
Greece	GRC	9	21228	15356	34067	0.013	0.007	0.019
	Islands	3	21018	17192	24536	0.025	0.017	0.032
Honduras	HND	16	2327	1242	4683	0.007	0.003	0.016
	Islands	1	4439	4439	4439	0.012	0.012	0.012
India	IND	29	2986	740	8157	0.057	0.017	0.106
	Islands	1	3397	3397	3397	0.102	0.102	0.102
Indonesia	IDN	21	3313	1478	16211	0.053	0.006	0.147
	Islands	5	1624	905	2648	0.086	0.047	0.128
Italy	ITA	17	27636	17945	36620	0.024	0.004	0.048
	Islands	2	19798	18088	21508	0.039	0.028	0.049
Japan	JPN	33	27794	19905	37045	0.017	0.002	0.037
	Islands	13	24365	19874	27745	0.042	0.025	0.074
Netherlands	NHD	11	32566	25554	43507	0.005	0.002	0.009
	Islands	3	18882	13231	25718	0.380	0.349	0.396
Philippines	PHL	11	2681	2118	3471	0.026	0.005	0.049
	Islands	4	2309	1616	2785	0.029	0.021	0.043
Portugal	PRT	4	18700	16382	21789	0.010	0.004	0.017
	Islands	2	22123	18260	25986	0.065	0.049	0.081
Spain	ESP	15	26272	18530	34792	0.016	0.006	0.027
	Islands	2	27580	24911	30248	0.058	0.029	0.087
Sweden	SWE	19	28887	27675	31150	0.017	0.003	0.042
	Islands	1	29866	29866	29866	0.011	0.011	0.011
Tanzania	TZA	19	1045	605	2036	0.021	0.008	0.033
	Islands	1	910	910	910	0.020	0.020	0.020
United Kingdom	GBR	11	28878	24887	35109	0.015	0.002	0.033
	Islands	10	28199	4064	76056	0.350	0.021	0.804
United States of America	USA	49	42598	27682	143483	0.083	0.014	0.260
	Islands	7	16548	3189	43027	0.508	0.148	0.628

Table 5: Descriptive statistics (cont.)

COUNTRY	CODE	# REGIONS	LingRemote			EthnRemote		
			mean	min	max	mean	min	max
Australia	AUS	6	0.002	0.001	0.005	0.317	0.282	0.424
Canada	Non-Islands	1	0.001	0.001	0.001	0.266	0.266	0.266
	Islands	11	0.356	0.323	0.424	0.693	0.634	0.761
China	Non-Islands	1	0.338	0.338	0.338	0.652	0.652	0.652
	Islands	28	0.110	0.015	0.709	0.110	0.015	0.709
Denmark	Non-Islands	1	0.172	0.172	0.172	0.172	0.172	0.172
	Islands	12	0.006	0.001	0.059	0.006	0.001	0.059
Ecuador	Non-Islands	3	0.329	0.211	0.500	0.329	0.211	0.500
	Islands	20	0.122	0.008	0.686	0.125	0.012	0.686
Estonia	Non-Islands	1	0.008	0.008	0.008	0.012	0.012	0.012
	Islands	12	0.001	0.001	0.001	0.437	0.406	0.612
Finland	Non-Islands	2	0.001	0.001	0.001	0.396	0.396	0.396
	Islands	3	0.081	0.055	0.124	0.109	0.083	0.149
France	Non-Islands	1	0.513	0.513	0.513	0.522	0.522	0.522
	Islands	20	0.101	0.023	0.465	0.101	0.023	0.465
Greece	Non-Islands	11	0.610	0.017	0.997	0.623	0.017	0.997
	Islands	9	0.082	0.039	0.340	0.204	0.146	0.403
Honduras	Non-Islands	3	0.164	0.040	0.227	0.258	0.149	0.315
	Islands	16	0.030	0.001	0.380	0.078	0.001	0.743
India	Non-Islands	1	0.276	0.276	0.276	0.276	0.276	0.276
	Islands	29	0.678	0.372	1.000	0.678	0.372	1.000
Indonesia	Non-Islands	1	0.677	0.677	0.677	0.677	0.677	0.677
	Islands	21	0.408	0.083	0.600	0.408	0.083	0.600
Italy	Non-Islands	5	0.323	0.051	0.525	0.323	0.051	0.525
	Islands	17	0.259	0.203	0.381	0.263	0.203	0.381
Japan	Non-Islands	2	0.330	0.323	0.338	0.331	0.323	0.338
	Islands	33	0.010	0.010	0.010	0.010	0.010	0.010
Netherlands	Non-Islands	13	0.034	0.010	0.325	0.039	0.010	0.379
	Islands	11	0.063	0.001	0.232	0.063	0.001	0.232
Philippines	Non-Islands	3	0.868	0.837	0.892	0.868	0.837	0.892
	Islands	11	0.396	0.014	0.532	0.396	0.014	0.532
Portugal	Non-Islands	4	0.432	0.421	0.461	0.432	0.421	0.461
	Islands	4	0.002	0.001	0.005	0.002	0.001	0.005
Spain	Non-Islands	2	0.001	0.001	0.001	0.001	0.001	0.001
	Islands	15	0.136	0.001	0.297	0.136	0.001	0.297
Sweden	Non-Islands	2	0.098	0.001	0.194	0.098	0.001	0.194
	Islands	19	0.055	0.042	0.271	0.057	0.042	0.279
Tanzania	Non-Islands	1	0.042	0.042	0.042	0.042	0.042	0.042
	Islands	19	0.288	0.233	0.853	0.288	0.233	0.853
United Kingdom	Non-Islands	1	0.239	0.239	0.239	0.239	0.239	0.239
	Islands	11	0.013	0.001	0.110	0.019	0.001	0.110
United States of America	Non-Islands	10	0.602	0.001	1.000	0.602	0.001	1.000
	Islands	49	0.144	0.110	0.285	0.144	0.110	0.285
		7	0.656	0.417	0.970	0.656	0.417	0.970

Table 6: Descriptive statistics (cont.)

COUNTRY	CODE	# REGIONS	Years of Education			Institutions			Autonomy		
			mean	min	max	mean	min	max	mean	min	max
Australia	AUS	6	11.549	-	0.437	11.234	-	-0.256	12.678	-	3.902
		1	10.509	-	-0.256	10.509	-	-0.256	10.509	-	-0.256
Canada	CAN	11	10.432	0.980	0.122	9.840	-0.238	-0.256	10.963	2.140	3.902
		1	10.213	2.004	-0.256	10.213	2.004	-0.256	10.213	2.004	-0.256
China	CHN	28	5.750	0.016	2.362	2.939	-0.424	-0.256	8.005	0.719	3.902
		1	5.975	-0.104	3.902	5.975	-0.104	3.902	5.975	-0.104	3.902
Denmark	DNK	12	9.797	-	-	9.350	-	-	10.679	-	-
		3	9.206	-	-	9.206	-	-	9.206	-	-
Ecuador	ECU	20	8.237	-0.593	-0.256	7.250	-0.956	-0.256	9.655	-0.243	-0.256
		1	10.859	-	-0.256	10.859	-	-0.256	10.859	-	-0.256
Estonia	EST	12	11.279	-	-	10.887	-	-	12.103	-	-
		2	10.784	-	-	10.729	-	-	10.839	-	-
Finland	FIN	3	10.766	-	-	10.572	-	-	10.935	-	-
		1	10.637	-	-0.256	10.637	-	-0.256	10.637	-	-0.256
France	FRA	20	9.643	-0.223	-0.256	9.145	-0.546	-0.256	10.417	0.098	-0.256
		11	8.958	-0.803	0.437	8.958	-0.925	-0.256	8.958	-0.657	3.902
Greece	GRC	9	9.013	-1.394	-0.256	8.426	-1.748	-0.256	10.550	-1.076	-0.256
		3	9.044	-1.351	-0.256	8.838	-1.351	-0.256	9.361	-1.351	-0.256
Honduras	HND	16	3.375	0.125	-0.256	1.739	-0.396	-0.256	4.871	0.499	-0.256
		1	6.560	0.427	-0.256	6.560	0.427	-0.256	6.560	0.427	-0.256
India	IND	29	4.253	-0.362	0.544	2.696	-0.853	-0.256	8.842	-0.190	3.902
		1	4.141	-	-0.256	4.141	-	-0.256	4.141	-	-0.256
Indonesia	IDN	21	6.120	-0.013	0.160	4.946	-0.864	-0.256	9.454	0.417	3.902
		5	6.053	0.634	-0.256	4.005	-0.014	-0.256	8.974	1.179	-0.256
Italy	ITA	17	8.818	0.299	0.478	8.172	-0.880	-0.256	9.635	1.226	3.902
		2	8.183	-0.075	3.902	8.154	-0.464	3.902	8.213	0.314	3.902
Japan	JPN	33	10.843	-	-0.256	10.049	-	-0.256	11.996	-	-0.256
		13	10.610	-	-0.256	10.164	-	-0.256	11.281	-	-0.256
Netherlands	NHD	11	10.661	0.827	-0.256	10.275	0.687	-0.256	11.458	1.104	-0.256
		3	-	-	-	-	-	-	-	-	-
Philippines	PHL	11	6.393	0.085	-0.256	5.487	-0.670	-0.256	7.246	0.555	-0.256
		4	5.530	-0.273	0.783	4.750	-1.318	-0.256	6.174	0.471	3.902
Portugal	PRT	4	7.585	-0.546	-0.256	7.414	-0.955	-0.256	7.814	-0.014	-0.256
		2	7.370	-0.387	3.902	7.264	-0.521	3.902	7.476	-0.252	3.902
Spain	ESP	15	9.295	0.312	3.902	8.254	-0.190	3.902	10.457	0.692	3.902
		2	9.140	0.287	3.902	9.131	0.249	3.902	9.149	0.325	3.902
Sweden	SWE	19	11.453	0.992	-0.256	11.106	0.937	-0.256	11.732	1.061	-0.256
		1	11.106	0.997	-0.256	11.106	0.997	-0.256	11.106	0.997	-0.256
Tanzania	TZA	19	3.695	0.625	-0.256	2.477	0.051	-0.256	6.037	0.976	-0.256
		1	-	-	-	-	-	-	-	-	-
United Kingdom	GBR	11	11.991	0.553	0.878	11.605	0.303	-0.256	12.526	0.805	3.902
		10	-	-	-0.256	-	-	-0.256	-	-	-0.256
USA	USA	49	12.173	0.882	-0.256	11.615	-0.442	-0.256	12.833	2.161	-0.256
		7	12.327	-	-0.256	12.327	-	-0.256	12.327	-	-0.256

Table 7: Descriptive statistics. Correlation among the main regressors.

	GDP per capita	Area	GeoRemote	LingRemote	EthnRemote	Years of Education	Institutions	Autonomy
GDP per capita	1.0000							
Area	0.0116	1.0000						
GeoRemote	-0.0059	0.0769	1.0000					
LingRemote	-0.3257*	0.0544	0.5123*	1.0000				
EthnRemote	0.0051	0.1652*	0.4932*	0.7836*	1.0000			
Years of Education	0.8100*	0.0920*	0.0468	-0.4905*	-0.0331	1.0000		
Institutions	0.3609*	0.1976*	-0.0131	-0.1501*	0.1786*	0.3748*	1.0000	
Autonomy	-0.1053*	0.0069	-0.0043	0.0283	-0.0899*	-0.1532*	-0.0828	1.0000

* significant at the 10% level or better

Table 8: Regressions with ‘accessibility’.

	(1)	(2)	(3)	(4)	(5)
	$\ln GDP_{pc}$	$\ln GDP_{pc}$	$\ln GDP_{pc}$	<i>Education</i>	<i>Inst*Aut</i>
<i>Area</i>	-0.0328 (0.0252)	-0.0834*** (0.0230)	-0.0341 (0.0242)	-0.207*** (0.0563)	0.00358 (0.0498)
<i>Island</i> (dummy)		-0.185** (0.0645)	-0.0327 (0.0794)	-0.495** (0.191)	-0.546 (0.325)
<i>Overseas Island</i> (dummy)		-2.094*** (0.437)	0 (.)	0 (.)	0.589 (1.104)
<i>Overseas Island * Area</i>		0.126* (0.0545)	0 (.)	0 (.)	0.0835 (0.0987)
<i>Access</i>	-0.553*** (0.109)	-0.123 (0.125)	0.0422 (0.0816)	0.129 (0.239)	-0.0952 (0.302)
<i>Overseas Island * Access</i>		-0.675** (0.248)	0 (.)	0 (.)	0.362 (0.546)
<i>Years of Education</i>			0.323*** (0.0302)		
<i>Institutions</i>			-0.0130 (0.0549)		
<i>Autonomy</i>			-0.0130 (0.0155)		
<i>Institutions*Autonomy</i>			0.0501* (0.0217)		
Constant	8.888*** (0.343)	10.47*** (0.524)	6.920*** (0.277)	11.99*** (1.097)	0.129 (1.323)
<i>N</i>	468	468	306	429	325
adj. <i>R</i> ²	0.885	0.895	0.966	0.943	0.169

Country fixed-effects included in all regressions.

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9: Robustness: first-nature, second-nature and remoteness (London region as a frontier).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Area</i>	-0.0149 (0.0278)	-0.0947*** (0.0233)	-0.0307 (0.0246)	-0.00740 (0.0244)	-0.0747** (0.0236)	-0.0316 (0.0245)	0.00897 (0.0278)	-0.0842*** (0.0232)	-0.0321 (0.0246)
<i>Island (dummy)</i>		-0.250*** (0.0569)	-0.0118 (0.0717)		-0.201*** (0.0546)	-0.0201 (0.0708)		-0.213*** (0.0538)	-0.0224 (0.0710)
<i>Overseas Island (dummy)</i>		-2.674*** (0.505)	0 (.)		-1.597*** (0.368)	0 (.)		-2.085*** (0.399)	0 (.)
<i>Overseas Island * Area</i>		0.137** (0.0494)	0 (.)		0.145** (0.0442)	0 (.)		0.186*** (0.0463)	0 (.)
<i>GeoRemote</i>	-0.227*** (0.0490)	0.199* (0.0852)	-0.0388 (0.0381)						
<i>Overseas Island * GeoRemote</i>		-0.686*** (0.161)	0 (.)						
<i>LingRemote</i>				-0.206*** (0.0426)	-0.0685 (0.0461)	0.0239 (0.0200)			
<i>Overseas Island * LingRemote</i>					-0.183*** (0.0486)	0 (.)			
<i>EthnRemote</i>							-0.152*** (0.0427)	0.0559 (0.0474)	-0.0201 (0.0184)
<i>Overseas Island * EthnRemote</i>								-0.268*** (0.0513)	0 (.)
<i>Years of Education</i>			0.323*** (0.0304)			0.323*** (0.0303)			0.323*** (0.0305)
<i>Institutions</i>			-0.0163 (0.0558)			-0.00788 (0.0561)			-0.0142 (0.0553)
<i>Autonomy</i>			-0.0111 (0.0155)			-0.0136 (0.0159)			-0.0104 (0.0159)
<i>Institutions*Autonomy</i>			0.0507* (0.0213)			0.0484* (0.0220)			0.0520* (0.0213)
Constant	9.904*** (0.272)	11.73*** (0.347)	6.413*** (0.486)	10.35*** (0.252)	11.06*** (0.248)	6.847*** (0.247)	9.825*** (0.229)	11.19*** (0.340)	6.837*** (0.248)
<i>N</i>	467	467	305	467	467	305	467	467	305
adj. <i>R</i> ²	0.876	0.898	0.966	0.884	0.898	0.966	0.872	0.897	0.966

Standard errors in parentheses. Country fixed-effects included in all regressions.
 Dependent variable: log GDP per capita. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 10: Robustness: the influence of first-nature on second-nature (London region as a frontier).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Area</i>	<i>Education</i>	<i>Inst*Aut</i>	<i>Education</i>	<i>Inst*Aut</i>	<i>Education</i>	<i>Inst*Aut</i>	<i>Education</i>	<i>Inst*Aut</i>
	-0.203*** (0.0560)	0.00392 (0.0502)	-0.203*** (0.0561)	-0.00250 (0.0494)	-0.203*** (0.0563)	-0.000737 (0.0488)	-0.203*** (0.0561)	-0.00265 (0.0480)
<i>Island</i> (dummy)	-0.449*** (0.163)	-0.536* (0.295)	-0.463*** (0.159)	-0.575* (0.297)	-0.463*** (0.158)	-0.569* (0.297)	-0.463*** (0.158)	-0.576* (0.296)
<i>Overseas Island</i> (dummy)	0 (.)	-0.150 (0.635)	0 (.)	-0.675 (1.331)	0 (.)	-1.451 (1.644)	0 (.)	-0.0652 (0.751)
<i>Overseas Island * Area</i>	0 (.)	0.163 (0.108)	0 (.)	0.199 (0.181)	0 (.)	0.301 (0.231)	0 (.)	0.123 (0.106)
<i>GeoRemote</i>	-0.104 (0.133)	-0.152 (0.223)						
<i>Overseas Island * GeoRemote</i>	0 (.)	-0.252 (0.420)						
<i>LingRemote</i>			0.00649 (0.0419)	0.0520 (0.0960)				
<i>Overseas Island * LingRemote</i>			0 (.)	-0.501 (0.613)				
<i>EthnRemote</i>					-0.00992 (0.0630)	0.170 (0.106)		
<i>Overseas Island * EthnRemote</i>					0 (.)	-1.229 (0.914)		
Constant	13.92*** (0.698)	-0.388 (0.551)	12.93*** (0.574)	-0.134 (0.488)	12.93*** (0.575)	0.330 (0.764)	9.391*** (0.480)	-0.148 (0.473)
<i>N</i>	428	324	428	324	428	324	428	324
adj. <i>R</i> ²	0.943	0.172	0.943	0.171	0.943	0.177	0.943	0.175

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 11: Robustness on second-nature regressions

	(1)	(2)	(3)	(4)	(5)
<i>Area</i>	-0.101*** (0.0249)			-0.105*** (0.0277)	
<i>Population</i>		-0.0636* (0.0370)	0.0680*** (0.0209)		0.0369** (0.0155)
<i>Overseas Island * Area</i>	0.0931** (0.0460)			0.0677* (0.0397)	
<i>Overseas Island * Population</i>		0.226* (0.119)	0.0967 (0.109)		0.125 (0.114)
<i>Island (dummy)</i>	-0.121 (0.0891)	-0.0691 (0.103)	-0.0435 (0.107)	-0.233*** (0.0826)	-0.155** (0.0674)
<i>Overseas Island (dummy)</i>	-1.262*** (0.412)	-3.372** (1.570)	-1.566 (1.422)	-0.873*** (0.328)	-1.817 (1.478)
<i>Institutions</i>	-0.142 (0.0915)	0.00517 (0.0865)	-0.0466 (0.0398)		
<i>Autonomy</i>	-0.0277 (0.0196)	-0.0468** (0.0227)	-0.0241 (0.0249)		
<i>Institutions * Autonomy</i>	0.111*** (0.0302)	0.0870*** (0.0282)	0.105*** (0.0280)		
Constant	10.70*** (0.226)	10.85*** (0.437)	7.839*** (0.291)	10.76*** (0.233)	6.750*** (0.297)
N	301	301	1269	301	1789
R ²	0.930	0.910	0.872	0.926	0.858

Standard errors in parentheses. Country fixed-effects included in all regressions.
 Dependent variable: log GDP per capita. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 12: Robustness: all island countries' regions as islands.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Area</i>	0.00279 (0.0247)	-0.0768** (0.0236)	-0.0281 (0.0249)	0.0126 (0.0268)	-0.0766** (0.0235)	-0.0332 (0.0249)	0.0170 (0.0277)	-0.0785*** (0.0233)	-0.0332 (0.0250)
<i>Island (dummy)</i>		-0.264** (0.0894)	-0.0496 (0.0781)		-0.237** (0.0808)	-0.0754 (0.0746)		-0.232** (0.0797)	-0.0775 (0.0747)
<i>Overseas Island (dummy)</i>		-1.947*** (0.431)	0 (.)		-1.986*** (0.357)	0 (.)		-1.986*** (0.349)	0 (.)
<i>Overseas Island * Area</i>		0.120* (0.0534)	0 (.)		0.163*** (0.0431)	0 (.)		0.162*** (0.0419)	0 (.)
<i>GeoRemote</i>	-0.150*** (0.0259)	0.00211 (0.0272)	-0.0323 (0.0225)						
<i>Overseas Island * GeoRemote</i>		-0.477** (0.150)	0 (.)						
<i>LingRemote</i>				-0.0699*** (0.0167)	0.0183 (0.0150)	-0.0137 (0.0113)		0.0241 (0.0157)	-0.0163 (0.0102)
<i>Overseas Island * LingRemote</i>					-0.247*** (0.0490)	0 (.)		-0.255*** (0.0486)	0 (.)
<i>EthnRemote</i>									
<i>Overseas Island * EthnRemote</i>									
<i>Years of Education</i>			0.318*** (0.0340)			0.320*** (0.0346)			0.321*** (0.0346)
<i>Institutions</i>			-0.0127 (0.0560)			-0.0103 (0.0559)			-0.00922 (0.0558)
<i>Autonomy</i>			-0.00518 (0.0158)			-0.00426 (0.0159)			-0.00371 (0.0158)
<i>Institutions*Autonomy</i>			0.0465* (0.0217)			0.0497* (0.0213)			0.0493* (0.0212)
Constant	9.249*** (0.243)	11.60*** (0.373)	6.527*** (0.490)	9.315*** (0.237)	11.69*** (0.359)	6.621*** (0.524)	9.369*** (0.231)	10.72*** (0.239)	6.602*** (0.523)
<i>N</i>	446	446	291	446	446	291	446	446	291
adj. <i>R</i> ²	0.887	0.900	0.965	0.880	0.905	0.965	0.877	0.906	0.965

Standard errors in parentheses. Country fixed-effects included in all regressions.
 Dependent variable: log GDP per capita. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 13: Robustness: regressions without island countries.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Area</i>	0.0262 (0.0282)	-0.0773* (0.0331)	-0.0273 (0.0296)	0.0412 (0.0312)	-0.0696* (0.0315)	-0.0339 (0.0282)	0.0451 (0.0319)	-0.0727* (0.0313)	-0.0339 (0.0283)
<i>Island (dummy)</i>		-0.199* (0.0957)	-0.0272 (0.0857)		-0.190* (0.0827)	-0.0557 (0.0797)		-0.194* (0.0817)	-0.0577 (0.0797)
<i>Overseas Island (dummy)</i>		-2.445*** (0.517)	0 (.)		-2.197*** (0.478)	0 (.)		-2.147*** (0.456)	0 (.)
<i>Overseas Island * Area</i>		0.155** (0.0538)	0 (.)		0.173** (0.0551)	0 (.)		0.167** (0.0521)	0 (.)
<i>GeoRemote</i>	-0.157*** (0.0301)	0.00781 (0.0357)	-0.0302 (0.0255)						
<i>Overseas Island * GeoRemote</i>		-0.596** (0.219)	0 (.)						
<i>LingRemote</i>				-0.0444** (0.0158)	0.0168 (0.0152)	-0.0121 (0.0120)			
<i>Overseas Island * LingRemote</i>					-0.423*** (0.118)	0 (.)			
<i>EthnRemote</i>							-0.0298* (0.0140)	0.0225 (0.0157)	-0.0142 (0.0111)
<i>Overseas Island * EthnRemote</i>								-0.473*** (0.104)	0 (.)
<i>Years of Education</i>			0.323*** (0.0381)			0.324*** (0.0387)			0.325*** (0.0387)
<i>Institutions</i>			-0.0124 (0.0601)			-0.00894 (0.0602)			-0.00809 (0.0602)
<i>Autonomy</i>			-0.0126 (0.0196)			-0.0109 (0.0194)			-0.0103 (0.0194)
<i>Institutions*Autonomy</i>			0.0730** (0.0237)			0.0749** (0.0232)			0.0745** (0.0232)
Constant	9.342*** (0.327)	11.09*** (0.433)	7.280*** (0.625)	9.732*** (0.348)	11.01*** (0.341)	7.413*** (0.626)	9.731*** (0.349)	11.05*** (0.337)	7.414*** (0.624)
<i>N</i>	330	330	255	330	330	255	330	330	255
adj. <i>R</i> ²	0.884	0.899	0.964	0.873	0.898	0.964	0.871	0.899	0.964

Standard errors in parentheses. Country fixed-effects included in all regressions.
 Dependent variable: log GDP per capita. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Supplemental material²⁶

²⁶Additional first-nature characteristics, drawn from Mitton (2016), are considered in the supplemental regressions. Here comes a list of them. *Elevation*, taken from Google Earth, is defined as the log of one plus the elevation of the capital city of the region (expressed in thousands of feet). *Ocean Access* is a dummy variable that takes the value one if the region has immediate access to the ocean, and zero if the region is landlocked. *Terrain Ruggedness* is the average of all 30 by 30 arc-second cells of terrain ruggedness in each sub-national region (weighted by the actual surface area of each cell). *Percent Tropical* measures the percentage, in each region's land area, that falls within a tropical and subtropical biome. *Sunshine* is the average percent of day length with sunshine. *Wind Speed* is the average daily wind speed (in m/s). The other measures used in the Appendix are: *Latitude*, which measures distance from the equator; *Storm Risk*, which measures the (log) number of occurrences of hurricanes and tropical storms in each region (between 1842 and 2010); *Earthquake Risk*, which measures the (log) number of distinct fault lines present in each region; *Malaria Risk*, a measure of the risk of malaria transmission based on a global grid produced by Kiszewski et al. (2004), which takes climatic factors (temperature and precipitation) and biologic characteristics of locally dominant vector mosquitoes into account; *Precipitation Range* (that is, average monthly rainfall); *Rain Days* (that is, average number of days per month with precipitation); *Temperature* (that is, average daily mean temperature); *Temperature Frost* (that is, average daily diurnal temperature range); *Humidity* (that is, average daily relative humidity); *Frost Days* (that is, average number of days per month with ground frost). Finally, three precious mineral resources, three non-precious mineral resources, and three agricultural resources are considered. *Oil and Gas* is defined as the number of oil and gas fields within each sub-national region in the dataset. *Diamonds* and *Precious Metals* are defined as the number of sites for each resource located within each sub-national region. *Base Metals*, *Iron*, and *Alloyants* are defined as the number of sites containing each resource located within each sub-national region, scaled by total land area in the region. *Water* is defined as the total area of the main lakes and rivers contained within the borders of each region, scaled by total area in the region. *Agricultural Land* is defined as the percentage of land in the sub-national region that meets a minimum threshold of suitability for agricultural purposes. *Soil Quality* measures the average level of suitability of the agricultural land according to seven dimensions: ease of tillage, nutrient availability, nutrient retention, oxygen availability, pH levels, rooting conditions, and salinity.

A Additional 'first-nature' regressions

Table 14: Robustness: 'first-nature' regressions with geographic remoteness and geographic factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Area</i>	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
	-0.0914*** (0.0235)	-0.0907*** (0.0241)	-0.0927*** (0.0242)	-0.0976*** (0.0232)	-0.0926*** (0.0250)	-0.0950*** (0.0233)	-0.0879*** (0.0305)
<i>Island</i> (dummy)	-0.176*** (0.0642)	-0.185*** (0.0617)	-0.184*** (0.0627)	-0.168*** (0.0612)	-0.160** (0.0621)	-0.167*** (0.0627)	-0.201*** (0.0643)
<i>Overseas Island</i> (dummy)	-0.958 (1.211)	-0.131 (0.366)	-0.958 (0.920)	-1.224 (1.127)	-0.312 (0.623)	-0.0195 (0.396)	-0.951 (0.774)
<i>Overseas Island * Area</i>	0.0671 (0.133)	-0.0120 (0.0428)	0.100 (0.120)	0.120 (0.143)	0.0156 (0.0808)	-0.0259 (0.0467)	0.105 (0.110)
<i>GeoRemote</i>	-0.0462 (0.0304)	-0.0349 (0.0271)	-0.0411 (0.0277)	-0.0255 (0.0275)	-0.0427 (0.0274)	-0.0377 (0.0271)	-0.0433 (0.0282)
<i>Overseas Island * GeoRemote</i>	-0.0170 (0.219)	0.134** (0.0556)	0.0299 (0.156)	-0.0781 (0.207)	0.0979 (0.131)	0.166*** (0.0606)	0.0578 (0.0528)
<i>Latitude</i>	-0.115 (0.121)						
<i>Elevation</i>		-0.0560** (0.0241)					
<i>Ocean Access</i>			0.0447** (0.0196)				
<i>Terrain Ruggedness</i>				-0.0499* (0.0299)			
<i>Storm Risk</i>					-0.0160 (0.0232)		
<i>Earthquake Risk</i>						-0.00397 (0.0253)	
<i>Malaria Risk</i>							0.0378 (0.107)
Constant	11.41*** (0.339)	11.20*** (0.264)	11.16*** (0.268)	11.26*** (0.254)	11.18*** (0.273)	11.23*** (0.263)	11.43*** (0.431)
<i>N</i>	380	380	380	380	380	380	363
<i>R</i> ²	0.924	0.925	0.924	0.924	0.924	0.923	0.925

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 15: Robustness: 'first-nature' regressions with linguistic remoteness and geographic factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Area</i>	ln(GDPpc) -0.0988*** (0.0230)	ln(GDPpc) -0.0958*** (0.0237)	ln(GDPpc) -0.0989*** (0.0237)	ln(GDPpc) -0.101*** (0.0228)	ln(GDPpc) -0.0996*** (0.0245)	ln(GDPpc) -0.0984*** (0.0229)	ln(GDPpc) -0.0949*** (0.0296)
<i>Island (dummy)</i>	-0.217*** (0.0602)	-0.219*** (0.0538)	-0.222*** (0.0546)	-0.191*** (0.0536)	-0.201*** (0.0541)	-0.204*** (0.0547)	-0.240*** (0.0561)
<i>Overseas Island (dummy)</i>	-1.067* (0.585)	-0.699** (0.285)	-1.318*** (0.487)	-1.287** (0.516)	-0.782** (0.323)	-0.683** (0.304)	-1.254** (0.554)
<i>Overseas Island * Area</i>	0.0726 (0.0628)	0.0397 (0.0352)	0.136* (0.0706)	0.134* (0.0763)	0.0547 (0.0467)	0.0358 (0.0388)	0.129 (0.0831)
<i>LingRemote</i>	-0.00201 (0.0145)	0.00183 (0.0136)	-0.00243 (0.0139)	-0.00201 (0.0136)	-0.00150 (0.0141)	-0.000827 (0.0140)	-0.0114 (0.0123)
<i>Overseas Island * LingRemote</i>	0.0496 (0.102)	-0.0260 (0.0229)	0.0529 (0.0542)	0.108 (0.0851)	-0.00497 (0.0580)	-0.0334 (0.0258)	0.00827 (0.0185)
<i>Latitude</i>	-0.0976 (0.117)						
<i>Elevation</i>		-0.0577*** (0.0244)					
<i>Ocean Access</i>			0.0441** (0.0196)				
<i>Terrain Ruggedness</i>				-0.0556* (0.0298)			
<i>Storm Risk</i>					-0.0122 (0.0233)		
<i>Earthquake Risk</i>						-0.0111 (0.0254)	
<i>Malaria Risk</i>							0.0268 (0.109)
Constant	11.66*** (0.343)	11.41*** (0.199)	11.41*** (0.202)	11.41*** (0.191)	11.44*** (0.207)	11.46*** (0.194)	11.57*** (0.408)
<i>N</i>	380	380	380	380	380	380	363
<i>R</i> ²	0.923	0.925	0.924	0.924	0.923	0.923	0.925

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 16: Robustness: 'first-nature' regressions with ethnic remoteness and geographic factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.0988*** (0.0230)	-0.0957*** (0.0237)	-0.0989*** (0.0237)	-0.101*** (0.0228)	-0.0997*** (0.0245)	-0.0984*** (0.0229)	-0.0953*** (0.0296)
<i>Island (dummy)</i>	-0.217*** (0.0601)	-0.219*** (0.0537)	-0.222*** (0.0545)	-0.191*** (0.0534)	-0.201*** (0.0540)	-0.204*** (0.0545)	-0.241*** (0.0559)
<i>Overseas Island (dummy)</i>	-1.066* (0.584)	-0.700** (0.284)	-1.318*** (0.486)	-1.285** (0.516)	-0.782** (0.321)	-0.683** (0.303)	-1.267** (0.550)
<i>Overseas Island * Area</i>	0.0725 (0.0626)	0.0398 (0.0351)	0.136* (0.0705)	0.133* (0.0761)	0.0547 (0.0465)	0.0359 (0.0387)	0.130 (0.0829)
<i>EthnRemote</i>	-0.00214 (0.0137)	0.00231 (0.0129)	-0.00206 (0.0131)	-0.00207 (0.0129)	-0.00176 (0.0134)	-0.00124 (0.0132)	-0.00891 (0.0117)
<i>Overseas Island * EthnRemote</i>	0.0557 (0.114)	-0.0294 (0.0243)	0.0587 (0.0603)	0.121 (0.0949)	-0.00551 (0.0653)	-0.0372 (0.0277)	0.00547 (0.0202)
<i>Latitude</i>	-0.0976 (0.117)						
<i>Elevation</i>		-0.0578*** (0.0245)					
<i>Ocean Access</i>			0.0440** (0.0196)				
<i>Terrain Ruggedness</i>				-0.0556* (0.0298)			
<i>Storm Risk</i>					-0.0122 (0.0232)		
<i>Earthquake Risk</i>						-0.0111 (0.0254)	
<i>Malaria Risk</i>							0.0262 (0.109)
Constant	11.66*** (0.343)	11.41*** (0.198)	11.41*** (0.201)	11.41*** (0.191)	11.44*** (0.207)	11.46*** (0.193)	10.58*** (0.266)
<i>N</i>	380	380	380	380	380	380	363
<i>R</i> ²	0.923	0.925	0.924	0.924	0.923	0.923	0.925

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 17: Robustness: 'first-nature' regressions with geographic remoteness and climatic factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.0978*** (0.0229)	-0.105*** (0.0239)	-0.105*** (0.0241)	-0.0969*** (0.0224)	-0.105*** (0.0283)	-0.105*** (0.0252)	-0.108*** (0.0248)	-0.104*** (0.0232)	-0.101*** (0.0245)
<i>Island (dummy)</i>	-0.153** (0.0631)	-0.200*** (0.0607)	-0.208*** (0.0607)	-0.214*** (0.0619)	-0.195*** (0.0664)	-0.198*** (0.0610)	-0.216*** (0.0602)	-0.196*** (0.0623)	-0.237*** (0.0608)
<i>Overseas Island (dummy)</i>	0.227 (1.122)	0.114 (0.474)	0.0621 (0.447)	-0.790 (0.871)	-0.108 (0.458)	-0.171 (0.468)	-0.648 (0.568)	-0.0860 (0.392)	1.203 (0.793)
<i>Overseas Island * Area</i>	-0.0233 (0.146)	-0.0406 (0.0537)	-0.0363 (0.0527)	0.0638 (0.106)	-0.0171 (0.0524)	-0.00832 (0.0562)	0.0525 (0.0711)	-0.0183 (0.0463)	-0.149* (0.0841)
<i>GeoRemote</i>	-0.0236 (0.0279)	-0.0303 (0.0277)	-0.0298 (0.0270)	-0.0368 (0.0281)	-0.0313 (0.0273)	-0.0314 (0.0273)	-0.0285 (0.0264)	-0.0304 (0.0279)	-0.0268 (0.0263)
<i>Overseas Island * GeoRemote</i>	0.296 (0.201)	0.197** (0.0770)	0.170*** (0.0621)	0.0616 (0.127)	0.152** (0.0754)	0.146** (0.0709)	0.191** (0.0764)	0.160*** (0.0595)	0.631*** (0.241)
<i>Percent Tropical</i>	-0.133** (0.0531)								
<i>Precipitation</i>		-0.0150 (0.0267)							
<i>Rain Days</i>			-0.0288 (0.0390)						
<i>Temperature</i>				0.0793 (0.0603)					
<i>Temperature Range</i>					0.00985 (0.0471)				
<i>Humidity</i>						-0.0206 (0.0383)			
<i>Sunshine</i>							0.0875* (0.0447)		
<i>Frost Days</i>								0.0125 (0.0366)	
<i>Wind Speed</i>									0.0744** (0.0346)
Constant	11.18*** (0.251)	11.35*** (0.258)	11.42*** (0.269)	11.45*** (0.290)	11.36*** (0.285)	11.38*** (0.269)	11.55*** (0.320)	11.33*** (0.273)	11.36*** (0.260)
<i>N</i>	380	378	378	378	378	378	378	378	378
<i>R</i> ²	0.925	0.925	0.925	0.925	0.925	0.925	0.926	0.925	0.926

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 18: Robustness: 'first-nature' regressions with linguistic remoteness and climatic factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.101*** (0.0227)	-0.110*** (0.0235)	-0.110*** (0.0238)	-0.103*** (0.0221)	-0.110*** (0.0278)	-0.111*** (0.0250)	-0.112*** (0.0245)	-0.110*** (0.0229)	-0.104*** (0.0240)
<i>Island (dummy)</i>	-0.175*** (0.0559)	-0.228*** (0.0529)	-0.237*** (0.0530)	-0.248*** (0.0564)	-0.224*** (0.0592)	-0.228*** (0.0528)	-0.244*** (0.0535)	-0.224*** (0.0561)	-0.263*** (0.0551)
<i>Overseas Island (dummy)</i>	-1.110 (0.721)	-0.608* (0.351)	-0.611* (0.345)	-1.171** (0.557)	-0.739** (0.325)	-0.785** (0.342)	-1.424** (0.558)	-0.727** (0.309)	-0.997* (0.577)
<i>Overseas Island * Area</i>	0.128 (0.108)	0.0290 (0.0442)	0.0299 (0.0443)	0.0998 (0.0704)	0.0453 (0.0408)	0.0521 (0.0437)	0.132* (0.0704)	0.0450 (0.0389)	0.0857 (0.0831)
<i>LingRemote</i>	0.00388 (0.0137)	-0.00258 (0.0135)	-0.00178 (0.0137)	-0.00280 (0.0136)	-0.00364 (0.0135)	-0.00329 (0.0134)	-0.00399 (0.0133)	-0.00397 (0.0134)	-0.00816 (0.0134)
<i>Overseas Island * LingRemote</i>	-0.0517 (0.0707)	-0.0579 (0.0480)	-0.0381 (0.0279)	0.0229 (0.0522)	-0.0247 (0.0363)	-0.0227 (0.0302)	-0.0400 (0.0306)	-0.0318 (0.0252)	-0.223** (0.104)
<i>Percent Tropical</i>	-0.140*** (0.0521)								
<i>Precipitation</i>		-0.0171 (0.0267)							
<i>Rain Days</i>			-0.0308 (0.0399)						
<i>Temperature</i>				0.0746 (0.0594)					
<i>Temperature Range</i>					0.0111 (0.0467)				
<i>Humidity</i>						-0.0211 (0.0382)			
<i>Sunshine</i>							0.0892** (0.0451)		
<i>Frost Days</i>								0.0171 (0.0361)	
<i>Wind Speed</i>									0.0770** (0.0357)
Constant	11.32*** (0.196)	11.54*** (0.197)	11.61*** (0.216)	11.67*** (0.261)	11.55*** (0.227)	11.57*** (0.216)	11.77*** (0.266)	11.50*** (0.231)	11.52*** (0.201)
<i>N</i>	380	378	378	378	378	378	378	378	378
<i>R</i> ²	0.925	0.925	0.925	0.925	0.924	0.925	0.926	0.924	0.926

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 19: Robustness: 'first-nature' regressions with ethnic remoteness and climatic factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.101*** (0.0227)	-0.110*** (0.0235)	-0.110*** (0.0238)	-0.103*** (0.0221)	-0.110*** (0.0278)	-0.111*** (0.0250)	-0.113*** (0.0245)	-0.110*** (0.0228)	-0.105*** (0.0240)
<i>Island (dummy)</i>	-0.174*** (0.0559)	-0.229*** (0.0528)	-0.237*** (0.0527)	-0.248*** (0.0562)	-0.224*** (0.0590)	-0.229*** (0.0525)	-0.244*** (0.0532)	-0.224*** (0.0558)	-0.264*** (0.0550)
<i>Overseas Island (dummy)</i>	-1.107 (0.718)	-0.610* (0.351)	-0.614* (0.345)	-1.174** (0.557)	-0.742** (0.324)	-0.788** (0.342)	-1.429** (0.559)	-0.730** (0.308)	-1.004* (0.576)
<i>Overseas Island * Area</i>	0.128 (0.108)	0.0291 (0.0441)	0.0300 (0.0443)	0.0999 (0.0703)	0.0454 (0.0408)	0.0522 (0.0437)	0.132* (0.0704)	0.0452 (0.0389)	0.0863 (0.0829)
<i>EthnRemote</i>	0.00285 (0.0129)	-0.00211 (0.0126)	-0.00120 (0.0127)	-0.00188 (0.0127)	-0.00307 (0.0126)	-0.00257 (0.0126)	-0.00274 (0.0123)	-0.00337 (0.0125)	-0.00708 (0.0123)
<i>Overseas Island * EthnRemote</i>	-0.0564 (0.0789)	-0.0661 (0.0528)	-0.0437 (0.0299)	0.0245 (0.0578)	-0.0288 (0.0400)	-0.0266 (0.0328)	-0.0466 (0.0335)	-0.0369 (0.0271)	-0.252** (0.117)
<i>Percent Tropical</i>	-0.139*** (0.0520)								
<i>Precipitation</i>		-0.0172 (0.0266)							
<i>Rain Days</i>			-0.0310 (0.0399)						
<i>Temperature</i>				0.0746 (0.0595)					
<i>Temperature Range</i>					0.0111 (0.0468)				
<i>Humidity</i>						-0.0210 (0.0382)			
<i>Sunshine</i>							0.0891** (0.0452)		
<i>Frost Days</i>								0.0170 (0.0361)	
<i>Wind Speed</i>									0.0767** (0.0356)
Constant	11.32*** (0.196)	11.54*** (0.196)	11.61*** (0.215)	11.67*** (0.261)	11.55*** (0.226)	11.57*** (0.216)	11.77*** (0.266)	11.50*** (0.230)	11.52*** (0.201)
<i>N</i>	380	378	378	378	378	378	378	378	378
<i>R²</i>	0.925	0.925	0.925	0.925	0.924	0.924	0.926	0.924	0.926

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 20: Robustness: 'first-nature' regressions with geographic remoteness and natural resources

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.0965*** (0.0240)	-0.0982*** (0.0233)	-0.0995*** (0.0238)	-0.0966*** (0.0240)	-0.0959*** (0.0239)	-0.0971*** (0.0240)	-0.0956*** (0.0237)	-0.0973*** (0.0232)	-0.104*** (0.0237)
<i>Island (dummy)</i>	-0.165*** (0.0629)	-0.163*** (0.0630)	-0.158** (0.0632)	-0.163*** (0.0633)	-0.165*** (0.0630)	-0.161** (0.0631)	-0.166*** (0.0631)	-0.148** (0.0686)	-0.175*** (0.0628)
<i>Overseas Island (dummy)</i>	-0.0254 (0.398)	-0.199 (0.504)	-0.0250 (0.399)	-0.0606 (0.398)	-0.0227 (0.397)	-0.0403 (0.406)	-0.0144 (0.396)	-1.290 (1.273)	0.644** (0.264)
<i>Overseas Island * Area</i>	-0.0244 (0.0470)	-0.00598 (0.0597)	-0.0204 (0.0474)	-0.0189 (0.0475)	-0.0250 (0.0470)	-0.0213 (0.0484)	-0.0256 (0.0469)	0.127 (0.162)	-0.127*** (0.0280)
<i>GeoRemote</i>	-0.0394 (0.0280)	-0.0421 (0.0280)	-0.0505* (0.0285)	-0.0416 (0.0288)	-0.0386 (0.0285)	-0.0442 (0.0286)	-0.0392 (0.0277)	-0.0207 (0.0268)	-0.0350 (0.0282)
<i>Overseas Island * GeoRemote</i>	0.167*** (0.0610)	0.112 (0.108)	0.176*** (0.0617)	0.164*** (0.0597)	0.167*** (0.0613)	0.164*** (0.0623)	0.168*** (0.0607)	-0.138 (0.259)	0.201*** (0.0381)
<i>Oil and Gas</i>	0.00279 (0.00413)								
<i>Diamonds</i>		0.0530 (0.0774)							
<i>Precious Metals</i>			0.0161** (0.00638)						
<i>Base Metals</i>				0.00589 (0.00680)					
<i>Iron</i>					0.000664 (0.00552)				
<i>Alloyants</i>					0.0127** (0.00530)				
<i>Water</i>							-0.00478 (0.0120)		
<i>Agricultural Land</i>								0.0707 (0.0487)	
<i>Soil Quality</i>									-0.0466 (0.0307)
Constant	11.23*** (0.262)	11.22*** (0.264)	11.20*** (0.261)	11.22*** (0.262)	11.23*** (0.262)	11.21*** (0.262)	11.23*** (0.263)	10.58*** (0.256)	11.61*** (0.332)
N	380	380	380	380	380	380	380	377	377
R ²	0.923	0.924	0.924	0.924	0.923	0.924	0.923	0.927	0.925

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 21: Robustness: 'first-nature' regressions with linguistic remoteness and natural resources

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.102*** (0.0237)	-0.104*** (0.0230)	-0.106*** (0.0237)	-0.102*** (0.0238)	-0.101*** (0.0236)	-0.103*** (0.0238)	-0.101*** (0.0234)	-0.101*** (0.0227)	-0.110*** (0.0231)
<i>Island (dummy)</i>	-0.202*** (0.0546)	-0.203*** (0.0544)	-0.204*** (0.0547)	-0.202*** (0.0546)	-0.201*** (0.0547)	-0.202*** (0.0547)	-0.203*** (0.0547)	-0.168*** (0.0614)	-0.208*** (0.0548)
<i>Overseas Island (dummy)</i>	-0.709** (0.309)	-0.722** (0.305)	-0.743** (0.309)	-0.721** (0.314)	-0.699** (0.309)	-0.718** (0.310)	-0.701** (0.308)	-1.320 (1.040)	0.306 (0.232)
<i>Overseas Island * Area</i>	0.0396 (0.0393)	0.0408 (0.0388)	0.0435 (0.0393)	0.0412 (0.0398)	0.0384 (0.0392)	0.0407 (0.0393)	0.0387 (0.0391)	0.143 (0.168)	-0.123*** (0.0262)
<i>LingRemote</i>	-0.00189 (0.0142)	-0.00173 (0.0142)	-0.00253 (0.0142)	-0.00178 (0.0142)	-0.00184 (0.0142)	-0.00223 (0.0142)	-0.00189 (0.0142)	0.00937 (0.0156)	0.000314 (0.0138)
<i>Overseas Island * LingRemote</i>	-0.0324 (0.0259)	-0.0108 (0.0466)	-0.0306 (0.0259)	-0.0316 (0.0258)	-0.0324 (0.0259)	-0.0286 (0.0260)	-0.0326 (0.0259)	0.116 (0.185)	-0.123*** (0.0279)
<i>Oil and Gas</i>	0.00227 (0.00409)								
<i>Diamonds</i>		0.0417 (0.0757)							
<i>Precious Metals</i>			0.0130** (0.00568)						
<i>Base Metals</i>				0.00281 (0.00629)					
<i>Iron</i>					0.00279 (0.00549)				
<i>Alloyants</i>						0.0104** (0.00490)			
<i>Water</i>							-0.00427 (0.0122)		
<i>Agricultural Land</i>								0.0732 (0.0488)	
<i>Soil Quality</i>									-0.0447 (0.0303)
Constant	11.47*** (0.199)	11.47*** (0.195)	11.50*** (0.199)	11.47*** (0.200)	11.46*** (0.198)	11.48*** (0.200)	11.47*** (0.197)	10.76*** (0.236)	10.75*** (0.233)
<i>N</i>	380	380	380	380	380	380	380	377	377
<i>R</i> ²	0.923	0.923	0.924	0.923	0.923	0.923	0.923	0.927	0.924

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 22: Robustness: 'first-nature' regressions with ethnic remoteness and natural resources

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.102*** (0.0237)	-0.104*** (0.0230)	-0.106*** (0.0237)	-0.102*** (0.0238)	-0.101*** (0.0236)	-0.103*** (0.0238)	-0.101*** (0.0234)	-0.101*** (0.0227)	-0.110*** (0.0231)
<i>Island (dummy)</i>	-0.202*** (0.0545)	-0.203*** (0.0543)	-0.205*** (0.0545)	-0.202*** (0.0545)	-0.201*** (0.0546)	-0.203*** (0.0545)	-0.203*** (0.0546)	-0.167*** (0.0616)	-0.208*** (0.0546)
<i>Overseas Island (dummy)</i>	-0.710** (0.309)	-0.722** (0.304)	-0.745** (0.309)	-0.721** (0.314)	-0.699** (0.308)	-0.720** (0.309)	-0.701** (0.307)	-1.309 (1.034)	0.305 (0.230)
<i>Overseas Island * Area</i>	0.0397 (0.0392)	0.0409 (0.0388)	0.0436 (0.0392)	0.0413 (0.0398)	0.0386 (0.0392)	0.0408 (0.0393)	0.0388 (0.0391)	0.142 (0.168)	-0.123*** (0.0262)
<i>EthnRemote</i>	-0.00204 (0.0134)	-0.00208 (0.0134)	-0.00182 (0.0135)	-0.00193 (0.0134)	-0.00209 (0.0134)	-0.00183 (0.0134)	-0.00208 (0.0134)	0.00806 (0.0148)	0.000236 (0.0130)
<i>Overseas Island * EthnRemote</i>	-0.0365 (0.0278)	-0.0119 (0.0519)	-0.0355 (0.0278)	-0.0356 (0.0276)	-0.0364 (0.0278)	-0.0329 (0.0278)	-0.0366 (0.0278)	0.132 (0.208)	-0.138*** (0.0294)
<i>Oil and Gas</i>	0.00225 (0.00408)								
<i>Diamonds</i>	0.0418 (0.0757)								
<i>Precious Metals</i>			0.0129** (0.00569)						
<i>Base Metals</i>				0.00277 (0.00628)					
<i>Iron</i>					0.00280 (0.00549)				
<i>Alloyants</i>						0.0104** (0.00489)			
<i>Water</i>							-0.00426 (0.0122)		
<i>Agricultural Land</i>								0.0730 (0.0487)	
<i>Soil Quality</i>									-0.0447 (0.0302)
Constant	11.47*** (0.198)	11.47*** (0.194)	11.50*** (0.199)	11.47*** (0.199)	11.46*** (0.198)	11.48*** (0.200)	11.47*** (0.196)	10.75*** (0.229)	10.75*** (0.229)
N	380	380	380	380	380	380	380	377	377
R ²	0.923	0.923	0.924	0.923	0.923	0.923	0.923	0.923	0.924

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

B Additional regressions on the effect of other 'first-nature' factors on cultural remoteness

Table 23: Geography and cultural distance: additional regressions.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>
<i>Area</i>	-0.0180 (0.0551)	-0.0273 (0.0540)	-0.0160 (0.0534)	-0.0183 (0.0536)	-0.0280 (0.0561)	-0.0579 (0.0583)	0.0491 (0.0548)
<i>Island</i> (dummy)	-0.00637 (0.230)	0.0399 (0.231)	-0.0140 (0.232)	-0.0130 (0.226)	-0.0257 (0.231)	0.0671 (0.228)	-0.0800 (0.199)
<i>Overseas Island</i> (dummy)	-3.964 (3.081)	-3.998 (2.706)	-4.440 (3.152)	-5.356 (3.920)	-3.263 (2.369)	-4.351* (2.627)	-15.79*** (1.852)
<i>Overseas Island * Area</i>	0.614* (0.364)	0.612* (0.344)	0.669* (0.402)	0.777 (0.485)	0.506 (0.307)	0.681** (0.335)	2.260*** (0.252)
<i>GeoRemote</i>	0.194** (0.0871)	0.184** (0.0876)	0.192** (0.0864)	0.205** (0.0950)	0.205** (0.0907)	0.142* (0.0851)	0.162* (0.0898)
<i>Overseas Island * GeoRemote</i>	-2.225*** (0.560)	-2.206*** (0.468)	-2.308*** (0.527)	-2.507*** (0.727)	-2.047*** (0.427)	-2.225*** (0.450)	-3.412*** (0.147)
<i>Latitude</i>	0.0314 (0.215)						
<i>Elevation</i>		0.117 (0.0728)					
<i>Ocean Access</i>			0.0105 (0.0692)				
<i>Terrain Ruggedness</i>				-0.0472 (0.0967)			
<i>Storm Risk</i>					0.0528 (0.0485)		
<i>Earthquake Risk</i>						0.160*** (0.0585)	
<i>Malaria Risk</i>							-0.266 (0.247)
Constant	0.200 (0.778)	0.304 (0.697)	0.233 (0.693)	0.283 (0.707)	0.425 (0.761)	0.0932 (0.670)	-0.397 (0.705)
<i>N</i>	382	382	382	382	382	382	365
<i>R</i> ²	0.701	0.703	0.701	0.701	0.701	0.704	0.709

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 24: Geography and cultural distance: additional regressions.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>
<i>Area</i>	-0.0125 (0.0536)	0.0607 (0.0481)	0.0574 (0.0447)	0.0303 (0.0450)	0.0376 (0.0445)	0.0480 (0.0438)	0.0378 (0.0425)	0.0258 (0.0443)	0.0446 (0.0437)
<i>Island</i> (dummy)	-0.0222 (0.222)	-0.0638 (0.187)	0.00123 (0.184)	-0.0528 (0.189)	-0.0713 (0.196)	-0.0765 (0.190)	-0.0716 (0.186)	-0.0476 (0.190)	-0.177 (0.199)
<i>Overseas Island</i> (dummy)	-4.862*** (1.046)	-5.842 (4.185)	-4.827* (2.719)	-2.607 (2.554)	-3.496 (2.593)	-3.158 (2.460)	-3.492 (2.675)	-3.479 (2.538)	0.244 (3.384)
<i>Overseas Island * Area</i>	0.636*** (0.0957)	0.846 (0.538)	0.746** (0.348)	0.482 (0.315)	0.585* (0.333)	0.546* (0.314)	0.585* (0.344)	0.583* (0.325)	0.206 (0.412)
<i>GeoRemote</i>	0.160* (0.0863)	0.148* (0.0817)	0.147* (0.0818)	0.167** (0.0834)	0.161* (0.0835)	0.160* (0.0842)	0.161* (0.0843)	0.171** (0.0837)	0.176** (0.0862)
<i>Overseas Island * GeoRemote</i>	-2.594*** (0.201)	-2.679*** (0.746)	-2.336*** (0.461)	-2.120*** (0.428)	-2.245*** (0.452)	-2.187*** (0.426)	-2.244*** (0.453)	-2.241*** (0.440)	-0.879 (0.821)
<i>Percent Tropical</i>	0.321** (0.147)								
<i>Precipitation</i>		0.173* (0.102)							
<i>Rain Days</i>			0.253** (0.119)						
<i>Temperature</i>		-0.0999 (0.123)							
<i>Temperature Range</i>					0.000745 (0.100)				
<i>Humidity</i>						0.0829 (0.103)			
<i>Sunshine</i>							-0.000298 (0.120)		
<i>Frost Days</i>								0.0991 (0.0933)	
<i>Wind Speed</i>									0.216** (0.107)
Constant	0.368 (0.709)	-0.288 (0.618)	-0.838 (0.652)	-0.352 (0.642)	-0.212 (0.598)	-0.353 (0.613)	-0.214 (0.629)	-0.352 (0.634)	-0.160 (0.621)
<i>N</i>	382	380	380	380	380	380	380	380	380
<i>R</i> ²	0.705	0.721	0.722	0.719	0.718	0.718	0.718	0.719	0.722

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 25: Geography and cultural distance: additional regressions.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>	<i>LingRemote</i>
<i>Area</i>	-0.0178 (0.0540)	-0.0133 (0.0551)	-0.0177 (0.0543)	-0.0147 (0.0539)	-0.0143 (0.0543)	-0.0174 (0.0538)	-0.0159 (0.0540)	0.00415 (0.0501)	0.0216 (0.0470)
<i>Island (dummy)</i>	-0.00866 (0.230)	-0.0124 (0.230)	-0.00698 (0.230)	-0.0184 (0.229)	-0.0108 (0.230)	-0.00634 (0.230)	-0.0104 (0.230)	0.00214 (0.208)	0.0923 (0.223)
<i>Overseas Island (dummy)</i>	-4.226 (2.628)	-3.931 (2.547)	-4.220 (2.629)	-4.084 (2.650)	-4.220 (2.629)	-4.231 (2.634)	-4.203 (2.630)	3.940** (1.777)	1.514* (0.821)
<i>Overseas Island * Area</i>	0.641* (0.334)	0.609* (0.322)	0.641* (0.335)	0.618* (0.338)	0.637* (0.334)	0.642* (0.335)	0.638* (0.334)	-0.422* (0.228)	-0.140* (0.0788)
<i>GeoRemote</i>	0.191** (0.0872)	0.198** (0.0880)	0.189** (0.0904)	0.202** (0.0899)	0.199** (0.0888)	0.189** (0.0888)	0.192** (0.0873)	0.149* (0.0860)	0.158* (0.0845)
<i>Overseas Island * GeoRemote</i>	-2.274*** (0.451)	-2.186*** (0.432)	-2.273*** (0.451)	-2.266*** (0.454)	-2.282*** (0.451)	-2.278*** (0.452)	-2.274*** (0.451)	-0.899*** (0.408)	-1.676*** (0.130)
<i>Oil and Gas</i>	0.00662 (0.00605)								
<i>Diamonds</i>		-0.0867 (0.0561)							
<i>Precious Metals</i>			0.00444 (0.00917)						
<i>Base Metals</i>				-0.0209 (0.0161)					
<i>Iron</i>					0.0128 (0.00950)				
<i>Alloyants</i>						0.00789 (0.00940)			
<i>Water</i>							-0.00976 (0.0162)		
<i>Agricultural Land</i>								-0.118 (0.0749)	
<i>Soil Quality</i>									-0.137 (0.0955)
Constant	0.253 (0.706)	0.269 (0.705)	0.242 (0.707)	0.277 (0.707)	0.261 (0.706)	0.240 (0.707)	0.253 (0.705)	-6.083*** (0.722)	-6.423*** (0.733)
N	382	382	382	382	382	382	382	379	379
R ²	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.703	0.702

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 26: Geography and cultural distance: additional regressions.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>
<i>Area</i>	-0.0214 (0.0546)	-0.0330 (0.0539)	-0.0206 (0.0532)	-0.0210 (0.0533)	-0.0301 (0.0562)	-0.0552 (0.0581)	0.0405 (0.0559)
<i>Island (dummy)</i>	-0.0451 (0.214)	0.0122 (0.217)	-0.0440 (0.218)	-0.0508 (0.212)	-0.0632 (0.217)	0.0170 (0.214)	-0.0900 (0.193)
<i>Overseas Island (dummy)</i>	-3.079 (2.835)	-3.100 (2.457)	-3.175 (2.752)	-4.095 (3.504)	-2.515 (2.138)	-3.486 (2.363)	-14.75*** (1.900)
<i>Overseas Island * Area</i>	0.547* (0.329)	0.542* (0.311)	0.549 (0.348)	0.663 (0.429)	0.456 (0.276)	0.611** (0.299)	2.176*** (0.261)
<i>GeoRemote</i>	0.153* (0.0878)	0.141 (0.0879)	0.152* (0.0868)	0.159* (0.0950)	0.162* (0.0908)	0.108 (0.0857)	0.124 (0.0893)
<i>Overseas Island * GeoRemote</i>	-1.945*** (0.514)	-1.917*** (0.423)	-1.973*** (0.452)	-2.150*** (0.652)	-1.798*** (0.388)	-1.959*** (0.403)	-3.084*** (0.144)
<i>Latitude</i>	0.0362 (0.208)						
<i>Elevation</i>		0.144* (0.0739)					
<i>Ocean Access</i>			-0.00951 (0.0697)				
<i>Terrain Ruggedness</i>				-0.0300 (0.0915)			
<i>Storm Risk</i>					0.0475 (0.0469)		
<i>Earthquake Risk</i>						0.137** (0.0568)	
<i>Malaria Risk</i>							-0.400 (0.254)
Constant	0.103 (0.776)	0.227 (0.705)	0.175 (0.701)	0.182 (0.714)	0.318 (0.766)	0.0264 (0.682)	-0.516 (0.717)
<i>N</i>	382	382	382	382	382	382	365
<i>R</i> ²	0.708	0.712	0.708	0.709	0.709	0.711	0.712

Standard errors in parentheses. Country fixed-effects included in all regressions.
 * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 27: Geography and cultural distance: additional regressions.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>
<i>Area</i>	-0.0161 (0.0535)	0.0540 (0.0484)	0.0528 (0.0451)	0.0221 (0.0456)	0.0323 (0.0453)	0.0474 (0.0446)	0.0339 (0.0431)	0.0213 (0.0449)	0.0382 (0.0446)
<i>Island (dummy)</i>	-0.0601 (0.209)	-0.0867 (0.180)	-0.0168 (0.177)	-0.0695 (0.182)	-0.0958 (0.190)	-0.102 (0.182)	-0.0856 (0.179)	-0.0731 (0.182)	-0.191 (0.193)
<i>Overseas Island (dummy)</i>	-3.953*** (1.009)	-4.963 (3.859)	-4.111* (2.464)	-1.522 (2.225)	-2.687 (2.318)	-2.183 (2.119)	-2.454 (2.381)	-2.679 (2.282)	0.745 (3.122)
<i>Overseas Island * Area</i>	0.572*** (0.0863)	0.776 (0.494)	0.695** (0.313)	0.388 (0.268)	0.523* (0.296)	0.465* (0.268)	0.493 (0.305)	0.522* (0.290)	0.176 (0.375)
<i>GeoRemote</i>	0.122 (0.0869)	0.107 (0.0825)	0.105 (0.0819)	0.128 (0.0841)	0.120 (0.0841)	0.119 (0.0846)	0.119 (0.0847)	0.129 (0.0844)	0.134 (0.0866)
<i>Overseas Island * GeoRemote</i>	-2.290*** (0.200)	-2.392*** (0.687)	-2.070*** (0.414)	-1.808*** (0.367)	-1.970*** (0.402)	-1.885*** (0.364)	-1.986*** (0.401)	-1.969*** (0.393)	-0.716 (0.771)
<i>Percent Tropical</i>	0.289* (0.152)								
<i>Precipitation</i>		0.168* (0.0947)							
<i>Rain Days</i>			0.269** (0.114)						
<i>Temperature</i>				-0.132 (0.120)					
<i>Temperature Range</i>					-0.00261 (0.0979)				
<i>Humidity</i>						0.126 (0.103)			
<i>Sunshine</i>							-0.0379 (0.119)		
<i>Frost Days</i>								0.0876 (0.0915)	
<i>Wind Speed</i>									0.198* (0.103)
Constant	0.267 (0.718)	-0.370 (0.629)	-0.963 (0.651)	-0.481 (0.649)	-0.301 (0.609)	-0.510 (0.624)	-0.404 (0.633)	-0.421 (0.643)	-0.249 (0.631)
<i>N</i>	382	380	380	380	380	380	380	380	380
<i>R</i> ²	0.711	0.725	0.726	0.723	0.722	0.723	0.722	0.722	0.725

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 28: Geography and cultural distance: additional regressions.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>	<i>EthnRemote</i>
<i>Area</i>	-0.0195 (0.0538)	-0.0188 (0.0547)	-0.0166 (0.0541)	-0.0165 (0.0537)	-0.0171 (0.0540)	-0.0185 (0.0535)	-0.0195 (0.0538)	0.00184 (0.0493)	0.0178 (0.0469)
<i>Island (dummy)</i>	-0.0486 (0.216)	-0.0494 (0.216)	-0.0559 (0.216)	-0.0642 (0.215)	-0.0502 (0.216)	-0.0546 (0.216)	-0.0490 (0.216)	-0.0347 (0.197)	0.0472 (0.209)
<i>Overseas Island (dummy)</i>	-3.371 (2.365)	-3.279 (2.353)	-3.371 (2.361)	-3.143 (2.402)	-3.374 (2.365)	-3.349 (2.351)	-3.365 (2.366)	4.057** (1.676)	1.757** (0.823)
<i>Overseas Island * Area</i>	0.575* (0.299)	0.565* (0.296)	0.571* (0.298)	0.539* (0.305)	0.573* (0.299)	0.571* (0.297)	0.575* (0.299)	-0.389* (0.213)	-0.119 (0.0825)
<i>GeoRemote</i>	0.152* (0.0877)	0.153* (0.0884)	0.162* (0.0907)	0.167* (0.0901)	0.159* (0.0894)	0.158* (0.0891)	0.151* (0.0878)	0.108 (0.0864)	0.118 (0.0850)
<i>Overseas Island * GeoRemote</i>	-2.003*** (0.403)	-1.973*** (0.397)	-2.011*** (0.403)	-1.986*** (0.409)	-2.010*** (0.404)	-1.998*** (0.400)	-2.002*** (0.403)	-0.747** (0.379)	-1.462*** (0.136)
<i>Oil and Gas</i>	-0.00298 (0.00330)								
<i>Diamonds</i>		-0.0286 (0.0476)							
<i>Precious Metals</i>			-0.0154* (0.00789)						
<i>Base Metals</i>				-0.0356** (0.0155)					
<i>Iron</i>					0.0147* (0.00852)				
<i>Alloyants</i>						-0.0174** (0.00772)			
<i>Water</i>							-0.00521 (0.0164)		
<i>Agricultural Land</i>								-0.110 (0.0697)	
<i>Soil Quality</i>									-0.117 (0.0991)
Constant	0.159 (0.714)	0.167 (0.712)	0.187 (0.716)	0.208 (0.714)	0.174 (0.714)	0.183 (0.715)	0.163 (0.712)	-6.238*** (0.728)	-1.012 (0.717)
<i>N</i>	382	382	382	382	382	382	382	379	379
<i>R</i> ²	0.708	0.708	0.709	0.709	0.709	0.709	0.708	0.710	0.709

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

C Additional 'second-nature' regressions

Table 29: Additional 'second-nature' regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Area	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
	-0.0923*** (0.0259)	-0.0841*** (0.0263)	-0.0883*** (0.0267)	-0.0949*** (0.0247)	-0.0896*** (0.0244)	-0.0946*** (0.0247)	-0.0593* (0.0321)
<i>Island</i> (dummy)	-0.0956 (0.0992)	-0.109 (0.0967)	-0.0986 (0.0987)	-0.0951 (0.0959)	-0.0669 (0.0951)	-0.0873 (0.0974)	-0.119 (0.0963)
<i>Overseas Island</i> (dummy)	-0.967 (1.318)	-0.482 (0.540)	-1.249 (1.015)	-2.059 (1.531)	-1.363 (0.931)	-0.466 (0.569)	-1.118 (0.962)
<i>Overseas Island * Area</i>	0.0593 (0.142)	0.0148 (0.0640)	0.115 (0.131)	0.205 (0.194)	0.131 (0.120)	0.0102 (0.0679)	0.113 (0.128)
<i>GeoRemote</i>	-0.0408 (0.0368)	-0.0351 (0.0343)	-0.0388 (0.0347)	-0.0217 (0.0343)	-0.0463 (0.0340)	-0.0374 (0.0337)	-0.0515 (0.0346)
<i>Overseas Island * GeoRemote</i>	0.0539 (0.232)	0.124 (0.0787)	0.0358 (0.172)	-0.176 (0.274)	-0.0405 (0.172)	0.155* (0.0859)	0.0352 (0.0547)
<i>Institutions</i>	-0.139* (0.0842)	-0.133 (0.0930)	-0.146 (0.0949)	-0.140 (0.0909)	-0.156* (0.0923)	-0.147 (0.0946)	-0.111 (0.103)
<i>Autonomy</i>	-0.0245 (0.0202)	-0.0226 (0.0191)	-0.0241 (0.0192)	-0.0160 (0.0189)	-0.0264 (0.0206)	-0.0255 (0.0204)	-0.0258 (0.0204)
<i>Institutions * Autonomy</i>	0.108*** (0.0283)	0.103*** (0.0282)	0.108*** (0.0294)	0.114*** (0.0301)	0.120*** (0.0304)	0.109*** (0.0310)	0.102*** (0.0315)
<i>Latitude</i>	-0.0634 (0.129)						
<i>Elevation</i>		-0.0566*** (0.0231)					
<i>Ocean Access</i>			0.0389* (0.0210)				
<i>Terrain Ruggedness</i>				-0.0681* (0.0366)			
<i>Storm Risk</i>					-0.0449** (0.0218)		
<i>Earthquake Risk</i>						0.00134 (0.0285)	
<i>Malaria Risk</i>							0.0928 (0.105)
Constant	7.647*** (0.399)	10.29*** (0.350)	10.26*** (0.350)	10.54*** (0.347)	10.23*** (0.338)	10.36*** (0.360)	10.75*** (0.427)
N	301	301	301	301	301	301	290
R ²	0.929	0.930	0.930	0.930	0.930	0.929	0.931

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 30: Additional 'second-nature' regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.0972*** (0.0243)	-0.0966*** (0.0260)	-0.0951*** (0.0265)	-0.0877*** (0.0259)	-0.0889*** (0.0288)	-0.0912*** (0.0266)	-0.0959*** (0.0267)	-0.0971*** (0.0259)	-0.0888*** (0.0260)
<i>Island (dummy)</i>	-0.0936 (0.0971)	-0.140 (0.0978)	-0.146 (0.0966)	-0.131 (0.0952)	-0.126 (0.105)	-0.121 (0.0953)	-0.147 (0.0934)	-0.109 (0.0976)	-0.186* (0.0952)
<i>Overseas Island (dummy)</i>	-0.0725 (1.588)	0.278 (0.613)	-0.0969 (0.660)	-0.707 (0.881)	-0.372 (0.570)	-0.405 (0.590)	-0.766 (0.679)	-0.431 (0.560)	1.029 (0.846)
<i>Overseas Island * Area</i>	0.0112 (0.206)	-0.0658 (0.0652)	-0.0267 (0.0772)	0.0445 (0.108)	0.00558 (0.0663)	0.00807 (0.0716)	0.0556 (0.0853)	0.00893 (0.0671)	-0.133 (0.0934)
<i>GeoRemote</i>	-0.0198 (0.0342)	-0.0363 (0.0348)	-0.0384 (0.0345)	-0.0428 (0.0362)	-0.0392 (0.0346)	-0.0390 (0.0348)	-0.0372 (0.0340)	-0.0323 (0.0355)	-0.0366 (0.0342)
<i>Overseas Island * GeoRemote</i>	0.338 (0.283)	0.278*** (0.0871)	0.178** (0.0881)	0.111 (0.124)	0.164* (0.0839)	0.155* (0.0891)	0.179* (0.0977)	0.155* (0.0832)	0.669** (0.261)
<i>Institutions</i>	-0.141 (0.0937)	-0.150 (0.0937)	-0.144 (0.0960)	-0.142 (0.0881)	-0.150 (0.0932)	-0.150 (0.0938)	-0.141 (0.0929)	-0.159* (0.0920)	-0.154* (0.0927)
<i>Autonomy</i>	-0.0176 (0.0198)	-0.0209 (0.0203)	-0.0191 (0.0209)	-0.0204 (0.0208)	-0.0233 (0.0201)	-0.0234 (0.0202)	-0.0199 (0.0205)	-0.0280 (0.0210)	-0.0216 (0.0202)
<i>Institutions * Autonomy</i>	0.110*** (0.0315)	0.112*** (0.0297)	0.113*** (0.0290)	0.106*** (0.0287)	0.106*** (0.0301)	0.107*** (0.0297)	0.108*** (0.0302)	0.107*** (0.0304)	0.0970*** (0.0292)
<i>Percent Tropical</i>	-0.183*** (0.0679)								
<i>Precipitation</i>		-0.0481 (0.0322)							
<i>Rain Days</i>			-0.0518 (0.0498)						
<i>Temperature</i>				0.0384 (0.0570)					
<i>Temperature Range</i>					-0.00929 (0.0417)				
<i>Humidity</i>						-0.00270 (0.0402)			
<i>Sunshine</i>							0.0606 (0.0453)		
<i>Frost Days</i>								0.0428 (0.0371)	
<i>Wind Speed</i>									0.0804** (0.0363)
Constant	8.747*** (0.283)	10.50*** (0.325)	10.34*** (0.352)	8.316*** (0.294)	10.30*** (0.358)	10.32*** (0.353)	10.34*** (0.348)	10.55*** (0.340)	10.38*** (0.343)
<i>N</i>	301	300	300	300	300	300	300	300	300
<i>R</i> ²	0.932	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.931

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 31: Additional 'second-nature' regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.0953*** (0.0259)	-0.0946*** (0.0258)	-0.0959*** (0.0259)	-0.0954*** (0.0259)	-0.0948*** (0.0263)	-0.0955*** (0.0259)	-0.0934*** (0.0257)	-0.0893*** (0.0269)	-0.0922*** (0.0254)
<i>Island (dummy)</i>	-0.0889 (0.0988)	-0.0879 (0.0988)	-0.0884 (0.0988)	-0.0860 (0.0992)	-0.0878 (0.0989)	-0.0869 (0.0989)	-0.0880 (0.0990)	-0.0611 (0.110)	-0.0839 (0.100)
<i>Overseas Island (dummy)</i>	-0.471 (0.576)	-0.505 (0.619)	-0.450 (0.573)	-0.514 (0.577)	-0.469 (0.579)	-0.467 (0.579)	-0.455 (0.577)	-1.313 (1.255)	0.545* (0.304)
<i>Overseas Island * Area</i>	0.0110 (0.0693)	0.0141 (0.0743)	0.0106 (0.0688)	0.0181 (0.0700)	0.0108 (0.0700)	0.0121 (0.0697)	0.00892 (0.0693)	0.114 (0.159)	-0.131*** (0.0310)
<i>GeoRemote</i>	-0.0379 (0.0349)	-0.0377 (0.0352)	-0.0422 (0.0357)	-0.0416 (0.0365)	-0.0382 (0.0364)	-0.0418 (0.0355)	-0.0375 (0.0346)	-0.0294 (0.0324)	-0.0402 (0.0352)
<i>Overseas Island * GeoRemote</i>	0.156* (0.0861)	0.142 (0.103)	0.159* (0.0859)	0.153* (0.0846)	0.156* (0.0868)	0.154* (0.0867)	0.156* (0.0861)	-0.0945 (0.252)	0.249*** (0.0476)
<i>Institutions</i>	-0.148 (0.0932)	-0.148 (0.0933)	-0.142 (0.0945)	-0.149 (0.0934)	-0.149 (0.0950)	-0.144 (0.0936)	-0.149 (0.0931)	-0.125* (0.0733)	-0.150 (0.0926)
<i>Autonomy</i>	-0.0252 (0.0200)	-0.0252 (0.0200)	-0.0245 (0.0200)	-0.0248 (0.0201)	-0.0248 (0.0200)	-0.0246 (0.0200)	-0.0253 (0.0201)	-0.0243 (0.0215)	-0.0288 (0.0208)
<i>Institutions*Autonomy</i>	0.109*** (0.0298)	0.109*** (0.0298)	0.107*** (0.0301)	0.109*** (0.0297)	0.109*** (0.0300)	0.108*** (0.0299)	0.109*** (0.0297)	0.111*** (0.0283)	0.104*** (0.0287)
<i>Oil and Gas</i>	0.00388 (0.00301)								
<i>Diamonds</i>	0.0123 (0.0549)								
<i>Precious Metals</i>			0.00651 (0.00516)						
<i>Base Metals</i>				0.00754 (0.00758)					
<i>Iron</i>					-0.00202 (0.00641)				
<i>Alloys</i>						0.00850 (0.00619)			
<i>Water</i>							-0.00541 (0.0116)		
<i>Agricultural Land</i>								0.0690 (0.0492)	
<i>Soil Quality</i>									-0.0343 (0.0315)
Constant	10.36*** (0.349)	10.35*** (0.349)	10.35*** (0.348)	10.34*** (0.350)	10.35*** (0.350)	10.35*** (0.349)	10.34*** (0.348)	10.44*** (0.343)	10.38*** (0.349)
N	301	301	301	301	301	301	301	299	299
R ²	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.931	0.929

Standard errors in parentheses. Country fixed-effects included in all regressions.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 32: Additional 'second-nature' regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.101*** (0.0251)	-0.0910*** (0.0257)	-0.0959*** (0.0262)	-0.0988*** (0.0242)	-0.0990*** (0.0240)	-0.1000*** (0.0237)	-0.0699*** (0.0321)
<i>Island (dummy)</i>	-0.129 (0.0932)	-0.142 (0.0876)	-0.133 (0.0896)	-0.113 (0.0875)	-0.109 (0.0864)	-0.122 (0.0892)	-0.165* (0.0880)
<i>Overseas Island (dummy)</i>	-1.324* (0.713)	-1.068** (0.438)	-1.663*** (0.574)	-1.889*** (0.727)	-1.494*** (0.471)	-1.150*** (0.436)	-1.288* (0.728)
<i>Overseas Island * Area</i>	0.0918 (0.0764)	0.0690 (0.0512)	0.157** (0.0787)	0.199* (0.103)	0.136** (0.0620)	0.0754 (0.0527)	0.117 (0.0959)
<i>LingRemote</i>	0.000815 (0.0142)	0.00420 (0.0136)	-0.000364 (0.0140)	-0.00178 (0.0139)	0.00103 (0.0141)	0.000659 (0.0141)	-0.0136 (0.0125)
<i>Overseas Island * LingRemote</i>	0.0157 (0.114)	-0.0175 (0.0289)	0.0517 (0.0581)	0.165 (0.108)	0.0712 (0.0574)	-0.0229 (0.0323)	0.0194 (0.0236)
<i>Institutions</i>	-0.1135 (0.0838)	-0.126 (0.0923)	-0.140 (0.0942)	-0.137 (0.0899)	-0.148 (0.0917)	-0.142 (0.0942)	-0.108 (0.103)
<i>Autonomy</i>	-0.0274 (0.0197)	-0.0256 (0.0187)	-0.0265 (0.0187)	-0.0162 (0.0187)	-0.0294 (0.0203)	-0.0270 (0.0201)	-0.0259 (0.0198)
<i>Institutions*Autonomy</i>	0.110*** (0.0296)	0.104*** (0.0293)	0.110*** (0.0304)	0.116*** (0.0310)	0.121*** (0.0309)	0.111*** (0.0318)	0.106*** (0.0325)
<i>Latitude</i>	-0.0468 (0.125)						
<i>Elevation</i>		-0.0578*** (0.0232)					
<i>Ocean Access</i>			0.0384* (0.0210)				
<i>Terrain Ruggedness</i>				-0.0738** (0.0368)			
<i>Storm Risk</i>					-0.0413* (0.0219)		
<i>Earthquake Risk</i>						-0.00465 (0.0291)	
<i>Malaria Risk</i>							0.0855 (0.107)
Constant	10.73*** (0.257)	10.63*** (0.256)	10.61*** (0.264)	10.71*** (0.252)	10.68*** (0.247)	10.69*** (0.261)	10.99*** (0.378)
N	301	301	301	301	301	301	290
R ²	0.929	0.930	0.930	0.930	0.930	0.929	0.930

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 33: Additional 'second-nature' regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.101*** (0.0241)	-0.103*** (0.0254)	-0.102*** (0.0262)	-0.0962*** (0.0251)	-0.0962*** (0.0287)	-0.0981*** (0.0264)	-0.103*** (0.0265)	-0.104*** (0.0253)	-0.0948*** (0.0254)
<i>Island (dummy)</i>	-0.111 (0.0884)	-0.172* (0.0884)	-0.179** (0.0890)	-0.164* (0.0884)	-0.159* (0.0952)	-0.155* (0.0862)	-0.181** (0.0869)	-0.134 (0.0902)	-0.220** (0.0898)
<i>Overseas Island (dummy)</i>	-1.650* (0.979)	-0.683 (0.507)	-0.855 (0.526)	-1.218** (0.617)	-1.070** (0.463)	-1.081** (0.465)	-1.544** (0.640)	-1.091** (0.454)	-1.344* (0.743)
<i>Overseas Island * Area</i>	0.195 (0.145)	0.0260 (0.0579)	0.0478 (0.0636)	0.0920 (0.0757)	0.0736 (0.0544)	0.0745 (0.0561)	0.135* (0.0788)	0.0762 (0.0544)	0.119 (0.103)
<i>LingRemote</i>	0.00191 (0.0141)	-0.00522 (0.0139)	-0.00459 (0.0142)	-0.00645 (0.0136)	-0.00695 (0.0136)	-0.00697 (0.0137)	-0.00744 (0.0136)	-0.00812 (0.0135)	-0.0117 (0.0136)
<i>Overseas Island * LingRemote</i>	-0.0426 (0.0937)	-0.0931 (0.0587)	-0.0271 (0.0365)	0.00329 (0.0541)	-0.0193 (0.0387)	-0.0143 (0.0347)	-0.0219 (0.0357)	-0.0176 (0.0319)	-0.221** (0.109)
<i>Institutions</i>	-0.137 (0.0924)	-0.146 (0.0930)	-0.140 (0.0957)	-0.140 (0.0880)	-0.146 (0.0925)	-0.146 (0.0931)	-0.137 (0.0922)	-0.159* (0.0916)	-0.152 (0.0923)
<i>Autonomy</i>	-0.0190 (0.0196)	-0.0221 (0.0198)	-0.0207 (0.0201)	-0.0227 (0.0201)	-0.0245 (0.0196)	-0.0245 (0.0197)	-0.0207 (0.0200)	-0.0291 (0.0203)	-0.0215 (0.0197)
<i>Institutions*Autonomy</i>	0.111*** (0.0324)	0.115*** (0.0306)	0.115*** (0.0299)	0.109*** (0.0299)	0.109*** (0.0311)	0.110*** (0.0306)	0.111*** (0.0310)	0.110*** (0.0314)	0.0999*** (0.0296)
<i>Percent Tropical</i>	-0.188*** (0.0667)								
<i>Precipitation</i>		-0.0497 (0.0323)							
<i>Rain Days</i>			-0.0512 (0.0511)						
<i>Temperature</i>				0.0264 (0.0547)					
<i>Temperature Range</i>					-0.00799 (0.0418)				
<i>Humidity</i>						-0.00196 (0.0400)			
<i>Sunshine</i>							0.0626 (0.0461)		
<i>Frost Days</i>								0.0510 (0.0359)	
<i>Wind Speed</i>									0.0828** (0.0373)
Constant	10.55*** (0.248)	10.68*** (0.259)	10.69*** (0.271)	10.63*** (0.258)	10.62*** (0.287)	10.64*** (0.267)	10.66*** (0.265)	10.70*** (0.264)	10.51*** (0.270)
N	301	300	300	300	300	300	300	300	300
R ²	0.931	0.930	0.930	0.930	0.929	0.929	0.930	0.930	0.931

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 34: Additional 'second-nature' regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.103*** (0.0254)	-0.102*** (0.0254)	-0.103*** (0.0255)	-0.103*** (0.0256)	-0.102*** (0.0262)	-0.103*** (0.0255)	-0.101*** (0.0252)	-0.0952*** (0.0257)	-0.100*** (0.0247)
<i>Island (dummy)</i>	-0.122 (0.0898)	-0.121 (0.0899)	-0.124 (0.0903)	-0.122 (0.0899)	-0.121 (0.0899)	-0.123 (0.0900)	-0.121 (0.0900)	-0.0864 (0.103)	-0.118 (0.0919)
<i>Overseas Island (dummy)</i>	-1.168*** (0.459)	-1.160*** (0.458)	-1.163*** (0.456)	-1.187*** (0.464)	-1.160*** (0.469)	-1.165*** (0.457)	-1.154*** (0.459)	-1.433 (1.052)	0.136 (0.276)
<i>Overseas Island * Area</i>	0.0778 (0.0552)	0.0768 (0.0550)	0.0775 (0.0548)	0.0804 (0.0557)	0.0768 (0.0561)	0.0776 (0.0549)	0.0761 (0.0551)	0.133 (0.167)	-0.127*** (0.0291)
<i>LingRemote</i>	0.000337 (0.0142)	0.000428 (0.0143)	0.000317 (0.0142)	0.000480 (0.0143)	0.000423 (0.0142)	0.000203 (0.0142)	0.000300 (0.0143)	0.00755 (0.0152)	-0.000420 (0.0141)
<i>Overseas Island * LingRemote</i>	-0.0226 (0.0324)	-0.0206 (0.0425)	-0.0225 (0.0323)	-0.0214 (0.0322)	-0.0227 (0.0325)	-0.0207 (0.0323)	-0.0227 (0.0325)	0.0957 (0.187)	-0.151*** (0.0261)
<i>Institutions</i>	-0.142 (0.0925)	-0.142 (0.0926)	-0.138 (0.0947)	-0.142 (0.0926)	-0.142 (0.0937)	-0.139 (0.0934)	-0.143 (0.0923)	-0.117 (0.0716)	-0.143 (0.0918)
<i>Autonomy</i>	-0.0277 (0.0196)	-0.0278 (0.0196)	-0.0274 (0.0196)	-0.0277 (0.0196)	-0.0278 (0.0196)	-0.0274 (0.0196)	-0.0278 (0.0197)	-0.0274 (0.0214)	-0.0309 (0.0205)
<i>Institutions*Autonomy</i>	0.111*** (0.0308)	0.111*** (0.0308)	0.110*** (0.0311)	0.111*** (0.0308)	0.111*** (0.0310)	0.110*** (0.0309)	0.111*** (0.0307)	0.112*** (0.0287)	0.106*** (0.0296)
<i>Oil and Gas</i>	0.00334 (0.00298)								
<i>Diamonds</i>		0.00394 (0.0539)							
<i>Precious Metals</i>			0.00408 (0.00457)						
<i>Base Metals</i>				0.00436 (0.00681)					
<i>Iron</i>					-0.000180 (0.000592)				
<i>Alloyants</i>						0.00610 (0.00594)			
<i>Water</i>							-0.00485 (0.0119)		
<i>Agricultural Land</i>								0.0721 (0.0496)	
<i>Soil Quality</i>									-0.0334 (0.0312)
Constant	10.72*** (0.258)	10.71*** (0.259)	10.72*** (0.260)	10.72*** (0.259)	10.71*** (0.261)	10.72*** (0.258)	10.70*** (0.257)	10.67*** (0.278)	10.63*** (0.269)
N	301	301	301	301	301	301	301	299	299
R ²	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.931	0.929

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 35: Additional 'second-nature' regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.101*** (0.0250)	-0.0909*** (0.0257)	-0.0960*** (0.0262)	-0.0989*** (0.0242)	-0.0990*** (0.0240)	-0.1000*** (0.0236)	-0.0705*** (0.0321)
<i>Island (dummy)</i>	-0.129 (0.0931)	-0.141 (0.0873)	-0.133 (0.0893)	-0.114 (0.0871)	-0.109 (0.0862)	-0.122 (0.0890)	-0.166* (0.0878)
<i>Overseas Island (dummy)</i>	-1.325* (0.715)	-1.072** (0.440)	-1.665*** (0.574)	-1.888*** (0.726)	-1.495*** (0.472)	-1.151*** (0.437)	-1.301* (0.729)
<i>Overseas Island * Area</i>	0.0917 (0.0763)	0.0690 (0.0511)	0.157** (0.0785)	0.199* (0.103)	0.136** (0.0619)	0.0754 (0.0527)	0.117 (0.0958)
<i>EthnRemote</i>	0.000997 (0.0131)	0.00507 (0.0123)	0.000507 (0.0127)	-0.000917 (0.0125)	0.00158 (0.0130)	0.000905 (0.0130)	-0.000984 (0.0113)
<i>Overseas Island * EthnRemote</i>	0.0176 (0.127)	-0.0200 (0.0306)	0.0573 (0.0647)	0.185 (0.120)	0.0798 (0.0647)	-0.0258 (0.0347)	0.0162 (0.0244)
<i>Institutions</i>	-0.135 (0.0834)	-0.126 (0.0918)	-0.140 (0.0938)	-0.137 (0.0894)	-0.148 (0.0913)	-0.142 (0.0939)	-0.106 (0.103)
<i>Autonomy</i>	-0.0274 (0.0197)	-0.0258 (0.0187)	-0.0266 (0.0187)	-0.0164 (0.0186)	-0.0295 (0.0203)	-0.0270 (0.0201)	-0.0268 (0.0198)
<i>Institutions*Autonomy</i>	0.110*** (0.0293)	0.104*** (0.0290)	0.110*** (0.0302)	0.116*** (0.0307)	0.121*** (0.0307)	0.111*** (0.0316)	0.105*** (0.0323)
<i>Latitude</i>	-0.0468 (0.125)						
<i>Elevation</i>		-0.0580*** (0.0233)					
<i>Ocean Access</i>			0.0384* (0.0211)				
<i>Terrain Ruggedness</i>				-0.0737** (0.0367)			
<i>Storm Risk</i>					-0.0413* (0.0219)		
<i>Earthquake Risk</i>						-0.00465 (0.0292)	
<i>Malaria Risk</i>							0.0848 (0.107)
Constant	10.73*** (0.252)	10.63*** (0.251)	10.62*** (0.258)	10.72*** (0.246)	10.68*** (0.242)	10.70*** (0.254)	11.01*** (0.376)
N	301	301	301	301	301	301	290
R ²	0.929	0.930	0.930	0.930	0.930	0.929	0.930

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 36: Additional 'second-nature' regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.101*** (0.0241)	-0.104*** (0.0254)	-0.102*** (0.0262)	-0.0965*** (0.0251)	-0.0964*** (0.0287)	-0.0984*** (0.0264)	-0.103*** (0.0265)	-0.104*** (0.0253)	-0.0952*** (0.0254)
<i>Island (dummy)</i>	-0.111 (0.0882)	-0.172* (0.0881)	-0.180** (0.0885)	-0.165* (0.0882)	-0.160* (0.0950)	-0.155* (0.0860)	-0.181** (0.0866)	-0.135 (0.0899)	-0.221** (0.0896)
<i>Overseas Island (dummy)</i>	-1.654* (0.979)	-0.688 (0.509)	-0.859 (0.527)	-1.224** (0.621)	-1.075** (0.465)	-1.086** (0.467)	-1.548** (0.642)	-1.097** (0.456)	-1.352* (0.743)
<i>Overseas Island * Area</i>	0.196 (0.145)	0.0261 (0.0577)	0.0477 (0.0635)	0.0922 (0.0758)	0.0738 (0.0544)	0.0746 (0.0561)	0.135* (0.0788)	0.0764 (0.0543)	0.119 (0.103)
<i>EthnRemote</i>	0.00258 (0.0128)	-0.00355 (0.0125)	-0.00289 (0.0127)	-0.00479 (0.0122)	-0.00529 (0.0122)	-0.00528 (0.0123)	-0.00543 (0.0121)	-0.00604 (0.0121)	-0.00959 (0.0120)
<i>Overseas Island * EthnRemote</i>	-0.0483 (0.105)	-0.107* (0.0642)	-0.0329 (0.0390)	0.00145 (0.0592)	-0.0243 (0.0418)	-0.0187 (0.0374)	-0.0277 (0.0387)	-0.0229 (0.0341)	-0.251** (0.123)
<i>Institutions</i>	-0.137 (0.0919)	-0.145 (0.0925)	-0.139 (0.0951)	-0.139 (0.0875)	-0.145 (0.0921)	-0.145 (0.0927)	-0.136 (0.0919)	-0.157* (0.0912)	-0.150 (0.0919)
<i>Autonomy</i>	-0.0191 (0.0196)	-0.0224 (0.0198)	-0.0210 (0.0201)	-0.0230 (0.0200)	-0.0248 (0.0196)	-0.0249 (0.0196)	-0.0211 (0.0199)	-0.0295 (0.0203)	-0.0220 (0.0196)
<i>Institutions*Autonomy</i>	0.111*** (0.0322)	0.115*** (0.0304)	0.115*** (0.0297)	0.109*** (0.0297)	0.109*** (0.0309)	0.110*** (0.0304)	0.111*** (0.0308)	0.110*** (0.0312)	0.0994*** (0.0294)
<i>Percent Tropical</i>	-0.188*** (0.0668)								
<i>Precipitation</i>		-0.0499 (0.0322)							
<i>Rain Days</i>			-0.0516 (0.0510)						
<i>Temperature</i>				0.0268 (0.0550)					
<i>Temperature Range</i>					-0.00809 (0.0418)				
<i>Humidity</i>						-0.00179 (0.0401)			
<i>Sunshine</i>							0.0623 (0.0462)		
<i>Frost Days</i>								0.0505 (0.0360)	
<i>Wind Speed</i>									0.0823** (0.0371)
Constant	10.55*** (0.242)	10.69*** (0.252)	10.70*** (0.263)	10.65*** (0.251)	10.63*** (0.282)	10.65*** (0.261)	10.68*** (0.259)	10.71*** (0.257)	10.53*** (0.261)
N	301	300	300	300	300	300	300	300	300
R ²	0.931	0.930	0.930	0.929	0.929	0.929	0.930	0.930	0.931

Standard errors in parentheses. Country fixed-effects included in all regressions.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 37: Additional 'second-nature' regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ln(GDPpcc)	ln(GDPpcc)	ln(GDPpcc)	ln(GDPpcc)	ln(GDPpcc)	ln(GDPpcc)	ln(GDPpcc)	ln(GDPpcc)	ln(GDPpcc)
<i>Area</i>	-0.103*** (0.0254)	-0.102*** (0.0253)	-0.103*** (0.0255)	-0.103*** (0.0256)	-0.102*** (0.0261)	-0.103*** (0.0254)	-0.101*** (0.0252)	-0.0950*** (0.0256)	-0.100*** (0.0247)
<i>Island (dummy)</i>	-0.122 (0.0896)	-0.121 (0.0896)	-0.124 (0.0900)	-0.122 (0.0897)	-0.121 (0.0897)	-0.123 (0.0898)	-0.121 (0.0898)	-0.0852 (0.104)	-0.118 (0.0915)
<i>Overseas Island (dummy)</i>	-1.170*** (0.461)	-1.162*** (0.460)	-1.166*** (0.458)	-1.189*** (0.466)	-1.162*** (0.471)	-1.167*** (0.459)	-1.155*** (0.461)	-1.422 (1.052)	0.132 (0.276)
<i>Overseas Island * Area</i>	0.0779 (0.0551)	0.0769 (0.0550)	0.0775 (0.0547)	0.0805 (0.0556)	0.0769 (0.0560)	0.0776 (0.0549)	0.0762 (0.0551)	0.132 (0.167)	-0.127*** (0.0290)
<i>EthnRemote</i>	0.000784 (0.0130)	0.000739 (0.0130)	0.000947 (0.0130)	0.000953 (0.0130)	0.000740 (0.0130)	0.000920 (0.0130)	0.000657 (0.0130)	0.00650 (0.0142)	0.000162 (0.0128)
<i>Overseas Island * EthnRemote</i>	-0.0258 (0.0348)	-0.0234 (0.0467)	-0.0259 (0.0347)	-0.0244 (0.0345)	-0.0257 (0.0348)	-0.0239 (0.0346)	-0.0258 (0.0348)	0.108 (0.211)	-0.171*** (0.0280)
<i>Institutions</i>	-0.142 (0.0921)	-0.142 (0.0921)	-0.138 (0.0943)	-0.142 (0.0921)	-0.142 (0.0932)	-0.139 (0.0930)	-0.143 (0.0919)	-0.118 (0.0716)	-0.143 (0.0913)
<i>Autonomy</i>	-0.0277 (0.0196)	-0.0278 (0.0196)	-0.0276 (0.0196)	-0.0277 (0.0196)	-0.0278 (0.0196)	-0.0275 (0.0196)	-0.0278 (0.0196)	-0.0272 (0.0213)	-0.0310 (0.0205)
<i>Institutions*Autonomy</i>	0.111*** (0.0305)	0.111*** (0.0305)	0.110*** (0.0309)	0.111*** (0.0305)	0.111*** (0.0307)	0.110*** (0.0307)	0.111*** (0.0305)	0.112*** (0.0286)	0.106*** (0.0293)
<i>Oil and Gas</i>	0.00335 (0.00298)								
<i>Diamonds</i>		0.00394 (0.0538)							
<i>Precious Metals</i>			0.00410 (0.00459)						
<i>Base Metals</i>				0.00439 (0.00680)					
<i>Iron</i>					-0.000184 (0.00592)				
<i>Alloys</i>						0.00612 (0.00595)			
<i>Water</i>							-0.00485 (0.0119)		
<i>Agricultural Land</i>								0.0718 (0.0497)	
<i>Soil Quality</i>									-0.0333 (0.0311)
Constant	10.72*** (0.252)	10.71*** (0.252)	10.73*** (0.255)	10.72*** (0.254)	10.71*** (0.256)	10.72*** (0.253)	10.70*** (0.251)	10.66*** (0.272)	10.64*** (0.262)
N	301	301	301	301	301	301	301	299	299
R ²	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.931	0.929

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

D Additional 'second-nature' regressions (cont.)

Table 38: Additional 'second-nature' regressions (cont.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.0294 (0.0190)	-0.0733*** (0.0220)	-0.0913*** (0.0233)	-0.0916*** (0.0234)	-0.0959*** (0.0276)	-0.0942*** (0.0256)	-0.0965*** (0.0284)
<i>Island (dummy)</i>	-0.0660 (0.0626)	-0.163*** (0.0572)	-0.171*** (0.0624)	-0.179*** (0.0622)	-0.181* (0.0930)	-0.0879 (0.0987)	-0.191** (0.0930)
<i>Overseas Island (dummy)</i>	0 (.)	0 (.)	-4.229*** (1.378)	-4.216*** (1.383)	-0.128 (0.506)	-0.465 (0.574)	0.0119 (0.427)
<i>Overseas Island * Area</i>	0 (.)	0 (.)	0.415** (0.163)	0.416** (0.163)	-0.00824 (0.0611)	0.00988 (0.0690)	-0.0244 (0.0495)
<i>GeoRemote</i>	-0.0281 (0.0182)	-0.0159 (0.0224)	-0.0290 (0.0280)	-0.0325 (0.0275)	-0.0492 (0.0354)	-0.0370 (0.0347)	-0.0425 (0.0324)
<i>Overseas Island * GeoRemote</i>	0 (.)	0 (.)	-1.326* (0.678)	-1.336* (0.683)	0.173** (0.0737)	0.155* (0.0859)	0.170*** (0.0633)
<i>Years of Education</i>	0.228*** (0.0373)						
<i>Autonomy</i>			-0.0185 (0.0186)			-0.0253 (0.0200)	
<i>Institutions</i>					-0.0803 (0.0908)	-0.148 (0.0931)	
<i>Institutions*Autonomy</i>						0.109*** (0.0297)	
Constant	8.091*** (0.584)	10.94*** (0.278)	11.24*** (0.258)	11.24*** (0.258)	10.43*** (0.309)	10.35*** (0.348)	10.51*** (0.301)
<i>N</i>	407	407	387	387	301	301	301
<i>R</i> ²	0.960	0.945	0.921	0.921	0.926	0.929	0.925

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 39: Additional 'second-nature' regressions (cont.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.0343* (0.0193)	-0.0759*** (0.0213)	-0.0941*** (0.0231)	-0.0949*** (0.0232)	-0.106*** (0.0274)	-0.101*** (0.0250)	-0.105*** (0.0279)
<i>Island (dummy)</i>	-0.0922 (0.0644)	-0.177*** (0.0520)	-0.197*** (0.0551)	-0.209*** (0.0541)	-0.231*** (0.0813)	-0.121 (0.0897)	-0.235*** (0.0824)
<i>Overseas Island (dummy)</i>	0 (.)	0 (.)	-2.613** (1.044)	-2.576** (1.041)	-0.875** (0.432)	-1.159** (0.457)	-0.727** (0.341)
<i>Overseas Island * Area</i>	0 (.)	0 (.)	0.331* (0.171)	0.330* (0.171)	0.0589 (0.0521)	0.0767 (0.0549)	0.0429 (0.0420)
<i>LingRemote</i>	0.00131 (0.0109)	0.000567 (0.0130)	0.00534 (0.0142)	0.00160 (0.0142)	0.00206 (0.0142)	0.000420 (0.0142)	0.00389 (0.0142)
<i>Overseas Island * LingRemote</i>	0 (.)	0 (.)	0.661 (0.551)	0.674 (0.558)	-0.0314 (0.0289)	-0.0227 (0.0324)	-0.0381 (0.0260)
<i>Years of Education</i>	0.226*** (0.0375)						
<i>Autonomy</i>			-0.0220 (0.0186)			-0.0278 (0.0196)	
<i>Institutions</i>					-0.0699 (0.0888)	-0.142 (0.0924)	
<i>Institutions*Autonomy</i>						0.111*** (0.0307)	
Constant	8.177*** (0.559)	10.53*** (0.209)	11.40*** (0.196)	11.43*** (0.196)	10.75*** (0.250)	10.71*** (0.255)	11.34*** (0.358)
N	407	407	387	387	301	301	301
R ²	0.959	0.945	0.920	0.920	0.925	0.929	0.925

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 40: Additional 'second-nature' regressions (cont.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)	ln(GDPpc)
<i>Area</i>	-0.0343* (0.0193)	-0.0759*** (0.0213)	-0.0927*** (0.0234)	-0.0935*** (0.0235)	-0.106*** (0.0274)	-0.102*** (0.0250)	-0.105*** (0.0279)
<i>Island (dummy)</i>	-0.0913 (0.0639)	-0.177*** (0.0519)	-0.195*** (0.0548)	-0.208*** (0.0538)	-0.230*** (0.0816)	-0.121 (0.0894)	-0.234*** (0.0826)
<i>Overseas Island (dummy)</i>	0 (.)	0 (.)	-2.667*** (1.163)	-2.636** (1.165)	-0.873** (0.434)	-1.161** (0.458)	-0.722** (0.340)
<i>Overseas Island * Area</i>	0 (.)	0 (.)	0.306* (0.184)	0.305* (0.184)	0.0590 (0.0521)	0.0768 (0.0548)	0.0428 (0.0419)
<i>EthnRemote</i>	-0.00101 (0.0102)	-0.00109 (0.0123)	0.0109 (0.0145)	0.00763 (0.0145)	0.000868 (0.0132)	0.000735 (0.0130)	0.00212 (0.0134)
<i>Overseas Island * EthnRemote</i>	0 (.)	0 (.)	0.0978 (0.281)	0.104 (0.284)	-0.0338 (0.0309)	-0.0257 (0.0347)	-0.0406 (0.0279)
<i>Years of Education</i>	0.226*** (0.0376)						
<i>Autonomy</i>			-0.0233 (0.0186)			-0.0278 (0.0196)	
<i>Institutions</i>					-0.0703 (0.0885)	-0.142 (0.0919)	
<i>Institutions*Autonomy</i>						0.111*** (0.0305)	
Constant	8.251*** (0.600)	10.51*** (0.205)	11.40*** (0.198)	11.42*** (0.197)	10.74*** (0.245)	10.71*** (0.249)	11.33*** (0.355)
<i>N</i>	407	407	387	387	301	301	301
<i>R</i> ²	0.959	0.945	0.919	0.919	0.925	0.929	0.925

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

E Additional regressions on the effect of ‘first-nature’ on ‘second-nature’²⁷

²⁷Overall, the regressions in this section confirm that, while remoteness is never significant, the being an island is strongly associated to a worst second-nature also when other first-nature factors are included: *Soil Quality*, *Wind Speed*, *Precipitation*, *Rain Days*, and *Storm Risk* are found to significantly affect *Institutions* **Autonomy* (see Table ??), while *Latitude*, *Elevation*, *Terrain Ruggedness*, *Storm Risk*, *Percent Tropical*, *Rain Days*, *Alloypants*, and *Agricultural Land* are found to significantly affect the *Years of Education* (see Table ??) the additional first-nature conditions are in general not, or only slightly, significant. While Tables ?? and ?? report only the regressions run without the remoteness indicators, and with the significant variables only, these results are robust to using either geographical, linguistic, and ethnic remoteness together with the other first-nature factors. In these regressions (reported in the following tables) the additional first-nature conditions are in general not, or only slightly, significant, and more remote overseas island regions seem to often pay an additional cost in terms of both human capital and institutional quality.

Table 41: The influence of 'first-nature' on 'second-nature' (cont.)

	(1)	(2)	(3)	(4)	(5)
	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>
<i>Area</i>	-0.0338 (0.0455)	-0.00315 (0.0437)	0.000176 (0.0423)	-0.0150 (0.0443)	-0.0132 (0.0426)
<i>Island</i> (dummy)	-0.673** (0.279)	-0.626** (0.289)	-0.555* (0.288)	-0.832*** (0.319)	-0.581** (0.294)
<i>Overseas Island</i> (dummy)	0.481 (1.082)	0.824 (0.861)	-0.0404 (0.646)	-2.167 (2.278)	3.171*** (1.006)
<i>Overseas Island * Area</i> (interacted)	0.0244 (0.162)	-0.0493 (0.124)	0.0892 (0.0691)	0.480 (0.355)	-0.356** (0.143)
<i>Storm Risk</i>	0.153** (0.0656)				
<i>Precipitation</i>		0.187** (0.0862)			
<i>Rain Days</i>			0.302** (0.122)		
<i>Wind Speed</i>				0.208** (0.0986)	
<i>Soil Quality</i>					-0.235** (0.0939)
Constant	0.124 (0.469)	-0.666 (0.648)	-0.201 (0.447)	0.0494 (0.551)	-0.261 (0.443)
<i>N</i>	302	301	301	301	300
<i>R</i> ²	0.211	0.200	0.215	0.206	0.212

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 42: The influence of 'first-nature' on 'second-nature' (cont.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Area</i>	<i>Education</i>	<i>Education</i>	<i>Education</i>	<i>Education</i>	<i>Education</i>	<i>Education</i>	<i>Education</i>	<i>Education</i>
	-0.191*** (0.0581)	-0.172*** (0.0594)	-0.181*** (0.0566)	-0.160*** (0.0538)	-0.182*** (0.0551)	-0.207*** (0.0560)	-0.186*** (0.0589)	-0.220*** (0.0545)
<i>Island (dummy)</i>	-0.289 (0.179)	-0.370** (0.171)	-0.319* (0.170)	-0.331* (0.173)	-0.294* (0.173)	-0.492*** (0.162)	-0.343** (0.172)	-0.469*** (0.163)
<i>Latitude</i>	0.346* (0.181)							
<i>Elevation</i>		-0.102** (0.0459)						
<i>Terrain Ruggedness</i>			-0.113* (0.0605)					
<i>Storm Risk</i>				-0.112*** (0.0362)				
<i>Percent Tropical</i>					-0.234* (0.122)			
<i>Rain Days</i>						-0.139* (0.0733)		
<i>Alloyants</i>							0.0207* (0.0109)	
<i>Agricultural Land</i>								-0.143** (0.0600)
Constant	11.61*** (0.501)	12.21*** (0.512)	12.20*** (0.476)	12.08*** (0.464)	12.06*** (0.432)	12.83*** (0.565)	12.34*** (0.506)	12.52*** (0.469)
<i>N</i>	369	369	369	369	369	367	369	367
<i>R</i> ²	0.954	0.955	0.954	0.955	0.955	0.959	0.954	0.957

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 43: Additional regressions on the effect of 'first-nature' on 'second-nature'

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Area</i>	<i>Inst*Aut</i> -0.00362 (0.0485)	<i>Inst*Aut</i> 0.00615 (0.0495)	<i>Inst*Aut</i> -0.00127 (0.0482)	<i>Inst*Aut</i> -0.00179 (0.0469)	<i>Inst*Aut</i> -0.0173 (0.0486)	<i>Inst*Aut</i> -0.0326 (0.0562)	<i>Inst*Aut</i> 0.00696 (0.0625)
<i>Island</i> (dummy)	-0.551** (0.273)	-0.566** (0.277)	-0.555** (0.278)	-0.551* (0.284)	-0.594** (0.279)	-0.519* (0.275)	-0.541* (0.311)
<i>Overseas Island</i> (dummy)	1.836 (1.948)	1.569** (0.713)	1.413 (1.419)	5.394* (3.223)	4.454** (1.981)	1.512** (0.694)	3.114*** (1.004)
<i>Overseas Island * Area</i>	-0.0712 (0.180)	-0.0430 (0.0553)	-0.0221 (0.154)	-0.509 (0.388)	-0.438* (0.246)	-0.0207 (0.0623)	-0.257** (0.120)
<i>GeoRemote</i>	-0.111 (0.0874)	-0.110 (0.0876)	-0.113 (0.0859)	-0.151 (0.0972)	-0.0801 (0.0855)	-0.142 (0.0956)	-0.111 (0.0900)
<i>Overseas Island * GeoRemote</i>	0.168 (0.364)	0.0983 (0.109)	0.0953 (0.224)	0.902 (0.638)	0.763** (0.378)	0.157 (0.102)	0.246*** (0.0938)
<i>Latitude</i>	0.0255 (0.218)						
<i>Elevation</i>		-0.0509 (0.0507)					
<i>Ocean Access</i>			0.0104 (0.0548)				
<i>Terrain Ruggedness</i>				0.159 (0.103)			
<i>Storm Risk</i>					0.147** (0.0666)		
<i>Earthquake Risk</i>						0.104 (0.0817)	
<i>Malaria Risk</i>							0.0831 (0.109)
Constant	-0.287 (0.838)	-0.748 (0.674)	-0.691 (0.661)	-0.937 (0.730)	-0.358 (0.690)	-0.499 (0.680)	-0.474 (0.775)
<i>N</i>	302	302	302	302	302	302	291
<i>R</i> ²	0.183	0.185	0.183	0.196	0.209	0.191	0.175

Standard errors in parentheses. Country fixed-effects included in all regressions.

** $p < 0.10$, *** $p < 0.05$, **** $p < 0.01$

Table 44: Additional regressions on the effect of 'first-nature' on 'second-nature'

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>
<i>Area</i>	-0.00174 (0.0466)	0.0227 (0.0478)	0.0235 (0.0468)	-0.00218 (0.0505)	0.0264 (0.0521)	0.00979 (0.0485)	0.00989 (0.0462)	-0.0114 (0.0554)	0.00606 (0.0486)
<i>Island</i> (dummy)	-0.554** (0.277)	-0.504* (0.280)	-0.443 (0.282)	-0.576** (0.291)	-0.647** (0.301)	-0.575** (0.286)	-0.535* (0.285)	-0.569* (0.290)	-0.734** (0.306)
<i>Overseas Island</i> (dummy)	1.462 (1.049)	-1.070 (1.936)	-0.0256 (0.890)	1.941 (1.762)	1.972* (1.027)	1.974** (0.844)	2.473** (0.966)	1.669** (0.733)	5.420** (2.136)
<i>Overseas Island * Area</i>	-0.0515 (0.101)	0.243 (0.232)	0.139 (0.0933)	-0.0835 (0.184)	-0.0704 (0.104)	-0.0887 (0.0785)	-0.155 (0.0954)	-0.0532 (0.0580)	-0.425** (0.185)
<i>GeoRemote</i>	-0.121 (0.0858)	-0.123 (0.0860)	-0.115 (0.0852)	-0.111 (0.0815)	-0.113 (0.0861)	-0.113 (0.0872)	-0.116 (0.0869)	-0.102 (0.0790)	-0.103 (0.0805)
<i>Overseas Island * GeoRemote</i>	0.0474 (0.235)	-0.365 (0.338)	0.00209 (0.0900)	0.164 (0.263)	0.223 (0.170)	0.177 (0.117)	0.0829 (0.108)	0.127 (0.0960)	1.476** (0.680)
<i>Percent Tropical</i>	0.0806 (0.171)								
<i>Precipitation</i>		0.195** (0.0878)							
<i>Rain Days</i>			0.303** (0.122)						
<i>Temperature</i>				-0.0292 (0.173)					
<i>Temperature Range</i>				-0.127 (0.0869)					
<i>Humidity</i>						0.0739 (0.0917)			
<i>Sunshine</i>							-0.123 (0.0982)		
<i>Frost Days</i>								0.0781 (0.161)	
<i>Wind Speed</i>									0.212** (0.0992)
Constant	-0.877 (0.803)	-1.389 (0.861)	-0.884 (0.676)	-0.657 (0.669)	-0.973 (0.735)	-0.753 (0.676)	-0.754 (0.678)	-0.502 (0.728)	-0.533 (0.726)
<i>N</i>	302	301	301	301	301	301	301	301	301
<i>R</i> ²	0.184	0.202	0.216	0.184	0.191	0.186	0.189	0.186	0.206

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 45: Additional regressions on the effect of 'first-nature' on 'second-nature'

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>
<i>Area</i>	-0.00382 (0.0476)	-0.00380 (0.0474)	-0.00667 (0.0476)	-0.00441 (0.0473)	-0.00275 (0.0479)	-0.00491 (0.0474)	-0.00245 (0.0474)	-0.00737 (0.0463)	0.0105 (0.0476)
<i>Island (dummy)</i>	-0.554** (0.277)	-0.553** (0.277)	-0.548** (0.277)	-0.550** (0.277)	-0.553** (0.277)	-0.548** (0.276)	-0.553** (0.277)	-0.584** (0.289)	-0.470 (0.288)
<i>Overseas Island (dummy)</i>	1.620** (0.704)	1.516** (0.698)	1.629** (0.703)	1.561** (0.690)	1.626** (0.703)	1.607** (0.697)	1.632** (0.713)	2.745 (2.032)	2.119** (0.852)
<i>Overseas Island * Area</i>	-0.0495 (0.0547)	-0.0387 (0.0573)	-0.0457 (0.0546)	-0.0395 (0.0573)	-0.0506 (0.0549)	-0.0454 (0.0541)	-0.0511 (0.0547)	-0.190 (0.229)	-0.163** (0.0808)
<i>GeoRemote</i>	-0.113 (0.0869)	-0.114 (0.0874)	-0.126 (0.0907)	-0.119 (0.0906)	-0.113 (0.0882)	-0.121 (0.0896)	-0.113 (0.0868)	-0.119 (0.0909)	-0.118 (0.0868)
<i>Overseas Island * GeoRemote</i>	0.128 (0.0941)	0.0920 (0.0865)	0.138 (0.0965)	0.124 (0.0926)	0.127 (0.0953)	0.126 (0.0923)	0.128 (0.0942)	0.395 (0.403)	-0.172* (0.0911)
<i>Oil and Gas</i>	0.00349 (0.00370)								
<i>Diamonds</i>	0.0341 (0.0446)								
<i>Precious Metals</i>			0.0159** (0.00716)						
<i>Base Metals</i>				0.0103 (0.0102)					
<i>Iron</i>					0.000231 (0.00710)				
<i>Alloyants</i>						0.0150 (0.00995)			
<i>Water</i>							-0.00260 (0.0135)		
<i>Agricultural Land</i>								-0.0604 (0.0675)	
<i>Soil Quality</i>									-0.237** (0.0936)
Constant	-0.660 (0.679)	-0.662 (0.678)	-0.689 (0.681)	-0.677 (0.681)	-0.665 (0.678)	-0.684 (0.680)	-0.669 (0.681)	-0.639 (0.709)	-0.990 (0.730)
<i>N</i>	302	302	302	302	302	302	302	300	300
<i>R</i> ²	0.183	0.183	0.184	0.183	0.183	0.184	0.183	0.182	0.213

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 46: Additional regressions on the effect of 'first-nature' on 'second-nature'

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>
<i>Area</i>	-0.0302 (0.0452)	-0.0182 (0.0485)	-0.0277 (0.0473)	-0.0344 (0.0452)	-0.0368 (0.0461)	-0.0532 (0.0583)	-0.0242 (0.0586)
<i>Island</i> (dummy)	-0.669** (0.279)	-0.693** (0.287)	-0.681** (0.286)	-0.709** (0.297)	-0.687** (0.282)	-0.673** (0.286)	-0.654** (0.320)
<i>Overseas Island</i> (dummy)	1.199 (0.943)	0.967** (0.486)	0.813 (0.789)	2.225** (1.024)	2.067*** (0.770)	0.753 (0.537)	1.613** (0.730)
<i>Overseas Island * Area</i>	-0.0539 (0.0832)	-0.0320 (0.0490)	-0.0115 (0.115)	-0.243 (0.163)	-0.242** (0.108)	-0.00379 (0.0596)	-0.134 (0.0950)
<i>LingRemote</i>	0.0380 (0.0309)	0.0420 (0.0312)	0.0383 (0.0314)	0.0389 (0.0316)	0.0350 (0.0319)	0.0323 (0.0304)	0.0328 (0.0338)
<i>Overseas Island * LingRemote</i>	-0.117 (0.192)	-0.0497 (0.0348)	-0.0412 (0.117)	-0.381 (0.250)	-0.402*** (0.152)	-0.0503 (0.0316)	-0.0753** (0.0364)
<i>Latitude</i>	0.0727 (0.216)						
<i>Elevation</i>		-0.0589 (0.0506)					
<i>Ocean Access</i>			0.00786 (0.0562)				
<i>Terrain Ruggedness</i>				0.129 (0.0956)			
<i>Storm Risk</i>					0.153** (0.0667)		
<i>Earthquake Risk</i>						0.0725 (0.0744)	
<i>Malaria Risk</i>							0.0783 (0.108)
Constant	0.315 (0.785)	0.210 (0.574)	0.278 (0.598)	0.265 (0.553)	0.388 (0.557)	0.487 (0.642)	0.491 (0.605)
<i>N</i>	302	302	302	302	302	302	291
<i>R</i> ²	0.180	0.183	0.179	0.189	0.208	0.183	0.171

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 47: Additional regressions on the effect of 'first-nature' on 'second-nature'

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Area</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>
	-0.0291 (0.0445)	-0.00627 (0.0448)	-0.00207 (0.0432)	-0.0295 (0.0488)	0.0000363 (0.0483)	-0.0169 (0.0469)	-0.0178 (0.0435)	-0.0375 (0.0533)	-0.0175 (0.0454)
<i>Island (dummy)</i>	-0.683** (0.289)	-0.631** (0.291)	-0.560* (0.291)	-0.685** (0.298)	-0.764** (0.313)	-0.691** (0.296)	-0.655** (0.295)	-0.669** (0.296)	-0.837*** (0.320)
<i>Overseas Island (dummy)</i>	1.024 (0.674)	-0.505 (0.883)	-0.253 (0.716)	1.237 (1.067)	1.076* (0.563)	1.139** (0.564)	1.899** (0.869)	1.005** (0.487)	0.286 (0.941)
<i>Overseas Island * Area</i>	-0.0528 (0.117)	0.149 (0.110)	0.116 (0.0811)	-0.0637 (0.129)	-0.0348 (0.0588)	-0.0544 (0.0578)	-0.150 (0.102)	-0.0311 (0.0470)	0.0809 (0.136)
<i>LingRemote</i>	0.0378 (0.0316)	0.0256 (0.0326)	0.0166 (0.0325)	0.0333 (0.0316)	0.0355 (0.0323)	0.0335 (0.0324)	0.0345 (0.0319)	0.0316 (0.0316)	0.0234 (0.0332)
<i>Overseas Island * LingRemote</i>	-0.0521 (0.0437)	0.240 (0.149)	0.0197 (0.0439)	-0.0846 (0.138)	-0.122* (0.0625)	-0.0804* (0.0477)	-0.0395 (0.0359)	-0.0582 (0.0375)	-0.580*** (0.272)
<i>Percent Tropical</i>	0.0390 (0.173)								
<i>Precipitation</i>		0.184** (0.0881)							
<i>Rain Days</i>			0.297** (0.124)						
<i>Temperature</i>				-0.0457 (0.180)					
<i>Temperature Range</i>					-0.129 (0.0874)				
<i>Humidity</i>						0.0734 (0.0917)			
<i>Sunshine</i>							-0.119 (0.0983)		
<i>Frost Days</i>								0.0937 (0.165)	
<i>Wind Speed</i>									0.211** (0.103)
Constant	-0.0792 (0.610)	-0.614 (0.671)	0.273 (0.556)	0.0264 (0.709)	-0.0334 (0.583)	0.177 (0.567)	0.205 (0.548)	0.373 (0.642)	-0.0432 (0.543)
<i>N</i>	302	301	301	301	301	301	301	301	301
<i>R</i> ²	0.179	0.195	0.210	0.180	0.187	0.181	0.184	0.183	0.202

Standard errors in parentheses. Country fixed-effects included in all regressions.
 * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 48: Additional regressions on the effect of 'first-nature' on 'second-nature'

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Area</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>
	-0.0294 (0.0453)	-0.0293 (0.0452)	-0.0321 (0.0459)	-0.0293 (0.0455)	-0.0269 (0.0460)	-0.0307 (0.0453)	-0.0288 (0.0447)	-0.0330 (0.0446)	-0.0158 (0.0433)
<i>Island (dummy)</i>	-0.680** (0.288)	-0.680** (0.288)	-0.683** (0.288)	-0.680** (0.288)	-0.677** (0.288)	-0.681** (0.288)	-0.679** (0.288)	-0.702** (0.307)	-0.594** (0.299)
<i>Overseas Island (dummy)</i>	0.913* (0.471)	0.915* (0.469)	0.891* (0.475)	0.908* (0.483)	0.936* (0.477)	0.903* (0.469)	0.919* (0.473)	1.517 (1.470)	1.653*** (0.602)
<i>Overseas Island * Area</i>	-0.0275 (0.0470)	-0.0278 (0.0467)	-0.0248 (0.0476)	-0.0267 (0.0495)	-0.0300 (0.0477)	-0.0263 (0.0470)	-0.0282 (0.0465)	-0.131 (0.229)	-0.126* (0.0700)
<i>LingRemote</i>	0.0384 (0.0313)	0.0385 (0.0313)	0.0381 (0.0312)	0.0385 (0.0313)	0.0382 (0.0313)	0.0381 (0.0313)	0.0384 (0.0313)	0.0340 (0.0315)	0.0265 (0.0316)
<i>Overseas Island * LingRemote</i>	-0.0564* (0.0325)	-0.0514 (0.0356)	-0.0554* (0.0324)	-0.0560* (0.0324)	-0.0562* (0.0325)	-0.0538* (0.0325)	-0.0565* (0.0325)	-0.190 (0.255)	0.179** (0.0811)
<i>Oil and Gas</i>	0.00171 (0.00333)								
<i>Diamonds</i>		0.00976 (0.0380)							
<i>Precious Metals</i>			0.00801 (0.00528)						
<i>Base Metals</i>				0.00170 (0.00644)					
<i>Iron</i>					0.00473 (0.00608)				
<i>Alloyants</i>						0.00725 (0.00741)			
<i>Water</i>							-0.000609 (0.0133)		
<i>Agricultural Land</i>								-0.0486 (0.0672)	
<i>Soil Quality</i>									-0.230** (0.0945)
Constant	0.301 (0.553)	0.301 (0.554)	0.321 (0.556)	0.301 (0.556)	0.280 (0.559)	0.309 (0.553)	0.296 (0.549)	0.333 (0.554)	-0.0582 (0.538)
N	302	302	302	302	302	302	302	300	300
R ²	0.179	0.179	0.180	0.179	0.179	0.179	0.179	0.177	0.207

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 49: Additional regressions on the effect of 'first-nature' on 'second-nature'

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>
<i>Area</i>	-0.0287 (0.0450)	-0.0167 (0.0483)	-0.0261 (0.0471)	-0.0328 (0.0449)	-0.0354 (0.0459)	-0.0529 (0.0583)	-0.0222 (0.0581)
<i>Island (dummy)</i>	-0.660** (0.278)	-0.685** (0.285)	-0.674** (0.285)	-0.700** (0.295)	-0.680** (0.281)	-0.666** (0.285)	-0.650** (0.319)
<i>Overseas Island (dummy)</i>	1.246 (0.945)	1.003** (0.485)	0.838 (0.791)	2.254** (1.026)	2.103*** (0.767)	0.780 (0.539)	1.665** (0.719)
<i>Overseas Island * Area</i>	-0.0562 (0.0830)	-0.0335 (0.0488)	-0.0108 (0.114)	-0.242 (0.163)	-0.243** (0.107)	-0.00403 (0.0596)	-0.137 (0.0943)
<i>EthnRemote</i>	0.0270 (0.0287)	0.0316 (0.0290)	0.0273 (0.0290)	0.0271 (0.0294)	0.0236 (0.0295)	0.0223 (0.0282)	0.0227 (0.0307)
<i>Overseas Island * EthnRemote</i>	-0.118 (0.214)	-0.0403 (0.0333)	-0.0283 (0.128)	-0.411 (0.278)	-0.437** (0.170)	-0.0426 (0.0298)	-0.0708** (0.0350)
<i>Latitude</i>	0.0754 (0.217)						
<i>Elevation</i>		-0.0587 (0.0508)					
<i>Ocean Access</i>			0.00891 (0.0561)				
<i>Terrain Ruggedness</i>				0.128 (0.0957)			
<i>Storm Risk</i>					0.154** (0.0667)		
<i>Earthquake Risk</i>						0.0756 (0.0744)	
<i>Malaria Risk</i>							0.0799 (0.108)
Constant	0.607 (0.620)	0.126 (0.556)	0.187 (0.578)	0.171 (0.537)	0.298 (0.541)	0.417 (0.635)	0.406 (0.580)
<i>N</i>	302	302	302	302	302	302	291
<i>R</i> ²	0.178	0.181	0.178	0.187	0.207	0.182	0.170

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 50: Additional regressions on the effect of 'first-nature' on 'second-nature'

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Area</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>
	-0.0276 (0.0442)	-0.00452 (0.0445)	-0.000467 (0.0429)	-0.0279 (0.0485)	0.00174 (0.0481)	-0.0151 (0.0466)	-0.0160 (0.0432)	-0.0361 (0.0531)	-0.0160 (0.0450)
<i>Island (dummy)</i>	-0.675** (0.288)	-0.627** (0.290)	-0.556* (0.290)	-0.681** (0.297)	-0.759** (0.312)	-0.687** (0.295)	-0.651** (0.294)	-0.665** (0.296)	-0.836*** (0.320)
<i>Overseas Island (dummy)</i>	1.066 (0.676)	-0.475 (0.884)	-0.226 (0.715)	1.296 (1.068)	1.121** (0.560)	1.185** (0.562)	1.941** (0.871)	1.048** (0.484)	0.309 (0.948)
<i>Overseas Island * Area</i>	-0.0551 (0.117)	0.149 (0.110)	0.116 (0.0812)	-0.0670 (0.129)	-0.0364 (0.0584)	-0.0560 (0.0576)	-0.151 (0.102)	-0.0327 (0.0467)	0.0821 (0.137)
<i>EthnRemote</i>	0.0267 (0.0294)	0.0149 (0.0298)	0.00568 (0.0297)	0.0222 (0.0289)	0.0241 (0.0295)	0.0219 (0.0297)	0.0228 (0.0291)	0.0211 (0.0290)	0.0132 (0.0303)
<i>Overseas Island * EthnRemote</i>	-0.0426 (0.0451)	0.287* (0.166)	0.0359 (0.0444)	-0.0818 (0.153)	-0.121* (0.0667)	-0.0745 (0.0492)	-0.0286 (0.0350)	-0.0512 (0.0368)	-0.646** (0.306)
<i>Percent Tropical</i>	0.0403 (0.173)								
<i>Precipitation</i>		0.187** (0.0884)							
<i>Rain Days</i>			0.300** (0.124)						
<i>Temperature</i>				-0.0480 (0.180)					
<i>Temperature Range</i>					-0.129 (0.0872)				
<i>Humidity</i>						0.0731 (0.0919)			
<i>Sunshine</i>							-0.119 (0.0982)		
<i>Frost Days</i>								0.0960 (0.165)	
<i>Wind Speed</i>									0.213** (0.103)
Constant	-0.104 (0.608)	-0.00483 (0.531)	-0.157 (0.525)	0.178 (0.542)	-0.124 (0.565)	0.0837 (0.550)	0.111 (0.529)	0.291 (0.629)	-0.126 (0.521)
<i>N</i>	302	301	301	301	301	301	301	301	301
<i>R</i> ²	0.178	0.194	0.209	0.179	0.186	0.180	0.183	0.182	0.201

Standard errors in parentheses. Country fixed-effects included in all regressions.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 51: Additional regressions on the effect of 'first-nature' on 'second-nature'

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>	<i>Inst*Aut</i>
<i>Area</i>	-0.0281 (0.0451)	-0.0277 (0.0449)	-0.0310 (0.0457)	-0.0280 (0.0453)	-0.0254 (0.0458)	-0.0295 (0.0452)	-0.0273 (0.0444)	-0.0318 (0.0444)	-0.0146 (0.0431)
<i>Island (dummy)</i>	-0.672** (0.286)	-0.672** (0.286)	-0.676** (0.287)	-0.672** (0.286)	-0.668** (0.287)	-0.673** (0.287)	-0.671** (0.287)	-0.696** (0.306)	-0.587** (0.297)
<i>Overseas Island (dummy)</i>	0.951** (0.471)	0.954** (0.469)	0.924* (0.475)	0.943* (0.484)	0.975** (0.477)	0.938** (0.470)	0.958** (0.473)	1.596 (1.459)	1.695*** (0.599)
<i>Overseas Island * Area</i>	-0.0289 (0.0468)	-0.0293 (0.0464)	-0.0259 (0.0475)	-0.0278 (0.0494)	-0.0315 (0.0475)	-0.0275 (0.0469)	-0.0297 (0.0463)	-0.140 (0.228)	-0.128* (0.0696)
<i>EthnRemote</i>	0.0274 (0.0290)	0.0273 (0.0290)	0.0276 (0.0290)	0.0274 (0.0291)	0.0271 (0.0291)	0.0275 (0.0290)	0.0273 (0.0290)	0.0234 (0.0289)	0.0179 (0.0290)
<i>Overseas Island * EthnRemote</i>	-0.0476 (0.0306)	-0.0425 (0.0364)	-0.0471 (0.0306)	-0.0470 (0.0305)	-0.0474 (0.0307)	-0.0448 (0.0304)	-0.0476 (0.0306)	-0.208 (0.288)	0.216** (0.0875)
<i>Oil and Gas</i>	0.00206 (0.00343)								
<i>Diamonds</i>		0.00876 (0.0389)							
<i>Precious Metals</i>			0.00885* (0.00537)						
<i>Base Metals</i>				0.00212 (0.00660)					
<i>Iron</i>					0.00484 (0.00596)				
<i>Alloyants</i>						0.00825 (0.00758)			
<i>Water</i>							-0.000895 (0.0133)		
<i>Agricultural Land</i>								-0.0508 (0.0670)	
<i>Soil Quality</i>									-0.232** (0.0944)
Constant	0.213 (0.538)	0.211 (0.538)	0.240 (0.544)	0.213 (0.541)	0.191 (0.543)	0.226 (0.540)	0.206 (0.533)	0.252 (0.540)	-0.128 (0.520)
<i>N</i>	302	302	302	302	302	302	302	300	300
<i>R</i> ²	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.176	0.207

Standard errors in parentheses. Country fixed-effects included in all regressions.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$