Traditional Institutions in Africa, Past and Present

Clara Neupert-Wentz[*1] and Carl Müller-Crepon[2]

[1]Aarhus University
[2]University of Oxford

February 2021

Abstract

To what degree and why are traditional institutions persistent? Following up on the literature on the long-term effects of precolonial institutions in Africa, we investigate whether today's traditional institutions mirror their precolonial predecessors. We link new data on traditional institutions of African ethnic groups with Murdock's Ethnographic Atlas. We find a robust association between past and present levels of centralization. However, this persistence originates almost exclusively from former British colonies governed with more reliance on precolonial institutions than other colonies, in particular French ones. These findings contribute to research on the development and effects of traditional institutions, highlighting the need to theoretically and empirically differentiate between what we call institutional persistence and persistent effects of past institutions.

Institutions connect "the past with the present and the future" (North 1991, 97). The study of institutional persistence and change has therefore been central to the social sciences. Yet, traditional institutions that govern subnational communities based on customary legitimacy are mostly excluded from the systematic analysis of institutional change. This is despite wide-ranging evidence of their contemporary importance for public goods provision, economic development, elections, and conflict (e.g. Baldwin 2016; Baldwin and Holzinger 2019; Henn 2020; de Kadt and Larreguy 2018; Logan 2013; Wig and Kromrey 2018).

The lack of research on traditional institutions' change is worrying since a growing literature reports robust long-term effects of precolonial institutions on development (Michalopoulos and Papaioannou 2013; Gennaioli and Rainer 2007), public goods (Archibong 2019; Wilfahrt 2018), and political violence (Wig 2016; Paine 2019) in Africa. The most prominent mechanism invoked to explain these findings is institutional persistence: the view that today's traditional institutions closely mirror their precolonial predecessors. However, institutional persistence is observationally equivalent to *persistent effects* of precolonial institutions—historical effects of institutions (e.g., leading to past development) that have persisted independent of the institutions themselves. In an effort to "decompress history" (Austin 2008), we here provide evidence on institutional persistence and change which can help disentangle these two pathways.

Doing so is all the more important as the extent of institutional persistence itself is contested. Some argue that there has been no significant change of traditional institutions since the precolonial era (e.g., Herbst 2000). De Juan (2017), for instance, finds cultural centers of the precolonial Burundi kingdom to persist as customary courts today. Yet, others hold that political engineering, attempts to abolish traditional institutions, and the invention of institutions resulted in an institutional present that differs substantively from its precolonial past (Young 1994; Englebert 2002; Ranger 1983). In this view, an important cause of the survival of precolonial institutions is direct and indirect colonial rule. Where French direct rule destroyed traditional institutions, British indirect rule integrated traditional institutions into the colonial state and fostered their persistence (Ali et al. 2018; Crowder 1968; Müller-Crepon 2020).

We seek to address this debate empirically and ask: Do contemporary traditional institutions reflect their precolonial predecessors or have they been systematically changed by colonial styles of direct and indirect rule? While Baldwin and Holzinger (2019, 1748)

1

acknowledge that today's traditional institutions are not "accurate reflections of historic governance practices," a lack of data on contemporary institutions has so far prohibited examining the link between past and present.

To this end, we use new data on African ethnic groups' contemporary traditional institutions that are similar to but more detailed than Murdock's (1969) widely-used measure of precolonial centralization.[1] Our analysis shows a robust relationship between past and present institutions. However, it is primarily driven by ethnic groups in former British colonies where indirect rule was applied in particular to centralized groups. More direct rule by the French led to a substantively and statistically insignificant relationship between past and present levels of traditional authorities' institutionalization.

Traditional Institutions in Africa: Persistence and Change

The literature on long-term effects of precolonial institutions typically attributes the assumed institutional persistence to path-dependence, a "historical causality" rooted in the institution itself (see Page 2006, 87). In Herbst's view (2000), this persistence was due to African states' inability to centralize political power. Yet, assuming path-dependence masks historical and contextual variation: Qualitative evidence suggests that during the colonial and post-colonial eras some traditional authorities were destroyed (Young 1994), invented (Ranger 1983), or some have lately resurged (Englebert 2002). While institutions may be sticky *on average*, these dynamics reject Herbst's (2000, 30) idea that "there is often nothing new out of Africa."

Rather than attempting to systematically survey all drivers of institutional change, we focus here on colonial rule as its most prominent cause. The Scramble for Africa—reaching its violent climax after the Berlin conference in 1884/1885—established European rule across the African continent hitherto governed by indigenous institutions. While all colonizers relied on traditional institutions at the very local level (Herbst 2000; Mamdani 1996), the directness of rule at higher administrative levels varied between colonizers, in particular between the French and British empires which ruled over most of the African continent and population (Asiwaju 1970; Crowder 1968; Miles 1994).

Specifically, historical evidence suggests that the French ruled more directly than the British. Following a "Republican spirit," (Cohen 1971) the French met precolonial political institutions with hostility (Huillery 2010). French colonialists stripped old local elites of most of their power and transferred it to "commandants de cercle," administrators who rotated too often to acculturate themselves locally (e.g., Cohen 1971; Conklin 1997; Crowder 1968). British colonial rulers, conversely, are oftentimes described as co-opting precolonial elites to indirectly rule through them (Crowder 1968). As a result, 70% of the ruling lines of succession of centralized precolonial states under British rule persisted until independence, while only 30% did so under French rule (Müller-Crepon 2020). If French hostility towards precolonial states destroyed some of the conquered institutions, we would expect less institutional persistence in French than in British colonies.

We note that indirect rule was not applied uniformly across the British colonies, which further underpins the need for our comparative analysis. The British integrated centralized and hierarchical precolonial institutions, e.g., the Fulani Emirates (Miles 1994) or the Buganda Kingdom (Reid 2002), into the colonial state by co-opting their leaders who retained much of their accustomed powers. However, where societies lacked centralized institutions the creation of new institutions was imperative for the roll-out of colonial rule (e.g. Fortes and Evans-Pritchard 1940; Hicks 1961). This led to a more direct style of colonial rule (Gerring et al. 2011; Müller-Crepon 2020). Some of the newly created local institutions were headed by (invented) local elites such as the "Warrant Chiefs" in previously acephalous southeastern Nigeria (Afigbo 1972). To the degree that these embedded themselves locally, we would expect some limited centralization of previously decentralized ethnic groups, leading to institutional change. Given that all colonizers relied on very local indigenous elites (Herbst 2000; Mamdani 1996), such institutional "upgrading" in decentralized areas was not limited to British colonies.

For the difference between the French and British styles of colonial rule to consistently affect traditional institutions until *today*, post-colonial governance arrangements between the state and traditional authorities must roughly correlate with colonial ones. Otherwise, post-colonial change of traditional institutions could have slowly washed out the effects of colonial rule. We examine persistent differences in state governance between former French and British colonies in Appendix D. Data on traditional institutions' inclusion in national constitutions in 2014 from Holzinger et al. (2019) show that traditional authorities enjoy significantly more rights in former British than in French

colonies. They are more often acknowledged, regulated, and integrated into political processes. This persistent French-British difference in institutional arrangements constitutes an important reason to expect a continuing effect of colonial styles of rule.

Data and Research Design

To analyze whether precolonial ethnic institutions persist, we combine two datasets that provide information on ethnic institutions in the precolonial past and the present.

Murdock's Ethnographic Atlas: Throughout the 1960s, Murdock (1969) published the Ethnographic Atlas (EA) in the journal *Ethnology*. The *EA* measures social, political, and cultural traits of ethnic groups worldwide around or before European colonization. Murdock relied on secondary sources, claims to have surveyed "[p]ractically the entire ethnographic literature" (1969, 1) at the time, and used (translated) material in all languages to avoid selection biases. Variable no. 33—"Jurisdictional Hierarchy Beyond Local Community"—is an ordinal measure of groups' political complexity (Murdock 1969, 52). It is zero where there is no political authority beyond the local community. Groups with one level beyond the local community are called "petty chiefdoms," followed by "large chiefdoms," "states," and finally "large states" on level four. Without affecting the results substantively, we recode the outlying four large states to states. Our measure of precolonial centralization (v33) therefore ranges from 0 to 3. The *EA* was geocoded by Nunn and Wantchekon (2011) using Murdock's (1959) map of African ethnic 'homelands,' our unit of analysis. Because many of Murdock's 841 groups' settlement areas span across countries, we split them into 1321 groups nested in today's borders.

TradGov Group Data: We measure contemporary traditional institutions with new data collected via a global online expert survey on groups' traditional institutions, leaders, and functions. Similar to the *EA*, experts were mostly ethnologists and anthropologists, and were surveyed in English, French, Spanish, Portuguese, and Russian to prevent selection bias. The dataset features information from 1122 experts for 749 African groups (1.6 /group). Data on groups with multiple expert answers are aggregated manually to incorporate additional notes provided by the experts (see Appendix A.1).

Ethnic Matching: To link the TradGov to the Murdock data in a coherent and replicable manner, we draw on the *Linking Ethnic Groups in Africa* project by Müller-Crepon,

[Pengl and Bormann](#) ([2019](#)) who leverage the universe of known languages and dialects to link datasets on ethnic groups in Africa. We are able to match 579 (84.3%) groups from the TradGov data to 731 (55.3%) groups enumerated by Murdock. Appendix A.3 presents additional details and Table A3 displays a descriptive analysis of the attributes of Murdock groups that lack a link to the TradGov data, many of them small groups split by international borders. We assess potential selection effects in Appendix C.4.

Main outcomes: To assess traditional institutions today, we use variables from the TradGov data that capture institutions, leaders, functions, and ties between state and customary authority (see Appendix A.1.3 for survey items). To derive a single measure of institutionalization, we extract the first principal component, with which all institutional dimensions correlate strongly and positively, explaining 50.7% of the variance (Appendix A.2). This component, named TPI Index hereafter, constitutes the main outcome of the empirical analyses. We analyze its constitutive parts in Appendix C.1.

Model specification: We assess the relation between ethnic groups' precolonial centralization and the index of traditional institutions today (1) among all observations and (2) contrasting groups from former British and French colonies[2] using linear models:

$$\text{TPI Index}_i = \alpha_c + \beta_1 \text{v33}_i + \boldsymbol{\delta X_i} + \epsilon_i, \tag{1}$$

$$\text{TPI Index}_i = \alpha_c + \beta_1 \text{British} + \beta_2 \text{British} * \text{v33}_i + \beta_3 \text{French} * \text{v33}_i + \boldsymbol{\delta X_i} + \epsilon_i, \tag{2}$$

where country-fixed effects α_i net the data of all variation among ethnic groups i that is constant within countries.[3] In the baseline specification (1), the level of historical persistence is captured by the coefficient β_1. In Equation (2), β_2 and β_3 capture the level of institutional continuity in former British and French colonies, respectively.[4] We cluster standard errors on the group level (based on Murdock), many straddling across international borders. We add a vector of control variables $\boldsymbol{X}_i$ to account for potential causes of current and past institutions. We sequentially add three vectors of controls to our model: **Baseline** controls include groups' population, area, distance to coast and navigable river. **Nature** controls include median altitude and slope, mean annual temperature, precipitation and evapotranspiration, the ratio of the two, agricultural suitability, and soils' suitability for cash crop production. **Ethnic** controls are the reliance on agri-

---

[2]Former Belgian and Portuguese colonies lack statistical power for reliable estimates.

[3]See Appendix C.2 for roughly equivalent results without country fixed effects.

[4]Appendix C.3 presents models with interactions of $\boldsymbol{X}_i$ with the French/British dummy. The point estimates of interest remain stable but standard errors increase due to reduced statistical power.

culture and pastoralism, and agricultural intensity. See Appendix A.4 for details.

Results: Traditional Institutions, Past and Present

We start our analysis by visualizing the bivariate relationship between past and present African traditional institutions plotted in Figure 1. Focusing first on the full sample to the left, we see a consistent and positive relation between Murdock's measure of political centralization (v33) and our TPI Index. However, the correlation is far from perfect and disturbed by many 'off-diagonal' cases of institutional change. Splitting the sample between ethnic groups in former British ($N_{British} = 275$) and French ($N_{French} = 166$) colonies highlights the type of colonial rule as an important source of change. Traditional institutions are highly persistent in former British colonies, which were often ruled through rather than against precolonial institutions. In contrast, institutional change under French rules is rampant and precolonially centralized groups today are not more institutionalized than precolonially decentralized groups.

Estimating variations of Eq. (1), the first block of coefficients of precolonial centralization in Figure 2 shows a robust positive relationship with the TPI Index. As we add our controls in specifications 2–4, the size of the coefficient decreases only slightly and its precision remains high. The magnitude of the effect of a one-level increase in precolonial centralization amounts to a fifth of a standard deviation of the TPI Index.

The three remaining blocks of Figure 2 then formally test whether British rule led to the persistence of precolonial institutions while French direct rule crushed precolonially centralized institutions (Eq. (2)). The results show that the correlation between precolonial centralization and our TPI Index is almost exclusively driven by ethnic groups in former British. The respective coefficient (v33 × British) is slightly larger than estimated on the full sample and statistically highly significant. In turn, the estimated relation between past centralization and the TPI Index in former French colonies is close to zero. The difference between the two estimates in the fourth block turns statistically insignificant once we add the full vector of control variables but remains stable in size.

In sum, our results suggest strong institutional legacies of indirect colonial rule, used by the British mostly to rule over politically centralized regions. Under British rule, these institutions could persist while they were dismantled under French rule, resulting in a break between past and present institutions. A disaggregation of the TPI Index
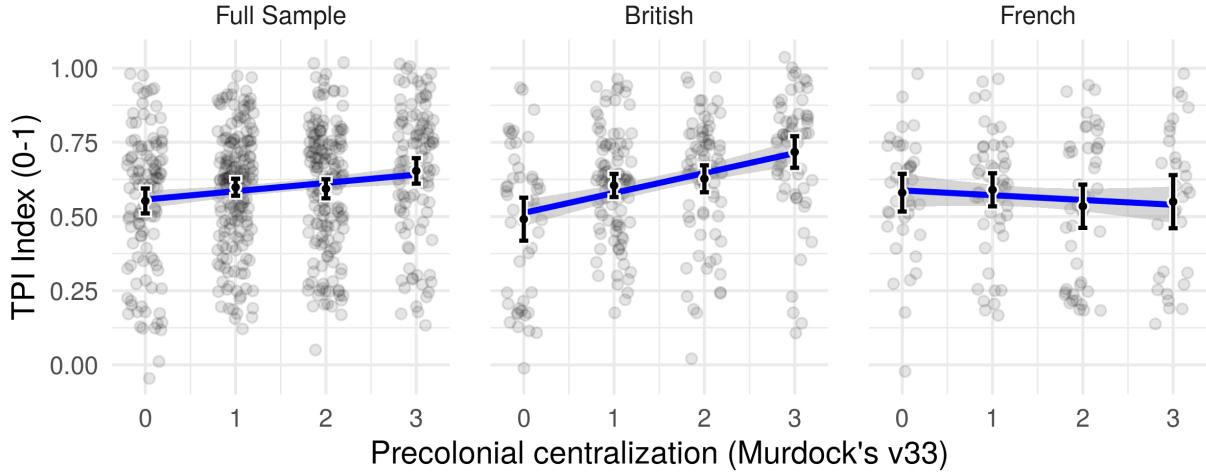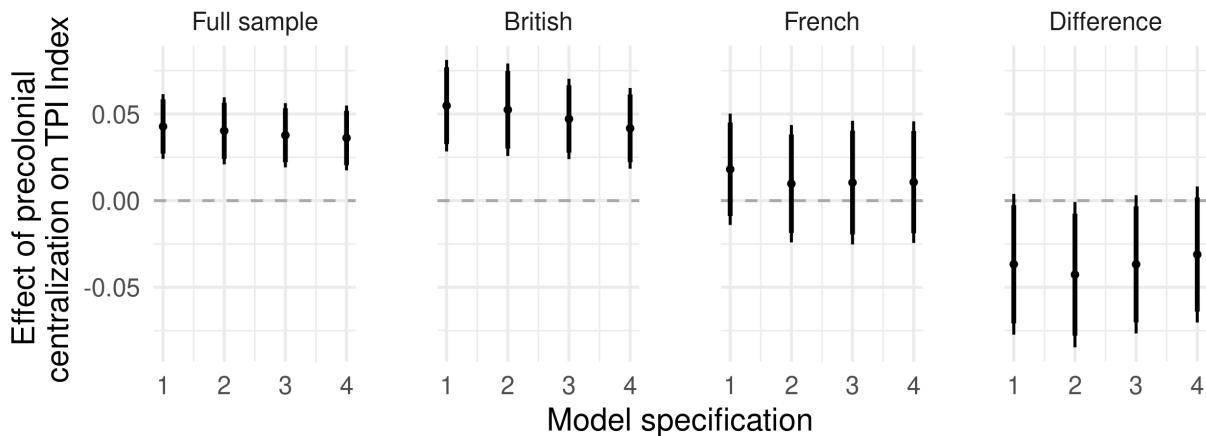
Figure 1: Correlation of precolonial centralization with the TPI Index across all observations and groups in former British and French colonies.

Specifications: (1) No controls; (2) Baseline; (2) Baseline + ethnic; (3) Baseline + ethnic + nature controls

Figure 2: Estimated effect of precolonial centralization on TPI Index across specifications with 95% and 90% CIs. See Appendix B for details.

(Appendix Figure A2) shows that the differential impact of the style of colonial rule relates in particular to the level of differentiation of traditional institutions and their functions, as well as the strength of their ties to the state.

Conclusion

This research note has assessed the degree to which precolonial institutions in Africa have persisted over the past century. Our analysis is motivated by a large and growing literature on the enduring effects of precolonial institutions, many of which are implicitly or explicitly assumed to be due to institutions' persistence over time. To assess the

empirical merits of this assumption, we have combined data on groups' precolonial centralization with expert-coded data on their contemporary traditional institutions.

Our empirical analysis shows a robust association between past and present institutionalization of traditional authorities. This suggests that traditional institutions have been, on average, persistent over the past century. However, and consistent with arguments about the effects of direct and indirect rule on precolonial institutions, this result is almost exclusively driven by ethnic groups in former British colonies where indirect rule preserved local institutions. This suggests that future studies on the effects of precolonial institutions should differentiate between institutional persistence (largely limited to British colonies) and persistent effects of past institutions (possibly geographically unlimited). Finally, we have only considered colonial state-level drivers of institutional change. Theorizing and analyzing postcolonial change constitutes a promising avenue to foster our understanding of the present of traditional institutions in Africa.

References

Afigbo, Adiele Eberechukwu. 1972. *The Warrant Chiefs: Indirect Rule in Southeastern Nigeria 1891-1929.* Longman.

Ali, Merima, Odd-Helge Fjeldstad, Boqian Jiang and Abdulaziz Shifa. 2018. "Colonial Legacy, State-building and the Salience of Ethnicity in Sub-saharan Africa." *The Economic Journal* .

Archibong, Belinda. 2019. "Explaining divergence in the long-term effects of precolonial centralization on access to public infrastructure services in Nigeria." *World Development* 121:123–140.

Asiwaju, Anthony I. 1970. The Aleketu of Ketu and the Onimek of Meko: The Changing Status of two Yoruba Rulers under French and British rule. In *West African Chiefs. Their Changing Status under Colonial Rule and Independence*, ed. Michael Crowder and Obaro Ikime. University of Ife Press pp. 134–161.

Austin, Gareth. 2008. "The "reversal of fortune" thesis and the compression of history: Perspectives from African and comparative economic history." *Journal of International Development* 20:996–1027.

Baldwin, Kate. 2016. *The Paradox of Traditional Chiefs in Democratic Africa*. Cambridge University Press.

Baldwin, Kate and Katharina Holzinger. 2019. "Traditional political institutions and democracy: reassessing their compatibility and accountability." *Comparative Political Studies* 52(12):1747–1774.

Cohen, William B. 1971. *Rulers of Empire: the French Colonial Service in Africa*. Hoover Institution Press.

Conklin, Alice L. 1997. *A Mission to Civilize. The Republican Idea of Empire in France and West Africa, 1895–1930.* Stanford University Press.

Crowder, Michael. 1968. *West Africa under Colonial Rule*. Hutchinson.

De Juan, Alexander. 2017. ""Traditional" resolution of land conflicts: The survival of precolonial dispute settlement in Burundi." *Comparative Political Studies* 50(13):1835–1868.

de Kadt, Daniel and Horacio A Larreguy. 2018. "Agents of the regime? Traditional leaders and electoral politics in South Africa." *The Journal of Politics* 80(2):382–399.

Englebert, Pierre. 2002. "Patterns and Theories of Traditional Resurgence in Tropical Africa." *Mondes en développement* 118:51–64.

Fortes, Meyer and Edward E. Evans-Pritchard, eds. 1940. *African Political Systems*. 1958 ed. Oxford University Press.

Gennaioli, Nicola and Ilia Rainer. 2007. "The Modern Impact of Precolonial Centralization in Africa." *Journal of Economic Growth* 12:185–234.

Gerring, John, Daniel Ziblatt, Johan Van Gorp and Julián Arévalo. 2011. "An Institutional Theory of Direct and Indirect Rule." *World Politics* 63(3):377–433.

Henn, Soeren J. 2020. "Complements or Substitutes: State Presence and the Power of Traditional Leaders." *Unpublished Working Paper* .

Herbst, Jeffrey. 2000. *States and Power in Africa*. Princeton University Press.

Hicks, Ursula K. 1961. *Development from below. Local Government and Finance in Developing Countries of the Commonwealth*. Oxford University Press.

Holzinger, Katharina, Roos Haer, Axel Bayer, Daniela M Behr and Clara Neupert-Wentz. 2019. "The constitutionalization of indigenous group rights, traditional political institutions, and customary law." *Comparative Political Studies* 52(12):1775–1809.

Huillery, Elise. 2010. "The impact of European settlement within French West Africa:

Did precolonial prosperous areas fall behind?" *Journal of African Economies* 20(2):263–311.

Logan, Carolyn. 2013. "The roots of resilience: Exploring popular support for African traditional authorities." *African Affairs* 112(448):353–376.

Mamdani, Mahmood. 1996. *Citizen and Subject. Contemporary Africa and the Legacy of Late Colonialism.* Princeton University Press.

Michalopoulos, Stelios and Elias Papaioannou. 2013. "Pre-Colonial Ethnic Institutions and Contemporary African Development." *Econometrica* 81(1):113–152.

Miles, William F. S. 1994. *Hausaland Divided. Colonialism and Independence in Nigeria and Niger.* Cornell University Press.

Müller-Crepon, Carl. 2020. "Continuity or Change? (In)direct Rule in British and French Colonial Africa." *International Organization* 74(4):707–741.

Müller-Crepon, Carl, Yannick I Pengl and Nils-Christian Bormann. 2019. "Linking Ethnic Data from Africa." *Unpublished Working Paper* .

Murdock, George Peter. 1959. *Africa. Its Peoples and Their Culture History.* McGraw-Hill.

Murdock, George Peter. 1969. *Ethnographic Atlas.* University of Pittsburgh Press.

North, Douglass C. 1991. "Institutions." *Journal of Economic Perspectives* 5(1):97–112.

Nunn, Nathan and Leonard Wantchekon. 2011. "The Slave Trade and the Origins of Mistrust in Africa." *The American Economic Review* 101(7):3221–3252.

Page, Scott E. 2006. "Path dependence." *Quarterly Journal of Political Science* 1(1):87–115.

Paine, Jack. 2019. "Ethnic Violence in Africa: Destructive Legacies of Pre-Colonial States." *International Organization* 73(3):645–683.

Ranger, Terence. 1983. The Invention of Tradition in Colonial Africa. In *The Invention of Tradition*, ed. Eric Hobsbawm and Terence Ranger. Cambridge University Press pp. 211–262.

Reid, Richard J. 2002. *Political Power in Pre-colonial Buganda: Economy, Society & Warfare in the Nineteenth Century.* James Currey.

Wig, Tore. 2016. "Peace from the Past: Pre-colonial Political Institutions and Civil Wars in Africa." *Journal of Peace Research* 53(4):509–524.

Wig, Tore and Daniela Kromrey. 2018. "Which groups fight? Customary institutions and communal conflicts in Africa." *Journal of Peace Research* 55(4):415–429.

Wilfahrt, Martha. 2018. "Precolonial legacies and institutional congruence in public

goods delivery: Evidence from decentralized West Africa." *World Politics* 70(2):239–274.

Young, Crawford. 1994. *The African Colonial State in Comparative Perspective*. Yale University Press.

Appendix

Traditional Institutions in Africa, Past and Present

Table of Contents

A Data

Table A1: Pre-colonial centralization and current TPIs: Summary Stats

Statistic	N	Mean	St. Dev.	Min	Max
TPI Index	618	0.599	0.214	0.000	1.000
TPI Level	636	0.555	0.362	0.000	1.000
Institution Index	662	0.579	0.267	0.000	1.000
Leader Index	662	0.483	0.249	0.000	1.000
Max Leader	662	0.687	0.370	0.000	1.000
State-ties Index	622	0.783	0.222	0.000	1.000
Functions Index	643	0.677	0.222	0.000	1.000
Precol. centr. (v33)	1,205	1.378	1.019	0	3
Population	1,321	83,761.310	263,798.200	0.000	5,948,205.000
Area	1,321	1.953	3.908	0.00000	43.779
Distance to coast	1,320	613.237	446.201	2.119	1,784.015
Distance to nav. river	1,320	275.833	413.786	0.727	2,344.628
Reliance on agriculture	1,274	2.453	2.011	0	9
Reliance on pastoralism	1,274	5.382	1.933	0	9
Intensity of agriculture	1,215	2.304	0.838	0	4
Altitude	1,321	614.760	447.576	2.667	2,899.750
Ruggedness	1,321	4.059	1.256	1.000	9.000
Temperature	1,321	24.492	3.262	7.550	30.011
Evapotranspiration	1,321	1,659.086	290.233	1,085.276	2,519.306
Precipitation	1,321	1,031.031	596.754	0.071	3,147.643
Precipitation/Evapotr.	1,321	4.031	1.650	1.000	8.000
Agr. suitability	1,311	0.327	0.246	0.000	0.985
Cash crop suitability	1,320	0.329	0.166	0.000	0.824
Malaria environment	1,321	0.583	0.201	0.00001	0.962
Tsetse environment	1,321	0.495	0.438	0.000	1.000

A.1 TradGov Group Dataset

A.1.1 Unit of Analysis and Data Collection

For our measure of contemporary traditional institutions, we rely on the TradGov Group
Dataset. The dataset is the result of a global online expert survey. The universe of groups
for the expert survey is mainly based on the All Minorities at Risk (AMAR) list of so-
cially relevant ethnic groups (Birnir et al. 2014). Social relevance denotes that "people
notice and condition their actions on ethnic distinctions in everyday life" (Fearon 2006,
852), but does not require any form of institutional or political organization.

On the basis of the group list, experts were chosen due to their (academic) publi-
cations, affiliations with ethnic groups, or through organizations that work on behalf
of those groups. More than half of the experts who responded to the survey were aca-
demics, in particular ethnologists, anthropologists, historians, and political scientists.

Beyond the personalized invitations for experts for groups from that list, experts
were free to add additional groups. In addition to the personalized invitations, organi-
zations working with indigenous groups as well as the UN Expert Mechanism on the

Rights of Indigenous peoples (EMRIP) distributed anonymous survey links in their networks. The final data is therefore based on an open-ended list of ethnic groups, lacking a clearly defined universe of cases. This further motivates the use Murdock's groups as our unit of analysis (1959; 1969).

A.1.2 Data Aggregation

Observations of groups with more than one expert rating had to be aggregated. The type of aggregation we use in our analysis incorporates the judgment of the coder and is done manually. In the case of divergent expert ratings, coders triangulated information on the basis of their knowledge and additional comments by the experts provided in the comment section of the survey. Furthermore, some experts mentioned leaders or institutions in the additional "Other leader" options, which actually fit the pre-specified categories of the survey items and are thus recoded. Examples include village heads, which are re-coded as headmen, or "cacique," which is re-coded to chief. All coding and aggregation decisions are documented and will be published along with the TradGov Group dataset.

A.1.3 Variable Description

From the dataset we use several variables, that we summarize in four dimensions. These are the basis for the principal component analysis to build the TPI Index (see section A.2).

Institutions:

TPI Level: Coding of experts of the highest level of traditional organization, indicating whether a group is acephalous, organized on the district or regional level, or a higher level. This is the variable that coincides most with Murdock's ordinal coding of precolonial centralization (v33).

Institution Index: This is the mean of a series of dummy variables that encode whether an ethnic group features a council of elders and/or the king, assemblies, dispute resolution mechanisms such as courts, and native customary rules.

Leaders:

Leader Index: The average existence of a series of leader roles, ranging from a king or paramount chief, over chiefs, headmen, judges, healers, to spiritual leaders.

Max Leader: Again oriented towards Murdock's level of centralization, we encode the maximum hierarchical level on which a leader exist with kings being on level 3, chiefs on level 2, and headmen on level 1. Groups that have none of these political leaders are coded as 0.

Ties with the state:

The State-ties Index is the average response to the question of whether traditional authorities are (1) formally acknowledges by the state, (2) interact regularly through formal institutions, and on (3) the strength of traditional authorities' informal ties to state politicians.

Functions:

The Functions Index is the average existence of official or unofficial responsibility of a groups' traditional institutions for the governance of land, culture, family matters, dispute resolution, health, security, religion, and infrastructure.

A.1.4 Survey Items

Institutions:

TPI Level: Which level is the highest level where a traditional/ native/ indigenous organization (leaders, bodies, and rules) of the *group X* exists?

- Kingdom and/or paramount chieftaincy
- Regional: district-level/ several villages
- Local: village-level/ municipal-level/ clan-level/ band-level
- Pastoralist-level (nomads)
- The group is traditionally organized but is without a leader (acephalous)
- I do not know

Institution Index: Which forms of traditional/ indigenous/ native organization do the group X in country Y have? *It may be the case that there is more than one leader or body for the group X. Please tick all the boxes that apply.*

- Council of elders
- King's council
- Traditional/ Indigenous/ Native (village) assembly
- Traditional/ Indigenous/ Native dispute resolution mechanisms and/or courts
- Traditional/ Indigenous/ Native customary rules and norms
- Other, namely (1)...
- Other, namely (2)...
- Other, namely (3)...

Leaders:

Which forms of traditional/ indigenous/ native organization do the group X in country Y have? *It may be the case that there is more than one leader or body for the*

group X. Please tick all the boxes that apply. If there are leaders of one category on more than one hierarchical level (e.g. chiefs and sub-chiefs), please make use of the 'other' options to differentiate between these leaders.

- King/ Queen/ Paramount chief/ Emir
- Chief/ Khan/ Ariki/ Jif
- Headman/ Bandleader
- Traditional/ Indigenous/ Native judge
- Traditional/ Indigenous/ Native healer
- Traditional/ Indigenous/ Native spiritual leader
- Other, namely (1)...
- Other, namely (2)...
- Other, namely (3)...
- No leader (acephalous)

Ties with the state:

The measure for Ties comprises three variables of the original expert survey:

1: Recognition Is there a formal proceeding for acknowledgement of (at least one of) the leaders of the *group X* by state authorities?

- Yes
- No
- I do not know

2: Personal Ties Do leaders of the *group X in country Y* have personal ties with politicians? If so, how many of them have these ties? *E.g. they have family connections, business ties, or are close friends.*

- All leaders have them
- Many leaders have them
- Some leaders have them
- Few leaders have them
- No leaders have them
- I do not know

3: Interaction through (in)formal bodies Are there (in)formal institutions in which the traditional/ indigenous/ native organization of the *group X* interact with state authorities in *country Y*? *E.g. land boards, commissions, national house of chiefs, etc.*

- Yes, namely ...[String Var]

- No
- I do not know

Functions:

Which are the official and unofficial functions of the organization (leaders, bodies, and rules) of the *group X*? Please tick all the boxes that apply.

- Land administration
- Natural resource management
- Cultural matters (such as clothing, arts and crafts, language)
- Family matters (such as marriage, inheritance, burial matters)
- Dispute resolution
- Health (such as the use of traditional medicine)
- Security matters, peace and order (such as policing)
- Spiritual functions
- Infrastructural provisions (such as electricity, water, sanitation, and infrastructure)
- Other functions, namely…
- I do not know

A.2   Principal Component Analyses: TPI Index

Table A2: PCA of group-level traditional institutions indicators

	Component					
	(1)	(2)	(3)	(4)	(5)	(6)
Summary statistics:						
Standard deviation	1.744	1.052	0.879	0.647	0.614	0.533
Proportion of Variance	0.507	0.185	0.129	0.070	0.063	0.047
Cumulative Proportion	0.507	0.691	0.820	0.890	0.953	1.000
Factor loadings:						
TPI Level	0.407	−0.439	0.292	−0.628	−0.250	−0.316
Institution Index	0.450	0.397	0.041	−0.039	−0.550	0.578
Leader Index	0.480	0.206	0.049	0.562	−0.149	−0.622
Max Leader	0.433	−0.273	0.448	0.262	0.570	0.379
State-ties Index	0.253	−0.587	−0.714	0.208	−0.115	0.161
Functions Index	0.387	0.434	−0.449	−0.420	0.523	−0.097
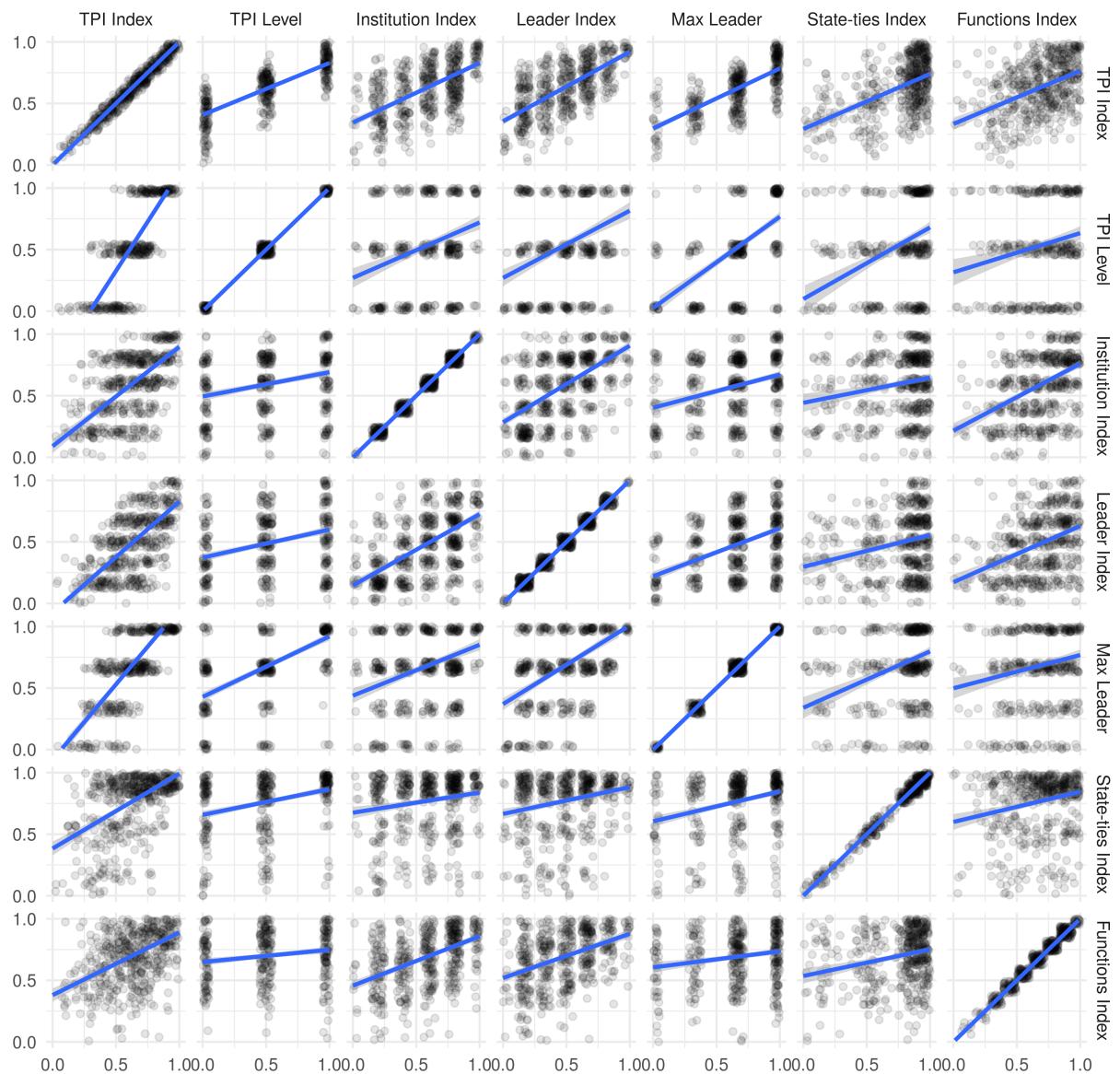
Figure A1: Correlations among the main group-level TPI variables.

A.3   Linking the Murdock Atlas to TradGovGroups

We link the TradGovGroups to the Murdock data in order to analyze the relationship between Murdock's coding of precolonial political centralization and data on contemporary traditional institutions. To do so in a coherent and replicable manner, we draw on a new technique that leverages the universe of known languages to link datasets on ethnic groups in Africa to each other. Drawing on Müller-Crepon, Pengl and Bormann (2019), our matching procedure consists linking each ethnic group in the TradGovGroups and Murdock datasets with the list of languages provided by Ethnologue (Lewis 2009). In a second step, we link each group from the TradGov and Murdock data if they have at least one language in common and are coded to be present in the same contemporary country.[5] The research project led by Müller-Crepon, Pengl and Bormann (2019) provides the data on the links between Ethnologue and the Murdock and TradGov data that are necessary to implement these two steps.

Because linguistic groups are most often nested within ethnic groups encoded in our datasets, the matching procedure produces consistent results. There are relatively few groups—such as the Hutu and Tutsi in Rwanda or the various Somali subgroups on the Horn—where several groups speak the same language. In these cases, our matching is imprecise, but unlikely to introduce systematic bias.

The first step of the coding is successful, with more than 95% of groups in both datasets linked to one or more languages from the Ethnologue data. In the second step, we are able to match 579 (84.3%) groups from the TradGov data to a total of 731 (55.3%) groups enumerated by Murdock. As a result of the fact that Murdock and the TradGov data enumerate ethnic groups in different manners, the resulting matching is many-to-many, that is, some TradGov groups are linked to several groups from Murdock's data and vice-versa. It is therefore necessary to collapse the data on groups from the TradGov data that are linked to the same Murdock group. We do so by taking the average of the variables presented above.

Table A3 presents the results of a descriptive analysis of the attributes of Murdock groups that lack a link to the TradGovGroups data. The results show that small groups and those colonized by Portugal or Belgium are least likely to be associated with a counterpart in the TradGovGroups data. Importantly, the probability of being matched is, if at all, only marginally higher for centralized groups.

---

[5]Murdock groups are linked to countries via their geographic settlement area derived from Murdock (1959).

Table A3: Covariates of successful link between Murdock and TradGovGroup data

	Matched Murdock Group (0/1)				
	(1)	(2)	(3)	(4)	(5)
Constant	0.178**	0.623***	0.521***	0.568***	0.133
	(0.082)	(0.023)	(0.024)	(0.039)	(0.100)
Population (1880; log)	0.041***				0.046***
	(0.008)				(0.009)
Area (log)	0.042***				0.042***
	(0.008)				(0.008)
Split (0/1)		−0.108***			−0.010
		(0.028)			(0.030)
Precol. Centr. (v33)			0.026*		0.006
			(0.014)		(0.013)
Belgian colony				−0.158***	−0.175***
				(0.059)	(0.060)
British colony				0.066	0.093**
				(0.045)	(0.044)
French colony				−0.042	−0.031
				(0.046)	(0.045)
Portuguese colony				−0.245***	−0.225***
				(0.072)	(0.074)
Observations	1,321	1,321	1,205	1,321	1,205
Adjusted R^2	0.090	0.010	0.002	0.027	0.131

Note: *p<0.1; **p<0.05; ***p<0.01

A.4   Control Variable Descriptions

Baseline: To control for the geography and location of ethnic groups, we add their population size, estimated for the year 1880 (Goldewijk, Beusen and Janssen 2010), their area, their distance to the coast as well as to the closest navigable river.[6] These measures are all logged to reduce their right-skew.

Ethnic: Since precolonial agriculture might have been an important driver of political centralization (e.g. Fenske 2013), we add variables that capture the extent to which ethnic groups relied on agriculture and husbandry, as well as an indicator of the intensity of agriculture in a group. These variables are encoded in the Ethnographic Atlas (Murdock 1969).

Nature: Lastly, we control for a vector of characteristics of the natural environment of ethnic groups, which might have influenced their prosperity and propensity for political centralization. These variables consist of the altitude, temperature, precipitation and evapotranspiration, the ratio of the two, agricultural suitability, and soils' suitability for cash crop production,[7] as well as the local disease environment regarding malaria[8] and the Tsetse fly.[9]

B   Main results

Table A4 shows the estimates of Eq. (1) and is the basis of the first block in Figure 2 in the main text. The main results show a robust positive relationship between precolonial levels of political centralization and our index of current levels of institutionalization of traditional governance.

Table A5 tests the the interaction of precolonial centralization and French and British colonial rule (Eq. (2)). The correlation between precolonial centralization and our TPI Index is almost exclusively driven by ethnic groups in former British, rather than French colonies. The coefficient v33 × British is slightly larger than estimated on the entire sample in Table A4 and statistically highly significant (Panel 2 in Figure 2). In former French colonies, the relationship between past levels of centralization and the TPI Index is estimated to be close to zero (Panel 3 in Figure 2). The difference between the two estimates (Panel 4 in Figure 2)is significant in the first three specifications but turns statistically insignificant once we add all control variables.

---

[6]Data on navigable rivers comes from Jedwab and Moradi (2016).

[7]These variables come from the FAO's (2015) GAEZ database. The cash crop suitability is calculated as the local max of soils' suitability for the production of the eight most prominent cash crops, in particular coffee, cotton, cocoa, groundnuts, oil palms, sugarcane, tea, and tobacco.

[8]This is a temperature-based index from Gething et al. (2011).

[9]Data from the Programme Against African Trypanosomosis (1999).

Table A4: Precolonial centralization and current TPI Index

	TPI Index			
	(1)	(2)	(3)	(4)
Precol. centralization (v33)	0.043***	0.040***	0.038***	0.036***
	(0.010)	(0.010)	(0.009)	(0.010)
Baseline covariates	no	yes	yes	yes
Ethnic covariates	no	no	yes	yes
Nature covariates	no	no	no	yes
Country (2016) FEs	yes	yes	yes	yes
Observations	566	566	566	566
Adjusted R^2	0.417	0.425	0.424	0.426

Notes: OLS models. Standard errors are clustered on the ethnic group level. Significance codes: *p<0.1; **p<0.05; ***p<0.01.

Table A5: Precolonial centralization and current TPIs in former British and French colonies

	TPI Index			
	(1)	(2)	(3)	(4)
British	0.166**	0.126*	0.137**	0.236***
	(0.069)	(0.069)	(0.067)	(0.080)
Precol. centr. (v33) × British	0.055***	0.052***	0.047***	0.042***
	(0.013)	(0.014)	(0.012)	(0.012)
Precol. centr. (v33) × French	0.018	0.010	0.010	0.011
	(0.016)	(0.017)	(0.018)	(0.018)
British-French Diff.:	0.037*	0.043**	0.037*	0.031
	(0.021)	(0.021)	(0.02)	(0.02)
Baseline covariates	no	yes	yes	yes
Ethnic covariates	no	no	yes	yes
Nature covariates	no	no	no	yes
Country (2016) FEs	yes	yes	yes	yes
Mean DV:	0.6	0.6	0.6	0.6
Observations	441	441	441	441
Adjusted R^2	0.440	0.451	0.449	0.460

Notes: OLS models. Standard errors are clustered on the ethnic group level. Significance codes: *p<0.1; **p<0.05; ***p<0.01.

In addition to greater continuity under British rule, the first coefficient, British, has a consistent positive sign. This suggests that former British rule is associated with generally more institutionalized traditional authorities of previously acephalous groups ("upgrading"). This estimate is however based only on variation from within today's Cameroon, the only country with areas colonized by the British and the French. The effect does not hold once we remove the country fixed effects (see subsection C.2). We, therefore, conclude that there is no robust evidence for generally higher levels of institutionalization of formerly decentralized traditional authorities in former British colonies.
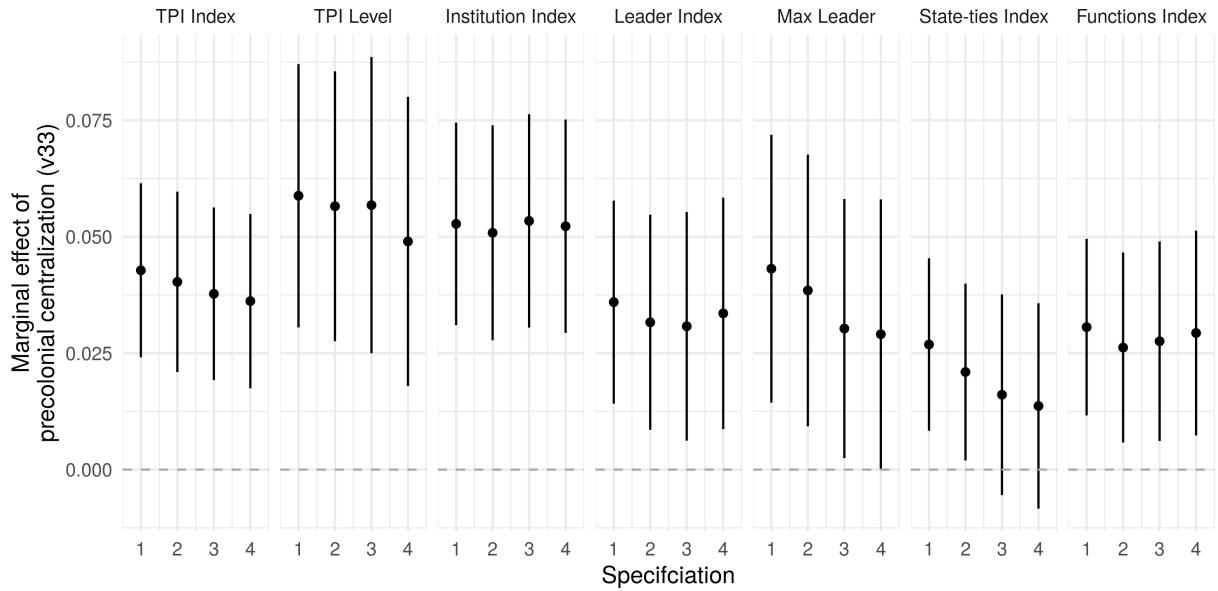
Figure A2: Effect of precolonial centralization (Murdock's v33) on all contemporary outcomes coded in TradGovGroups.

Note: Specifications 1 to 4 refer to the configurations of control variables that correspond to Models 1 to 4 in Table A4.

C Robustness checks

C.1 Disaggregating the TPI Index

The aggregate results on institutional persistence and the effect of British vs. French rule on institutional persistence can be qualified by looking at its relation to the single indicators on traditional institutions that are used to create the TPI Index. Figure A2 plots the respective estimates across colonies and Figure A3 plots the estimates differentiating between former British and French colonies. It emerges that British rule leads to a stronger correlation of past levels of centralization with the number of traditional institutions captured by the Institutions Index, the number and strength of ties between traditional authorities and the state (State-ties Index, as well as the extent of their functions and responsibilities (Functions Index). It is mostly in the realm of our measures of the number and existing hierarchy of contemporary traditional leaders that levels of persistence in former French and British colonies do not differ much from each other.

Figure A3: Effect of precolonial centralization (Murdock's v33) on all current outcomes in former British and French colonies.

Note: The four coefficients in each cluster correspond (from left to right) to Specifications 1 to 4 reported in Table A5.

C.2 No country fixed effects

Table A6: Precolonial centralization and current TPI Index: No fixed effects

	TPI Index			
	(1)	(2)	(3)	(4)
Precol. centralization (v33)	0.028***	0.031***	0.045***	0.051***
	(0.010)	(0.009)	(0.010)	(0.010)
Baseline covariates	no	yes	yes	yes
Ethnic covariates	no	no	yes	yes
Nature covariates	no	no	no	yes
Country (2016) FEs	no	no	no	no
Observations	566	566	566	566
Adjusted R^2	0.016	0.091	0.120	0.155

Notes: OLS models. Standard errors are clustered on the ethnic group level. Significance codes: *p<0.1; **p<0.05; ***p<0.01.

Table A7: Precolonial centralization and current TPIs in former British and French colonies

	TPI Index			
	(1)	(2)	(3)	(4)
Constant	0.588***	0.637***	0.610***	0.516**
	(0.026)	(0.128)	(0.125)	(0.218)
British	−0.076**	−0.058*	−0.041	−0.008
	(0.037)	(0.035)	(0.035)	(0.036)
Precol. centr. (v33) × British	0.067***	0.058***	0.066***	0.066***
	(0.014)	(0.014)	(0.013)	(0.013)
Precol. centr. (v33) × French	−0.016	0.003	0.026	0.025
	(0.016)	(0.015)	(0.016)	(0.017)
British-French Diff.:	0.083***	0.055***	0.04*	0.041**
	(0.021)	(0.021)	(0.021)	(0.021)
Baseline covariates	no	yes	yes	yes
Ethnic covariates	no	no	yes	yes
Nature covariates	no	no	no	yes
Country (2016) FEs	no	no	no	no
Mean DV:	0.6	0.6	0.6	0.6
Observations	441	441	441	441
Adjusted R^2	0.069	0.161	0.187	0.223

Notes: OLS models. Standard errors are clustered on the ethnic group level. Significance codes: *p<0.1; **p<0.05; ***p<0.01.

C.3 Full interactions with French vs. British rule

Table A8: Former British and French colonies: Full interactions

	TPI Index			
	(1)	(2)	(3)	(4)
British	0.166**	−0.081	−0.173	−0.871
	(0.069)	(0.288)	(0.290)	(0.620)
Precol. centr. (v33) × British	0.055***	0.049***	0.040***	0.040***
	(0.013)	(0.014)	(0.012)	(0.013)
Precol. centr. (v33) × French	0.018	0.016	0.012	0.008
	(0.016)	(0.017)	(0.019)	(0.019)
British-French Diff.:	0.037*	0.033	0.028	0.032
	(0.021)	(0.021)	(0.022)	(0.022)
Baseline × British covariates	no	yes	yes	yes
Ethnic × British covariates	no	no	yes	yes
Nature × British covariates	no	no	no	yes
Country (2016) FEs	yes	yes	yes	yes
Mean DV:	0.6	0.6	0.6	0.6
Observations	441	441	441	441
Adjusted R^2	0.440	0.453	0.457	0.456

Notes: OLS models. Standard errors are clustered on the ethnic group level. Significance codes: *p<0.1; **p<0.05; ***p<0.01.

C.4 Accounting for differential selection in former French and British colonies

A concern with our data could be that (1) non-matches between Murdock and the TradGov Groups and (2) missingness in the TradGov data lead to selection bias. It may be that missing matches and missing data are, in fact, an indication for institutional change–in the form of destruction and death of an institution—that we do not account for in our analysis. Importantly, we need to make sure that our findings that persistence is driven by groups in former British colonies is not based on differential selection into the sample and thus an artefact of selection bias. We analyse both selection stages separately below and then account for differential selection in an extension of our main analysis.

C.4.1 Selection stage

Our data allows us to partially assess the potential for bias due to missingness in the outcome variable. Two selection stages can introduce bias in our estimates. First, we consider missingness due to non-matches between Murdock the TradGov Groups dataset, and second, we take missing data within the TradGov Groups dataset into account.

After accounting for missing data on our covariates, the initial sample of Murdock groups from French and British colonies consists of 899 groups. This count includes groups that we split so that they are nested within country borders. After matching with the Tradgov Groups data, we are left with 524 observations. Note that while the non-matching rate appears to be high, the non-matches consist of many small groups, frequently split across country borders. Table A3 in Appendix A.3 shows that increases in the area and the logged population (in 1880) by 100% increases the chance of being matched by $4 - 5\%$, respectively.

The match between the Murdock and the TradGov Group data—described in Appendix A.3—can introduce bias if there is systematic missingness of groups in the population of the TradGov data as a result of groups not appearing in the baseline population provided by AMAR ([Birnir et al. 2014](#)) or due to the absence or non-response of experts on specific groups.

We empirically examine the selection into the sample in Table A9. The unit of analysis are all Murdock groups in French and British colonies and the outcome is a dummy variable indicating whether there is a match between the Murdock group and the TradGov group in the respective country. The interaction term v33 $\times$ British does not have an effect on the probability of being matched. Yet, the interaction term between v33 $\times$ French is negative and turns significant once we introduce control variables (Models 2–4). Hence, during the matching, we tend to drop centralized groups in former French colonies.

Table A9: Selection stage 1: Selection into sample of Murdock groups matched to TradGovGroups

| | Match of Murdock group with TradGov group | | | |
	(1)	(2)	(3)	(4)
British	−0.431***	−0.388***	−0.382***	−0.346***
	(0.118)	(0.118)	(0.120)	(0.124)
Precol. centr. (v33) × British	0.019	−0.003	−0.013	−0.014
	(0.022)	(0.021)	(0.023)	(0.024)
Precol. centr. (v33) × French	−0.038	−0.052**	−0.056**	−0.062**
	(0.028)	(0.026)	(0.027)	(0.027)
British-French Diff.:	0.058	0.049	0.042	0.048
	(0.034)	(0.033)	(0.034)	(0.035)
Baseline covariates	no	yes	yes	yes
Ethnic covariates	no	no	yes	yes
Nature covariates	no	no	no	yes
Country (2016) FEs	yes	yes	yes	yes
Mean DV:	0.58	0.58	0.58	0.58
Observations	899	899	899	896
Adjusted R^2	0.129	0.218	0.218	0.226

Notes: OLS models. Standard errors are clustered on the ethnic group level. Significance codes: *p<0.1; **p<0.05; ***p<0.01.

We continue with the second selection stage, which accounts for selection introduced by missing data in the TradGov groups dataset. The variables of interest for our study (the outcome of our main analysis, described in Appendix A.1.3) are conditional on a question that asks the expert whether "the *group X* in *country Y* currently has any form of traditional/ indigenous/ native organization?"[10] When experts answer that groups have no type of contemporary traditional organization, they did not receive any questions on the institutional set-up of the group, resulting in missing values in our data. Again, rather than being true missing values, they could indicate that the groups' institutions have been destroyed or vanished, i.e. being '0s'. We examine the correlates of such missingness by looking at all groups matched between Murdock and TradGov groups. The outcome variable in Table A10 is a dummy indicating whether the expert(s) answer that there is any type of traditional organization, which is true for 441 out of the 524 matched observations.

Again, we do not see any effect of the interaction term between v33 × British. In this case, we, however, observe a positive and significant effect v33 × French on the outcome that the groups has any traditional political organization, an estimate that has

---

[10]The following information was additionally provided: *"E.g. chiefs, elders, customary courts or rules and regulations such as customary land administration and customary jurisdiction. It might be the case that the group consists of several subgroups, families, clans or other smaller entities. Nevertheless, try to answer this question for the entire group. Furthermore, we do not consider non-governmental organizations, interest groups, or political parties as traditional authorities."*

the opposite sign of the finding in the previous table. Hence, less centralized groups in French colonies are more likely to have missing data than centralized groups.

Table A10: Selection stage 2: Selection into non-missing data on traditional institutions

	Any TPI			
	(1)	(2)	(3)	(4)
British	0.078**	0.084*	0.042	0.172**
	(0.037)	(0.044)	(0.049)	(0.067)
Precol. centr. (v33) × British	−0.017	−0.019	−0.014	−0.003
	(0.016)	(0.017)	(0.021)	(0.020)
Precol. centr. (v33) × French	0.053**	0.055**	0.061**	0.066***
	(0.025)	(0.025)	(0.024)	(0.023)
British-French Diff.:	−0.07***	−0.074***	−0.075***	−0.069***
	(0.03)	(0.03)	(0.031)	(0.028)
Baseline covariates	no	yes	yes	yes
Ethnic covariates	no	no	yes	yes
Nature covariates	no	no	no	yes
Country (2016) FEs	yes	yes	yes	yes
Mean DV:	0.9	0.9	0.9	0.91
Observations	524	524	524	521
Adjusted R^2	0.284	0.286	0.304	0.311

Notes: OLS models. Standard errors are clustered on the ethnic group level. Significance codes: *p<0.1; **p<0.05; ***p<0.01.

We combine the selection stages one and two in Table A11. Therefore, our outcome variable here is a dummy variable indicating whether the group is selected in stages one and two, i.e., is successfully matched and non-missing in the TradGov data. When combined, the interaction term v33 × French loses significance with a small point estimate. Because the selection effects cancel each other out, we no longer see any effects of the respective interaction terms across the two selection stages. Furthermore, there is no significant difference between French and British colonies.

Hence, our main independent variables of interest – the interactions between colonizer and precolonial centralization (v33) – do not significantly or differentially (in French and British colonies) impact on the selection of a group into our final dataset. Although in this context, small regression coefficients do not necessarily imply the absence of selection bias (Aronow, Baron and Pinson 2019), we take this result as evidence that the bias is likely to be small.

Table A11: Selection stage 1 + 2: Selection of Murdock groups into final sample

	Murdock group in final sample			
	(1)	(2)	(3)	(4)
British	−0.410***	−0.337***	−0.344***	−0.318**
	(0.118)	(0.117)	(0.117)	(0.124)
Precol. centr. (v33) × British	0.020	−0.004	−0.008	0.0005
	(0.022)	(0.021)	(0.024)	(0.026)
Precol. centr. (v33) × French	−0.009	−0.019	−0.020	−0.026
	(0.027)	(0.026)	(0.026)	(0.027)
British-French Diff.:	0.029	0.014	0.012	0.027
	(0.033)	(0.032)	(0.034)	(0.036)
Baseline covariates	no	yes	yes	yes
Ethnic covariates	no	no	yes	yes
Nature covariates	no	no	no	yes
Country (2016) FEs	yes	yes	yes	yes
Mean DV:	0.54	0.54	0.54	0.54
Observations	899	899	899	896
Adjusted R^2	0.141	0.221	0.221	0.219

Notes: OLS models. Standard errors are clustered on the ethnic group level. Significance codes: *p<0.1; **p<0.05; ***p<0.01.

C.4.2 Accounting for selection

We continue by accounting for selection in our main models. First, we do so by re-running our main analysis, weighting observations with their inverse probability to be selected into the final dataset, estimates with a logit model based on all independent variables used in our main analysis. The results (Table A12) here are very similar to our main results and additionally benefit from "double-robustness" (Wooldridge 2007).

Table A12: Former British vs. French colonies: Reweighting by estimated 'selection' probability

	TPI Index			
	(1)	(2)	(3)	(4)
British	0.134*	0.097	0.108	0.175*
	(0.072)	(0.075)	(0.074)	(0.096)
Precol. centr. (v33) × British	0.059***	0.057***	0.053***	0.048***
	(0.018)	(0.018)	(0.017)	(0.017)
Precol. centr. (v33) × French	0.022	0.013	0.013	0.014
	(0.015)	(0.016)	(0.017)	(0.016)
British-French Diff.:	0.037*	0.044*	0.041*	0.034
	(0.022)	(0.023)	(0.022)	(0.021)
Baseline covariates	no	yes	yes	yes
Ethnic covariates	no	no	yes	yes
Nature covariates	no	no	no	yes
Country (2016) FEs	yes	yes	yes	yes
Mean DV:	0.6	0.6	0.6	0.6
Observations	441	441	441	441
Adjusted R^2	0.372	0.378	0.375	0.379

Notes: OLS models. Standard errors are clustered on the ethnic group level. Significance codes: *p<0.1; **p<0.05; ***p<0.01.

In a second step, we test whether our main finding holds if all missings generated in both selection stages were, in fact, indicators of the *absence* of any institutions on the group level. Hence, in Table A13, we code the TPI Index for all missing groups in both selection stages as being zero. The results are broadly consistent with our main findings. The point estimate of v33 × British is slightly smaller compared to our main models, which is not surprising given the stark increase of zeros in the sample.

Table A13: Former British vs. French colonies: Recoding missing groups to zero

	TPI Index			
	(1)	(2)	(3)	(4)
British	−0.218**	−0.196**	−0.195**	−0.146
	(0.090)	(0.089)	(0.089)	(0.095)
Precol. centr. (v33) × British	0.055***	0.038**	0.032*	0.036**
	(0.016)	(0.016)	(0.017)	(0.018)
Precol. centr. (v33) × French	0.010	−0.0001	0.00004	−0.003
	(0.020)	(0.020)	(0.019)	(0.019)
British-French Diff.:	0.045*	0.038	0.032	0.04
	(0.024)	(0.024)	(0.025)	(0.026)
Baseline covariates	no	yes	yes	yes
Ethnic covariates	no	no	yes	yes
Nature covariates	no	no	no	yes
Country (2016) FEs	yes	yes	yes	yes
Mean DV:	0.31	0.31	0.31	0.31
Observations	855	855	855	852
Adjusted R^2	0.130	0.212	0.211	0.211

Notes: OLS models. Standard errors are clustered on the ethnic group level. Significance codes: *p<0.1; **p<0.05; ***p<0.01.

D   State-level Persistence

We use data on the constitutionalization of traditional institutions to assess the state-level persistence of policies integrating traditional institutions into their polities. The dataset codes a cross-section of current constitutions in July 2014 for all UN-Member states (Holzinger et al. 2019).

Constitutions were coded twice by independent coders and—in case of divergent coding—reconciled by a third. If official translations were not available in English, the coding was done in the original language, e.g., in Dutch, French, or Spanish. For countries with no codified constitutions, legal documents that are considered to have constitutional rank were used as the basis for coding.

From the raw dataset, we use three simple additive indices. The first index – Acknowledgment – is our main predictor and the underlying index for the two other measures. Acknowledgement codes the degree to which traditional bodies, leaders, customary law, and customary dispute resolution are acknowledged in the constitution. The second and third indices are narrower versions of acknowledgment, with different theoretical underpinnings. Regulation incorporates provisions that aim to regulate the relationship between the state and traditional institutions. These can be enabling or constraining, including official functions for traditional institutions that they can exercise in autonomy or in cooperation with the state, for instance in the judicature. Further-
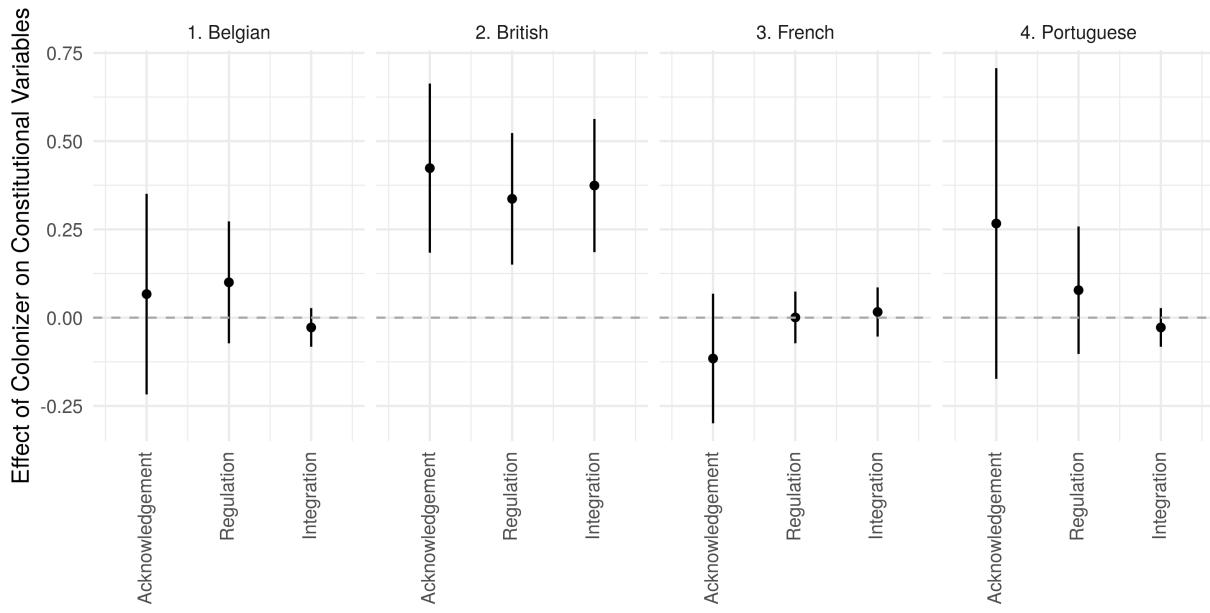
Figure A4: Correlations of colonizing power with the constitutionalization of TPIs.

Note: Coefficients with 95% CIs derived from a simple linear model without covariates where the baseline is no colonization.

more, it codes the presence of collision rules between customary law and state law, the prohibition of partisanship for traditional leaders, and the existence of official sanctions for traditional institutions. The third index – Integration – measures the degree to which traditional institutions are integrated and allowed to participate in the political apparatus of the state. For instance, some countries include houses of chiefs, as the Ntlo ya Dikgosi in Botswana that advises the parliament, or reserve seats in the state organs for traditional leaders, as in Zimbabwe, where 16 chiefs have a seat in the Senate.

E References

Aronow, Peter M, Jonathon Baron and Lauren Pinson. 2019. "A note on dropping experimental subjects who fail a manipulation check." *Political Analysis* 27(4):572–589.

Birnir, Jóhanna K, Jonathan Wilkenfeld, James D Fearon, David D Laitin, Ted Robert Gurr, Dawn Brancati, Stephen M Saideman, Amy Pate and Agatha S Hultquist. 2014. "Socially Relevant Ethnic Groups, Ethnic Structure, and AMAR." *Journal of Peace Research* 52(1):110–115.

FAO. 2015. "Global Agro-Ecological Zones: Crop Suitability Index." *Dataset, available online at: http://gaez.fao.org* .

Fearon, James D. 2006. *Ethnic Mobilisation and Ethnic Violence*. Oxford University Press pp. 852–868.

Fenske, James. 2013. "Does Land Abundance Explain African Institutions?" *The Economic Journal* 123(573):1363–1390.

Gething, Peter W., Thomas P. Van Boeckel, David L. Smith, Carlos A. Guerra, Anand P. Patil, Robert W. Snow and Simon I. Hay. 2011. "Modelling the global constraints of temperature on transmission of Plasmodium falciparum and P. vivax." *Parasites and Vectors* 4(1):92.

Goldewijk, Kees Klein, Arthur Beusen and Peter Janssen. 2010. "Long-term dynamic modeling of global population and built-up area in a spatially explicit way: HYDE 3.1." *The Holocene* 2010(1):1–9.

Holzinger, Katharina, Roos Haer, Axel Bayer, Daniela M Behr and Clara Neupert-Wentz. 2019. "The constitutionalization of indigenous group rights, traditional political institutions, and customary law." *Comparative Political Studies* 52(12):1775–1809.

Jedwab, Remi and Alexander Moradi. 2016. "The Permanent Effects of Transportation

Revolutions in Poor Countries: Evidence from Africa." *Review of Economics and Statistics* 98(2):268–284.

Lewis, M. Paul, ed. 2009. *Ethnologue: Languages of the world*. Vol. 16 SIL International Dallas, TX.

Müller-Crepon, Carl, Yannick I Pengl and Nils-Christian Bormann. 2019. "Linking Ethnic Data from Africa." *Unpublished Working Paper* .

Murdock, George Peter. 1959. *Africa. Its Peoples and Their Culture History.* McGraw-Hill.

Murdock, George Peter. 1969. *Ethnographic Atlas.* University of Pittsburgh Press.

Programme Against African Trypanosomosis. 1999. "Predicted areas of suitability for tsetse fly groups and species." *Accessed on 2019/01/19 from: http://www.fao.org/paat/resources/atlases/tsetse-and-aat/en/* .

Wooldridge, Jeffrey M. 2007. "Inverse probability weighted estimation for general missing data problems." *Journal of econometrics* 141(2):1281–1301.