# Online 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 | 605 | 0.599 | 0.214 | 0.000 | 1.000 |
| Centralization Index | 623 | 0.625 | 0.327 | 0.000 | 1.000 |
| Functions Index | 609 | 0.582 | 0.210 | 0.000 | 1.000 |
| TPI Level | 623 | 0.555 | 0.363 | 0.000 | 1.000 |
| Max Leader | 648 | 0.687 | 0.371 | 0.000 | 1.000 |
| Institution Index | 648 | 0.581 | 0.266 | 0.000 | 1.000 |
| Leader Index | 648 | 0.485 | 0.250 | 0.000 | 1.000 |
| State-ties Index | 609 | 0.784 | 0.220 | 0.000 | 1.000 |
| Functions Index | 629 | 0.679 | 0.222 | 0.000 | 1.000 |
| Jurisdictional Hierarchy (v33) | 1,152 | 1.374 | 1.016 | 0 | 3 |
| Population | 1,264 | 87,464.460 | 269,094.500 | 0.000 | 5,948,205.000 |
| Area | 1,264 | 2.040 | 3.973 | 0.010 | 43.779 |
| Distance to coast | 1,263 | 610.611 | 445.265 | 2.116 | 1,783.130 |
| Distance to nav. river | 1,263 | 280.882 | 416.975 | 1.190 | 2,335.461 |
| Reliance on agriculture | 1,218 | 2.460 | 2.039 | 0 | 9 |
| Reliance on pastoralism | 1,218 | 5.355 | 1.963 | 0 | 9 |
| Intensity of agriculture | 1,162 | 2.301 | 0.849 | 0 | 4 |
| Altitude | 1,264 | 617.128 | 445.834 | 5.000 | 2,808.345 |
| Ruggedness | 1,264 | 4.033 | 1.234 | 1.062 | 8.389 |
| Temperature | 1,264 | 24.464 | 3.266 | 7.550 | 30.011 |
| Evapotranspiration | 1,264 | 1,660.303 | 292.009 | 1,085.276 | 2,519.306 |
| Precipitation | 1,264 | 1,026.411 | 597.165 | 0.071 | 3,147.643 |
| Precipitation/Evapotr. | 1,264 | 4.017 | 1.654 | 1.000 | 8.000 |
| Agr. suitability | 1,254 | 0.323 | 0.246 | 0.000 | 0.985 |
| Cash crop suitability | 1,264 | 0.329 | 0.166 | 0.000 | 0.824 |
| Malaria environment | 1,264 | 0.582 | 0.202 | 0.00001 | 0.962 |
| Tsetse environment | 1,264 | 0.491 | 0.437 | 0.000 | 1.000 |

## A.1 Traditional Governance Group Dataset

### A.1.1 Unit of Analysis and Data Collection

For our measure of contemporary traditional institutions, we rely on the Traditional Governance Group (*TGG*) Dataset. The dataset is the result of a global online expert survey. Expert surveys are a frequently-used tool that allows for the systematic collection of data across a predefined set of observations. A prominent example of expert surveys data collection include the Ethnic Power Relations (EPR) data (Cederman et al. 2010) using a single expert per politically relevant ethnic group. Another example is the

Varieties of Democracy (V-Dem) Project, using multiple experts for each country who code information across time (Coppedge et al. 2020). Additionally, the Ethnographic Atlas by Murdock (1967) is a form of an expert survey – in this case, however, ethnic groups were coded on the basis of secondary sources from experts.

The universe of groups for the expert survey is mainly based on the All Minorities at Risk (AMAR) list of socially 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) publications, 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 academics, 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, organizations 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; 1967).

### A.1.2 Inter-coder Reliability and Data Aggregation

$1,122$ experts answered the survey for $746$ African groups. Averaging at $1.5$ experts per group, the number of experts per group ranges from 1 to 12. Here, we inspect

the inter-coder agreement.[22] We present direct measures of inter-coder agreement in Table A2 on the basis of Equation A.1. We set a 90% benchmark for agreement. For binary variables this means that if at least 90% of the experts for a single group agree—for instance, on the existence of a customary court—we count the group observation as agreement. Similarly, for the 3-point ordinal variable TPI Level, we treat each level as a binary variable and thus require for agreement that 90% must agree on a particular level. For the two 5-point ordinal variables, we define agreement as assessments that are at most one point away from each other (for instance, 90% of experts picking levels 4 or 5 for a particular group).

Formally, for binary variables, we report

$$\frac{1}{N} \sum_i \{ \mathbb{1}(\frac{1}{n_i} \sum_j Y_{ij} \geq 0.9 \vee \frac{1}{n_i} \sum_j Y_{ij} \leq 0.1) \}, \tag{A.1}$$

where $N$ is the number of groups, $i$ indexes groups, $n_i$ is the number of experts for group $i$, $Y_{ij}$ is the value of variable $Y$ for group $i$ according to expert $j$, and $\mathbb{1}$ is the indicator function. The formulae for the ordinal variables are defined accordingly.

Table A2 shows all variables used in our analyses and the percentage of groups where 90% of the experts agree as described above. Overall agreement always exceeds 80%, indicating high overall reliability between our experts.

In a second step, observations of groups with more than one expert rating were 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 compared information given by different experts for one group using additional comments

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[22]Note that inter-rater reliability statistics such as Cohen's kappa or Krippendorff's alpha are ill-suited for our data, due to the paradox of "high agreement but low reliability" (Feinstein and Cicchetti 1990; Cicchetti and Feinstein 1990). That is, in the case of highly skewed data (e.g., if a substantive part of the population has traditional institutions and many experts agree on their existence), such statistics may indicate low reliability when, in fact, the agreement among raters is high.

Table A2: Intercoder agreement

| Variable | Agreement |
|---|---|
| Any TPI | 95.44% |
| TPI Level (ordinal, 3 point) | 82.18% |
| TPI Level (ordinal, 5 point) | 90.83% |
| Council of elders | 82.23% |
| King's council | 90.57% |
| Assembly | 81.92% |
| Customary court | 81.92% |
| Customary law, rules, and norms | 81.92% |
| King | 88.99% |
| Chief | 85.06% |
| Headman or Bandleader | 85.38% |
| Judge | 84.43% |
| Healer | 80.97% |
| Spiritual leader | 82.08% |
| Formal recognition | 92.12% |
| Personal ties (ordinal, 5 point) | 90.3% |
| Interaction through (in)formal bodies | 91.77% |
| TPI function: Land | 87.29% |
| TPI function: Natural resource mgt | 83.73% |
| TPI function: Culture | 86.27% |
| TPI function: Family matters | 88.31% |
| TPI function: Dispute resolution | 94.07% |
| TPI function: Health | 82.2% |
| TPI function: Security | 82.71% |
| TPI function: Spiritual matters | 81.86% |
| TPI function: Infrastructure | 84.92% |
| N Experts | 0 |
| N Groups | 746 |

*Note*: Percentage of groups with at least 90% agreement between experts

by the experts provided in the comment section of the survey and triangulated this with additional information if necessary. 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 re-coded. 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 to allow for back-ward checking and will be published along with the *TGG* dataset.

### A.1.3 Variable Description

### 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.1.5   Items: Importance of Traditional Authorities

Daily Life: In your opinion, how important are these leaders, bodies, and rules of *group X* for the everyday life of the group members?

- Very important

- Quite important

- Moderately important

- Of little importance

- Not at all important

- I do not know

National Politics: In your opinion, how important are these leaders, bodies, and rules of *group X* for national politics in *country Y*? Very important

- Very important

- Quite important

- Moderately important

- Of little importance

- Not at all important

- I do not know

## A.2 Principal Component Analyses: TPI Index

Table A3: PCA of group-level traditional institutions indicators

| | Component | | | | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Summary statistics: | | | | | | |
|   Standard deviation | 1.747 | 1.051 | 0.878 | 0.651 | 0.605 | 0.531 |
|   Proportion of Variance | 0.509 | 0.184 | 0.129 | 0.071 | 0.061 | 0.047 |
|   Cumulative Proportion | 0.509 | 0.693 | 0.821 | 0.892 | 0.953 | 1.000 |
| Factor loadings: | | | | | | |
|   TPI Level | 0.407 | −0.435 | 0.292 | −0.623 | 0.274 | 0.311 |
|   Institution Index | 0.432 | −0.275 | 0.452 | 0.253 | −0.592 | −0.345 |
|   Leader Index | 0.451 | 0.399 | 0.044 | −0.038 | 0.516 | −0.606 |
|   Max Leader | 0.479 | 0.201 | 0.041 | 0.573 | 0.179 | 0.607 |
|   State-ties Index | 0.388 | 0.435 | −0.446 | −0.422 | −0.516 | 0.130 |
|   Functions Index | 0.253 | −0.589 | −0.713 | 0.200 | 0.103 | −0.176 |
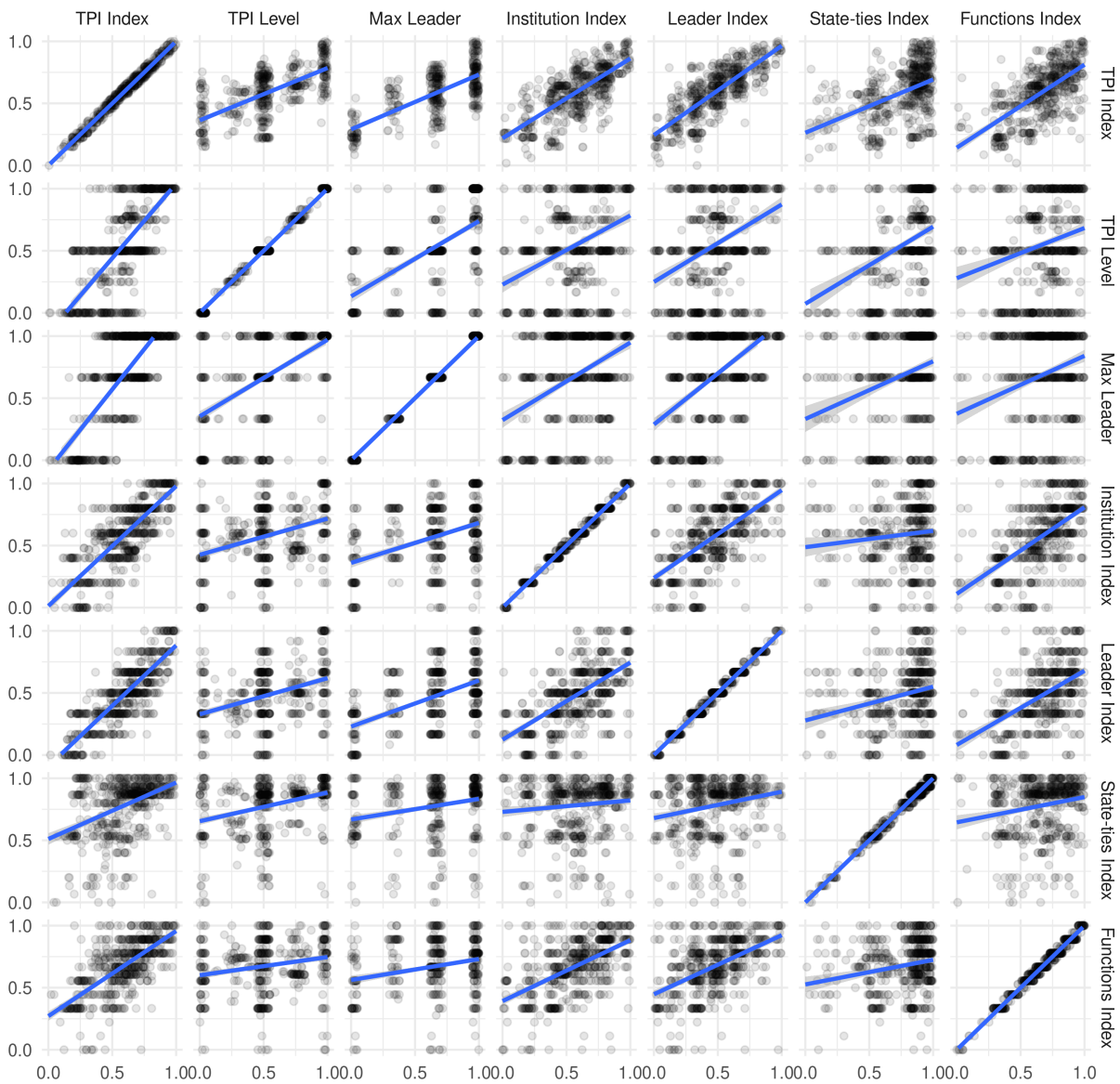
Figure A1: Correlations among the main group-level TPI variables.

## A.3 Linking the Murdock Atlas to Traditional Governance Groups Data (*TGG*)

We link the *TGG* 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 et al. (2020), our matching

procedure consists linking each ethnic group in the *TGG* and Murdock datasets with the list of languages provided by Ethnologue (Lewis 2009). In a second step, we link each group from the *TGG* and Murdock data if they have at least one language in common and are coded to be present in the same contemporary country.[23] The research project led by Müller-Crepon et al. (2020) provides the data on the links between Ethnologue and the Murdock and *TGG* 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 *TGG* data to a total of 731 (55.3%) groups enumerated by Murdock. As a result of the fact that Murdock and the *TGG* data enumerate ethnic groups in different manners, the resulting matching is many-to-many, that is, some *TGG* 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 *TGG* data that are linked to the same Murdock group. We do so by taking the average of the variables presented above.

Table A4 presents the results of a descriptive analysis of the attributes of Murdock groups that lack a link to the *TGG* data. The results show that small groups and those colonized by Portugal or Belgium are least likely to be associated with a counterpart in

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

the *TGG* data. Importantly, the probability of being matched is, if at all, only marginally higher for centralized groups.

Table A4: Covariates of successful link between Murdock and TradGovGroup data

|  | Matched Murdock Group (0/1) | | | | |
|---|---|---|---|---|---|
|  | (1) | (2) | (3) | (4) | (5) |
| Constant | 0.152* | 0.622*** | 0.531*** | 0.637*** | 0.152 |
|  | (0.084) | (0.022) | (0.025) | (0.046) | (0.106) |
| Population (1880; log) | 0.044*** |  |  |  | 0.050*** |
|  | (0.008) |  |  |  | (0.009) |
| Area (log) | 0.051*** |  |  |  | 0.054*** |
|  | (0.010) |  |  |  | (0.010) |
| Split (0/1) |  | −0.091*** |  |  | −0.013 |
|  |  | (0.028) |  |  | (0.030) |
| Jurisdictional Hierarchy (v33) |  |  | 0.028** |  | 0.004 |
|  |  |  | (0.014) |  | (0.014) |
| Belgian colony |  |  |  | −0.207*** | −0.239*** |
|  |  |  |  | (0.065) | (0.066) |
| British colony |  |  |  | −0.005 | 0.023 |
|  |  |  |  | (0.051) | (0.050) |
| French colony |  |  |  | −0.100* | −0.087* |
|  |  |  |  | (0.052) | (0.051) |
| Portuguese colony |  |  |  | −0.304*** | −0.281*** |
|  |  |  |  | (0.077) | (0.079) |
| Observations | 1,264 | 1,264 | 1,152 | 1,264 | 1,152 |
| Adjusted R$^2$ | 0.084 | 0.007 | 0.002 | 0.025 | 0.127 |

*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 et al. 2010), their area, their distance to the coast as well as to the closest navigable river.[24] These measures are all logged to reduce their right-skew.

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

**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 1967).

**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,[25] as well as the local disease environment regarding malaria[26] and the Tsetse fly.[27]

# B   Main results

Figure A2 shows the bivariate relationships between past institutions (v33) and the TPI Index, as well as its sub-indices Political Centralization and Functional Differentiation. Table A5 shows the estimates of Eq. (1) and is the basis of the first block in Figure 3 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 A6 tests the the interaction of precolonial centralization and French and British colonial rule (Eq. (2), Figure 5 in the main text). The correlation between precolonial

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[25]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.
[26]This is a temperature-based index from Gething et al. (2011).
[27]Data from the Programme Against African Trypanosomosis (1999).
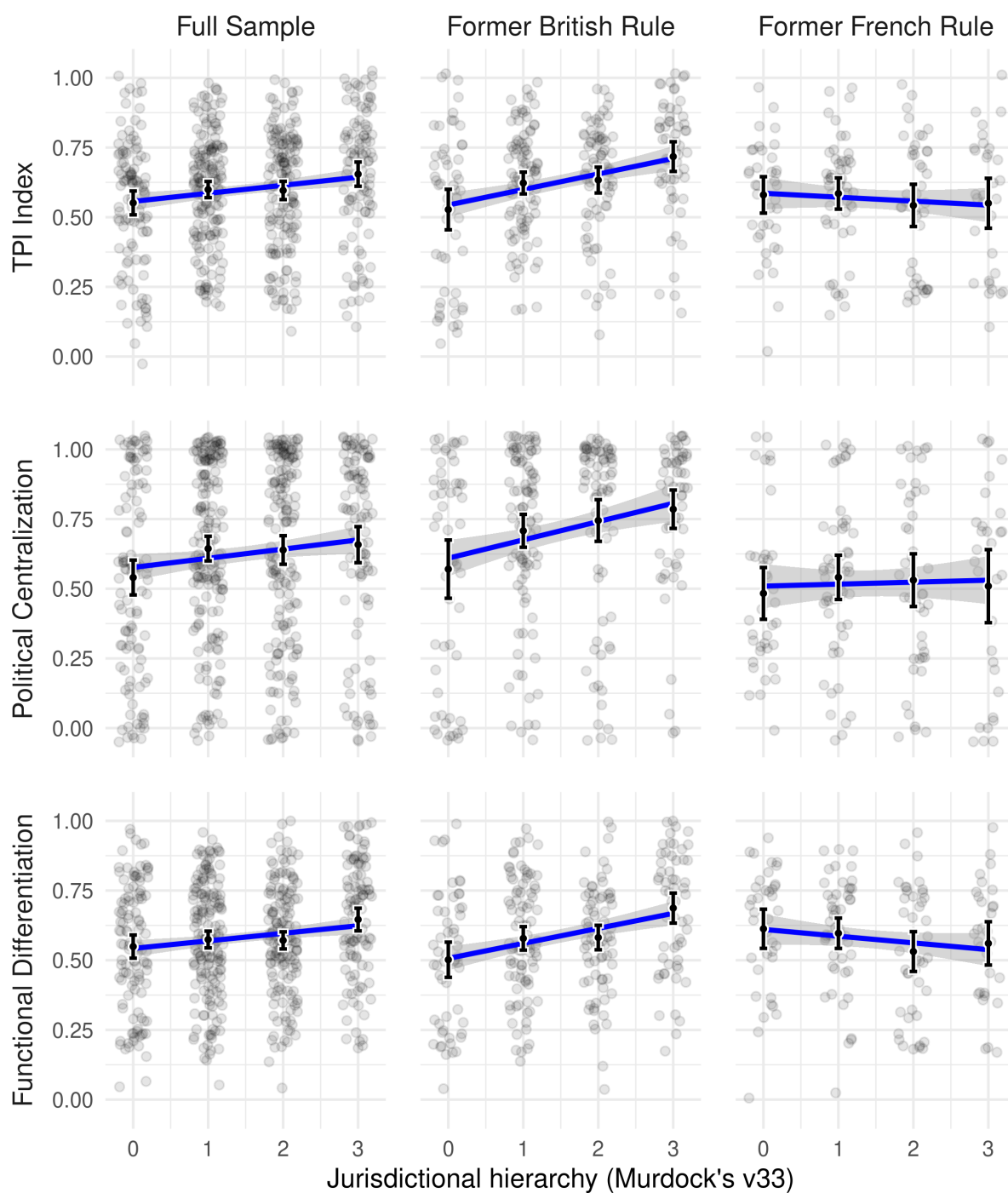
Figure A2: Correlation of precolonial centralization with the TPI, Centralization, and Functions Indices across all observations and groups in former British and French colonies only.

Note: Points show jittered observed values. Point estimates by level of precolonial centralization and linear correlation, both with 95% CIs.

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

Table A5: Jurisdictional hierarchy and current TPI Index

| | TPI Index | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Precol. centralization (v33) | 0.042*** | 0.039*** | 0.036*** | 0.034*** |
| | (0.010) | (0.010) | (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 | yes | yes | yes | yes |
| Observations | 553 | 553 | 553 | 553 |
| Adjusted R$^2$ | 0.423 | 0.438 | 0.436 | 0.439 |

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

Table A6: Jurisdictional hierarchy and current TPIs in former British and French colonies

| | TPI Index | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| British | 0.170** | 0.123* | 0.129** | 0.221*** |
| | (0.068) | (0.066) | (0.065) | (0.083) |
| Juris. hier. (v33) × British | 0.052*** | 0.048*** | 0.044*** | 0.039*** |
| | (0.013) | (0.013) | (0.012) | (0.012) |
| Juris. hier. (v33) × French | 0.017 | 0.007 | 0.009 | 0.008 |
| | (0.017) | (0.017) | (0.018) | (0.018) |
| British-French Diff.: | 0.035* | 0.041** | 0.036* | 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 | 443 | 443 | 443 | 443 |
| Adjusted R$^2$ | 0.465 | 0.485 | 0.482 | 0.494 |

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

estimated on the entire sample in Table A5 and statistically highly significant. In former French colonies, the relationship between past levels of centralization and the TPI Index is estimated to be close to zero. The difference between the two estimates is significant in the first three specifications but turns statistically insignificant once we add all control variables.

Table A7: Persistence in former British and French colonies: Splitting the TPI Index

| | Centralization Idx | | Functions Idx | |
|---|---|---|---|---|
| | *Dependent variable:* | | | |
| | (1) | (2) | (3) | (4) |
| British | 0.462*** | 0.393*** | 0.060 | 0.163* |
| | (0.076) | (0.090) | (0.078) | (0.092) |
| | | | | |
| Juris. hier. (v33) × British | 0.058*** | 0.033** | 0.050*** | 0.045*** |
| | (0.017) | (0.015) | (0.013) | (0.013) |
| | | | | |
| Juris. hier. (v33) × French | 0.032 | 0.029 | 0.011 | 0.001 |
| | (0.025) | (0.027) | (0.016) | (0.017) |
| | | | | |
| British-French Diff.: | 0.026 | 0.005 | 0.039** | 0.043** |
| | (0.03) | (0.029) | (0.02) | (0.02) |
| | | | | |
| Baseline covariates | no | yes | no | yes |
| Ethnic covariates | no | yes | no | yes |
| Nature covariates | no | yes | no | yes |
| Country (2016) FEs | yes | yes | yes | yes |
| Mean DV: | 0.64 | 0.64 | 0.58 | 0.58 |
| Observations | 458 | 458 | 445 | 445 |
| Adjusted $R^2$ | 0.537 | 0.562 | 0.342 | 0.383 |

*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.1). We, therefore, conclude that there is no robust evidence for generally higher levels of institutionalization of formerly decentralized traditional authorities in former British colonies.

# C   Robustness checks

## C.1   No country fixed effects

Table A8: Jurisdictional hierarchy and current TPI Index: No fixed effects

| | TPI Index | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Precol. centralization (v33) | 0.029*** | 0.035*** | 0.048*** | 0.053*** |
| | (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 | 553 | 553 | 553 | 553 |
| Adjusted $R^2$ | 0.017 | 0.100 | 0.128 | 0.160 |

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

Table A9: Jurisdictional hierarchy and current TPIs in former British and French colonies

| | TPI Index | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Constant | 0.586*** | 0.691*** | 0.646*** | 0.546** |
| | (0.026) | (0.119) | (0.119) | (0.220) |
| British | −0.042 | −0.032 | −0.011 | 0.028 |
| | (0.037) | (0.034) | (0.034) | (0.036) |
| Juris. hier. (v33) × British | 0.056*** | 0.051*** | 0.054*** | 0.056*** |
| | (0.014) | (0.013) | (0.013) | (0.013) |
| Juris. hier. (v33) × French | −0.014 | 0.011 | 0.030* | 0.030* |
| | (0.016) | (0.015) | (0.016) | (0.017) |
| British-French Diff.: | 0.07*** | 0.04** | 0.024 | 0.026 |
| | (0.021) | (0.02) | (0.02) | (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 | 443 | 443 | 443 | 443 |
| Adjusted $R^2$ | 0.055 | 0.167 | 0.186 | 0.215 |

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

## C.2 Full interactions with French vs. British rule

Table A10: Former British and French colonies: Full interactions

| | TPI Index | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| British | 0.170** | −0.452 | −0.493 | −1.103* |
| | (0.068) | (0.309) | (0.309) | (0.609) |
| | | | | |
| Juris. hier. (v33) × British | 0.052*** | 0.043*** | 0.036*** | 0.034*** |
| | (0.013) | (0.013) | (0.012) | (0.013) |
| | | | | |
| Juris. hier. (v33) × French | 0.017 | 0.015 | 0.010 | 0.003 |
| | (0.017) | (0.017) | (0.019) | (0.019) |
| | | | | |
| British-French Diff.: | 0.035* | 0.029 | 0.026 | 0.031 |
| | (0.021) | (0.02) | (0.021) | (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 | 443 | 443 | 443 | 443 |
| Adjusted R$^2$ | 0.465 | 0.492 | 0.494 | 0.497 |

*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 Excluding ties to the state

Table A11: TPI and Function Index w/out state ties

|  | Dependent variable: | | | |
|  | TPI Index | | Functional Differentiation | |
|  | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| British | 0.187** | 0.260*** | 0.091 | 0.207** |
|  | (0.075) | (0.092) | (0.083) | (0.095) |
| Juris. hier. (v33) × British | 0.055*** | 0.044*** | 0.046*** | 0.041*** |
|  | (0.014) | (0.013) | (0.013) | (0.013) |
| Juris. hier. (v33) × French | 0.022 | 0.018 | 0.018 | 0.014 |
|  | (0.017) | (0.018) | (0.015) | (0.016) |
| British-French Diff.: | 0.033 | 0.026 | 0.028 | 0.027 |
|  | (0.022) | (0.021) | (0.019) | (0.019) |
| Baseline covariates | no | yes | no | yes |
| Ethnic covariates | no | yes | no | yes |
| Nature covariates | no | yes | no | yes |
| Country (2016) FEs | yes | yes | yes | yes |
| Mean DV: | 0.56 | 0.56 | 0.58 | 0.58 |
| Observations | 458 | 458 | 462 | 462 |
| Adjusted $R^2$ | 0.466 | 0.497 | 0.327 | 0.365 |

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

## Table A12: Importance of traditional institutions

| | Dependent variable: | | | |
|---|---|---|---|---|
| | Daily life | | National politics | |
| | (1) | (2) | (3) | (4) |
| British | −0.007 | 0.016 | 0.264*** | 0.242*** |
| | (0.055) | (0.073) | (0.055) | (0.074) |
| | | | | |
| Juris. hier. (v33) × British | 0.024*** | 0.027*** | 0.020* | 0.015 |
| | (0.008) | (0.010) | (0.011) | (0.014) |
| | | | | |
| Juris. hier. (v33) × French | −0.019 | −0.019 | 0.019 | 0.019 |
| | (0.015) | (0.016) | (0.020) | (0.021) |
| | | | | |
| British-French Diff.: | 0.043*** | 0.045*** | 0.002 | −0.004 |
| | (0.017) | (0.018) | (0.023) | (0.025) |
| | | | | |
| Baseline covariates | no | yes | no | yes |
| Ethnic covariates | no | yes | no | yes |
| Nature covariates | no | yes | no | yes |
| Country (2016) FEs | yes | yes | yes | yes |
| Mean DV: | 0.82 | 0.82 | 0.7 | 0.7 |
| Observations | 450 | 450 | 441 | 441 |
| Adjusted $R^2$ | 0.148 | 0.177 | 0.309 | 0.329 |

*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 *TGG* and (2) missingness in the *TGG* 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 *TGG* dataset, and second, we take missing data within the *TGG* 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 *TGG* 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 A4 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 *TGG* data—described in Appendix A.3—can introduce bias if there is systematic missingness of groups in the population of the *TGG* 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 A13. 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 *TGG* in the respective country. The interaction term v33 × British does not have an effect on the probability of being matched. Yet, the interaction term between v33 × 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 A13: Selection stage 1: Selection into sample of Murdock groups matched to TradGovGroups

| | Match of Murdock group with TradGov group | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| Constant | 0.494*** | | | | |
| | (0.043) | | | | |
| British | 0.094* | −0.402*** | −0.392*** | −0.385*** | −0.393*** |
| | (0.056) | (0.133) | (0.132) | (0.135) | (0.137) |
| Juris. hier. (v33) × British | 0.037* | 0.025 | −0.0004 | −0.013 | −0.013 |
| | (0.021) | (0.022) | (0.021) | (0.023) | (0.024) |
| Juris. hier. (v33) × French | 0.018 | −0.040 | −0.053* | −0.059** | −0.060** |
| | (0.025) | (0.030) | (0.028) | (0.028) | (0.028) |
| British-French Diff.: | 0.019 | 0.065* | 0.053 | 0.046 | 0.047 |
| | (0.032) | (0.036) | (0.034) | (0.035) | (0.036) |
| Baseline covariates | no | no | yes | yes | yes |
| Ethnic covariates | no | no | no | yes | yes |
| Nature covariates | no | no | no | no | yes |
| Country (2016) FEs | no | yes | yes | yes | yes |
| Mean DV: | 0.59 | 0.59 | 0.59 | 0.59 | 0.59 |
| Observations | 898 | 898 | 898 | 898 | 895 |
| Adjusted $R^2$ | 0.016 | 0.121 | 0.216 | 0.218 | 0.224 |

*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 *TGG* dataset. The variables of interest for our study (see data section) 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?"[28] 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 the *EA* and the *TGG*. The outcome variable in Table A14 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 group has any traditional political organization, an estimate that has 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.

We combine the selection stages one and two in Table A15. 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 *TGG* 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

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[28]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."*

Table A14: Selection stage 2: Selection into non-missing data on traditional institutions

|  | Any TPI | | | |
|---|---|---|---|---|
|  | (1) | (2) | (3) | (4) |
| British | 0.077** | 0.082* | 0.038 | 0.174** |
|  | (0.037) | (0.045) | (0.049) | (0.068) |
| Juris. hier. (v33) × British | −0.016 | −0.019 | −0.013 | −0.002 |
|  | (0.016) | (0.017) | (0.021) | (0.019) |
| Juris. hier. (v33) × French | 0.054** | 0.055** | 0.061** | 0.067*** |
|  | (0.026) | (0.025) | (0.024) | (0.023) |
| British-French Diff.: | −0.071*** | −0.075*** | −0.074*** | −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 | 527 | 527 | 527 | 524 |
| Adjusted R$^2$ | 0.284 | 0.288 | 0.305 | 0.316 |

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

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 et al. 2019), we take this result as evidence that the bias is likely to be small.

### 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

Table A15: Selection stage 1 + 2: Selection of Murdock groups into final sample

| | Murdock group in final sample | | | |
| --- | --- | --- | --- | --- |
| | (1) | (2) | (3) | (4) |
| British | −0.380*** | −0.335** | −0.341*** | −0.355** |
| | (0.133) | (0.131) | (0.131) | (0.138) |
| | | | | |
| Juris. hier. (v33) × British | 0.025 | −0.002 | −0.007 | 0.001 |
| | (0.022) | (0.021) | (0.024) | (0.026) |
| | | | | |
| Juris. hier. (v33) × French | −0.009 | −0.018 | −0.022 | −0.025 |
| | (0.029) | (0.028) | (0.028) | (0.029) |
| | | | | |
| British-French Diff.: | 0.035 | 0.016 | 0.014 | 0.026 |
| | (0.035) | (0.034) | (0.036) | (0.037) |
| | | | | |
| 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 | 0.55 |
| Observations | 898 | 898 | 898 | 895 |
| Adjusted $R^2$ | 0.132 | 0.222 | 0.222 | 0.217 |

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

variables used in our main analysis. The results (Table A16) here are very similar to our main results and additionally benefit from "double-robustness" (Wooldridge 2007).

In a second step, we implement a cautious and somewhat extreme 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 A17, 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 A16: Former British vs. French colonies: Reweighting by estimated 'selection' probability

| | TPI Index | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| British | 0.128* | 0.067 | 0.082 | 0.141 |
| | (0.075) | (0.075) | (0.075) | (0.115) |
| Juris. hier. (v33) × British | 0.058*** | 0.041** | 0.035* | 0.031* |
| | (0.020) | (0.018) | (0.019) | (0.019) |
| Juris. hier. (v33) × French | 0.021 | 0.001 | −0.001 | −0.005 |
| | (0.015) | (0.017) | (0.018) | (0.018) |
| British-French Diff.: | 0.037 | 0.04* | 0.036 | 0.036 |
| | (0.025) | (0.023) | (0.022) | (0.022) |
| 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 | 443 | 443 | 443 | 443 |
| Adjusted R$^2$ | 0.335 | 0.409 | 0.406 | 0.431 |

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

Table A17: Former British vs. French colonies: Recoding missing groups to zero

| | TPI Index | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| British | −0.188* | −0.185* | −0.185* | −0.153 |
| | (0.103) | (0.101) | (0.101) | (0.108) |
| Juris. hier. (v33) × British | 0.059*** | 0.039** | 0.033* | 0.037** |
| | (0.016) | (0.016) | (0.017) | (0.018) |
| Juris. hier. (v33) × French | 0.011 | −0.001 | −0.002 | −0.004 |
| | (0.021) | (0.021) | (0.021) | (0.021) |
| British-French Diff.: | 0.048* | 0.04 | 0.035 | 0.041 |
| | (0.026) | (0.026) | (0.026) | (0.027) |
| 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 | 0.32 |
| Observations | 853 | 853 | 853 | 850 |
| Adjusted R$^2$ | 0.121 | 0.205 | 0.204 | 0.200 |

*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 constiutionalization 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. Furthermore, 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
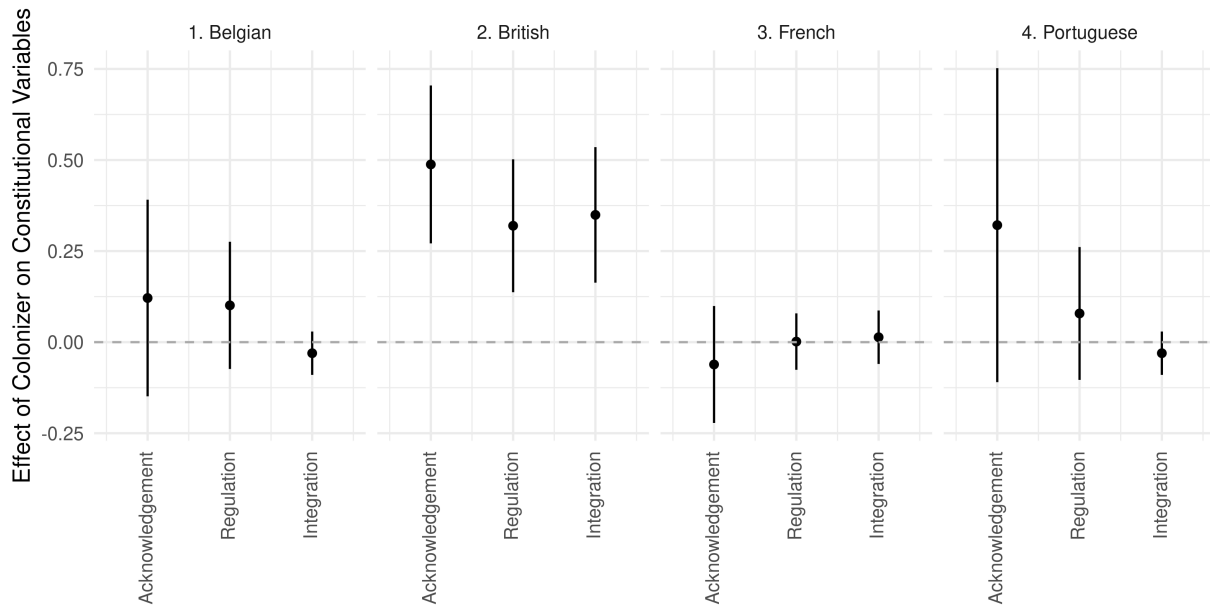
Figure A3: Correlations of colonizing power with the constitutionalization of TPIs.

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

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.

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