

Appendix for
UNDERSTANDING CULTURAL PERSISTENCE AND CHANGE

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A1. Introduction

This appendix accompanies “Understanding Cultural Persistence and Change” by Paola Giuliano and Nathan Nunn. Section A2 provides the details of the data used in the paper, as well as their sources. Sections A3 and A4 reports additional figures and tables that were referenced in the body of the paper, but not reported there.

A2. Data and their sources

A. *Dependent variables*

The individual-level data on respect for tradition are taken from the most recent two waves of the *World Values Survey* (WVS), which is a compilation of national surveys on values and norms on a wide variety of topics. The surveys contain information on different types of attitudes, religions and preferences, as well as information on standard demographic characteristics, such as sex, age, education, labor market status, and income. We use data from a question that asks about the respondent’s view on the importance of maintaining traditions and family customs. For the question, respondents are given the description of a person and then they are asked to report how

similar they are to the person. For this measure, the following description was used: "Tradition is important to this person; to follow the family customs handed down by one's religion or family." Respondents then choose the response that best described how similar this person/description was to them: (1) very much like me; (2) like me; (3) somewhat like me; (4) a little like me; (5) not like me; and (6) not at all like me. We recoded the question, so that it is increasing in the value placed on tradition (and ranges from 1 to 6).

Measures of female labor force participation, when measured at the country level, is from the World Bank's *World Development Indicators*. The variable is defined in the standard manner: the percentage of women aged 15–64 that are in the labor force. Thus, the measures range from 0–100. Although the data are available annually, our analysis uses measures from 1970 and from 2012.

For the within-country analysis, the measure of female labor force participation is taken from national Censuses, which are obtained from *IPUMS International*. We select all countries that report individual information about ethnicity and for which there is subnational variation in ethnicity. Each of the ethnicities from the Censuses are mapped to an ethnicity in the *Ethnographic Atlas*. For the case of Cambodia and the Philippines, there was no information about ethnicity and the mapping was done using information on the individual's mother tongue. The time periods available vary by country and are as follows: Belarus, 1999, Cambodia: 1998, 2008; Malaysia: 1970, 1980, 1991 and 2000; Nepal, 2001; Philippines, 1990; Sierra Leone, 2004; Uganda, 1991, 2002; Vietnam, 1989, 1999 and 2009.

We measure the prevalence of polygamy today using data from the *OECD Gender, Institutions and Development Database*. The variable is a country-level indicator that equals one if having more than one spouse is accepted or legal.

We measure the modern prevalence of consanguineous marriage using data taken from Schulz (2017). The variable is the proportion of all marriages in a country that are consanguineous; ranges from 0 to 100.

Information on marriage among second generation U.S. immigrants is taken from the March Supplement of the *Current Population Survey (CPS)*. This source is the only data source for the United States in which individuals are asked (starting from 1994) about their parents' country of birth. We pool data from eighteen years (1994–2014) to obtain the largest possible sample size. Inter-marriage is defined as an indicator variable that equals one if an individual's spouse has the same origin country. The spouse is coded as one if he/she was born in the origin country, or

if either the mother or father were born in the origin country.

Information about the language spoken at home is available from the 2000 Census. This Census does not report the country of origin of the parents. Instead, it records individuals' self-reported "ancestry". Our sample includes all individuals who were born in the United States and report a foreign ancestry. Thus, the sample only includes individuals who are second-generation immigrants or later. We define an indicator variable that equals one if a foreign language (i.e. a language other than English) is the primary language spoken at home. We exclude from the analysis countries for which English is an official language.

Our analysis of whether Native American ethnic groups speak English or their aboriginal language uses data from all U.S. Census years for the necessary data are available (1930, 1990, and 2000). The Censuses record the name of the tribe with which the person is connected, and asks the following question about language: "Does the person speak a language other than English at home?". Using this information, we calculate the fraction of Native Americans belonging to each ethnic group and living in a particular location that do not speak English at home.

For the analysis of Native Canadian populations, we use the 2001, 2006, and 2011 rounds of the *Census Aboriginal Population Profiles*, which are available from Statistics Canada. The data include all Indigenous populations that are living on a reserve or a legal land base. Statistics Canada collects information on the proportion of the population who: (i) have an Indigenous language as their mother tongue, (ii) have an Indigenous language spoken at home; and (iii) can conduct a conversation in at least one Indigenous language. Unlike the U.S. Census data, these data are not publicly available at the individual level.

B. *Historical control variables*

Historical economic development: the measure comes from variable *v30* of the *Ethnographic Atlas*. Each ethnic group is categorized into one of the following categories describing their pattern of settlement: (1) nomadic or fully migratory, (2) semi-nomadic, (3) semi-sedentary, (4) compact but temporary settlements, (5) neighborhoods of dispersed family homes, (6) separated hamlets forming a single community, (7) compact and relatively permanent, (8) complex settlements. The variable takes on the listed values of 1 to 8, with 1 indicating fully nomadic groups and 8 groups with complex settlement.

Political hierarchies: we use the number of jurisdictional hierarchies beyond the local community

to quantify the pre-industrial political sophistication of an ethnic group. The original measure, taken from variable *v33* of the *Ethnographic Atlas*, takes on the values of 1 to 5, with 1 indicating no levels of hierarchy beyond the local community and 5 indicating four levels. Since the local community represents one level of authority, we interpret the variable as measuring the total number of jurisdictional hierarchies in the society.

Year in which the ethnicity was sampled: we construct a measure indicating the average date of observation of ancestors in the *Ethnographic Atlas* in a country. This information is taken using the variable *v102* of the *Ethnographic Atlas*. This variable indicates the year in which the ethnicity was sampled.

Historical latitude: we construct a measure indicating the average historical distance from the equator of ancestors in a given country. This information is taken using the variable *v104* of the *Ethnographic Atlas*, which reports the latitude of the centroid of each ethnic group. We use the absolute value of the measure, which is the distance from the equator measured in decimal degrees.

C. Historical cultural characteristics

Historical female participation in agriculture: we measure traditional female participation during the pre-industrial period using variable *v54* from the *Ethnographic Atlas*. Ethnicities are categorized into one of the following five categories that measure the extent of female participation in pre-industrial agriculture: (1) males only, (2) males appreciably more, (3) equal participation, (4) female appreciably more, and (5) female only. The original classification in the *Ethnographic Atlas* distinguishes “differentiated but equal participation” from “equal participation”. Since this distinction is not relevant for our purposes, we combine the two categories into a single category of “equal participation”. For 232 ethnic groups, agriculture was not practiced and therefore there is no measure of female participation in agriculture. For an additional 315 ethnic groups, information for the variable is missing. These ethnic groups (547 in total) are omitted when constructing the country-level measure. To make the historical FLFP variable (which ranges from 1 to 5) comparable with the contemporary measure of FLFP, we normalize it so that the range of possible values is from 0–100.

Historical polygamy: we measure the traditional presence of polygamy using variable *v9* from the *Ethnographic Atlas*. The original coding in the *Ethnographic Atlas* uses the following classifi-

cation for marital practices: (1) independent nuclear monogamous, (2) polygyny, (3) preferential sororal living in the same dwelling, (4) preferential sororal living in a separate dwelling, (5) non-sororal living in separate dwelling, (6) non-sororal living in the same dwelling, (7) polyandry. Using this information, we create an indicator variable that equals one if an ethnic group is coded as belonging to category 2 or 7.

Historical consanguineous marriage: we measure the traditional presence of polygamy using variable *v25* from the Ethnographic Atlas. The original coding in the *Ethnographic Atlas* has 14 categories for different types of cousin marriage preference when cousin marriages are preferred to non-cousin marriage. The fifteenth category is for "No preferred cousin marriages". From variable *v25*, we create an indicator variable that equals zero if the ethnicity has "No preferred cousin marriages" and one if it has a preferred cousin marriage of any type.

D. Contemporary control variable

Natural log of real per capita GDP: the measure of the log of the per-capita GDP is taken from the World Bank's *World Development Indicators* and is measured in 2012.

E. Additional country-level covariates (from robustness checks)

Terrain ruggedness is measured using the terrain ruggedness index from Nunn and Puga (2012). The ethnic diversity measure is taken from Alesina, Devleeschauwer, Easterly, Kurlat and Wacziarg (2003). Genetic diversity is taken from Ashraf and Galor (2012). Data on generalized trust are taken from the *World Values Survey*. The measure is based on the following survey questions: "Generally speaking, would you say that most people can be trust or that you can't be too careful in dealing with people?" Respondents chose on the following answers: "most people can be trusted" or "cannot be too careful". We use this information to code and indicator variable that equals 1 if the respondent answers that "most people can be trusted" and 0 if he/she answers "cannot be too careful."

A3. Appendix Figures

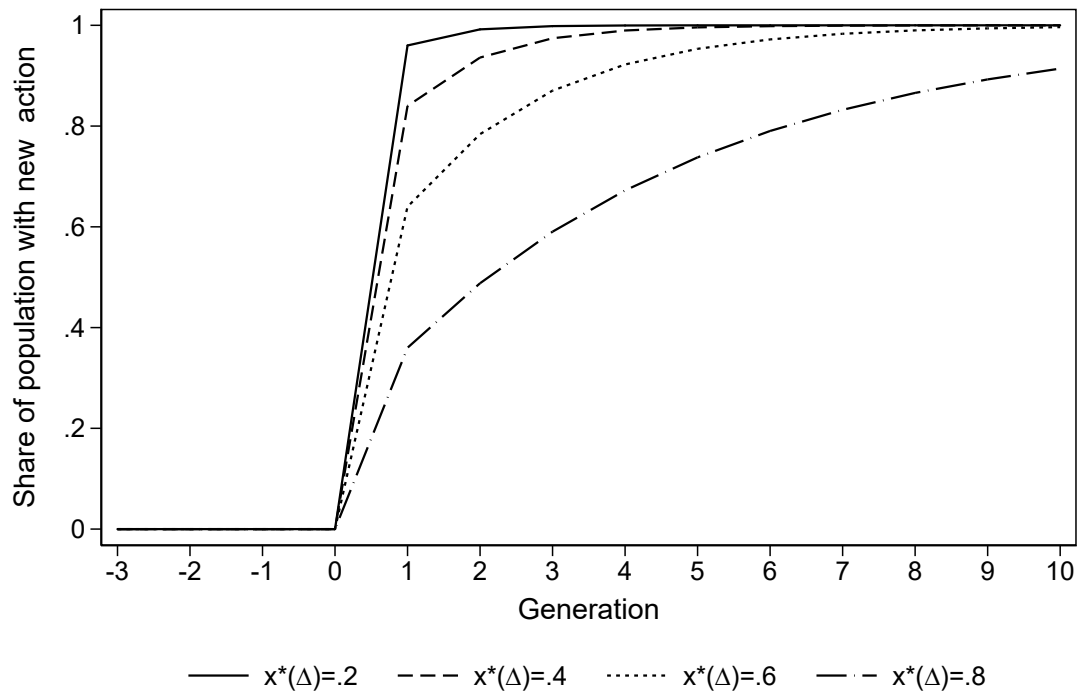


Figure A1: The share of the population choosing the new optimal action following a change in the state of the environment after generation 0. The figure shows paths for societies with different equilibrium proportions of traditionalists x^* , which arises due to different levels of environmental instability Δ .

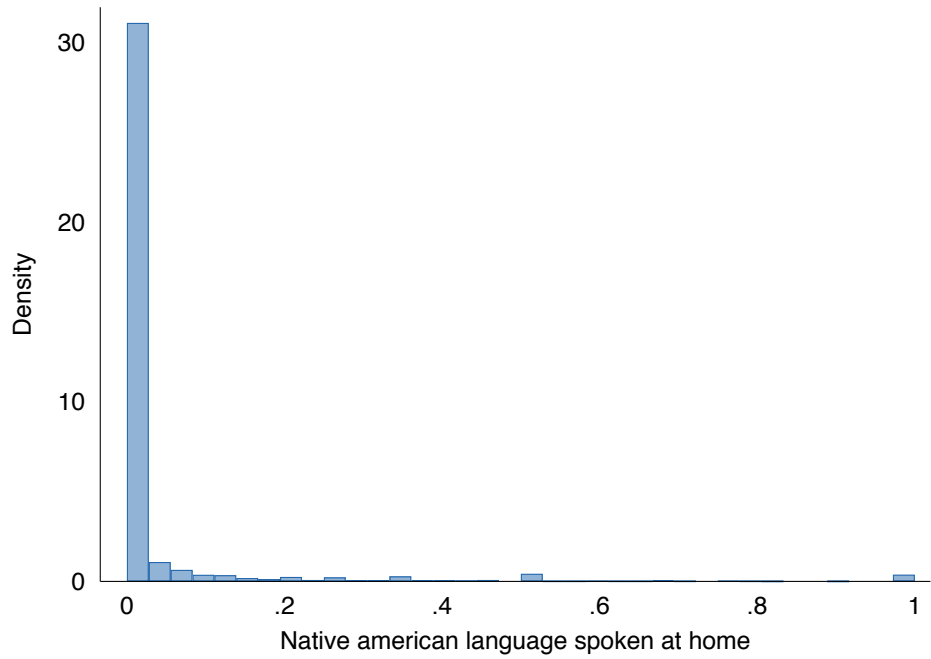


Figure A2: Native language spoken at home. U.S. indigenous populations

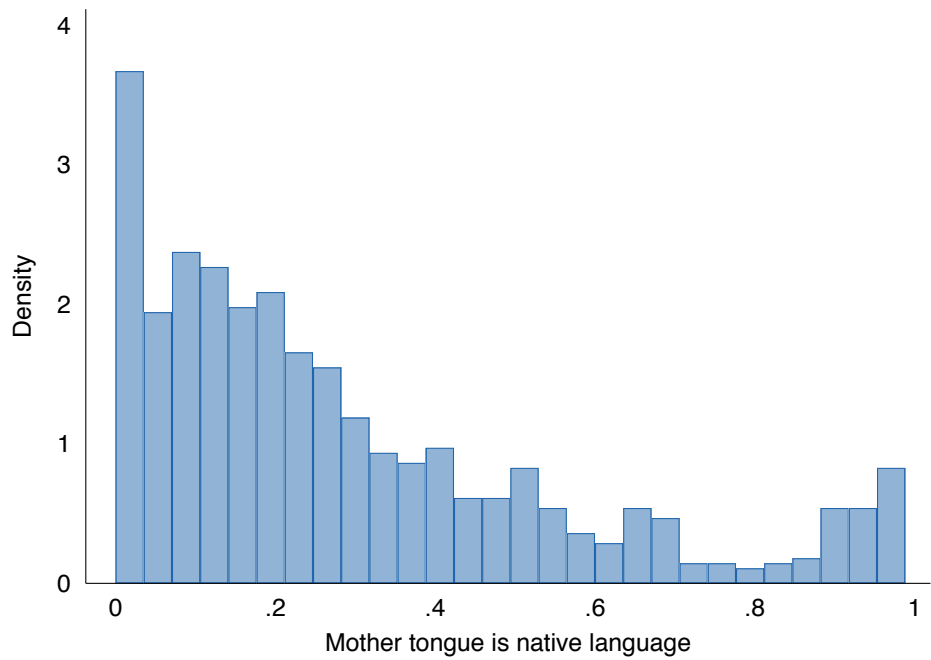


Figure A3: Mother tongue is an indigenous language. Canadian indigenous populations

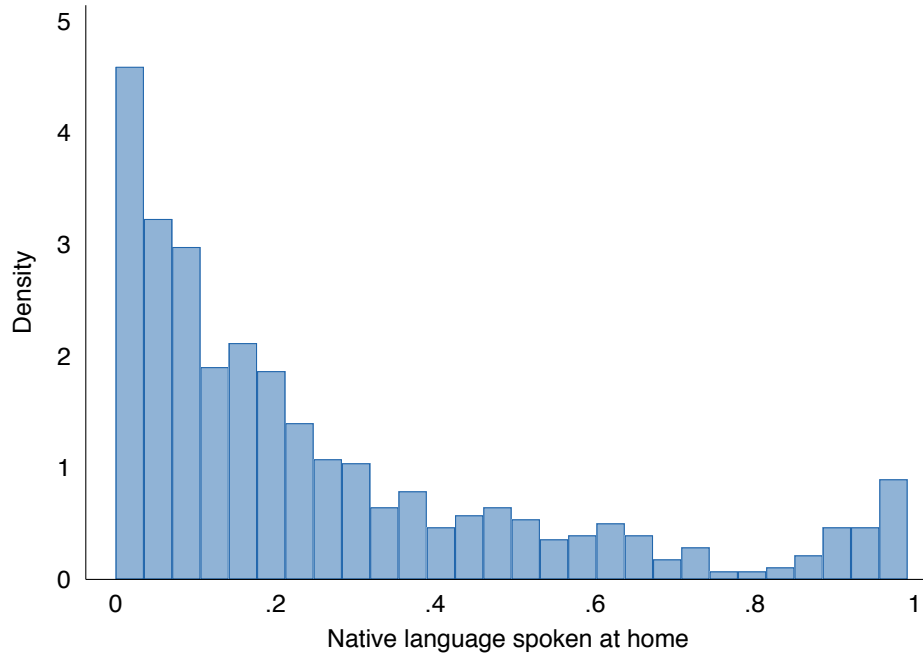


Figure A4: Indigenous language spoken at home. Canadian indigenous populations

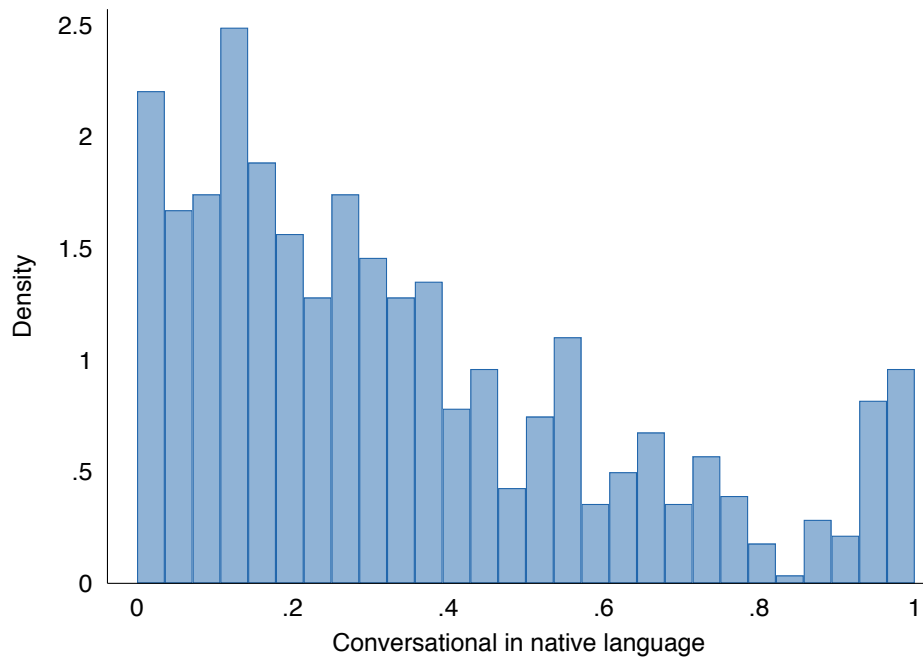


Figure A5: Conversational in indigenous language. Canadian indigenous populations

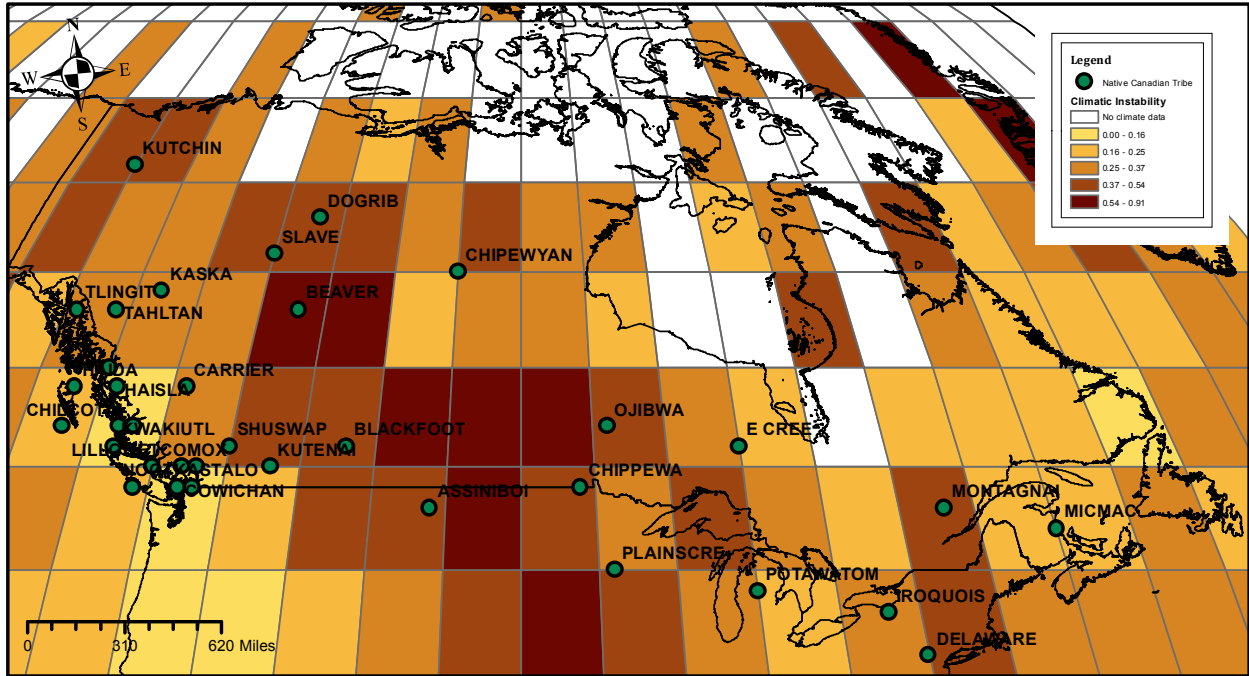


Figure A6: Ancestral climatic instability (using Mann et al. (2009)) and the location of Native Canadian populations in the *Ethnographic Atlas* and in the *Canadian Aboriginal Census*.

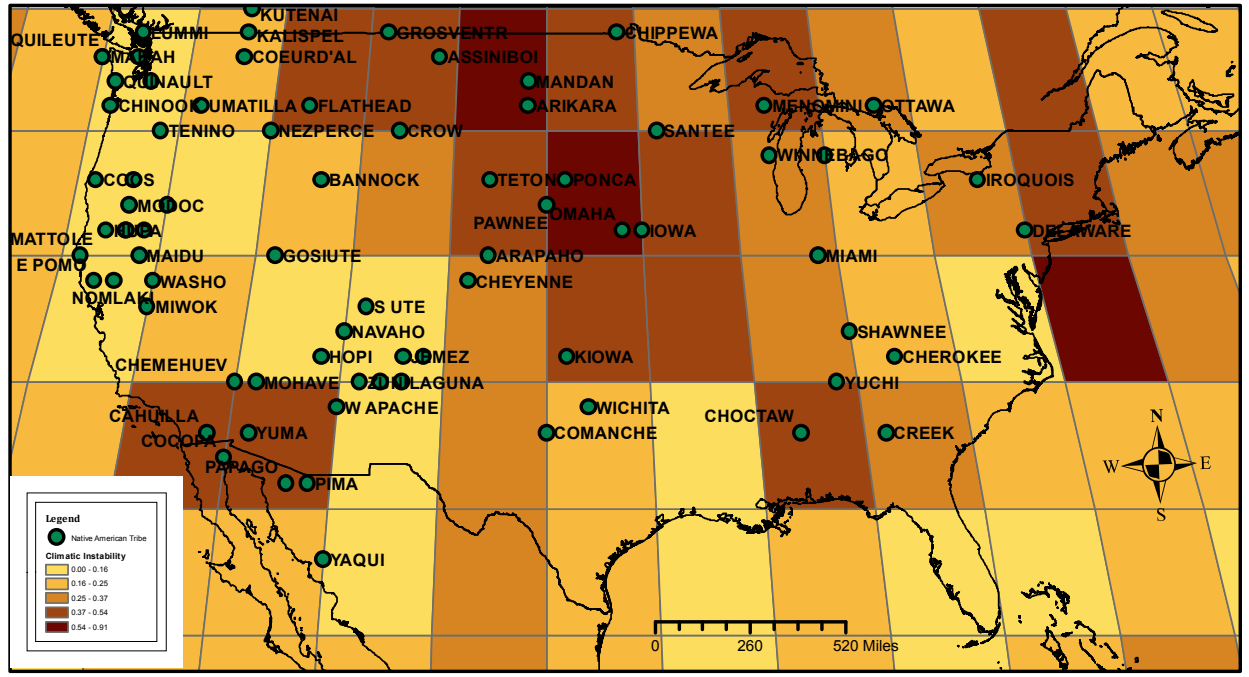


Figure A7: Ancestral climatic instability (using Mann et al. (2009)) and the location of Native American populations in the *Ethnographic Atlas* and in the *U.S. Census*

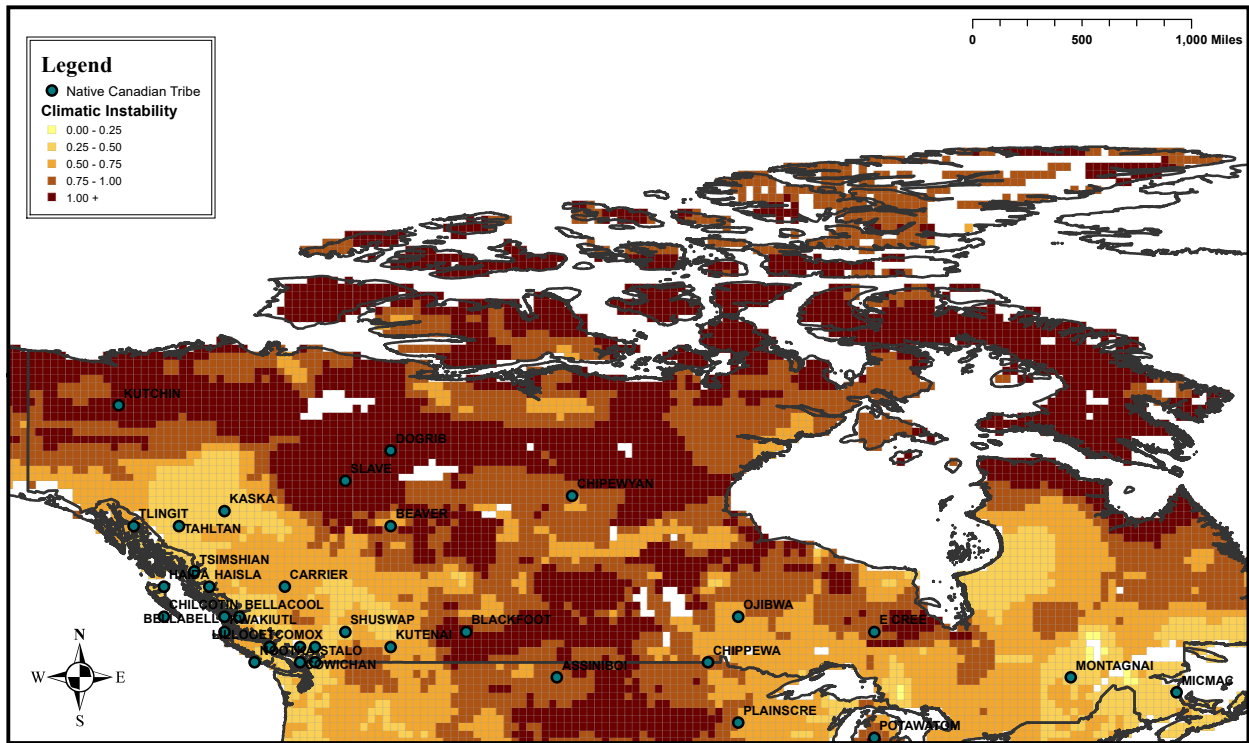


Figure A8: Ancestral climatic instability (using Cook et al. (2010) / PDSI) and the location of Native Canadian populations in the *Ethnographic Atlas* and in the *Canadian Aboriginal Census*.

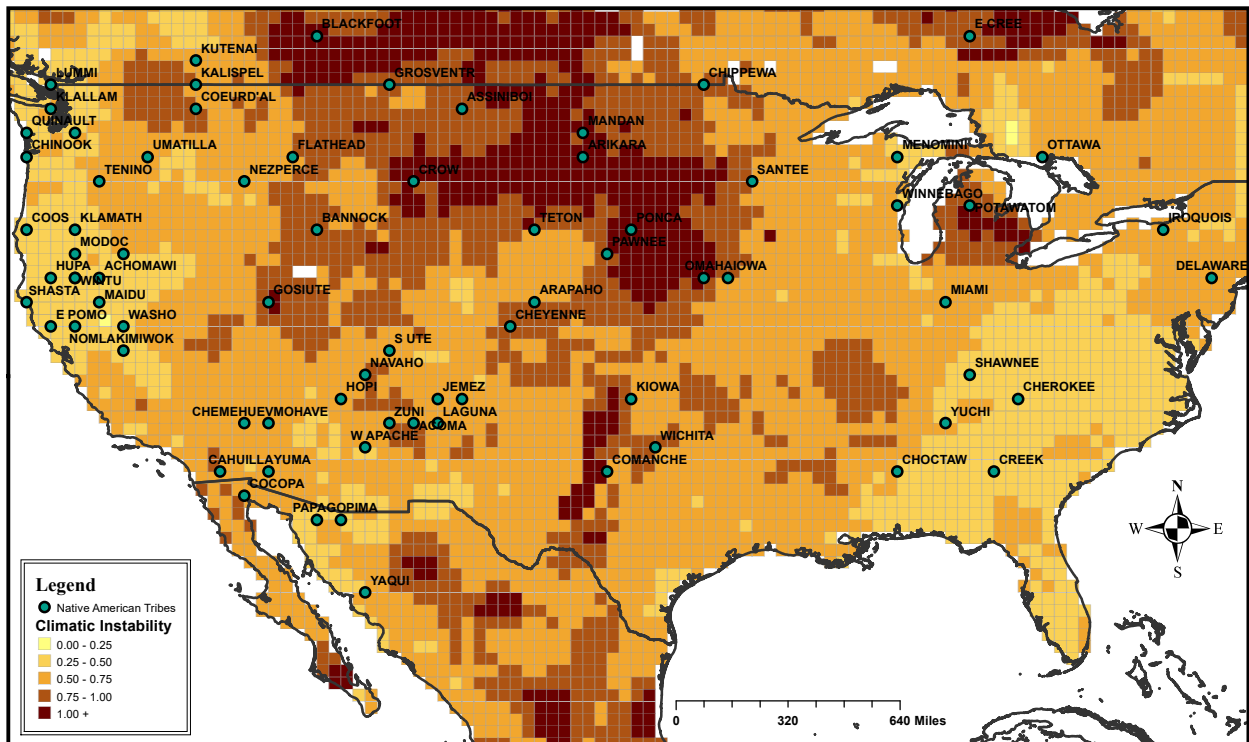


Figure A9: Ancestral climatic instability (using Cook et al. (2010) / PDSI) and the location of Native American populations in the *Ethnographic Atlas* and in the U.S. Census

A4. Appendix Tables

Table A1: Descriptive statistics, part 1

Variable	Obs.	Mean	St. Dev.	Variable	Obs.	Mean	St. Dev.
<i>Women marrying men from the same country, CPS 1994-2014</i>				<i>Speaking a foreign language at home, 2000 Census</i>			
Mother's side				immigrants from same country of origin			
Same country marriage	34,045	0.317	0.465	Same country marriage	3,343,097	0.124	0.330
Climatic instability	34,045	0.291	0.088	Climatic instability	3,343,097	0.324	0.072
Distance from the equator	34,045	40.433	10.249	Distance from the equator	3,343,097	47.485	7.426
Economic complexity	34,045	7.147	0.423	Economic complexity	3,343,097	7.142	0.394
Political hierarchies	34,045	3.927	0.498	Political hierarchies	3,343,097	3.995	0.261
Ln (per capita GDP)	34,045	9.968	0.652	Ln (per capita GDP)	3,343,097	10.014	0.837
Genetic distance from the US	34,045	0.472	0.578	Genetic distance from the US	3,343,097	0.168	0.382
Fraction of first and second gen.	34,045	0.032	0.056	Fraction of first and second gen.	3,343,097	0.089	0.094
<i>Men marrying women from the same country, CPS 1994-2014</i>				<i>Traditional language spoken by indigenous population in the United States</i>			
Father's side				Trad. lang. spoken by indigenous pop. in the US and Canada, pooled regressions			
Same country marriage	38,419	0.281	0.449	United States			
Climatic instability	38,419	0.294	0.090	Native language spoken	128,005	0.182	0.386
Distance from the equator	38,419	41.113	10.124	Climatic instability	128,005	0.270	0.108
Economic complexity	38,419	7.170	0.460	Climatic instability (PDSI)	127,986	0.584	0.206
Political hierarchies	38,419	3.947	0.500	Annual standard deviation (PDSI)	127,986	1.891	0.534
Ln (per capita GDP)	38,419	9.985	0.649	Climatic instability of annual SD (PDSI)	127,986	0.346	0.117
Genetic distance from the US	38,419	0.430	0.563	Distance from the equator	128,005	38.666	6.158
Fraction of first and second gen.	38,419	0.031	0.056	Economic complexity	128,005	4.683	2.188
immigrants from same country of origin				Political hierarchies			
Mother's side				Canada			
Same country marriage	35,639	0.287	0.452	Native language spoken	546	0.253	0.256
Climatic instability	35,639	0.298	0.089	Climatic instability	546	0.357	0.121
Distance from the equator	35,639	41.348	10.037	Climatic instability (PDSI)	411	0.662	0.205
Economic complexity	35,639	7.175	0.433	Annual standard deviation (PDSI)	411	1.903	0.359
Political hierarchies	35,639	3.947	0.484	Climatic instability of annual SD (PDSI)	411	0.393	0.091
Ln (per capita GDP)	35,639	10.015	0.636	Distance from the equator	546	51.172	4.953
Genetic distance from the US	35,639	0.423	0.563	Economic complexity	546	2.144	1.030
Fraction of first and second gen.	35,639	0.029	0.054	Political hierarchies	546	1.484	0.504
immigrants from same country of origin							

Table A2: Descriptive statistics, part 2

Variable	Obs.	Mean	St. Dev.	Variable	Obs.	Mean	St. Dev.
<i>Women marrying men from the same country, CPS 1994-2014</i>				<i>Speaking a foreign language at home, 2000 Census</i>			
Mother's side				Same country marriage	3,343,097	0.124	0.330
Same country marriage	34,045	0.317	0.465	Climatic instability	3,343,097	0.324	0.072
Climatic instability	34,045	0.291	0.088	Distance from the equator	3,343,097	47.485	7.426
Distance from the equator	34,045	40.433	10.249	Economic complexity	3,343,097	7.142	0.394
Economic complexity	34,045	7.147	0.423	Political hierarchies	3,343,097	3.995	0.261
Political hierarchies	34,045	3.927	0.498	Ln (per capita GDP)	3,343,097	10.014	0.837
Ln (per capita GDP)	34,045	9.968	0.652	Genetic distance from the US	3,343,097	0.168	0.382
Genetic distance from the US	34,045	0.472	0.578	Fraction of first and second gen. immigrants from same country of origin	3,343,097	0.089	0.094
Fraction of first and second gen. immigrants from same country of origin	34,045	0.032	0.056	<i>Traditional language spoken by indigenous population in the United States</i>			
<i>Men marrying women from the same country, CPS 1994-2014</i>				Native language spoken	128,005	0.182	0.386
Father's side				Climatic instability	128,005	0.270	0.108
Same country marriage	38,419	0.281	0.449	Climatic instability (PDSI)	127,986	0.584	0.206
Climatic instability	38,419	0.294	0.090	Annual standard deviation (PDSI)	127,986	1.891	0.534
Distance from the equator	38,419	41.113	10.124	Climatic instability of annual SD (PDSI)	127,986	0.346	0.117
Economic complexity	38,419	7.170	0.460	Distance from the equator	128,005	38.666	6.158
Political hierarchies	38,419	3.947	0.500	Economic complexity	128,005	4.683	2.188
Ln (per capita GDP)	38,419	9.985	0.649	Political hierarchies	128,005	1.904	0.930
Genetic distance from the US	38,419	0.430	0.563	<i>Trad. lang. spoken by indigenous pop. in the US and Canada, pooled regressions</i>			
Fraction of first and second gen. immigrants from same country of origin	38,419	0.031	0.056	United States			
Mother's side				Native language spoken	3,564	0.039	0.144
Same country marriage	35,639	0.287	0.452	Climatic instability	3,564	0.296	0.106
Climatic instability	35,639	0.298	0.089	Climatic instability (PDSI)	3,420	0.663	0.258
Distance from the equator	35,639	41.348	10.037	Annual standard deviation (PDSI)	3,420	1.992	0.487
Economic complexity	35,639	7.175	0.433	Climatic instability of annual SD (PDSI)	3,420	0.386	0.123
Political hierarchies	35,639	3.947	0.484	Distance from the equator	3,564	40.086	7.429
Ln (per capita GDP)	35,639	10.015	0.636	Economic complexity	3,564	4.295	2.385
Genetic distance from the US	35,639	0.423	0.563	Political hierarchies	3,564	1.803	0.869
Fraction of first and second gen. immigrants from same country of origin	35,639	0.029	0.054	Canada			
				Indigenous language mother tongue	546	0.288	0.252
				Indigenous language spoken at home	546	0.253	0.256
				Conversational in indigenous language	546	0.340	0.261
				Climatic instability	546	0.357	0.121
				Climatic instability (PDSI)	411	0.662	0.205
				Annual standard deviation (PDSI)	411	1.903	0.359
				Climatic instability of annual SD (PDSI)	411	0.393	0.091
				Distance from the equator	546	51.172	4.953
				Economic complexity	546	2.144	1.030
				Political hierarchies	546	1.484	0.504

Table A3: Importance of tradition, World Values Survey, robustness to an alternative measure of climatic instability

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable: Importance of tradition, 1-6						
Ancestral characteristics measures						
	Original EA	With Eastern Europe & Siberia extensions		Also with the World Ethnographic Sample extension		
Climatic Instability:	-0.543***	-0.485***	-0.540***	-0.474***	-0.598***	-0.521***
Change in temperature, 1901-2000	(0.194)	(0.174)	(0.195)	(0.177)	(0.195)	(0.183)
Historical controls:						
Distance from equator		-0.002 (0.004)		-0.002 (0.004)		-0.001 (0.004)
Economic complexity		-0.100*** (0.033)		-0.093*** (0.033)		-0.096*** (0.032)
Political hierarchies		0.047 (0.089)		0.029 (0.088)		0.043 (0.101)
Contemporary controls:						
Ln (per-capita GDP)		-0.128** (0.052)		-0.129** (0.053)		-0.119** (0.055)
Mean (st. dev.) of dep var	4.51 (0.55)	4.51 (0.55)	4.51 (0.55)	4.51 (0.55)	4.51 (0.55)	4.51 (0.55)
Observations	76	75	76	75	76	75
R-squared	0.108	0.359	0.106	0.352	0.129	0.361

Notes: The unit of observation is a country. The dependent variable is the country-level average of the self-reported importance of tradition. The Climatic instability measure used is the change in average temperature between 2000 and 1901 i.e., temperature in 2000 minus temperature in 1901, measured in degrees Celsius. The mean (and standard deviation) of the variable is 0.69 (0.33). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A4: Importance of tradition using the World Values Survey and excluding North and South America, Australia, New Zealand, and South Africa

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent Variable: Importance of Tradition, 1-6					
	Ancestral Characteristics Measures					
	Original EA	With Eastern Europe & Siberia Extension		Also with the World Ethnographic Sample Extension		
Climatic instability	-1.836***	-2.035**	-1.819***	-2.074**	-1.733***	-1.983**
	(0.582)	(0.790)	(0.562)	(0.783)	(0.524)	(0.750)
Historical controls:						
Distance from equator		0.008		0.008		0.008
		(0.006)		(0.006)		(0.006)
Economic complexity		-0.065*		-0.061		-0.059*
		(0.037)		(0.037)		(0.035)
Political hierarchies		-0.031		-0.040		-0.046
		(0.109)		(0.106)		(0.121)
Contemporary controls:						
Ln (per capita GDP)		-0.162***		-0.164***		-0.164***
		(0.051)		(0.051)		(0.053)
Mean (st. dev.) of dep var	4.56 (0.57)	4.56 (0.57)	4.56 (0.57)	4.56 (0.57)	4.56 (0.57)	4.56 (0.57)
Observations	63	62	63	62	63	62
R-squared	0.132	0.369	0.134	0.369	0.130	0.363

Notes : The unit of observation is a country. The dependent variable is the average at the country level of a measure of the self-reported importance of tradition. The mean and st. dev. of Climatic instability is 0.25 (0.11). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A5: Importance of tradition using the World Values Survey, dropping countries with more than 25 percent nomadic population

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent Variable: Importance of Tradition, 1-6					
	Ancestral Characteristics Measures					
	Original EA	With Eastern Europe & Siberia Extension		Also with the World Ethnographic Sample Extension		
Climatic instability	-1.927*** (0.546)	-1.827** (0.715)	-1.899*** (0.527)	-1.866** (0.715)	-1.812*** (0.497)	-1.790** (0.687)
Historical controls:						
Distance from equator		0.005 (0.005)		0.006 (0.005)		0.006 (0.005)
Economic complexity		-0.062 (0.048)		-0.056 (0.047)		-0.055 (0.043)
Political hierarchies		0.021 (0.101)		0.009 (0.099)		0.010 (0.112)
Contemporary controls:						
Ln (per capita GDP)		-0.166*** (0.048)		-0.168*** (0.049)		-0.167*** (0.051)
Mean (st. dev.) of dep var	4.50 (0.55)	4.50 (0.55)	4.50 (0.55)	4.50 (0.55)	4.50 (0.55)	4.50 (0.55)
Observations	73	72	73	72	73	72
R-squared	0.146	0.371	0.147	0.370	0.142	0.366

Notes: The unit of observation is a country. The dependent variable is the average at the country level of a measure of the self-reported importance of tradition. The mean and st. dev. of Climatic Instability is 0.26 (0.11). The countries whose nomadic population is higher or equal to 25% are Algeria and Azerbaijan. ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A6: Importance of tradition using the World Values Survey, dropping countries with more than 25 percent nomadic or semi-nomadic population

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent Variable: Importance of Tradition, 1-6					
	Ancestral Characteristics Measures					
	Original EA	With Eastern Europe & Siberia Extension		Also with the World Ethnographic Sample Extension		
Climatic instability	-1.989*** (0.537)	-1.788** (0.757)	-1.956*** (0.518)	-1.824** (0.744)	-1.851*** (0.490)	-1.708** (0.711)
Historical controls:						
Distance from equator		0.006 (0.005)		0.006 (0.006)		0.006 (0.005)
Economic complexity		-0.006 (0.138)		0.011 (0.106)		-0.019 (0.092)
Political hierarchies		0.031 (0.099)		0.020 (0.098)		0.017 (0.112)
Contemporary controls:						
Ln (per capita GDP)		-0.176*** (0.050)		-0.178*** (0.050)		-0.174*** (0.053)
Mean (st. dev.) of dep var	4.47 (0.54)	4.47 (0.54)	4.47 (0.54)	4.47 (0.54)	4.47 (0.54)	4.47 (0.54)
Observations	68	67	68	67	67	66
R-squared	0.161	0.350	0.161	0.351	0.153	0.345

Notes: The unit of observation is a country. The dependent variable is the average at the country level of a measure of the self-reported importance of tradition. The mean and st. dev. of Climatic Instability is 0.25 (0.11). The countries was nomadic or seminomadic population is equal or higher than 25% are Algeria, Azerbaijan, Egypt, Kazakhstan, Kyrgyzstan, Libya and Uzbekistan. ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A7: Importance of tradition, World Values Survey, robustness to the exclusion of potentially-endogenous covariates

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent Variable: Importance of Tradition, 1-6					
	Ancestral Characteristics Measures					
	Original EA	With Eastern Europe & Siberia Extension		Also with the World Ethnographic Sample Extension		
Climatic instability	-1.626** (0.703)	-1.842** (0.733)	-1.657** (0.703)	-1.828** (0.732)	-1.600** (0.679)	-1.704** (0.717)
Historical controls:						
Distance from equator	-0.003 (0.006)	-0.001 (0.005)	-0.003 (0.006)	-0.001 (0.005)	-0.003 (0.006)	-0.001 (0.005)
Economic complexity	-0.134*** (0.035)		-0.131*** (0.035)		-0.128*** (0.032)	
Political hierarchies	0.044 (0.115)		0.047 (0.112)		0.056 (0.123)	
Mean (st. dev.) of dep var	4.52 (0.55)	4.52 (0.55)	4.52 (0.55)	4.52 (0.55)	4.52 (0.55)	4.52 (0.55)
Observations	75	75	75	75	75	75
R-squared	0.253	0.148	0.250	0.148	0.251	0.144

Notes: The unit of observation is a country. The dependent variable is the average at the country level of a measure of the self-reported importance of tradition. The mean and st. dev. of Climatic instability is 0.25 (0.11). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A8: List of ethnicities from the Word Values Survey from the individual-level regressions that use the Ethnographic Atlas only sample

Ethnicity	Obs.	Ethnicity	Obs.	Ethnicity	Obs.	Ethnicity	Obs.	Ethnicity	Obs.
ABKHAZ	2	CZECHS	1,917	IRANIANS	1,876	MINIANKA	10	SONINKE	30
ADANGME	59	DAGARI	8	ISALA	2	MOBA	4	SOTHO	597
AFAR	6	DAGOMBA	248	ISOKO	2	MOROCCANS	2,082	SPAN BASQ	13
ALGERIANS	918	DARASA	6	IWA	17	MOSSI	659	SPANIARDS	15,211
AMHARA	652	DIULA	156	JAPANESE	3,032	MZAB	2	SUBANUN	65
AMI	1	DJUKA	96	JAVANESE	1,477	NANKANSE	6	SUMBAWANE	23
ANFILLO	1	DOGON	44	JORDANIAN	2,154	NDEMBU	8	SWAZI	76
ANNAMESE	969	DORSE	86	KABRE	1	NEAPOLITA	23	SYRIANS	1
ARMENIANS	1,093	DUSUN	12	KALMYK	4	NEGRISEMB	7	TAGBANUA	518
ASHANTI	1,866	DUTCH	19,333	KAONDE	62	NEWENGLAN	2,935	TAMIL	356
ASSINI	16	EDO	1	KAREN	3	NUPE	19	TAWI-TAWI	22
ATAYAL	144	EFIK	19	KARIERA	1	ORAON	33	TAZARAWA	95
AYMARA	18	EGYPTIANS	4,441	KASENA	1	PAEZ	2	TELUGU	144
AZJER	84	EWE	328	KASHMIRI	3	PAHARI	3	THONGA	165
BABYLONIA	3,142	FRENCHCAN	542	KASONKE	40	PAIWAN	2	TIGRINYA	147
BAKHTIARI	106	GA	183	KAZAK	1,867	PATHAN	228	TIV	8
BAMBARA	961	GBARI	3	KERALA	279	PEDI	501	TORADJA	19
BASA	2	GEORGIANS	1,419	KHASI	257	PL TONGA	218	TSAMAI	4
BASARI	40	GHEG	13	KONKOMBA	3	PUNJABI	719	TSWANA	562
BATAK	10	GREEKS	1,020	KONSO	6	QASHGAI	1,367	TUMBUKA	6
BAULE	16	GUJARATI	391	KOREANS	3	RIFFIANS	2	TUNISIANS	1,129
BEMBA	524	GURAGE	67	KUBU	3	ROMANS	794	TURKMEN	16
BENGALI	317	HADIMU	12	KUNDA	28	RUSSIANS	8,295	TURKS	3,718
BHIL	341	HAMYAN	42	KURD	363	RWALA	1,175	UKRAINIAN	1,167
BISA	3	HAZARA	121	KUSASI	4	SANUSI	1,946	UTTARPRAD	1,152
BOERS	1,008	HUNGARIAN	3,233	LEBANESE	1,161	SENOI	62	VENDA	109
BOKI	2	HUTSUL	4	LIPTAKO	59	SERBS	3,054	WALLOONS	1,243
BONTOK	8	IBAN	67	LOVEDU	244	SHAKO	1	XHOSA	1,001
BUILSA	44	IBIBIO	6	LUIMBE	10	SHANTUNG	1,814	YAMI	11
BULGARIAN	883	IBO	339	MALAYS	2,164	SHONA	1,226	YORUBA	370
BYELORUSS	95	IDOMA	6	MAMPRUSI	13	SIAMESE	2,456	ZAZZAGAWA	587
CAMBODIAN	136	IFUGAO	45	MANOBO	2	SIDAMO	171	ZULU	1,530
CHECHEN	36	IGBIRA	4	MAORI	2	SINDHI	146		
CHEKIANG	6	IJAW	8	MARGI	1	SINHALESE	2	Total	127,667
CHEWA	241	INCA	130	MARRI	72	SOMALI	2		
CHOCO	5	INGASSANA	2	MINCHINES	4,226	SONGHAI	29		

Table A9: List of ethnicities from the Word Value Survey individual-level regressions that use the Ethnographic Atlas and the Eastern Europe and Siberian extension sample

Ethnicity	Obs.	Ethnicity	Obs.	Ethnicity	Obs.	Ethnicity	Obs.	Ethnicity	Obs.
ABKHAZ	2	CZECHS	1,909	IJAW	8	MARGI	1	SINHALESE	2
ADANGME	59	DAGARI	8	INCA	130	MARRI	72	SOMALI	2
AFAR	6	DAGOMBA	248	INGASSANA	2	MINCHINES	4,226	SONGHAI	29
ALGERIANS	918	DARASA	6	IRANIANS	1,876	MINIANKA	10	SONINKE	30
AMHARA	652	DIULA	156	ISALA	2	MOBA	4	SOTHO	597
AMI	1	DJUKA	96	ISOKO	2	MOLDOVANS	12	SPAN BASQ	13
ANFILLO	1	DOGON	44	IWA	17	MOROCCANS	2,082	SPANIARDS	15,211
ANNAMESE	969	DORSE	86	JAPANESE	3,032	MOSSI	659	SUBANUN	65
ARMENIANS	1,093	DUSUN	12	JAVANESE	1,477	MZAB	2	SUMBAWANE	23
ASHANTI	1,866	DUTCH	5,563	JORDANIAN	2,154	NANKANSE	6	SWAZI	76
ASSINI	16	EDO	1	KABRE	1	NDEMBU	8	SYRIANS	1
ATAYAL	144	EFIK	19	KALMYK	4	NEAPOLITA	23	TAGBANUA	518
AYMARA	18	EGYPTIANS	4,441	KAONDE	62	NEGRISEMB	7	TAMIL	356
AZJER	84	ENGLISH	10,035	KAREN	3	NEWENGLAN	2,935	TAWI-TAWI	22
BABYLONIA	3,142	ESTONIANS	1,010	KARIERA	1	NUPE	19	TAZARAWA	95
BAKHTIARI	106	EWE	328	KASENA	1	ORAON	33	TELUGU	144
BAMBARA	961	FRENCHCAN	542	KASHMIRI	3	PAEZ	2	THONGA	165
BASA	2	GA	183	KASONKE	40	PAHARI	3	TIGRINYA	147
BASARI	40	GAGAUZ	24	KAZAK	1,781	PAIWAN	2	TIV	8
BATAK	10	GBARI	3	KAZAN TATAR	84	PATHAN	228	TORADJA	19
BAULE	16	GEORGIANS	1,419	KERALA	279	PEDI	501	TSAMAI	4
BEMBA	524	GERMANS (PRUSSIA)	3,772	KHASI	257	PL TONGA	218	TSWANA	562
BENGALI	317	GHEG	13	KONKOMBA	3	PUNJABI	719	TUMBUKA	26
BHIL	341	GREEKS	1,020	KONSO	6	QASHGAI	1,367	TUNISIANS	1,129
BISA	3	GUJARATI	391	KOREANS	3	RIFFIANS	2	TURKMEN	16
BOERS	1,008	GURAGE	67	KUBU	3	ROMANS	782	TURKS	3,694
BOKI	2	HADIMU	12	KUNDA	28	RUSSIANS	8,295	UKRAINIAN	1,156
BONTOK	8	HAMYAN	42	KURD	363	RWALA	1,175	UTTARPRAD	1,152
BUILSA	44	HAZARA	121	KUSASI	4	SANUSI	1,946	VENDA	109
BULGARIAN	883	HUNGARIAN	2,223	LEBANESE	1,161	SENOI	62	WALLOONS	1,243
BYELORUSS	95	HUTSUL	4	LIPTAKO	59	SERBS	3,054	XHOSA	1,001
CAMBODIAN	136	IBAN	67	LOVEDU	244	SHAKO	1	YAMI	11
CHECHEN	36	IBIBIO	6	LUIMBE	10	SHANTUNG	1,814	YORUBA	370
CHEKIANG	6	IBO	339	MALAYS	2,164	SHONA	1,226	ZAZZAGAWA	587
CHEWA	241	IDOMA	6	MAMPRUSI	13	SIAMESE	2,456	ZULU	1,530
CHOCO	5	IFUGAO	45	MANOBO	2	SIDAMO	171		
CHUVASH	2	IGBIRA	4	MAORI	2	SINDHI	146	Total	127,685

Table A10: List of ethnicities from the Word Value Survey individual-level regressions that use the Ethnographic Atlas, Eastern Europe and Siberian extensions, and World Ethnographic Sample

Ethnicity	Obs.	Ethnicity	Obs.	Ethnicity	Obs.	Ethnicity	Obs.	Ethnicity	Obs.
ABKHAZ	2	CZECHS	1,917	IJAW	8	MARGI	1	SOMALI	2
ADANGME	59	DAGARI	8	INCA	130	MARRI	72	SONGHAI	29
AFAR	6	DAGOMBA	248	INGASSANA	2	MINCHINES	4,226	SONINKE	30
ALGERIANS	918	DANES (LOLLAND)	2,974	IRANIANS	1,876	MINIANKA	10	SOTHO	597
AMHARA	652	DARASA	6	ISALA	2	MOBA	4	SPAN BASQ	13
AMI	1	DIULA	156	ISOKO	2	MOLDOVANS	794	SPANIARDS	15,211
ANFILLO	1	DJUKA	96	IWA	17	MOROCCANS	2,082	SUBANUN	65
ANNAMESE	969	DOGON	44	JAPANESE	3,032	MOSSI	659	SUMBAWANE	23
ARMENIANS	1,093	DORSE	86	JAVANESE	1,477	MZAB	2	SWAZI	76
ASHANTI	1,866	DUSUN	12	JORDANIAN	2,154	NANKANSE	6	SYRIANS	1
ASSINI	16	DUTCH	2,501	KABRE	1	NDEMBU	8	TAGALOG	518
ATAYAL	144	EDO	1	KALMYK	4	NEAPOLITA	23	TAJIK (MOUNTAIN)	119
AYMARA	18	EFIK	19	KAONDE	62	NEGRISEMB	7	TAMIL	356
AZJER	84	EGYPTIANS	4,441	KAREN	3	NEWENGLAN	2,935	TAWI-TAWI	22
BABYLONIA	3,142	ENGLISH	10,049	KARIERA	1	NUPE	19	TAZARAWA	95
BAKHTIARI	106	ESTONIANS	1,010	KASENA	1	ORAON	33	TELUGU	144
BAMBARA	961	EWI	328	KASHMIRI	3	PAEZ	2	THONGA	165
BASA	2	FRENCHCAN	542	KASONKE	40	PAHARI	3	TIGRINYA	147
BASARI	40	GA	183	KAZAK	1,781	PAIWAN	2	TIV	8
BATAK	10	GAGAUZ	24	KAZAN TATAR	84	PATHAN	228	TORADJA	19
BAULE	16	GBARI	3	KERALA	279	PEDI	501	TSAMAI	4
BEMBA	524	GEORGIANS	1,419	KHASI	257	PL TONGA	218	TSWANA	562
BENGALI	317	GERMANS (PRUSSIA)	3,774	KONKOMBA	3	PUNJABI	719	TUMBUKA	26
BHIL	341	GHEG	13	KONSO	6	QASHGAI	1,367	TUNISIANS	1,129
BISA	3	GREEKS	1,020	KOREANS	3	RIFFIANS	2	TURKMEN	16
BOERS	1,008	GUJARATI	391	KUBU	3	RUSSIANS	8,295	TURKS	3,694
BOKI	2	GURAGE	67	KUNDA	28	RWALA	1,175	UKRAINIAN	1,167
BONTOK	8	HADIMU	12	KURD	363	SANUSI	1,946	UTTARPRAD	1,152
BUILSA	44	HAMYAN	42	KUSASI	4	SENOI	62	VENDA	109
BULGARIAN	883	HUNGARIAN	1,223	LEBANESE	1,161	SERBS	3,054	WALLOONS	1,243
BYELORUSS	95	HUTSUL	4	LIPTAKO	59	SHAKO	1	XHOSA	1,001
CAMBODIAN	136	IBAN	67	LOVEDU	244	SHANTUNG	1,814	YAMI	11
CHECHEN	36	IBIBIO	6	LUIIMBE	10	SHONA	1,226	YORUBA	370
CHEKIANG	6	IBO	339	MALAYS	2,164	SIAMESE	2,456	ZAZZAGAWA	587
CHEWA	241	IDOMA	6	MAMPRUSI	13	SIDAMO	171	ZULU	1,530
CHOCO	5	IFUGAO	45	MANOBO	2	SINDHI	146		
CHUVASH	2	IGBIRA	4	MAORI	2	SINHALESE	2	Total	126,630

Table A11: Speaking a foreign language at home, Census 2000. Self-reported ancestry, full sample

	(1)	(2)	(3)	(4)	(5)
	Dep variable: Indicator for speaking a foreign language at home				
	All 2nd gen+ individuals	Not living with parents	Living with parents		
			All ages	18 or younger	Over 18
Climatic instability	-0.348** (0.149)	-0.279* (0.151)	-0.735*** (0.195)	-0.653*** (0.189)	-0.786*** (0.201)
Country-level controls:					
Distance from equator	-0.015*** (0.004)	-0.015*** (0.004)	-0.011*** (0.004)	-0.009** (0.004)	-0.012*** (0.004)
Economic complexity	-0.153*** (0.046)	-0.151*** (0.047)	-0.151*** (0.044)	-0.131*** (0.039)	-0.165*** (0.047)
Political hierarchies	0.117 (0.090)	0.100 (0.086)	0.164* (0.089)	0.147* (0.088)	0.178* (0.090)
Ln (per capita GDP)	0.011 (0.020)	0.012 (0.018)	-0.002 (0.025)	-0.007 (0.024)	0.000 (0.026)
Genetic distance from the US	0.157* (0.081)	0.149* (0.082)	0.189** (0.074)	0.202*** (0.067)	0.177** (0.077)
Fraction of population with the same ancestry in the same metropolitan area	0.098* (0.055)	0.099* (0.054)	0.063 (0.062)	0.064 (0.056)	0.061 (0.067)
Individual level controls					
Number of countries	106	106	106	106	106
Mean (st. dev.) of dependent variable	0.09 (0.29)	0.08 (0.27)	0.17 (0.38)	0.17 (0.38)	0.17 (0.38)
Observations	5,162,026	4,553,894	608,132	249,261	358,871
R-squared	0.278	0.249	0.371	0.351	0.390

Notes : OLS estimates are reported with standard errors clustered at the ancestry-country level in parentheses. The unit of observation is a person born in the United States with an ancestry from a country other than the United States. The dependent variable is an indicator that equals one if the person does not speak English at home. All specifications include the following individual-level control variables: a quadratic in age, two indicator variables for education (less than high school and high school), labor force participation fixed effects, personal income, and location (i.e., MSA) fixed effects. The mean and standard deviation of Climatic instability is 0.33 (0.07). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A12: Speaking a foreign language at home, Census 2000. Self-reported ancestry, regressions collapsed at the ancestry-MSA level

	(1)	(2)	(3)	(4)	(5)
	Dep variable: Indicator for speaking a foreign language at home				
	All 2nd gen+ individuals	Not living with parents	Living with parents		
			All ages	18 or younger	Over 18
Climatic instability	-0.351*	-0.257	-0.436**	-0.443**	-0.481***
	(0.198)	(0.175)	(0.198)	(0.201)	(0.170)
Country-level controls:					
Distance from equator	-0.007***	-0.007***	-0.006***	-0.006***	-0.009***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Economic complexity	-0.019	-0.015	-0.038*	-0.041**	-0.061***
	(0.017)	(0.012)	(0.020)	(0.020)	(0.020)
Political hierarchies	0.045	0.045	0.060	0.062	0.087
	(0.051)	(0.046)	(0.057)	(0.060)	(0.056)
Ln (per capita GDP)	-0.026	-0.012	-0.034*	-0.037**	-0.011
	(0.017)	(0.016)	(0.018)	(0.018)	(0.018)
Genetic distance from the US	0.022	0.008	0.036	0.039	0.027
	(0.043)	(0.043)	(0.045)	(0.045)	(0.047)
Fraction of population with the same ancestry in the same metropolitan area	-0.012	0.048	-0.067	-0.070	0.018
	(0.317)	(0.352)	(0.264)	(0.260)	(0.241)
Number of countries	84	84	84	84	84
Mean (st. dev.) of dependent variable	0.25 (0.33)	0.21 (0.31)	0.28 (0.36)	0.28 (0.36)	0.24 (0.36)
Observations	15,760	14,372	12,227	11,678	7,528
R-squared	0.278	0.221	0.318	0.322	0.325

Notes : OLS estimates are reported with standard errors clustered at the ancestry level in parentheses. The unit of observation is an ethnic/ancestral group in a location (i.e., MSA) in the United States. The dependent variable is the fraction of individuals that do not speak English at home. The mean and standard deviation of Climatic Instability is 0.27 (0.11). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A13: Emigration in 2015 and climatic instability in the country of origin

	(1)	(2)	(3)	(4)
	Dependent variable:			
	Log (Number of emigrants)	Number of emigrants / Origin country population	Log (Number of emigrants to US)	Number of emigrants to US / Origin country population
<u>Origin country characteristics:</u>				
Climatic instability	0.205	-1.350	-1.063	0.003
	(0.818)	(10.047)	(3.944)	(0.024)
Distance from equator	0.016**	-0.054	0.024	-0.001***
	(0.007)	(0.098)	(0.025)	(0.000)
Economic complexity	0.096*	0.814	0.534**	0.002**
	(0.056)	(0.609)	(0.208)	(0.001)
Political yearchies	0.322***	5.265***	1.255***	0.014***
	(0.118)	(1.347)	(0.379)	(0.004)
Log (per-capita GDP)	-0.167**	-0.773	0.655*	0.005*
	(0.072)	(0.799)	(0.375)	(0.003)
Log (population)	0.632***	-4.406***	0.733***	-0.008***
	(0.032)	(0.609)	(0.143)	(0.002)
Mean (st. dev.) of dep var	12.88 (1.76)	12.05 (15.31)	7.99 (4.62)	0.02 (0.04)
Observations	176	176	176	176
R-squared	0.744	0.413	0.354	0.243

Notes : The unit of observation is an origin country. The dependent variable in column 1 is the log of the number of emigrants leaving a given country of origin; in column 2, it is the number of emigrants leaving an origin country divided by the origin country's total population; in column 3, it is the number of emigrants from the origin country to the US; and in column 4, it is the number of emigrants from an origin country to the US divided by the origin country's total population, each measured in the year 2015. The mean (and standard deviation) of Climatic instability is 0.23 (0.10). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A14: Whether an indigenous language is spoken at home. Using the 1930 Census only

	(1)	(2)	(3)	(4)	(5)	(6)
	Dep variable: Indicator for speaking an indigenous language at home					Dep var: Fraction speaking an indigenous language at home
	All individuals	Not living with parents	Living with parents			
			All ages	18 or younger	Over 18	
Climatic instability	-1.010*	-0.862*	-1.113*	-1.129*	-0.906*	-4.955**
	(0.513)	(0.448)	(0.561)	(0.567)	(0.531)	(2.119)
Ethnicity-level controls:						
Distance from equator	-0.013*	-0.012*	-0.014*	-0.015*	-0.009	-0.029
	(0.007)	(0.007)	(0.008)	(0.008)	(0.007)	(0.074)
Economic complexity	-0.027*	-0.022	-0.031**	-0.033**	-0.020	0.165
	(0.014)	(0.013)	(0.015)	(0.015)	(0.016)	(0.128)
Political hierarchies	-0.143*	-0.124*	-0.153*	-0.153*	-0.142*	-0.819
	(0.079)	(0.071)	(0.083)	(0.083)	(0.082)	(0.626)
Individual controls	yes	yes	yes	yes	yes	-
Number of ethnic groups	82	82	78	77	66	82
Number of clusters (grid cells)	39	39	39	39	39	39
Mean (st. dev.) of dependent variable	0.17 (0.38)	0.17 (0.38)	0.17 (0.38)	0.17 (0.38)	0.15 (0.36)	0.02 (0.13)
Observations	11,468	5,757	5,711	4,850	861	137
R-squared	0.450	0.474	0.450	0.461	0.435	

Notes: In columns 1-5, OLS estimates are reported with standard errors clustered at the level of the climatic grid cell in parentheses. The unit of observation is a person who identifies him/herself as a Native American and the dependent variable is an indicator that equals one if the person speaks an indigenous (i.e., Native American) language at home. In column 6, Poisson estimates are reported with standard errors clustered at the grid cell level. The unit of observation is an Indigenous ethnic group living in a given location and the dependent variable is the fraction of people speaking an Indigenous language at home. The specifications reported in columns 1-5 include the following covariates: a quadratic in age, a gender indicator, employment status fixed effects, an indicator for being married, metropolitan area fixed effects, an indicator for whether the individual has any education. The mean (and standard deviation) of Climatic instability is 0.27 (0.11). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A15: Whether indigenous populations of the United States speak their traditional language at home. Individual-level estimates, dropping nomadic tribes

	(1)	(2)	(3)	(4)	(5)
	Dep variable: Indicator for speaking an Indigenous language at home				
	All individuals	Not living with parents	Living with parents		
			All ages	18 or younger	Over 18
Climatic instability	-1.122***	-1.228***	-0.963***	-0.874***	-1.334***
	(0.342)	(0.386)	(0.283)	(0.273)	(0.328)
Ethnicity-level controls:					
Distance from equator	-0.009**	-0.010**	-0.007**	-0.006*	-0.011***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)
Economic complexity	-0.040***	-0.043**	-0.034***	-0.031***	-0.046***
	(0.013)	(0.016)	(0.010)	(0.009)	(0.014)
Political hierarchies	-0.095**	-0.107**	-0.076**	-0.068*	-0.111***
	(0.039)	(0.042)	(0.035)	(0.036)	(0.036)
Individual controls	yes	yes	yes	yes	yes
Number of ethnic groups	78	78	74	73	63
Number of clusters (grid cells)	38	38	38	38	38
Mean (st. dev.) of dependent variable	0.189 (0.391)	0.206 (0.405)	0.161 (0.367)	0.138 (0.345)	0.257 (0.109)
Observations	121,501	75,026	46,475	37,900	8,575
R-squared	0.353	0.396	0.303	0.262	0.446

Notes: OLS estimates are reported with standard errors clustered at the level of the climatic grid cell in parentheses. The unit of observation is a person who identifies him/herself as a Native American. The dependent variable is an indicator that equals one if the person speaks an Indigenous (Native American) language at home. All specification include the following covariates: a quadratic in age, a gender indicator, employment-status fixed effects, an indicator for being married, metropolitan-area fixed effects, and an indicator for whether the individual has any education. Nomadic ethnicities excluded from the sample are Assiniboi, Blackfoot, Cheyenne, Comanche and Grosventr. The mean (and standard deviation) of Climatic instability is 0.27 (0.11).

Table A16: Whether indigenous populations of the United States speak their traditional language at home. Individual-level estimates, dropping nomadic or semi-nomadic tribes

	(1)	(2)	(3)	(4)	(5)
	Dep variable: Indicator for speaking an Indigenous language at home				
	All individuals	Not living with parents	Living with parents		
			All ages	18 or younger	Over 18
Climatic instability	-0.939*** (0.329)	-1.013** (0.366)	-0.833*** (0.286)	-0.752** (0.276)	-1.155*** (0.325)
Ethnicity-level controls:					
Distance from equator	-0.004 (0.005)	-0.004 (0.005)	-0.004 (0.005)	-0.003 (0.004)	-0.006 (0.005)
Economic complexity	-0.062*** (0.020)	-0.068** (0.025)	-0.053*** (0.013)	-0.049*** (0.012)	-0.069*** (0.018)
Political hierarchies	-0.070* (0.038)	-0.079* (0.045)	-0.054* (0.031)	-0.048 (0.032)	-0.085** (0.036)
Individual controls	yes	yes	yes	yes	yes
Number of ethnic groups	51	51	47	47	41
Number of clusters (grid cells)	27	27	27	27	27
Mean (st. dev.) of dependent variable	0.207 (0.405)	0.225 (0.417)	0.179 (0.384)	0.154 (0.361)	0.288 (0.453)
Observations	105,891	65,574	40,317	32,753	7,564
R-squared	0.378	0.428	0.320	0.279	0.460

Notes : OLS estimates are reported with standard errors clustered at the level of the climatic grid cell in parentheses. The unit of observation is a person who identifies him/herself as a Native American. The dependent variable is an indicator that equals one if the person speaks an Indigenous (Native American) language at home. All specification include the following covariates: a quadratic in age, a gender indicator, employment-status fixed effects, an indicator for being married, metropolitan-area fixed effects, and an indicator for whether the individual has any education. Nomadic and Semi-nomadic ethnicities excluded from the sample are Achomawi, Arapaho, Assiniboin, Bannock, Blackfoot, Cahuilla, Chemehuev, Cheyenne, Chippewa, Coeur D'Alene, Comanche, Crow, E Cree, Flathead, Gosiute, Gros Ventre, Kalispel, Kidutokad, Kiowa, Klallam, Klamath, Kutenai, Lummi, Modoc, Nezperce, Quinault, South Ute, Santee, Teton, Umatilla, Washo, and Wintu. The mean (and standard deviation) of Climatic instability is 0.27 (0.11).

Table A17: Whether indigenous populations of Canada and the United States speak their traditional language. Ethnicity-level estimates, dropping nomadic tribes

	(1)	(2)	(3)	(4)	(5)
	United States	Canada		U.S. & Canada	
	Indigenous language is spoken at home	Indigenous language is mother tongue	Indigenous language is spoken at home	Conversational in Indigenous language	Indigenous language is spoken at home
Climatic instability	-4.456*** (1.695)	-2.513*** (0.885)	-2.412** (0.999)	-1.783** (0.755)	-4.189*** (1.538)
Ethnicity-level controls:					
Distance from the equator	-0.001 (0.018)	0.059* (0.033)	0.079* (0.046)	0.031 (0.031)	-0.002 (0.017)
Economic complexity	-0.351*** (0.092)	-0.213*** (0.029)	-0.226*** (0.041)	-0.139*** (0.029)	-0.344*** (0.087)
Political hierarchies	0.103 (0.190)	0.152 (0.184)	0.081 (0.205)	0.055 (0.145)	0.082 (0.171)
Location FE	yes	yes	yes	yes	yes
Survey-year FE	yes	yes	yes	yes	yes
Number of ethnic groups	78	33	33	33	102
Number of clusters (grid cells)	75	32	32	32	97
Mean (st. dev.) of dependent variable	0.041 (0.147)	0.263 (0.239)	0.227 (0.241)	0.312 (0.251)	0.066 (0.174)
Observations (ethnicity-year-location)	2,985	450	450	450	3,435

Notes : Poisson estimates are reported with standard errors clustered at the grid-cell level in parentheses. The unit of observation is an Indigenous ethnic group (from the U.S. and/or Canada), in a location, and observed in a census survey. The dependent variables are different measures of the fraction of people who can speak their traditional language. The American sample includes data from the 1930, 1990, and 2000 Censuses. The Canadian sample includes data from the 2001, 2006, and 2011 Censuses. The mean (and standard deviation) of Climatic instability is: 0.30 (0.11). Nomadic ethnicities excluded from the sample are Assiniboin, Blackfoot, Cheyenne, Comanche and Gros Ventre, and Plains Cree. ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A18: Whether indigenous populations of Canada and the United States speak their traditional language. Ethnicity-level estimates, dropping nomadic or semi-nomadic tribes

	(1)	(2)	(3)	(4)	(5)
	United States	Canada			U.S. & Canada
	Indigenous language is spoken at home	Indigenous language is mother tongue	Indigenous language is spoken at home	Conversational in Indigenous language	Indigenous language is spoken at home
Climatic instability	-3.331** (1.524)	-9.380*** (2.375)	-13.400*** (1.773)	-6.364*** (1.125)	-3.340** (1.521)
Ethnicity-level controls:					
Distance from the equator	0.005 (0.018)	0.561*** (0.109)	1.074*** (0.092)	0.518*** (0.050)	0.005 (0.018)
Economic complexity	-0.400*** (0.119)	-0.335*** (0.097)	-0.432*** (0.058)	-0.236*** (0.037)	-0.398*** (0.115)
Political hierarchies	0.052 (0.222)	0.487** (0.209)	0.022 (0.152)	-0.013 (0.095)	0.052 (0.212)
Location FE	yes	yes	yes	yes	yes
Survey-year FE	yes	yes	yes	yes	yes
Number of ethnic groups	51	17	17	17	62
Number of clusters (grid cells)	49	17	17	17	60
Mean (st. dev.) of dependent variable	0.042 (0.149)	0.116 (0.096)	0.085 (0.085)	0.151 (0.112)	0.044(0.147)
Observations (ethnicity-year-location)	2,560	110	110	110	2,670

Notes : Poisson estimates are reported with standard errors clustered at the grid-cell level in parentheses. The unit of observation is an Indigenous ethnic group (from the U.S. and/or Canada), in a location, and observed in a census survey. The dependent variables are different measures of the fraction of people who can speak their traditional language. The American sample includes data from the 1930, 1990, and 2000 Censuses. The Canadian sample includes data from the 2001, 2006, and 2011 Censuses. The mean (and standard deviation) of Climatic instability is: 0.30 (0.11). Nomadic and seminomadic ethnicities excluded from the sample are: Achomawi, Arapaho, Assiniboi, Bannock, Blackfoot, Cahuilla, Chemehuev, Cheyenne, Chilcotin, Chippewa, Coeur D'Alene, Comanche, Crow, Flathead, Gosiute, Gros Ventre, Kalispel, Kaska, Kidutokad, Kiowa, Klallam, Klamath, Kutenai, Lillooet, Lummi, Modoc, Nezperce, Ojibwa, Plains Cree, Quinault, South Ute, Santee, Shuswap, Teton, Thompson, Umatilla, Washo, and Wintu. ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A19: Whether indigenous populations of the United States speak their traditional language at home. Individual-level estimates, PDSI-based climate measures, dropping nomadic tribes

	(1)	(2)	(3)	(4)	(5)
	Dep variable: Indicator for speaking an Indigenous language at home				
	All individuals	Not living with parents	All ages	Living with parents 18 or younger	Over 18
Panel A. Ancestral instability of the first moment of PDSI					
Climatic instability (PDSI)	-0.696** (0.326)	-0.770** (0.374)	-0.594** (0.263)	-0.545** (0.241)	-0.811** (0.355)
Annual standard deviation (PDSI)	0.570** (0.236)	0.616** (0.263)	0.502** (0.199)	0.475** (0.188)	0.618** (0.242)
R-squared	0.337	0.378	0.292	0.255	0.421
Panel B. Ancestral instability of the second moment of PDSI					
Climatic instability of annual standard deviation (PDSI)	-2.164** (0.960)	-2.306** (1.029)	-1.952** (0.865)	-1.791** (0.808)	-2.673*** (0.988)
Annual standard deviation (PDSI)	0.809*** (0.274)	0.868*** (0.301)	0.720*** (0.235)	0.673*** (0.222)	0.921*** (0.267)
R-squared	0.348	0.388	0.303	0.265	0.434
Both Panels					
Ethnicity-level controls	yes	yes	yes	yes	yes
Individual controls	yes	yes	yes	yes	yes
Number of ethnic groups	77	77	73	72	62
Number of clusters (grid cells)	75	75	71	70	62
Mean (st. dev.) of dependent variable	0.189 (0.392)	0.206 (0.405)	0.161 (0.367)	0.138 (0.345)	0.262 (0.440)
Observations	121,482	75,015	46,467	37,895	8,572

Notes : OLS estimates are reported with standard errors clustered at the level of the climatic grid cell in parentheses. The unit of observation is a person who identifies him/herself as a Native American. The dependent variable is an indicator that equals one if the person speaks an Indigenous (Native American) language at home. All specifications include the following covariates: a quadratic in age, a gender indicator, employment-status fixed effects, an indicator for being married, metropolitan-area fixed effects, and an indicator for whether the individual has any education. The nomadic ethnicities excluded from the sample are Assiniboin, Blackfoot, Cheyenne, Comanche, and Gros Ventre. In panel A, the mean (and standard deviation) of Climatic instability is 0.58 (0.20). In panel B, the mean (and standard deviation) of the Climatic instability of the annual standard deviation is 0.35 (0.12). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A20: Whether Indigenous populations of the United States speak their traditional language at home: Individual-level estimates, PDSI-based climate measures, dropping nomadic or semi-nomadic tribes

	(1)	(2)	(3)	(4)	(5)
	Dep variable: Indicator for speaking an Indigenous language at home				
	Not living with parents		Living with parents		
	All individuals		All ages	18 or younger	Over 18
Panel A. Ancestral instability of the first moment of PDSI					
Climatic instability (PDSI)	-0.748** (0.335)	-0.871** (0.382)	-0.586** (0.274)	-0.544** (0.252)	-0.761* (0.391)
Annual standard deviation (PDSI)	0.577*** (0.184)	0.630*** (0.203)	0.503*** (0.160)	0.480*** (0.151)	0.599*** (0.198)
R-squared	0.393	0.444	0.334	0.297	0.463
Panel B. Ancestral instability of the second moment of PDSI					
Climatic instability of annual standard deviation (PDSI)	-2.730*** (0.602)	-3.048*** (0.641)	-2.297*** (0.557)	-2.145*** (0.514)	-2.979*** (0.685)
Annual standard deviation (PDSI)	0.933*** (0.172)	1.025*** (0.181)	0.807*** (0.158)	0.765*** (0.150)	0.992*** (0.183)
R-squared	0.416	0.469	0.354	0.316	0.484
Both Panels					
Ethnicity-level controls	yes	yes	yes	yes	yes
Individual controls	yes	yes	yes	yes	yes
Number of ethnic groups	50	50	46	46	40
Number of clusters (grid cells)	49	49	45	45	40
Mean (st. dev.) of dependent variable	0.207 (0.405)	0.225 (0.417)	0.179 (0.384)	0.154 (0.361)	0.289 (0.453)
Observations	105,872	65,563	40,309	32,748	7,561

Notes : OLS estimates are reported with standard errors clustered at the level of the climatic grid cell in parentheses. The unit of observation is a person who identifies him/herself as a Native American. The dependent variable is an indicator that equals one if the person speaks an Indigenous (Native American) language at home. All specifications include the following covariates: a quadratic in age, a gender indicator, employment-status fixed effects, an indicator for being married, metropolitan-area fixed effects, and an indicator for whether the individual has any education. The nomadic and semi-nomadic ethnicities excluded from the sample are Achomawi, Arapaho, Assiniboi, Bannock, Blackfoot, Cahuilla, Chemehuev, Cheyenne, Chippewa, Coeur D'Alene, Comanche, Crow, East Cree, Flathead, Gosiute, Gros Ventre, Kalispel, Kidutokad, Kiowa, Klallam, Klamath, Kutenai, Lummi, Modoc, Nezperce, Quinault, South Ute, Santee, Teton, Umatilla, Washo, and Wintu. In panel A, the mean (and standard deviation) of Climatic instability is 0.58 (0.20). In panel B, the mean (and standard deviation) of the Climatic instability of the annual standard deviation is: 0.35 (0.12). ***, **, and * indicate significance at the 10, 5 and 1% levels.

Table A21: Whether indigenous populations of Canada and the United States speak their traditional language. Ethnicity-level estimates, PDSI-based climate measures, dropping nomadic tribes

	(1)	(2)	(3)	(4)	(5)
	United States	Canada			U.S. & Canada
	Indigenous language is spoken at home	Indigenous language is mother tongue	Indigenous language is spoken at home	Conversational in indigenous language	Indigenous language is spoken at home
Panel A. Ancestral instability of the first moment of PDSI					
Climatic instability (PDSI)	-3.271** (1.342)	-2.262*** (0.686)	-2.663*** (0.980)	-0.954 (0.580)	-3.046*** (1.136)
Annual standard deviation (PDSI)	2.996*** (0.828)	0.892*** (0.333)	0.841 (0.719)	0.576** (0.272)	3.134*** (0.855)
Panel B. Ancestral instability of the second moment of PDSI					
Climatic instability of annual standard deviation (PDSI)	-8.425** (4.173)	-8.624*** (0.726)	-8.017*** (2.060)	-3.890*** (0.929)	-8.204** (3.649)
Annual standard deviation (PDSI)	3.689*** (1.005)	2.735*** (0.422)	2.311** (1.094)	1.371*** (0.419)	3.593*** (0.950)
Both Panels					
Ethnicity-level controls	yes	yes	yes	yes	yes
Location FE	yes	yes	yes	yes	yes
Survey-year FE	yes	yes	yes	yes	yes
Number of ethnic groups	75	27	27	27	94
Number of clusters (grid cells)	73	26	26	26	90
Mean (st. dev.) of dependent variable	0.043 (0.150)	0.208 (0.205)	0.173 (0.200)	0.251 (0.211)	0.056 (0.160)
Observations (ethnicity-year-location)	2,842	315	315	315	3,157

Notes : Poisson estimates are reported with standard errors clustered at the grid-cell level in parentheses. The unit of observation is an indigenous ethnic group (from the U.S. and/or Canada), in a location, and observed in a census survey. The dependent variables are different measures of the fraction of people who can speak their traditional language. The American sample includes data from the 1930, 1990, and 2000 Censuses. The Canadian sample includes data from the 2001, 2006, and 2011 Censuses. The nomadic ethnicities excluded from the sample are Assiniboin, Blackfoot, Cheyenne, Comanche, Gros Ventre, and Plains Cree. In panel A, the mean (and standard deviation) of Climatic instability is: 0.66 (0.21). In panel B, the mean (and standard deviation) of the Climatic instability of the annual standard deviation is: 0.36 (0.12). ***, **, and * indicate significance at the 10, 5 and 1% levels.

Table A22: Whether indigenous populations of Canada and the United States speak their traditional language. Ethnicity-level estimates, PDSI-based climate measures, dropping nomadic or semi-nomadic tribes

	(1)	(2)	(3)	(4)	(5)
	United States	Canada			U.S. & Canada
	Indigenous language is spoken at home	Indigenous language is mother tongue	Indigenous language is spoken at home	Conversational in indigenous language	Indigenous language is spoken at home
Panel A. Ancestral instability of the first moment of PDSI					
Climatic instability (PDSI)	-4.433***	-3.586***	-1.804***	-1.326***	-4.263***
	(1.240)	(0.007)	(0.012)	(0.007)	(1.083)
Annual standard deviation (PDSI)	3.219***	-0.413***	-2.500***	-1.027***	3.154***
	(0.524)	(0.078)	(0.141)	(0.080)	(0.503)
Panel B. Ancestral instability of the second moment of PDSI					
Climatic instability of annual standard deviation (PDSI)	-12.492***	-9.593***	-4.827***	-3.547***	-11.823***
	(2.152)	(0.018)	(0.033)	(0.018)	(1.761)
Annual standard deviation (PDSI)	4.266***	2.079***	-1.246***	-0.106	4.131***
	(0.402)	(0.083)	(0.149)	(0.084)	(0.347)
Both Panels					
Ethnicity-level controls	yes	yes	yes	yes	yes
Location FE	yes	yes	yes	yes	yes
Survey-year FE	yes	yes	yes	yes	yes
Number of ethnic groups	49	17	17	17	60
Number of clusters (grid cells)	48	17	17	17	59
Mean (st. dev.) of dependent variable	0.044 (0.152)	0.116 (0.096)	0.085 (0.085)	0.151 (0.112)	0.046 (0.150)
Observations (ethnicity-year-location)	2,417	110	110	110	2,527

Notes: Poisson estimates are reported with standard errors clustered at the grid-cell level in parentheses. The unit of observation is an indigenous ethnic group (from the U.S. and/or Canada), in a location, and observed in a census survey. The dependent variables are different measures of the fraction of people who can speak their traditional language. The American sample includes data from the 1930, 1990, and 2000 Censuses. The Canadian sample includes data from the 2001, 2006, and 2011 Censuses. The nomadic and semi-nomadic ethnicities excluded from the sample are Achomawi, Arapaho, Assiniboin, Bannock, Blackfoot, Cahuilla, Chemehuev, Cheyenne, Chippewa, Coeur D'Alene, Comanche, Crow, E Cree, Flathead, Gosiute, Gros Ventre, Kalispel, Kidutokad, Kiowa, Klallam, Klamath, Kutenai, Lummi, Modoc, Nezperce, Quinault, South Ute, Santee, Teton, Umatilla, Washo, and Wintu. In panel A, the mean (and standard deviation) of Climatic instability is: 0.66 (0.21). In panel B, the mean (and standard deviation) of the Climatic instability of the annual standard deviation is: 0.36 (0.12). ***, **, and * indicate significance at the 10, 5, and 1% levels.

Table A23: Differential persistence of FLFP, 1970 and 2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	Dependent variable: Female labor-force participation (FLFP) 2012							
FLFP 1970	0.330*** (0.079)	0.717*** (0.161)	0.704*** (0.161)	0.393 (0.590)	0.613** (0.267)	-0.239 (0.879)	-0.768 (1.100)	
FLFP 1970 * Climatic instability		-1.660** (0.683)	-1.813* (0.933)	-1.671** (0.698)	-1.667** (0.689)	-1.648** (0.698)	-1.088 (1.206)	
Country-level controls:								
Climatic Instability		44.701 (36.845)	50.462 (42.064)	41.065 (38.870)	45.943 (37.349)	41.109 (38.945)	18.455 (53.998)	
Distance from equator	-0.174 (0.115)	-0.135 (0.145)	-0.201 (0.220)	-0.119 (0.140)	-0.137 (0.147)	-0.164 (0.142)	0.063 (0.290)	
Economic complexity	1.931 (1.253)	2.663* (1.546)	2.682* (1.570)	2.096 (1.839)	2.628* (1.553)	2.193 (1.591)	1.781 (1.886)	
Political hierarchies	-1.606 (1.567)	-1.878 (1.397)	-1.948 (1.479)	-2.164 (1.335)	-3.119 (2.980)	-1.708 (1.301)	-2.101 (3.419)	
Ln (per-capita GDP)	-71.614*** (24.480)	-67.906*** (23.724)	-67.966*** (23.815)	-66.913*** (24.111)	-67.867*** (23.911)	-83.558*** (30.525)	-90.795** (35.195)	
Ln (per-capita GDP) squared	3.822*** (1.255)	3.649*** (1.212)	3.652*** (1.216)	3.587*** (1.232)	3.648*** (1.221)	4.308*** (1.469)	4.608*** (1.666)	
FLFP 1970 * Distance from equator			0.002 (0.006)				-0.007 (0.009)	
FLFP 1970 * Economic complexity				0.049 (0.082)			0.008 (0.089)	
FLFP 1970 * Political hierarchies					0.029 (0.061)		0.016 (0.079)	
FLFP 1970 * Ln (per capita GDP)						0.104 (0.089)	0.155 (0.124)	
Continent fixed effects	yes	yes	yes	yes	yes	yes	yes	
Mean (st. dev.) of dep. var.	50.7 (13.7)	50.7 (13.7)	50.7 (13.7)	50.7 (13.7)	50.7 (13.7)	50.7 (13.7)	50.7 (13.7)	
Observations	77	77	77	77	77	77	77	
R-squared	0.599	0.633	0.634	0.635	0.634	0.645	0.649	
		Effect of "FLFP 1970" for mean values of controls and "Climatic instability" = 0						
		0.717 (0.161)	0.758 (0.236)	0.724 (0.162)	0.717 (0.163)	0.760 (0.166)	0.631 (0.295)	

Notes: OLS estimates are reported with robust standard errors in parentheses. The unit of observation is a country. The female labor-force participation variables (from 1970 and 2012) are measured as the percentage of women aged 15-64 in the labor force. Historical controls are defined in the appendix. Climatic instability ranges from 0.034 to 0.457 in the sample. Its mean (and standard deviation) is: 0.24 (0.09). ***, ** and * indicate significance at the 10, 5, and 1% levels.

Table A24: Differential persistence of FLFP, traditionally and today

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dependent variable: Female labor-force participation 2012							
Traditional female participation in agriculture	0.248*** (0.072)	0.642*** (0.168)	0.654*** (0.168)	0.696** (0.307)	0.697*** (0.222)	1.013* (0.577)	0.833** (0.360)	1.409* (0.771)
Trad female part in agric * Climatic instability		-1.703*** (0.598)	-1.626** (0.735)	-1.686*** (0.616)	-1.667** (0.645)	-1.582** (0.651)	-1.671*** (0.605)	-1.528** (0.769)
Country-level controls:								
Climatic instability		69.112*** (21.545)	65.861** (27.709)	67.967*** (22.740)	67.474*** (23.583)	63.248** (24.715)	66.664*** (22.818)	58.842* (31.004)
Distance from equator	-0.059 (0.110)	-0.150 (0.116)	-0.105 (0.234)	-0.150 (0.116)	-0.145 (0.119)	-0.154 (0.117)	-0.155 (0.115)	-0.186 (0.272)
Economic complexity	0.964 (1.196)	0.717 (1.259)	0.724 (1.261)	0.986 (1.203)	0.683 (1.216)	0.754 (1.257)	0.786 (1.310)	1.067 (1.986)
Political hierarchies	-0.985 (1.844)	-0.633 (1.883)	-0.546 (1.908)	-0.735 (1.841)	0.132 (3.252)	-0.778 (1.945)	-0.559 (1.882)	-0.285 (3.683)
Ln (per-capita GDP)	-70.613*** (14.214)	-58.820*** (14.349)	-58.612*** (14.515)	-58.533*** (14.593)	-58.947*** (14.432)	-51.566*** (18.705)	-59.999*** (14.519)	-52.354*** (19.166)
Ln (per-capita GDP) squared	3.777*** (0.772)	3.102*** (0.779)	3.087*** (0.790)	3.088*** (0.791)	3.107*** (0.783)	2.791*** (0.929)	3.173*** (0.791)	2.857*** (0.945)
Year ethnicity sampled	2.631 (1.592)	0.292 (1.858)	0.399 (1.941)	0.415 (1.879)	0.401 (1.907)	1.015 (2.261)	0.638 (1.919)	1.717 (2.394)
Female part in agric * Distance from equator			-0.001 (0.005)					0.001 (0.007)
Female part in agric * Economic complexity				-0.010 (0.047)				-0.009 (0.047)
Female part in agric * Political hierarchies					-0.019 (0.065)			-0.014 (0.083)
Female part in agric * Ln (per-capita GDP)						-0.045 (0.068)		-0.050 (0.076)
Female part in agric * Year ethnicity sampled							-0.105 (0.172)	-0.150 (0.187)
Continent fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
Mean (st. dev.) of dep. var.	53.2 (15.4)	53.2 (15.4)	53.2 (15.4)	53.2 (15.4)	53.2 (15.4)	53.2 (15.4)	53.2 (15.4)	53.2 (15.4)
Observations	165	165	165	165	165	165	165	165
R-squared	0.342	0.379	0.379	0.379	0.379	0.382	0.379	0.384
	Effect of "Trad female part in agriculture" for mean values of controls & "Climatic instability" = 0							
	0.642 (0.168)	0.620 (0.204)	0.632 (0.177)	0.629 (0.182)	0.601 (0.182)	0.647 (0.169)	0.598 (0.209)	

Notes: OLS estimates are reported with robust standard errors in parentheses. The unit of observation is a country. Female labor-force participation is the percentage of women in the labor force, measured in 2012 and from the *Ethnographic Atlas*. Historical controls are defined in the appendix. Climatic instability ranges from 0.034 to 0.495 in the sample. Its mean (and standard deviation) is: 0.24 (0.10). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A25: Differential persistence of polygamy, traditionally and today

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dependent variable: Indicator variable for the practice of polygamy today, 0/1							
Traditional polygamy, 0-1	0.324*** (0.122)	0.845*** (0.212)	1.182*** (0.220)	0.612** (0.290)	1.786*** (0.368)	1.862*** (0.666)	3.159* (1.683)	2.708* (1.599)
Traditional polygamy * Climatic instability		-2.177** (0.878)	-1.173 (0.747)	-2.153** (0.864)	-2.071*** (0.765)	-1.805* (0.914)	-2.171** (0.877)	-1.205 (0.753)
Country-level controls:								
Climatic instability		2.363*** (0.667)	1.457*** (0.476)	2.399*** (0.659)	2.184*** (0.511)	1.975*** (0.681)	2.383*** (0.666)	1.429*** (0.453)
Distance from equator	-0.004 (0.003)	-0.006* (0.003)	0.008** (0.003)	-0.006* (0.003)	-0.005 (0.003)	-0.006** (0.003)	-0.006* (0.003)	0.004* (0.002)
Economic complexity	-0.010 (0.020)	-0.013 (0.021)	-0.019 (0.019)	-0.042 (0.025)	-0.014 (0.021)	-0.014 (0.020)	-0.013 (0.020)	-0.033* (0.020)
Political hierarchies	-0.033 (0.039)	-0.033 (0.036)	-0.020 (0.033)	-0.034 (0.036)	0.186*** (0.059)	-0.030 (0.035)	-0.030 (0.036)	0.143*** (0.053)
Ln (per capita GDP)	-0.034 (0.031)	-0.043 (0.031)	-0.043 (0.030)	-0.043 (0.031)	-0.042 (0.030)	0.065 (0.064)	-0.045 (0.032)	0.010 (0.066)
Year ethnicity sampled	-0.104** (0.044)	-0.109** (0.045)	-0.122*** (0.045)	-0.109** (0.045)	-0.108** (0.045)	-0.118** (0.046)	1.091 (0.855)	0.152 (0.950)
Traditional polygamy * Distance from equator			-0.018*** (0.005)					-0.013*** (0.005)
Traditional polygamy * Economic complexity				0.038 (0.034)				0.018 (0.030)
Traditional polygamy * Political hierarchies					-0.262*** (0.077)			-0.197*** (0.074)
Traditional polygamy * Log (per-capita GDP)						-0.122* (0.072)		-0.060 (0.073)
Traditional polygamy * Year sampled							-1.203 (0.867)	-0.274 (0.956)
Continent fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
Mean (st. dev.) of dep. var.	0.44 (0.41)	0.44 (0.41)	0.44 (0.41)	0.44 (0.41)	0.44 (0.41)	0.44 (0.41)	0.44 (0.41)	0.44 (0.41)
Observations	109	109	109	109	109	109	109	109
R-squared	0.539	0.574	0.602	0.576	0.597	0.581	0.577	0.616
	Effect of "Traditional polygamy" for mean values of controls and "Climatic instability" = 0							
	0.845 (0.212)	0.760 (0.188)	0.846 (0.212)	0.846 (0.199)	0.903 (0.215)	0.795 (0.262)	1.049 (0.232)	0.851 (0.232)

Notes: OLS estimates are reported with robust standard errors in brackets. The unit of observation is a country. Polygamy is an indicator variable that equals one if having more than one spouse is an accepted or legal practice in the country. Climatic instability ranges from 0.052 to 0.495 in the sample. Its mean (and standard deviation) is: 0.21 (0.09). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A26: Differential persistence of consanguineous marriage, traditionally and today

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable: Percent of marriages that are consanguineous today, 0-100								
Traditional consanguineous marriage, 0-100	0.178*** (0.066)	0.401*** (0.086)	0.402*** (0.115)	0.179 (0.438)	0.388 (0.262)	0.210 (0.516)	0.390*** (0.080)	-0.104 (0.884)
Trad consanguineous marriage * Climatic instability		-1.310** (0.556)	-1.308** (0.566)	-1.323** (0.572)	-1.322** (0.648)	-1.221** (0.491)	-1.327** (0.550)	-1.196** (0.585)
Country-level controls:								
Climatic instability		34.223 (22.269)	34.105 (24.022)	40.472 (33.221)	34.771 (27.336)	34.960 (23.636)	37.643 (22.524)	47.573 (39.334)
Distance from equator	0.112 (0.146)	0.052 (0.155)	0.053 (0.161)	0.045 (0.166)	0.054 (0.159)	0.075 (0.138)	0.036 (0.155)	0.009 (0.187)
Economic complexity	0.319 (1.833)	-2.984* (1.755)	-2.987 (1.782)	-5.847 (6.574)	-3.034 (1.944)	-2.443 (1.639)	-3.170* (1.740)	-6.558 (6.538)
Political hierarchies	-1.904 (2.683)	-0.492 (2.598)	-0.489 (2.671)	-0.272 (2.663)	-0.639 (4.291)	-0.833 (3.127)	-0.221 (2.656)	0.813 (4.784)
Ln (per-capita GDP)	-3.139 (2.761)	-4.805* (2.699)	-4.803* (2.763)	-4.427* (2.204)	-4.824 (2.940)	-5.432 (3.630)	-5.120* (2.737)	-5.318 (3.413)
Years between current and historical periods	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.000 (0.002)	0.001 (0.003)	0.000 (0.002)	-0.031 (0.042)	-0.045 (0.045)
Trad consanguineous * Distance from equator			-0.000 (0.003)					0.001 (0.003)
Trad consanguineous * Economic complexity				0.034 (0.068)				0.051 (0.079)
Trad consanguineous * Political hierarchies					0.004 (0.073)			-0.027 (0.078)
Trad consanguineous * Log (per-capita GDP)						0.019 (0.053)		0.023 (0.055)
Trad consanguineous * Years between							0.000 (0.000)	0.000 (0.000)
Continent fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
Mean (st. dev.) of dep. var.	12.8 (16.4)	12.8 (16.4)	12.8 (16.4)	12.8 (16.4)	12.8 (16.4)	12.8 (16.4)	12.8 (16.4)	12.8 (16.4)
Observations	60	60	60	60	60	60	60	60
R-squared	0.662	0.702	0.702	0.705	0.702	0.703	0.704	0.711
Effect of "Traditional consanguineous marriage" for mean values of controls & "Climatic instability" = 0								
	0.401 (0.086)	0.400 (0.087)	0.402 (0.089)	0.402 (0.089)	0.403 (0.092)	0.393 (0.085)	0.455 (0.126)	0.469 (0.150)

Notes: OLS estimates are reported with robust standard errors in brackets. The unit of observation is a country. The dependent variable is the proportion of total marriages that are consanguineous. The measure is taken from Schulz (2017). Climatic instability ranges from 0.052 to 0.457 in the sample. Its mean (and standard deviation) is: 0.25 (0.10). ***, ** and * indicate significance at the 10, 5 and 1% levels.

Table A27: Ethnicity-level estimates of the differential persistence of FLFP, traditionally and today

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Average female labor-force participation rate today							
Traditional female participation in agriculture	0.157* (0.082)	0.400** (0.153)	0.406** (0.189)	0.685*** (0.254)	0.372* (0.217)	3.225 (2.273)	4.280* (2.501)
Trad female part in agric * Climatic instability		-1.268* (0.722)	-1.256* (0.678)	-1.059 (0.688)	-1.268* (0.724)	-1.362* (0.742)	-1.042 (0.653)
Ethnicity-level controls:							
Climatic instability		55.165 (34.924)	54.202 (33.472)	41.809 (33.328)	55.406 (34.965)	60.687* (36.381)	42.052 (32.735)
Distance from equator	0.045 (0.131)	-0.067 (0.148)	-0.050 (0.224)	-0.053 (0.147)	-0.068 (0.147)	-0.068 (0.147)	-0.028 (0.248)
Economic complexity	0.935 (1.000)	0.824 (0.918)	0.831 (0.921)	3.469* (2.041)	0.828 (0.925)	0.633 (0.954)	4.690** (2.240)
Political hierarchies	-0.608 (1.194)	-0.250 (1.206)	-0.253 (1.216)	-0.662 (1.219)	-0.582 (2.236)	-0.129 (1.223)	-3.283 (2.858)
Year ethnicity sampled	-3.437 (2.492)	0.011 (3.387)	-0.006 (3.330)	0.119 (3.486)	0.127 (3.443)	0.820 (3.365)	2.088 (3.616)
Female part agric * Distance from equator			-0.000 (0.005)				-0.001 (0.006)
Female part agric * Economic complexity				-0.052* (0.031)			-0.080** (0.037)
Female part agric * Political hierarchies					0.008 (0.034)		0.059 (0.046)
Female part agric * Year ethnicity sampled						-1.452 (1.131)	-1.873 (1.222)
Country-survey-year fixed effects	yes	yes	yes	yes	yes	yes	yes
Mean (st. dev.) of dep. var.	54.8 (22.37)	54.8 (22.37)	54.8 (22.37)	54.8 (22.37)	54.8 (22.37)	54.8 (22.37)	54.8 (22.37)
Number of ethnicities	109	109	109	109	109	109	109
Observations	211	211	211	211	211	211	211
R-squared	0.478	0.492	0.492	0.499	0.492	0.496	0.509
Effect of "Trad female part in agric" for mean values of controls & "Climatic instability" = 0							
	0.400 (0.151)	0.398 (0.148)	0.398 (0.148)	0.354 (0.141)	0.396 (0.155)	0.436 (0.165)	0.350 (0.155)

Notes: OLS estimates are reported with standard errors clustered at the ethnicity level in parentheses. The unit of observation is an ethnicity in a given country/year. Female labor-force participation is the percentage of women in the labor force. The countries (and their survey years) included in the sample are Belarus (1999), Cambodia 1998, 2008), Malaysia (1970, 1980, 1991, 2000), Nepal (2001), Philippines (1990), Sierra Leone (2004), Uganda (1991, 2002), and Vietnam (1989, 1999, 2009). Climatic instability ranges from 0.034 to 0.516 in the sample. Its mean (and standard deviation) is: 0.19 (0.10). ***, ** and * indicate significance at the 10, 5 and 1% levels.

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