Heterogeneous Effects of the Slave Trade on Mistrust in Africa

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Abstract

In an influential study, Nunn and Wantchekon (2011) show that the slave trade in Africa engendered a culture of mistrust. We revisit their study and extend it by shedding further light on three sources of heterogeneity. i) The slave trade led to mistrust only in societies with ancestral slavery. ii) The negative correlation between the slave trade and trust is driven by ethnic groups in the vicinity of the trans-Saharan trade route. iii) The negative effect of the slave trade on trust is mostly driven by areas with greater Tsetse disease suitability.

Keywords: Slave trade; mistrust; heterogeneity; ancestral slavery; trans-Saharan trade; Tsetse; African development.
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1 Introduction

Trust is recognized as a key driver of economic development.[1] With the goal of unraveling the sources of African underdevelopment,[2] scholars have explored the role of trust in Africa. In a highly influential study, Nunn and Wantchekon (2011) find that the European slave trade had a negative legacy on African development by creating a culture of mistrust in Africa. More specifically, individuals belonging to ethnicities heavily impacted by the slave trade have lower levels of trust today for their relatives, neighbors, local government council, members of their own ethnic group, and individuals from other ethnic groups (Nunn and Wantchekon, 2011). The current paper revisits this relationship between the slave trade and trust, unearthing several sources of heterogeneity.

First, we note that this discussion mostly ignores the role played by indigenous and ancestral slavery norms in Africa.[3] Historical literature suggests that indigenous slavery systems played a role in facilitating export slavery, such as the Atlantic slave trade, and that the growth of the Atlantic slave trade also amplified indigenous slavery practices (Klein, 1978; Lovejoy, 2011). Therefore, the interplay between ancestral slavery norms and the European slave trade warrants further examination, and we seek to address this gap.

Importantly, employing individual trust outcomes from the Afrobarometer Survey and the ancestral slavery measure from the Ethnographic Atlas of Murdock (1965) (v70), our analysis reveals that the negative correlation between the slave trade and present-day mistrust is entirely driven by the interaction of the slave trade and ancestral slavery measures. Present-

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[1] E.g., see Algan and Cahuc (2010); Greif (1993); Guiso, Sapienza, and Zingales (2006); Knack and Keefer (1997); Tabellini (2010), among others.

[2] In the economics literature, there is well-documented interest in the determinants of African development (Acemoglu, Johnson, and Robinson, 2001; Alesina et al., 2003; Alesina, Easterly, and Matuszeski, 2011; Easterly and Levine, 1997; Nunn, 2008; Michalopoulos and Papaioannou, 2013, 2020).

[3] We use the terms "indigenous" and "ancestral" interchangeably to refer to the ethnographic characteristics of societies as documented by Murdock and White (1969).

day mistrust emerges as a consequence of the slave trade solely within societies with ancestral slavery. Instead, in societies lacking ancestral slavery, the slave trade does not correlate with lower trust. For example, the present levels of trust for relatives and neighbors in societies with ancestral slavery are 0.14 and 0.16 standard deviations lower, respectively, per standard deviation increase in slave trade, whereas there is no significant effect of the slave trade on trust for those ethnicities where ancestral slavery was absent. These findings align with two plausible interpretations. One perspective might suggest that the slave trade might have precipitated the development of local indigenous slavery, subsequently leading to a decline in trust. Alternatively, mistrust may have surfaced as individuals turned against each other in the aftermath of the slave trade's impact, particularly in societies where slavery was prevalent.

The emergence of a culture of mistrust can be attributed to the historical fact that, as the slave trade progressed, it became increasingly common for individuals to be sold into slavery by those closest to them, including neighbors, friends, and even family members (Hair, 1965; Koelle, Hair, and Dalby, 1854; Nunn and Wantchekon, 2011; Piot, 1996). In such an environment, where the threat of enslavement was ever-present, people had to maintain constant vigilance against the risk of being kidnapped, tricked, and sold into slavery, resulting in a profound lack of trust. Moreover, this mechanism may be compounded by local slavery practices propagating the sale of one's own relatives, friends, and neighbors to slave traders. Consequently, the demand shock generated by the trans-Atlantic slave trade might have had differential effects on various regions depending on the extent of local slavery.

When we further break down the influence of various forms of ancestral slavery, our analysis demonstrates that the contemporary effects of the slave trade on mistrust are primarily driven by ethnicities where ancestral slavery was socially significant, as opposed to those where it was in its early stages. Additionally, societies where ancestral slavery was currently present experienced the most substantial decline in trust due to the slave trade, compared to those where ancestral slavery existed only in the past.

Second, we probe the role played by the trans-Saharan trade routes. Originating around the 2nd century AD, the trans-Saharan route predates the trans-Atlantic trade, standing as the primary slave trade route of its time (Segal, 2002). As the Atlantic slave trade dramatically heightened the risk of enslavement, especially in societies participating in the Saharan slave trade, this might have eroded trust levels within these societies. We demonstrate that the adverse impact of the slave trade on trust is observed only among ethnicities most exposed to the pre-existing ancient slave trade routes near the trans-Saharan trade routes. In contrast, for ethnicities far from the trans-Saharan market, there is no negative effect of the slave trade on trust.

Furthermore, when we compute the geographically imposed travel times from the trans-Saharan trade nodes, we find that the negative effect of the slave trade on trust holds for ethnicities located within one to three weeks of travel time from Saharan trade nodes. However, for ethnicities with travel times exceeding three weeks from the trade nodes, the impact of the slave trade on trust becomes statistically insignificant.

Third, we evaluate how Tsetse suitability drives the main correlations. The entomologist Glasgow (1963) asserted that the presence of TseTse made it more conducive to slavery, since "trade had to rely on transport by human carriers when the TseTse obstructed the use of draught animals". In support of Glasgow's argument, Alsan (2015) documents a positive correlation between TseTse prevalence and the occurrence of indigenous slavery at the ethnic group level. Therefore, we use a TseTse suitability index for heterogeneity analysis and show that the negative effect of the slave trade on trust is mostly driven by locations with high Tsetse suitability.

Contribution to the literature– The literature documents that the levels of trust can be

influenced by both long-run[4] and short-run[5] factors. This paper contributes to our understanding of the determinants of trust in Africa by studying sources of heterogeneity in the effect of the slave trade on trust. To our knowledge, this is the first systematic exploration of the influence of the complementarity between ancestral slavery and the European slave trade on the culture of mistrust in Africa. Also, we offer the first insights on how influential the Saharan-trade route was in shaping the relationship between the slave trade and trust. Finally, we also offer novel evidence on the role of the Tsetse in this relationship. We anticipate that these findings will stimulate further discussion on the legacy of slavery in Africa.

The existing literature on slavery has explored its effects on long-run development in Africa (Nunn, 2008; Whatley, 2022), industrialization in Britain (Eltis and Engerman, 2000), and productivity across U.S. states (Mitchener and McLean, 2003), among others. Bezemer, Bolt, and Lensink (2014) show that indigenous slavery in Africa has a negative impact on long-run development. We add to this literature by revealing how the complementarity between indigenous slavery and the slave trade could exacerbate a culture of mistrust in regions exposed to the slave trade. This could partially explain the negative effect found by Bezemer, Bolt, and Lensink (2014).

Lastly, there is also a recent literature on the issues of replicability in economics (Brodeur et al., 2023; Duvendack, Palmer-Jones, and Reed, 2017; Hamermesh, 2007, 2017; List, 2023; Vilhuber, 2020). In this vein, a greater number of studies carry out pure or scientific replications and our paper is related to this literature (Albergaria and Fávero, 2017; Chu, Henderson, and Wang, 2017; Spolaore and Wacziarg, 2018).

Section 2 lays out the historical background on slavery in Africa. Section 3 describes the

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[4] E.g., slave trade, medieval experience of self-government, historical experiences of cooperation, and early proxies of education and democracy (Guiso, Sapienza, and Zingales, 2008, 2016; Nunn and Wantchekon, 2011; Tabellini, 2010).

[5] E.g., socioeconomic factors, recent traumatic experiences, discrimination, income shocks, the flow of information and communication, and war and violence (Alesina and La Ferrara, 2002; Ananyev and Guriev, 2019; Bellows and Miguel, 2008; Fisman and Khanna, 1999).

data and the empirical approach. Section 4 presents the results. Section 5 concludes.

2 Background on Historical Slavery in Africa

> *[The King of Senegal] supports himself by ordering the kidnapping of many slaves both from his own country and from those of his neighbors. He uses these slaves in many different ways, but above all to cultivate various landholdings made over to him. Moreover, he sells many of them to the Sanhaja Berber and Arab merchants who turn up there with horses and other goods; and he has also begun to sell them to the Christians since they started transacting business in those lands.*

> - Alvise Cadamosto, 1455–56

Slavery and the slave trade have deep roots in Africa, spanning over a millennium before the trans-Atlantic slave trade began (Wright, 2007). Slavery was an integral form of power dynamic across the continent (Eltis et al., 2021), with its origins dating back to 3000 BCE and 500 CE, following the consolidation of early African societies into states (Stilwell, 2014). Slavery and slave markets existed in one form or another before the European arrival in the 15th century, notably in regions with high agricultural suitability and population density (Falola and Heaton, 2008; Klein, 2010; Stilwell, 2014; Wright, 2007).

African slavery took various forms, including bondage, forced labor, and chattel slavery.[6] For instance, bondage persisted in places like the Hausa states and Borno in Nigeria even during the trans-Atlantic slave trade (Falola and Heaton, 2008). The Songhai empire employed thousands of slaves in irrigated plantations along the Niger river basin (Klein, 2010). Klein (2010) notes that "*although large-scale commercial use of slaves was limited, the use of slaves within most African societies was widespread. The existence of this large number of slaves meant that a lively internal slave market and intra-continental slave trade*

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[6] One such categorization is captured by the ancestral slavery variable v70 in the Ethnographic Atlas. See histogram in Figure A.1 and geographic distribution in Figure A.2

existed. Thus, a dual slave trade came into existence well before the opening of the West African–Atlantic routes".[7]

In the early history of slave *trade*, slaves from Sudan, northeast Africa, and the Indian ocean were traded in the slave markets across the Roman Empire and the Nile Valley as early as 2600 BCE (Eltis et al., 2021). The trans-Saharan trade, dominant before the trans-Atlantic trade,[8] originated around the 2nd century CE in the Sahel belt (Fage, 1969; Falola and Heaton, 2008; Klein, 2010; Segal, 2002). Factors that contributed to slave trade along this route were a high demand for slaves from distant regions, ample supply of slaves from ongoing Sahel warfare, and the risk of losing goods from pack animals perishing in the desert (whereas slaves could traverse the desert themselves) (Falola and Heaton, 2008). The southward expansion of Islam in 600-1500 also dramatically increased slave trade through the Sahara (Stilwell, 2014). Consequently, slaves emerged as the predominant commodity traded through the Saharan route (Segal, 2002).

Prominent states engaged in pre-16th-century Sudanic belt[9] slave trade included (modern day location in parentheses): the Wolof states (Senegal and Gambia), the Ghana Empire (Mauritania and Mali) followed by the Mali Empire (from Senegal in the west to Niger and Ghana in the east) and subsequently the Songhai Empire (similar location), the Oyo and Benin Empires (Benin-Nigeria), the Kanem-Borno Empire (the Lake Chad basin and northern Nigeria and Cameroon), Hausa states (Nigeria), Nubia (upper Nile river basin) and Ethiopia (Eltis et al., 2021; Falola and Heaton, 2008; Klein, 2010; Segal, 2002; Wright, 2007).[10] The introduction of horses and camels intensified slave raids further south of the Sudanic belt, targeting decentralized societies to the south of Ghana, Mali and the other

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[7] Here the dual trade refers to exports through the north (Sahara) and the east (Red Sea and Indian Ocean) (Klein, 2010).

[8] African slaves were also exported through the Red Sea and Indian Ocean corridors.

[9] Note that in the historical literature, Sudan and Sudanic refers to areas south of the Sahara and not modern day Sudan.

[10] See Figure A.3 for the geographic distribution of these and other pre-colonial states in Africa.

Sudanic states (Eltis et al., 2021; Falola and Heaton, 2008; Klein, 2010; Segal, 2002; Wright, 2007). The *Jùlá* trade network (Donaldson, 2020), shown in Figure A.4, connected the Ghana and Mali empires with the forested zone south of the savannah (such as the coastal Ife and Benin), serving as the source of many Sahara-traded slaves (Falola and Heaton, 2008; Klein, 2010; Wright, 2007).[11]

Slave procurement methods included kidnapping, war captives, selling by relatives, judicial processes, and, in times of hardship, families selling their own members (Koelle, Hair, and Dalby, 1854; Nunn and Wantchekon, 2011). The author of *Hudud al-Alam*[12] reported of "*people who steal children from each other to sell them to foreign merchants*". Al-Idrisi, a 12th century geographer, described how people were seized by their neighbours "*through various tricks*" (Wright, 2007). Stilwell (2014) notes that in matrilineal Kabre society in northern Togo, the maternal uncle sometimes sold off his sisters' children before the father could assert his claim. The Portuguese explorer Cadamosto, as mentioned in the earlier quote, reported that the people of Senegal mistrusted their leaders, as they "*would seize their wives and children to sell them as slaves for every slight failing*" (Wright, 2007).

The trans-Saharan slave trade is estimated to have spanned five to nine million individuals over a millennium (Eltis et al., 2021; Falola and Heaton, 2008; Wright, 2007). Figure 1 presents estimated annual slave exports through the Sahara and the Atlantic Ocean, based on three independent sources cited by Wright (2007) and data from The Trans-Atlantic Slave Trade Database (2019).[13] In contrast, the trans-Atlantic trade, with over 100,000 exported slaves per year at its peak, was more than *20 times* as intense.

Portugal initiated the trans-Atlantic slave trade while originally having set out for the west coast of Africa in search of gold (Lovejoy, 2011). The first slave trade activities of
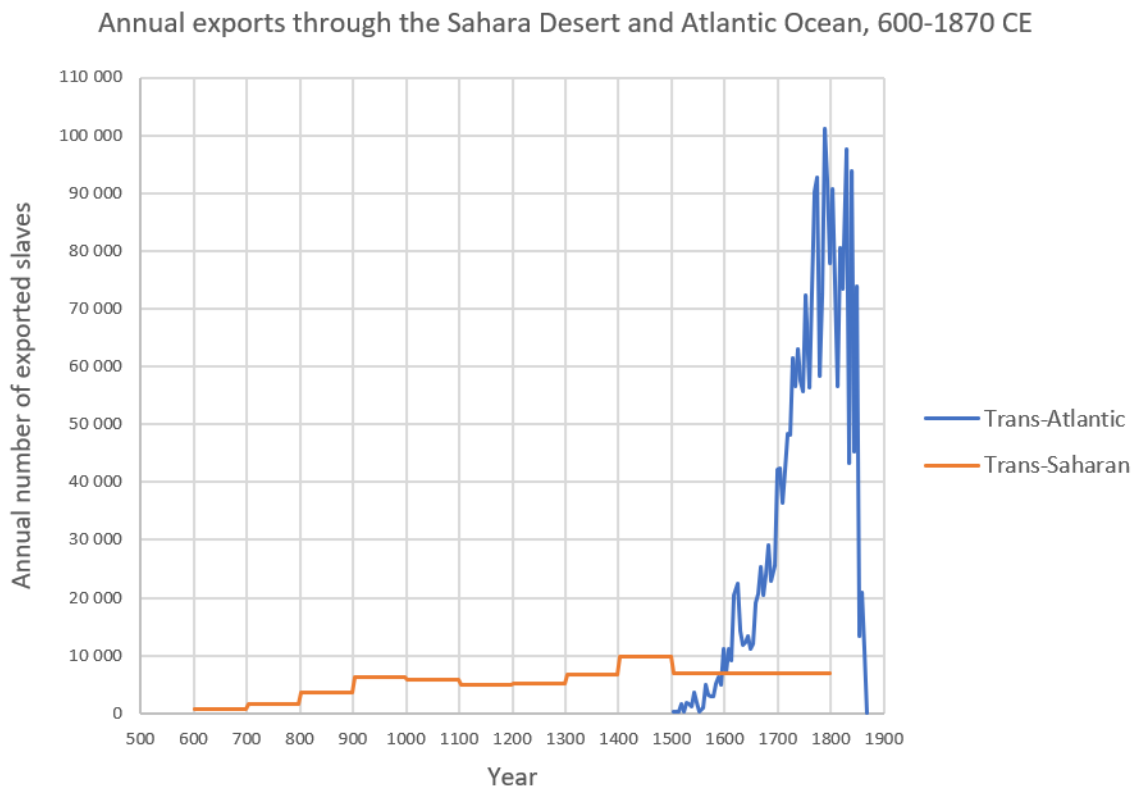
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[11] Much of this region lies north of 8° N and within the distance cutoffs used in the analysis in Tables 6 and A.5.

[12] A 10th century Persian geography book.

[13] Wright (2007) provides a slightly lower estimation for the Saharan trade, suggesting that at its peak, it reached no more than 5,000 slaves per year.

Figure 1: Annual slave exports through the Sahara and the Atlantic, based on data from Wright (2007) and The Trans-Atlantic Slave Trade Database (2019)

Annual exports through the Sahara Desert and Atlantic Ocean, 600-1870 CE

the Portuguese involved kidnapping and *selling* slaves to African traders in Lagos during 1444-1445 (Klein, 2010), followed by an extended period of trade with African states along the west coast (Lovejoy, 2011). As Klein points out: "*the whole complex of enslavement practices from full-scale warfare and raiding of enemies to judicial enslavement and taxation of dependent peoples had come into use and would easily be adjusted to the needs of the Atlantic slave trade when this came into existence in the early fifteenth century*". Hence, the Portuguese integrated into a network of Muslim traders and African kingdoms, reorienting inland markets towards the coast to meet European demand (Klein, 2010; Wright, 2007). It was not until the 17th century that the trans-Atlantic slave trade surpassed the trans-Saharan slave trade in export intensity (Klein, 2010; Wright, 2007), as shown in Figure 1.

3 Data and Empirical strategy

We employ five measures of trust outcomes that come from the individual level Afrobarometer Survey Round 3 of 2005, following Nunn and Wantchekon (2011). These measures are: trust of relatives, trust of neighbors, trust of local council, intra-group trust, and inter-group trust.

The baseline measure of European slave trade intensity used by Nunn and Wantchekon (2011) is the number of slave exports normalized by area of land inhabited by the ethnic group, defined as $ln(1 + exports/area)$.

In our first heterogeneity exercise, to identify whether ancestral slavery existed in a given society, we use the Ethnographic Atlas of Murdock, which contains data on the characteristics of ethnographic societies around the world prior to industrialization (Murdock, 1965; Alesina, Giuliano, and Nunn, 2013; Giuliano and Matranga, 2021). The variable "Type of Ancestral Slavery" (variable $v70$) in the Ethnographic Atlas reports the type of slavery in a society prior to colonization as one of the following four categories: i. absent; ii. incipient or nonhereditary; iii. reported but type not identified as either hereditary or nonhereditary; and iv. hereditary and socially significant slavery.[14] If mistrust was influenced by friends, relatives, and neighbors turning on each other as demand for slaves increased, this would arguably be more prevalent in societies with local slavery. Thus, we would expect the European slave trade to have a greater effect on mistrust in these societies.

We first define an *Ancestral slavery* indicator that equals one if any type of ancestral slavery was prevalent in a society and zero if it was reported as absent. We match the ancestral slavery variable in the Ethnographic Atlas to slave trade dataset using the name of each ethnicity as given by Murdock (1965). We successfully match 99% of the original sample to the Ethnographic Atlas, which decreases to 85% after accounting for missing data in the ancestral slavery variable.[15]

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[14]See Figure A.1 in the Online Appendix for a histogram of the categories of ancestral slavery, and the map in Figure A.2 for the geographical distribution across Africa.

[15]See Table A.7 in the Online Appendix for a complete list of matched and non-matched ethnicities.

For this exercise, our estimating equation is as follows.

$$Trust_{i,e,d,c} = \alpha_c + \beta Slave\ Trade_e + \delta Slave\ Trade_e \times Ancestral\ Slavery_e$$

$$+ \gamma Ancestral\ Slavery_e + \boldsymbol{X}'_{i,e,d,c}\boldsymbol{\Gamma} + \boldsymbol{X}'_{d,c}\boldsymbol{\Omega} + \boldsymbol{X}'_e\boldsymbol{\Phi} + \varepsilon_{i,e,d,c} \quad (1)$$

where i denotes individuals, e ethnic groups, d districts and c countries. $Trust_{i,e,d,c}$ denotes one of the five trust measures. We account for a number of controls at various disaggregation levels (as will be clear when we discuss the results). Standard errors, ε, are adjusted for two-way clustering at the ethnicity and district levels. This specification is similar to that of Nunn and Wantchekon (2011), which we augment with our indicator variable $Ancestral\ Slavery_e$ and its interaction with $Slave\ Trade_e$. Our parameter of interest here is δ, which captures the complementarity between ancestral slavery and slave trade. Ultimately, the parameter estimates on our variable of interest should be interpreted as correlations.

To further disentangle the role of ancestral slavery, we also estimate the effect on trust of each category of ancestral slavery type by replacing the *Ancestral slavery* indicator with the categorical variable *v70*. If slave exports impacted trust more in societies with ancestral slavery, we would expect to see a larger reduction in trust for ethnic groups where ancestral slavery was socially significant compared to where it was less significant.

Finally, we estimate the effect of the *timing* of ancestral slavery. Variable *v71* in the Ethnographic Atlas reports the status of slavery at the time of European contact as either: i. slavery was never practiced; ii. slavery was present in the past; and iii. slavery is currently present.[16] In our next set of regressions, we replace the *Ancestral slavery* indicator with the categorical variable *v71*. Again, we would expect a larger reduction in trust for those ethnicities that practiced slavery more recently at the time of European contact rather than for those that practiced slavery only in the past.

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[16]See Figure A.5 in the Online Appendix for a histogram of the timing of ancestral slavery, and the map in Figure A.6 for the geographical distribution across Africa.

In our next heterogeneity exercises, we analyze heterogeneity by predetermined exposure to Saharan slave trade and the Tsetse fly. For ease of interpretation, we split the sample rather than using interaction variables.

We use data on Saharan trade routes covering the period 500-1900 CE from Ciolek (2001). As discussed in the background section, we would conjecture a stronger effect of the slave trade on trust in the proximity of the trans-Saharan trade route.

Instead, data on Tsetse fly suitability come from Alsan (2015). We expect the main correlations to be greater in high Tsetse areas.

4 Results

4.1 Heterogeneity by Ancestral Slavery

In Tables A.1 and A.2, we first successfully reproduce the original results of Nunn and Wantchekon (2011) with baseline controls and additional controls.

Then, Table 1 presents our baseline results with ancestral slavery.[17] First, in columns 1-5, we run regressions of trust outcomes with only the slave trade variable, using our augmented dataset for which the ancestral slavery information in the Ethnographic Atlas is not missing. The estimates with this sample shows that slave trade exposure negatively predicts trust, in line with the findings of Nunn and Wantchekon (2011).

More importantly, for each of the five trust measures as outcomes, columns 6-10 present our novel results from the specification using the *Ancestral slavery* interaction term. Results in columns 6-10 indicate that when we introduce the ancestral slavery interaction term, the

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[17]Note that all regressions account for an extensive set of control variables, including 17 country fixed effects, age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, and the share of the district's population that are the same ethnicity as the respondent.

slave trade estimates generally lose significance.[18] The coefficients on slave trade in trust in local council and inter-group trust regressions are even positive now and statistically significant (columns 8 and 10). Crucially, we find that the negative association between the slave trade and mistrust today instead runs fully through the interaction of the slave trade and ancestral slavery. The slave trade led to mistrust today only in societies with ancestral slavery. Instead, in societies without ancestral slavery, slave trade does not give rise to lower trust. Note also that ancestral slavery on its own does not correlate with mistrust, and only the complementarity between ancestral slavery and the slave trade predicts mistrust.

The magnitudes of the interaction estimates are also large. Using the fact that the standard deviation of both the slave trade variable and the trust measures are close to 1, we interpret each interaction estimate roughly as standard deviation changes in observed trust for a one-standard deviation change in the slave trade variable. For example, we find that trust for local council today in societies with ancestral slavery is 0.118 standard deviations lower per standard deviation increase in slave trade, whereas it is 0.176 standard deviations *higher* per standard deviation increase in slave trade for those ethnicities where ancestral slavery was absent.[19]

These findings are consistent with two interpretations. One interpretation could be that mistrust arose when people turned on each other after the shock of the slave trade, as this would arguably be more common in societies with already prevalent slavery practices. Alternatively, the slave trade led to local indigenous slavery, which, in turn, led to lower trust.[20] Below, we carry out exercises to gain more insight into the associations between the

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[18]Figure A.8 provides residual plots corresponding to columns 1-10 of Table 1.

[19]In Table A.3, as a robustness check, we rerun our analysis with the sample of Round 4 of the Afrobarometer from 2008. By and large, the findings are supported. In further rounds of the Afrobarometer, the sampling of ethnic groups is problematic as the number of ethnic groups goes down significantly. Hence, they are less comparable and are unsuitable for our analysis.

[20]It is worth to recall that Murdock's purpose in collecting relevant ethnographic information was to capture indigenous cultures and institutions. For instance, in the Standard Cross-Cultural Sample (SCCS) (as a

slave trade and ancestral slavery.

First, following the instrumental variable strategy of Nunn and Wantchekon (2011), we use the historic distance of each ethnic group from the coast as an instrument for the number of slaves taken during the slave trade. In column 1 of Table A.4, first stage results clearly show that distance from the coast predicts slave trade. Then, in columns 2-3, we run regressions of ancestral slavery on the slave trade, OLS and IV, respectively. We observe that, even though there is some correlation in the OLS regression, the instrumented slave trade does not lead to greater ancestral slavery (if anything the relationship is negative). Relatedly, Fenske (2013) instruments slave trade exports by distance to international slave ports (an approach complementary to ours) and finds no significant association between slave trade intensity and ancestral slavery in the Ethnographic Atlas. Next, in column 4, first stage results indicate that distance from the Saharan trade nodes predicts ancestral slavery, in line with the historical account. Then, in columns 5 and 6, we run regressions of slave trade on ancestral slavery, OLS and IV, respectively. As before, even though there is some correlation in the OLS regression, the instrumented ancestral slavery does not lead to greater slave trade. Therefore, we conclude that, even though there might be some correlation between the slave

subsample of the Atlas), Murdock himself talks about the purpose of the SCCS to avoid the acculturative effect of European contact and to capture ethnographic characteristics (Murdock and White, 1969). The Atlas is ultimately an effort to code, categorize and compile ethnographic information capturing life prior to modernization, as argued by multiple studies (Murdock and White, 1969; Gennaioli and Rainer, 2007; Alesina, Giuliano, and Nunn, 2013; Michalopoulos and Papaioannou, 2013). We also carry out an exercise capturing the potential influence of contact with Europeans, by employing an indicator variable which equals one if a European explorer traveled through land historically occupied by the ethnic group (Nunn and Wantchekon, 2011). In the data, the correlation between European explorer contact and ancestral slavery is insignificant with a p-value of 0.9. Similarly, capturing European missionary contact, number of missions per square kilometer for each ethnic group has no significant correlation with ancestral slavery with a p-value of 0.8. Therefore, there is no evidence that European contact predicts ancestral slavery. Nevertheless, it is certainly possible that the ancestral slavery measure from the Ethnographic Atlas might have been affected by the slave trade exposure itself.

trade and the observed ancestral slavery measures in the Ethnographic Atlas, there is not enough evidence of a causal relationship.

Perhaps, the positive effects of slave trade on trust in local council and inter-group trust in columns 8 and 10 of Table 1 also merit some discussion. What could explain the seemingly counter-intuitive positive and significant slave trade estimates for trust in local council and inter-group trust? One explanation could be that the slave trade increased trust historically in the local council in societies where ancestral slavery was absent, perhaps, because of the efforts by local leaders to coordinate against slave-raids, and this trust persisted over time. There is suggestive literature that this indeed might have been the case in some societies. Klein (2001) reviews the literature on decentralized societies' response to slave raids during the slave trade, often the victim of such raids. He finds that many societies built walls, fortifications, complex tunnel networks and hilltop villages to repel against invading slave raids (see also Stilwell (2014) and Nunn and Puga (2012)), arguably efforts that required a significant increase in political and societal coordination by local leaders. Furthermore, Klein (2001) and Stilwell (2014) report that slave raids against these societies encouraged collaboration and coordination of defensive efforts between villages and led to confederal arrangements in many areas, hence potentially uniting different ethnic groups and fostering inter-group trust at the local scale.

Next, Table 2 presents our results using the categorical variable of the Type of Ancestral Slavery (variable *v70*) instead of the ancestral slavery indicator, enabling us to separate different types of slavery. We find that the effects of slave trade on mistrust today is generally stronger for those ethnicities where slavery was socially significant rather than incipient. This difference is most notable for trust in relatives and neighbors, which is consistent with the mechanism that in societies where slavery was more socially significant, it was likely easier to capture and sell relatives and neighbors. A case in point, Klein (2001) reports that maternal uncles would sometimes sell their sisters' children to slave traders before the father took over custody.

Finally, Table 3 reports instead the estimates of interacting slave trade with the *timing* of ancestral slavery (variable *v71*). The results are consistent with our findings in Tables 1 and 2: societies where slavery was currently practiced saw the largest reduction in trust due to the slave trade. The estimates for these societies show the most consistent and overall highest magnitudes across the five trust measures, roughly two to three times greater in magnitude than the estimates in columns 1-5 of Table 1, highlighting the important role of the practice of slavery in the deleterious long-run effects of the slave trade.

4.2   Heterogeneity by Exposure to Saharan Trade

As argued in the background section, there is a long documented history of slave trade throughout Africa (Eltis et al., 2021; Falola and Heaton, 2008; Stilwell, 2014), of which the most significant and long-lasting one was the trans-Saharan slave trade (Eltis et al., 2021; Segal, 2002; Wright, 2007). European slave traders might have also tapped into this existing trade route for their benefit. As a result, if access to the ancient trans-Saharan trade route facilitated the systematic selling of fellow community members to slave traders, we would expect the effects of the trans-Atlantic slave trade, as a demand shock,[21] to be especially detrimental for ethnicities exposed to the ancient trans-Saharan slave trade routes. Therefore, we evaluate the heterogeneity of the effect of the slave trade on trust by proximity to Saharan trade routes in three ways.

First, we carry out an exercise by splitting the sample by distance between each ethnicity's centroid and the nearest Saharan trade node. The advantage of this approach is that travel distance likely effectively captures actual supply constraints. Table 4 reports the results of a sample split by median distance of 2100 km from the nearest Saharan trade node. We observe that the negative effects of the slave trade on trust today run through those

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[21]While the ancient trans-Saharan slave trade predated the trans-Atlantic slave trade by about a millennium, it was about a factor of 20 times less intense (see Wright (2007) and Nunn (2008) as well as Figure 1 for data on annual exports).

ethnicities in the vicinity of the Saharan trade route. On the contrary, ethnicities unaffected by this pre-existing market do not show negative effects on trust.

Arguably, the median distance of 2100 km likely overstates transport capacities at the time. Thus, we complement the analysis by splitting the sample at 1000 km, which corresponds to how far the trans-Atlantic slave trade extended from the coast into Africa (Figure 1 in Nunn and Wantchekon (2011)). Table A.5 again shows that ethnicities geographically closer to pre-existing slave markets drive the negative effects of the slave trade on trust.

As mentioned earlier, Nunn and Wantchekon (2011) employ distance from the coast as an exogenous instrument for the intensity of the slave trade, with successful first stage and reduced form results. We also assess how the predictive power of distance to coast changes with distance to the pre-existing slave trade routes of the Sahara. We evaluate this causal link according to the proximity of the ethnic group to the Saharan trade nodes by simply splitting the sample by median distance (2100 km) from the nearest Saharan trade node. Table 5 presents the first stage and the reduced form effects (on the slave trade and trust, respectively) of the exogenous instrument of distance to coast above and below the median distance cutoff. Panel A of Table 5 shows that this causal link is driven by societies in the vicinity of the Saharan trade nodes, whereas Panel B reveals that this causal link does not hold any longer far from the Saharan trade nodes. Comparing column 1 of Panels A and B, distance from the coast is a significant predictor of slave trade exposure only for societies close to the Saharan trade routes, since the first stage coefficient in Panel B is statistically insignificant and more than ten times smaller than the coefficient in Panel A. Similarly, in columns 2-6, the significant reduced form correlations between distance to coast and trust are driven by the sample of ethnic groups near the Saharan trade route in Panel A.

Second, we use the travel time between each ethnicity's centroid and the nearest Saharan or Red Sea trade node as an alternative measure of exposure to pre-existing slave trade. This is motivated by the historical literature on the existence of a dual slave market before the opening of the West African–Atlantic routes, with exports through the Sahara and the

Red Sea (Klein, 2010). This measure takes into account precolonial travel times by assigning historical walking and canoe speeds over different surfaces over all of Africa, and is computed for every ethnicity in the sample (Whatley, 2022).[22] Figure 2 shows the evolution of the effect of the slave trade on trust for relatives by travel time from the nearest Saharan or Red Sea trade node. When we gradually exclude ethnicities with more than 7 and up to 60 days of travel time from the nearest trade node, we observe that the main findings hold for ethnicities located within one to three weeks of travel time. However, for ethnicities with greater than three weeks of travel time from the trade nodes, the effect of the slave trade on trust becomes insignificant and even changes sign. We observe the same pattern regardless of the trust outcome employed (see Figure A.9). Thus, we find that, for a large majority of the ethnicities sufficiently far away from pre-existing Saharan trade nodes,[23] there is no effect of the Atlantic slave trade on trust today.

Third, historical sources reveal that the trans-Saharan trade mostly operated in the north-south direction and it extended at least as south as the 8° N. Figure A.7 reveals the extent of the trans-Saharan slave trade network and how south it reached. Hence, we use this geographic limitation as an exogenous demarcation line that predicts the extent of the tran-Saharan trade. We simply carry out a reduced form exercise by splitting the sample by latitude and evaluating the effect of slave trade on trust above and below this demarcation zone. Based on the above discussion, we pick the 8° N latitude as the demarcation line to split the sample. One advantage of using latitude is that the demarcation region is exogenous to the trade routes, whereas distance to Saharan trade routes is measured based on pre-existing trade nodes.

The results in Panel A of Table 6 show that the slave trade had a negative effect on trust only for ethnicities above 8° N, which were nearly all affected by the trans-Saharan

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[22]For more details on how the travel time measure is defined and computed, see Whatley (2022).

[23]Approximately 82% of the total sample is more than 20 travel days away from the nearest Saharan and Red Sea trade nodes, the point at which the coefficient turns positive. The distribution of travel time for all ethnicities in the sample ranges from 1 to 123 days, with a mean of 53 days.

Figure 2: The evolution of the effect of the slave trade on trust for relatives, by travel time from the nearest Saharan and Red Sea trade nodes

slave trade. Ethnicities farther south and mostly outside the zone of influence of this earlier trade show no significant effect of the slave trade on mistrust today regardless of the outcome (Table 6 Panel B). Shifting the latitude southwards does not meaningfully change the coefficients as Table A.6 shows by splitting the sample at 4° N, and thus, incorporating the whole of West Africa. Therefore, this exercise provides some reduced form evidence that the slave trade had a negative effect on trust only within the geographically limited reach of the old trade routes.

4.3 Heterogeneity by Exposure to Tsetse Fly

The tsetse fly was a threat to caravans as it infected horses and camels. The entomologist Glasgow (1963) argued that the presence of the TseTse and the practice of slavery were

related because "*when the use of draught animals was not possible due to the TseTse, trade depended on transport by human carriers. And, this, in turn, may have encouraged the growth of slavery.*" Importantly, in line with the argument of Glasgow (1963), Alsan (2015) shows that there is a positive correlation between the prevalence of the TseTse and the practice of indigenous slavery at the ethnic group level. Therefore, to the extent that indigenous slavery correlates with slave trade, we might expect a differential effect of the slave trade on trust depending on the prevalence of the TseTse. Figure 3 in Alsan (2015) provides us with a map of historical tsetse suitability in Africa. We employ this index of tsetse suitability for a heterogeneity exercise for the effect of the slave trade in high and low Tsetse-suitable locations.

The results in Table 7 indicate that the negative effect of the slave trade on trust is mostly driven by high Tsetse-suitable areas. This is in line with the argument of Glasgow (1963) that Tsetse-bound areas might have been more conducive to slavery.

5   Conclusion

This paper provides additional insights into the pathways through which the negative repercussions of the slave trade have impacted mistrust in Africa. Specifically, our research highlights three sources of heterogeneity that are driving the main correlations.

First, the slave trade resulted in a culture of mistrust only in those societies with ancestral slavery. Second, the negative correlation between the slave trade and trust is driven by ethnic groups in the vicinity of the trans-Saharan trade route. Third, the negative effect of slave trade on trust is stronger in areas with greater Tsetse disease suitability.

We show how the legacy of the slave trade continues to hinder development across Sub-Saharan Africa by influencing trust levels towards both other fellow citizens and political leaders. In a broader context, our findings also contribute to our understanding of how the development of cultural norms under the influence of historical institutions can interact with historical shocks to affect contemporary beliefs and attitudes.

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Table 1: Slave Trade, Ancestral Slavery and Mistrust in Africa

Dependent Variable	Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust	Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Slave trade	−0.132***	−0.157***	−0.112***	−0.144***	−0.091***	0.007	0.000	0.176**	0.069	0.161**
	(0.036)	(0.034)	(0.021)	(0.032)	(0.028)	(0.079)	(0.093)	(0.081)	(0.075)	(0.081)
Slave trade × Ancestral slavery						−0.143*	−0.159*	−0.294***	−0.213***	−0.251***
						(0.082)	(0.094)	(0.080)	(0.077)	(0.079)
Ancestral slavery						0.073	0.005	0.100	−0.072	−0.096
						(0.065)	(0.083)	(0.061)	(0.103)	(0.104)
Baseline controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	17,599	17,564	16,569	17,505	17,340	17,599	17,564	16,569	17,505	17,340

Notes: Slave trade is defined as $log(1 + slaveexports/area)$. *Ancestral slavery* takes 1 when any type of slavery is present in a society, and 0 otherwise, based on v70 in the Ethnographic Atlas. *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Columns 1-5 are the baseline results for the sample of societies whose ancestral slavery information in the Ethnographic Atlas is not missing. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table 2: Slave Trade, Types of Ancestral Slavery and Mistrust in Africa

Dependent Variable	Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust
	(1)	(2)	(3)	(4)	(5)
Slave trade	−0.021	−0.037	0.167**	0.031	0.134*
	(0.076)	(0.085)	(0.078)	(0.067)	(0.075)
Slave trade interacted with Types of Ancestral slavery:					
× Hereditary and significant	−0.166**	−0.154*	−0.323***	−0.179**	−0.222***
	(0.083)	(0.090)	(0.078)	(0.072)	(0.076)
× Incipient or nonhereditary	−0.033	−0.091	−0.241***	−0.180**	−0.223***
	(0.082)	(0.096)	(0.078)	(0.085)	(0.084)
× Reported but type unidentified	−0.033	−0.008	−0.214***	−0.071	−0.161**
	(0.083)	(0.087)	(0.080)	(0.072)	(0.077)
Hereditary and significant	0.061	−0.053	0.124**	−0.160	−0.161
	(0.065)	(0.074)	(0.059)	(0.097)	(0.101)
Incipient or nonhereditary	0.051	0.041	0.039	−0.021	−0.070
	(0.064)	(0.080)	(0.067)	(0.110)	(0.105)
Reported but type unidentified	0.090	0.033	0.097	−0.018	−0.046
	(0.065)	(0.076)	(0.072)	(0.086)	(0.096)
Baseline controls	yes	yes	yes	yes	yes
Observations	17,599	17,564	16,569	17,505	17,340

Notes: Slave trade is defined as $log(1 + slaveexports/area)$. Types of slavery are based on v70 in the Ethnographic Atlas. *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Rows 2-4 present the estimates for the interactions of *Slave trade* with various *Types of Ancestral Slavery*. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table 3: Slave Trade, Timing of Ancestral Slavery and Mistrust in Africa

Dependent Variable	Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust
	(1)	(2)	(3)	(4)	(5)
Slave trade	0.031	0.024	0.178**	0.075	0.173**
	(0.072)	(0.092)	(0.078)	(0.079)	(0.080)
Slave trade interacted with:					
× Ancestral slavery, currently	−0.240***	−0.224**	−0.283***	−0.267***	−0.292***
	(0.078)	(0.101)	(0.081)	(0.092)	(0.088)
× Ancestral slavery, formerly	−0.077	−0.084	−0.259***	−0.153*	−0.214***
	(0.075)	(0.093)	(0.078)	(0.081)	(0.078)
Ancestral slavery, currently	0.195**	0.115	0.126	0.028	−0.042
	(0.086)	(0.109)	(0.090)	(0.128)	(0.126)
Ancestral slavery, formerly	0.092	−0.005	0.115*	−0.095	−0.116
	(0.072)	(0.086)	(0.064)	(0.112)	(0.105)
Baseline controls	yes	yes	yes	yes	yes
Observations	15,219	15,186	14,337	15,133	14,990

Notes: Slave trade is defined as $log(1 + slaveexports/area)$. *Ancestral slavery, formerly* indicates that ancestral slavery was practiced at some point in the past, but not at the time of European contact, whereas *Ancestral slavery, currently* indicates that slavery was present both prior to and at the time of first European contact, based on v71 in the Ethnographic Atlas. *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Rows 2-3 present the estimates for the interactions of *Slave trade* with the timing of *Ancestral Slavery*. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table 4: Effect of slave trade on trust, split by median distance (2100 km) to Saharan trade nodes

Dep. Var.	Trust of relatives (1)	Trust of neighbors (2)	Trust of local council (3)	Intra-group trust (4)	Inter-group trust (5)
	Panel A: Sample of Ethnicities < median distance (2100 km) to Saharan trade nodes				
Slave trade	−0.144***	−0.173***	−0.127***	−0.160***	−0.120***
	(0.039)	(0.037)	(0.020)	(0.035)	(0.028)
Observations	8,569	8,551	8,155	8,537	8,447
	Panel B: Sample of Ethnicities > median distance (2100 km) to Saharan trade nodes				
Slave trade	0.106*	0.074	0.121*	0.091	0.159**
	(0.056)	(0.069)	(0.070)	(0.069)	(0.070)
Observations	9,030	9,013	8,414	8,968	8,893

Notes: Slave trade is defined as $log(1 + slave exports/area)$. Distance to Saharan trade nodes is measured in thousands of kilometers, from each ethnicity's historical centroid to the nearest Saharan trade node prior to the trans-Atlantic slave trade. *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table 5: First stage and reduced form effects of distance to coast on slave trade and trust, split by median distance (2100 km) to Saharan trade nodes

Dep. Var.	First stage	Reduced form				
	Slave trade	Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Sample of Ethnicities < median distance (2100 km) to Saharan trade nodes						
Historical distance from coast	−2.125***	0.527***	0.619***	0.395***	0.544***	0.481***
	(0.475)	(0.125)	(0.162)	(0.105)	(0.180)	(0.151)
Observations	8,595	8,569	8,551	8,155	8,537	8,447
Panel B: Sample of Ethnicities > median distance (2100 km) to Saharan trade nodes						
Historical distance from coast	−0.194	0.183*	0.144	0.156	0.187	0.085
	(0.133)	(0.098)	(0.093)	(0.126)	(0.119)	(0.137)
Observations	9,213	9,030	9,013	8,414	8,968	8,893

Notes: Slave trade is defined as $log(1 + slaveexports/area)$. Distance to Saharan trade nodes is measured in thousands of kilometers, from each ethnicity's historical centroid to the nearest Saharan trade node prior to the trans-Atlantic slave trade. *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table 6: Effect of slave trade on trust, split by 8° N latitude

Dep. Var.	Trust of relatives (1)	Trust of neighbors (2)	Trust of local council (3)	Intra-group trust (4)	Inter-group trust (5)
	Panel A: Sample of Ethnicities North of 8° Latitude				
Slave trade	−0.123***	−0.212***	−0.164***	−0.235***	−0.176***
	(0.023)	(0.039)	(0.034)	(0.032)	(0.034)
Observations	4,027	4,014	3,739	4,000	3,944
	Panel B: Sample of Ethnicities South of 8° Latitude				
Slave trade	−0.011	−0.019	−0.012	−0.017	0.026
	(0.042)	(0.046)	(0.032)	(0.047)	(0.044)
Observations	13,572	13,550	12,830	13,505	13,396

Notes: Slave trade is defined as $log(1+slaveexports/area)$. The latitude corresponds to the centroid of each ethnicity's historical location. *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table 7: Effect of slave trade on trust, split by median Tsetse Suitability Index value

Dep. Var.	Trust of relatives (1)	Trust of neighbors (2)	Trust of local council (3)	Intra-group trust (4)	Inter-group trust (5)
	Panel A: Ethnicities > median Tsetse Suitability Index				
Slave trade	−0.092*	−0.115**	−0.058*	−0.125**	−0.094**
	(0.055)	(0.054)	(0.030)	(0.054)	(0.045)
Observations	8,774	8,759	8,260	8,732	8,667
	(1)	(2)	(3)	(4)	(5)
	Panel B: Ethnicities < median Tsetse Suitability Index				
Slave trade	−0.001	−0.068	−0.158**	−0.065*	−0.002
	(0.029)	(0.046)	(0.073)	(0.037)	(0.040)
Observations	8,581	8,563	8,076	8,530	8,433

Notes: Slave trade is defined as $log(1 + slaveexports/area)$. *Tsetse Suitability Index* is from Alsan (2015). *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Online appendix for

"Heterogeneous Effects of the Slave Trade on Mistrust in Africa"

A   Additional Results

Figure A.1: Histogram for the type of ancestral slavery (v70), from the Ethnographic Atlas
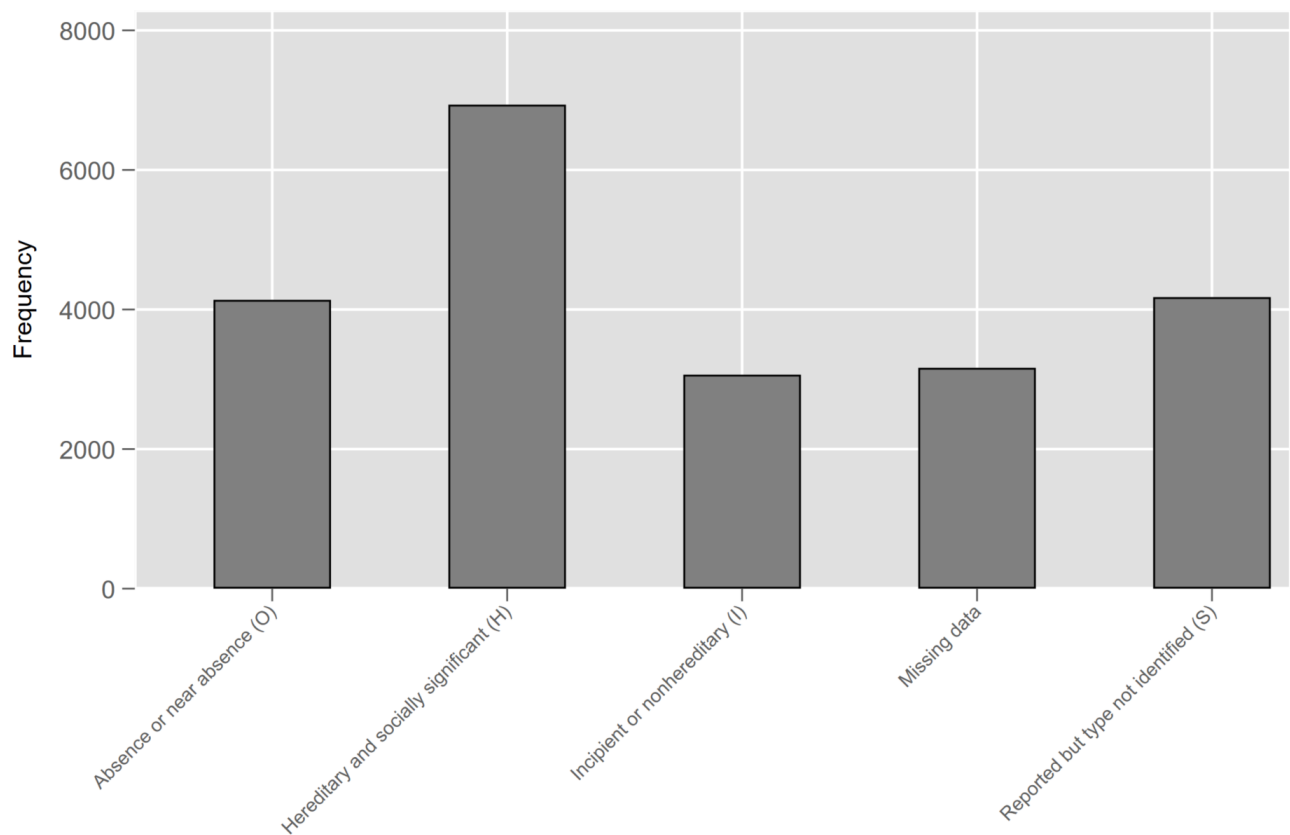
Figure A.2: The geographical distribution of type of ancestral slavery (v70) according to the Ethnographic Atlas and Murdock's Map of Africa

EA v70: "Slavery: type"

- Hereditary and socially significant (H)
- Incipient or nonhereditary (I)
- Reported but type not identified (S)
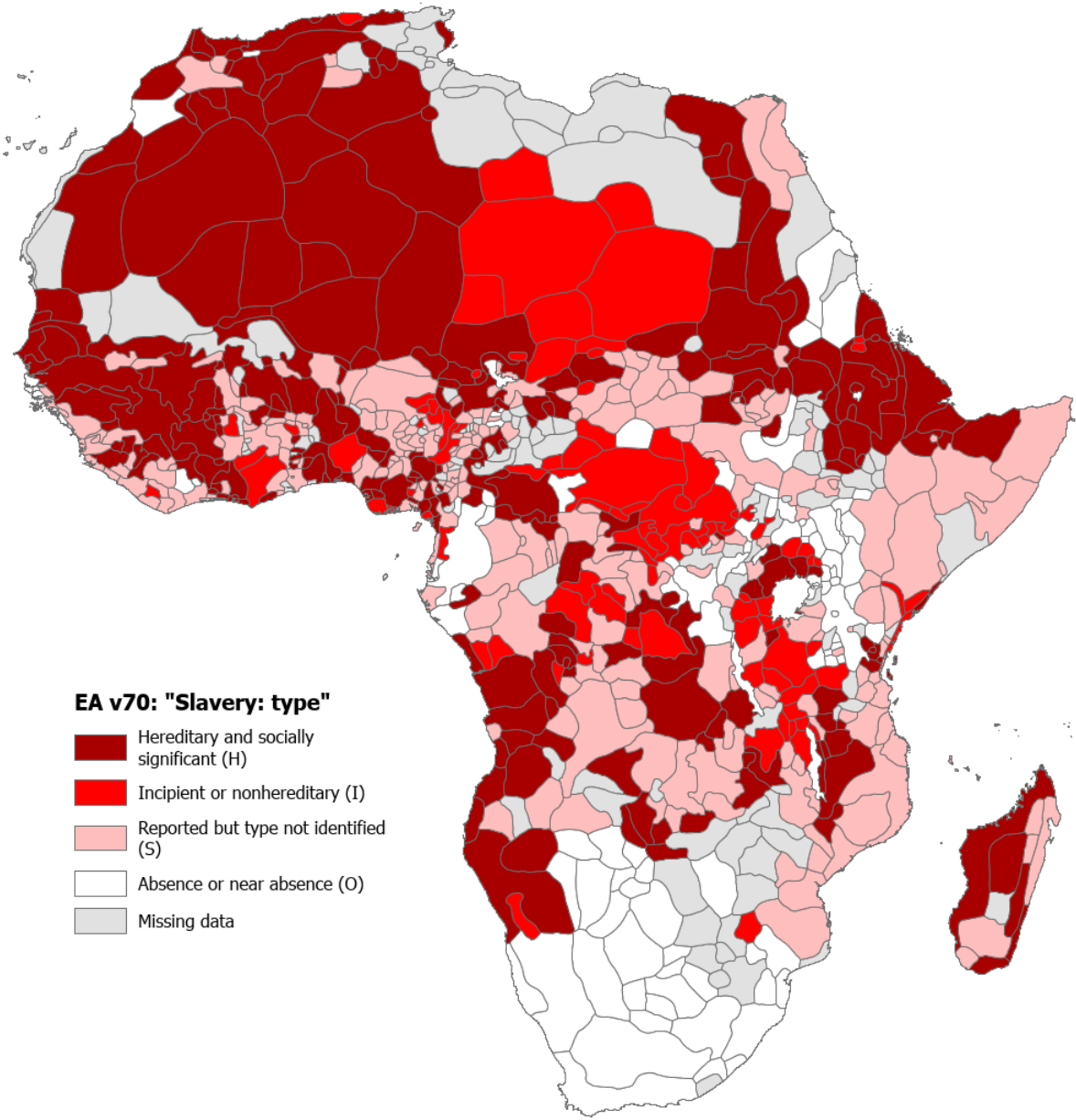- Absence or near absence (O)
- Missing data

Figure A.3: Map showing the location and extent of pre-colonial African states (non-exhaustive), spanning from roughly 500 BCE to 1500 CE (Wikimedia Commons, 2007).
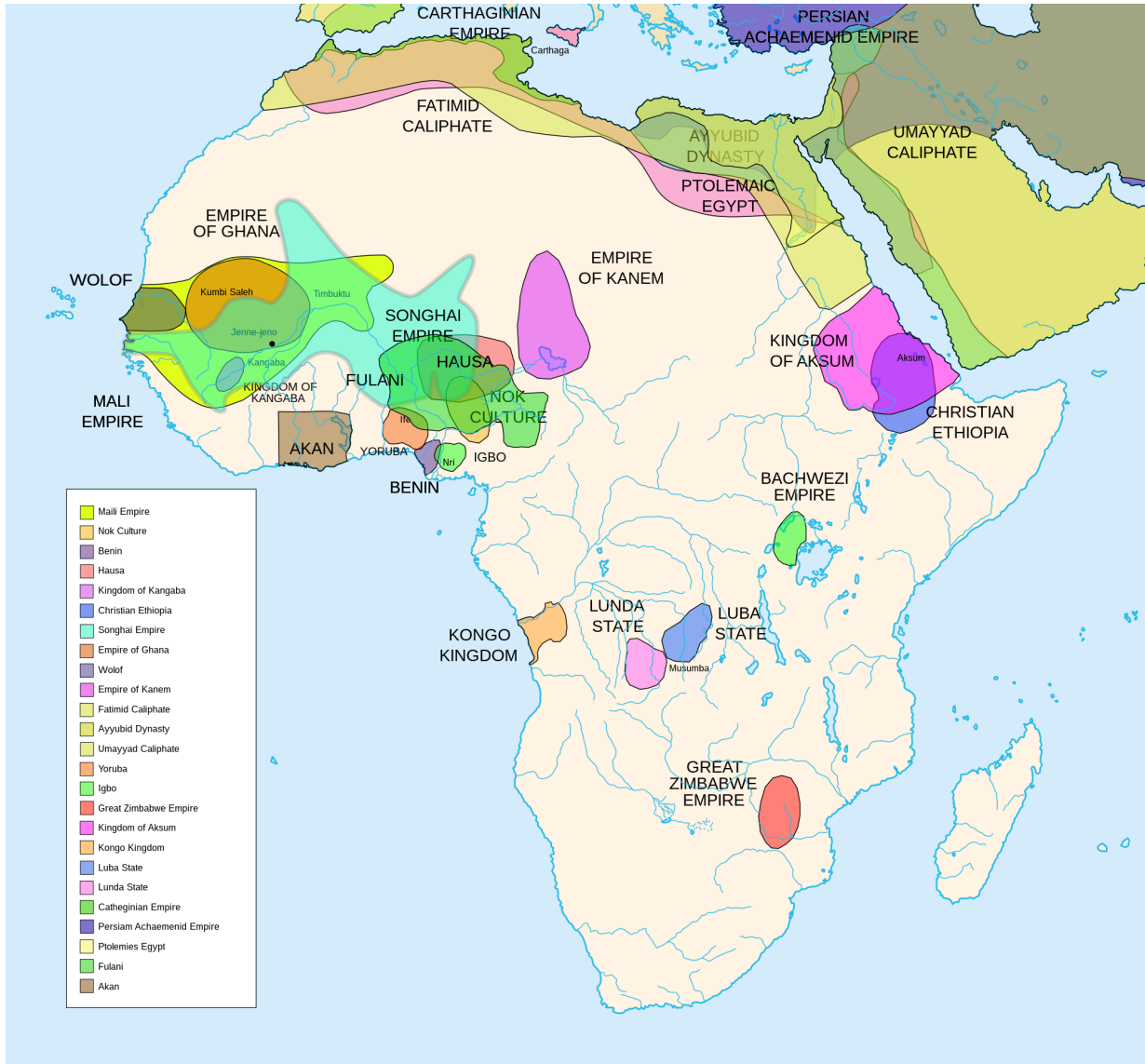
Figure A.4: Map showing the historical extent of the Ghana and Mali Empires, together with the Jùlá trade network, from Donaldson (2020).
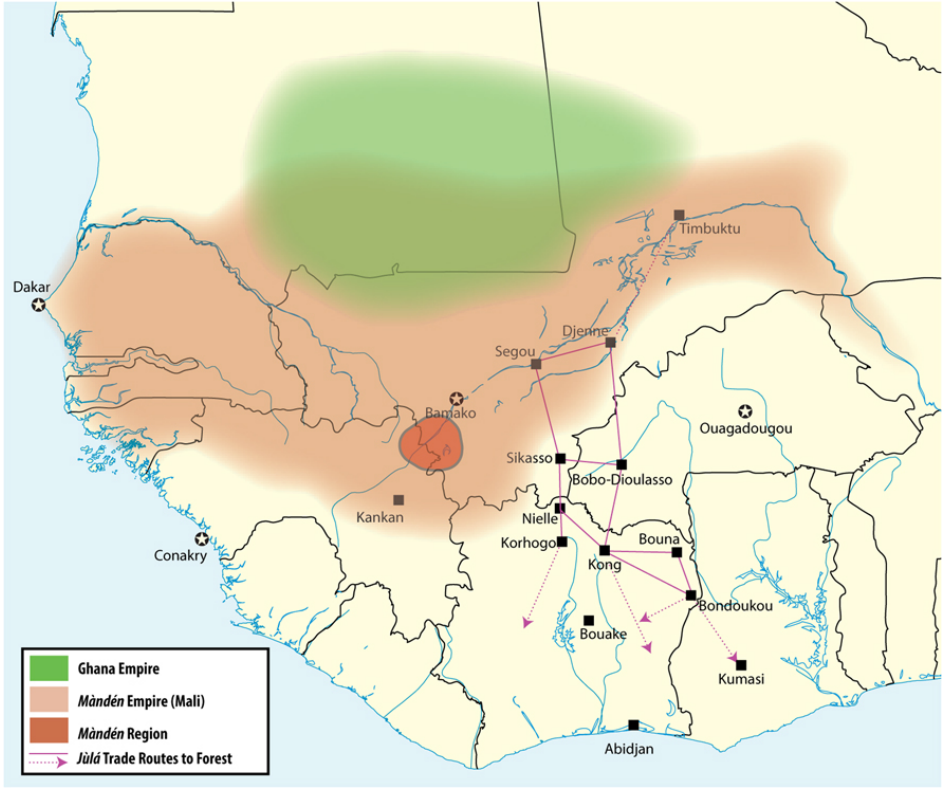
Figure A.5: Histogram for the timing of ancestral slavery (v71), from the Ethnographic Atlas
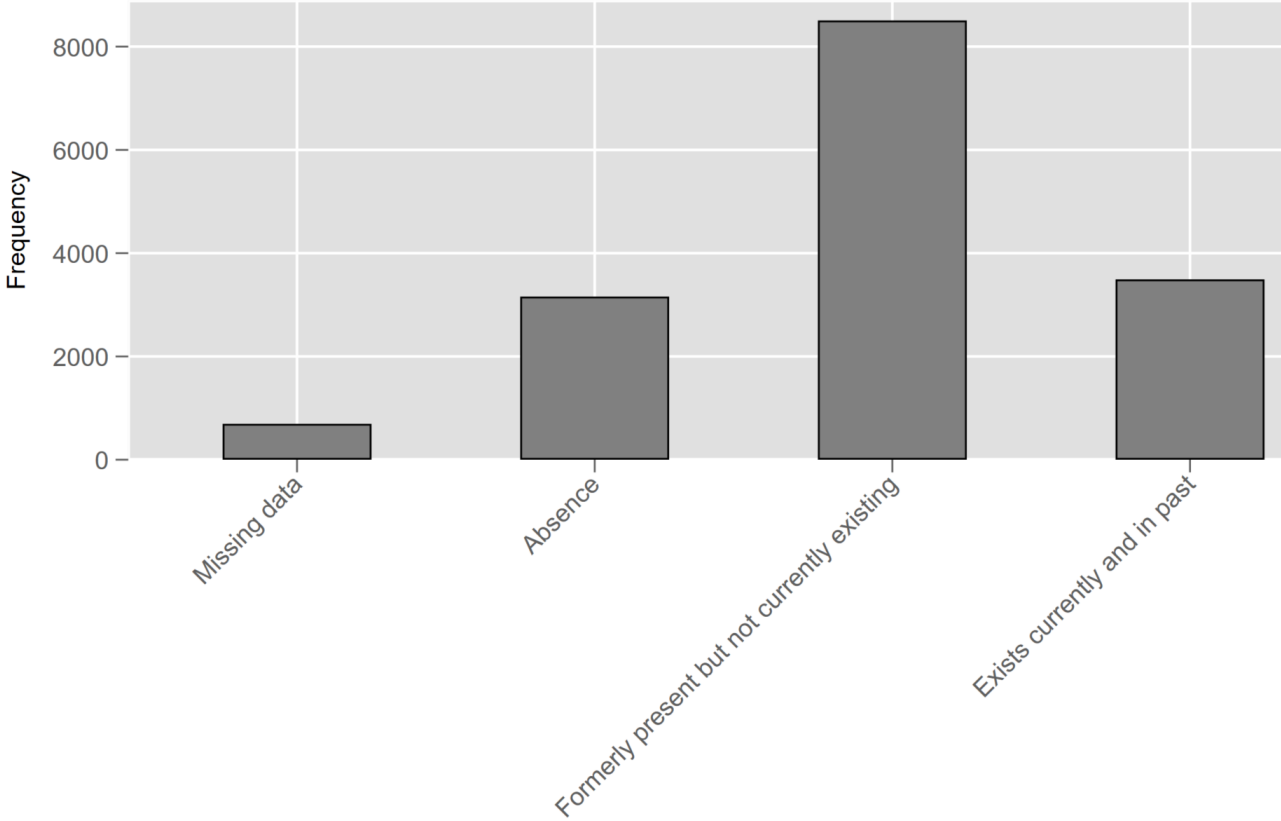
Figure A.6: The geographical distribution of timing of ancestral slavery (v71) according to the Ethnographic Atlas and Murdock's Map of Africa

EA v71: "Slavery: timing"

■ Exists currently and in past

■ Formerly present but not currently existing
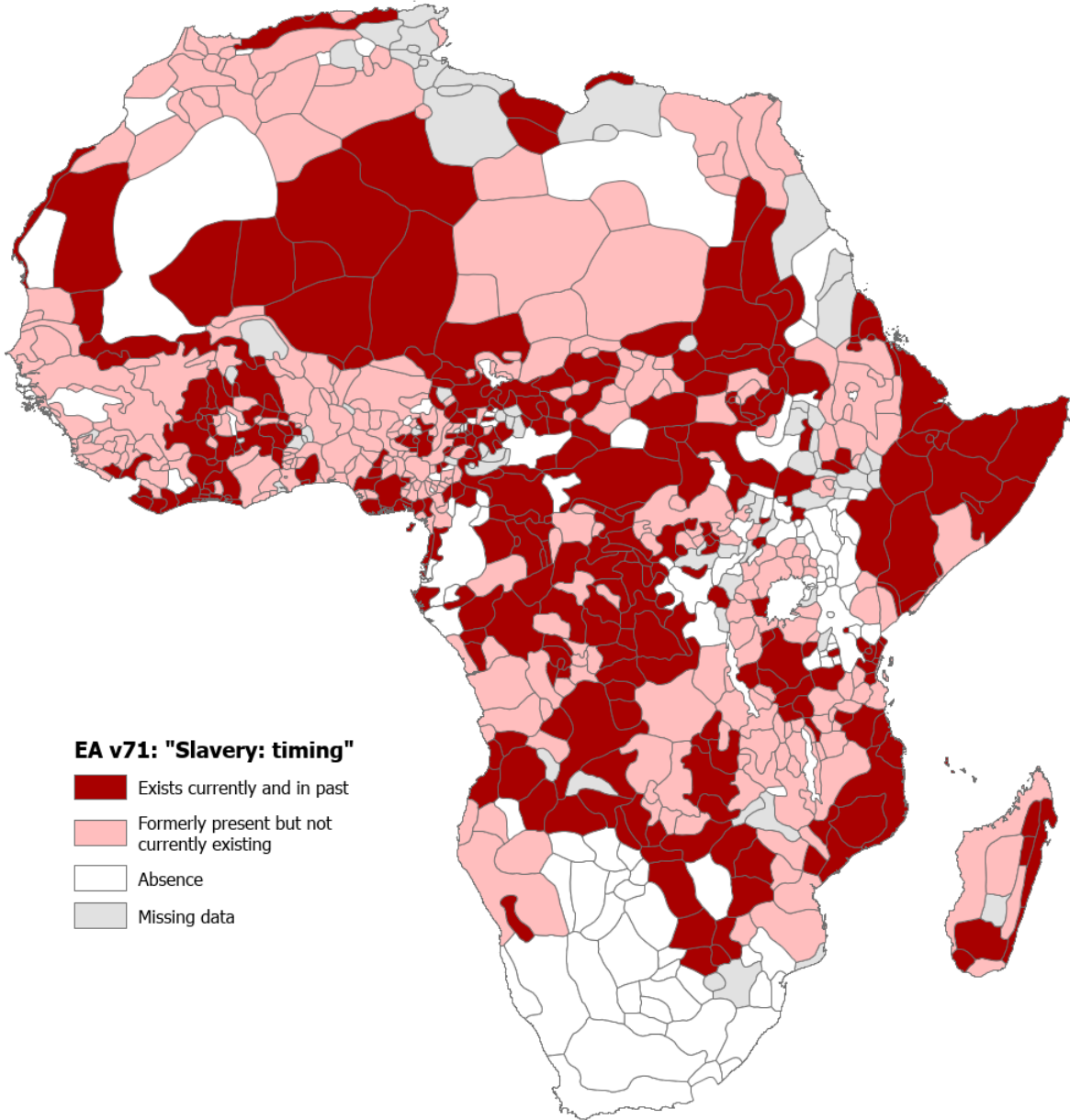
□ Absence

■ Missing data

Figure A.7: Map showing Saharan trade route data from Ciolek (2001), the 8 degree latitude line used in the heterogeneity analysis, and the geographical distribution of type of ancestral slavery (v70) according to the Ethnographic Atlas and Murdock's Map of Africa

- Saharan trade node
- Saharan trade route
- 8 degree latitude

EA v70: "Slavery: type"
- Hereditary and socially significant (H)
- Incipient or nonhereditary (I)
- Reported but type not identified (S)
- Absence or near absence (O)
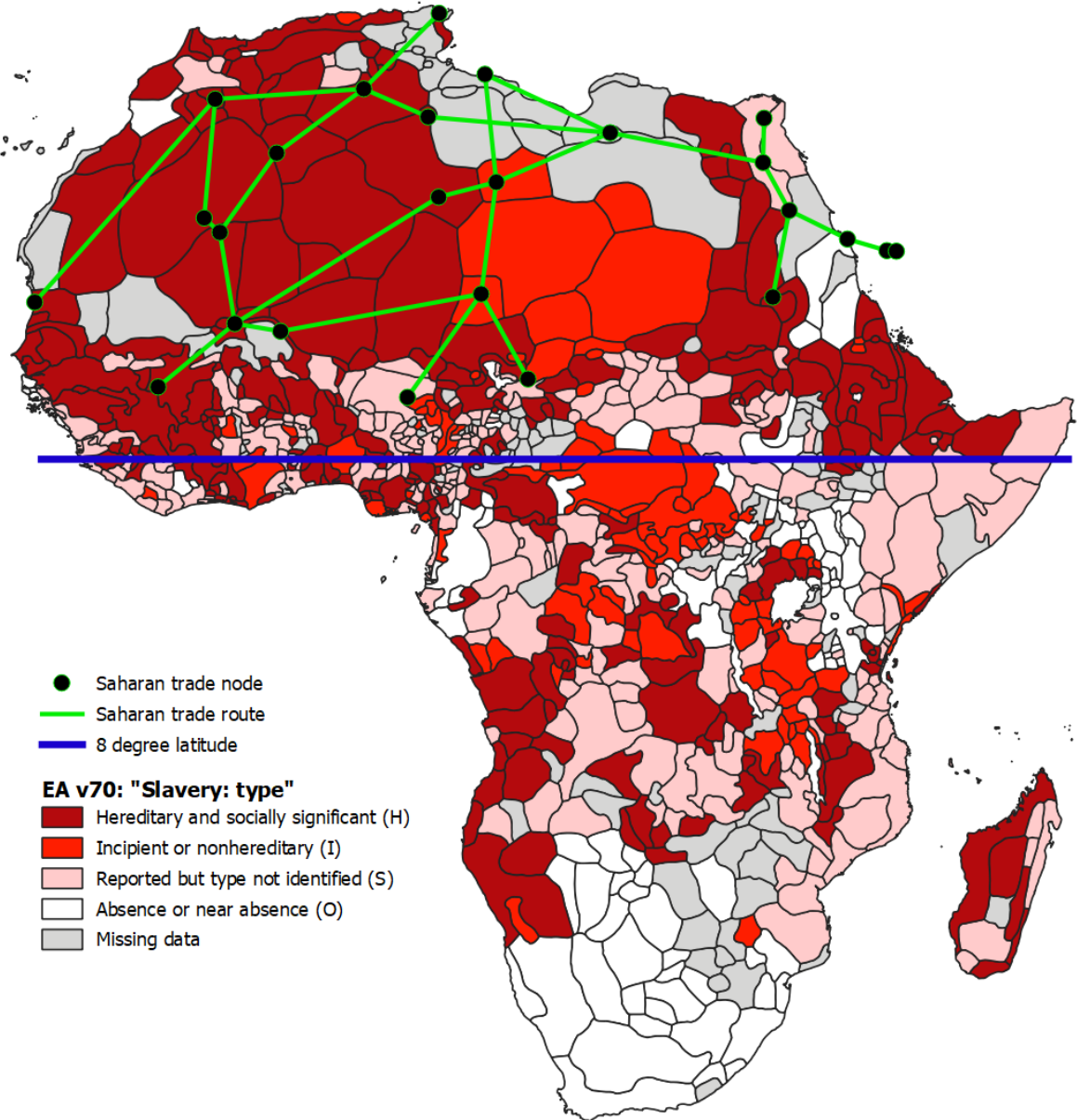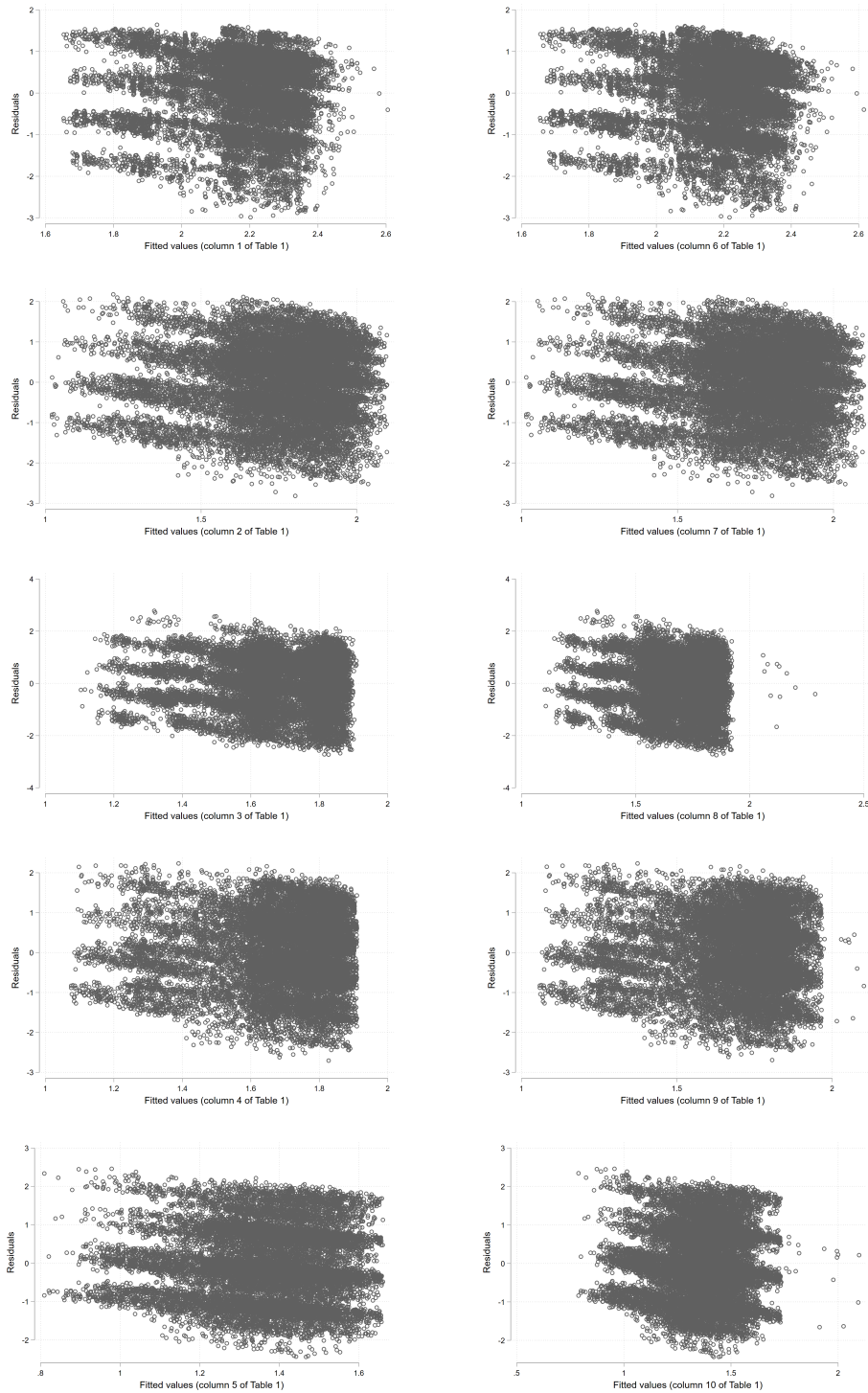- Missing data

Figure A.8: Residual Plots for Table 1 Specifications

Notes: This figure plots residuals against fitted values corresponding to columns 1-10 of Table 1.

Figure A.9: The evolution of the effect of the slave trade on four trust outcomes, by travel time from the nearest Saharan and Red Sea trade nodes
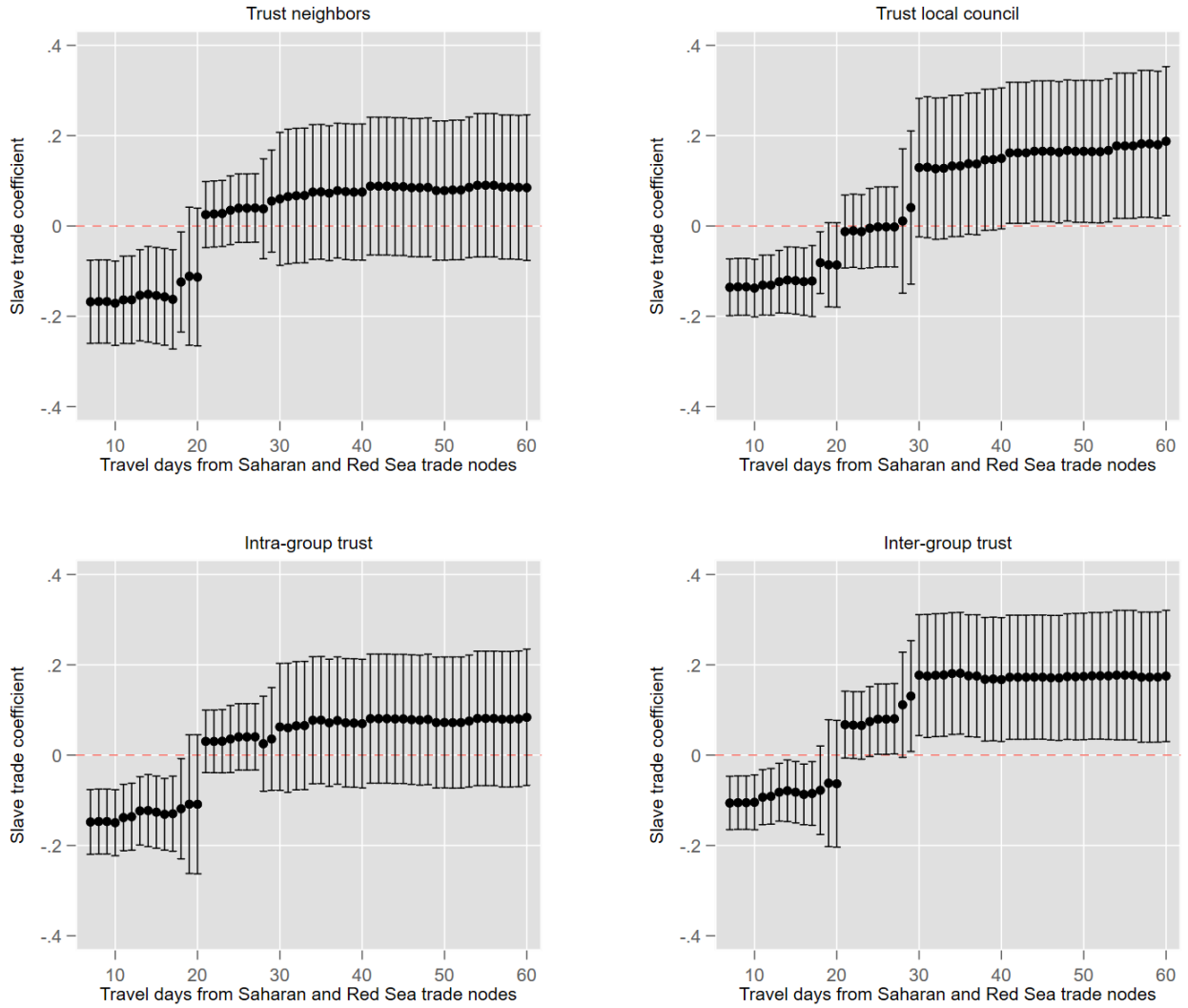
Table A.1: Slave Trade and Mistrust in Africa

Dependent Variable	Nunn and Wantchekon (2011) Table 2 estimates				
	Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust
	(1)	(2)	(3)	(4)	(5)
Slave trade	−0.133***	−0.159***	−0.111***	−0.144***	−0.097***
	(0.036)	(0.034)	(0.021)	(0.032)	(0.028)
Baseline controls	yes	yes	yes	yes	yes
Observations	20,062	20,027	19,733	19,952	19,765

Notes: Slave trade is defined as $log(1 + slaveexports/area)$. *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table A.2: Slave Trade and Mistrust in Africa, Additional Controls

Dependent Variable	Nunn and Wantchekon (2011) Table 3 estimates				
	Trust of relatives (1)	Trust of neighbors (2)	Trust of local council (3)	Intra-group trust (4)	Inter-group trust (5)
Slave trade	−0.178***	−0.202***	−0.129***	−0.188***	−0.115***
	(0.032)	(0.030)	(0.021)	(0.032)	(0.029)
Baseline controls	yes	yes	yes	yes	yes
Additional controls	yes	yes	yes	yes	yes
Observations	16,709	16,679	15,905	16,636	16,473

Notes: Slave trade is defined as $log(1 + slaveexports/area)$. *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Additional controls include (at the ethnicity level) prevalence of malaria, 1400 urbanization indicator, an indicator for the colonial railway network, eight fixed effects for the sophistication levels of the precolonial settlements, number of missions per area, indicator for precolonial Europeans, and jurisdictional political hierarchy. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table A.3: Slave Trade, Ancestral Slavery and Mistrust in Africa, using data from Afrobarometer Round 4 of 2008

Dependent Variable	Trust of relatives	Trust of people you know	Trust of local council	Trust other people of same na-tionality	Trust of relatives	Trust of people you know	Trust of local council	Trust other people of same na-tionality
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Slave trade	−0.082*	−0.119**	−0.055**	−0.111**	0.076*	0.159	0.095	0.165**
	(0.046)	(0.048)	(0.023)	(0.045)	(0.043)	(0.098)	(0.115)	(0.069)
Slave trade × Ancestral slavery					−0.162***	−0.285***	−0.154	−0.283***
					(0.057)	(0.106)	(0.117)	(0.079)
Ancestral slavery					0.068	0.147*	0.052	0.190***
					(0.055)	(0.084)	(0.067)	(0.069)
Observations	14,754	14,686	13,847	14,536	14,754	14,686	13,847	14,536

Notes: Slave trade is defined as $log(1 + slaveexports/area)$. *Ancestral slavery* takes 1 when any type of slavery is present in a society, and 0 otherwise, based on v70 in the Ethnographic Atlas. Baseline controls include age, age squared, a gender indicator, six living conditions fixed effects, ten education fixed effects, 43 religion fixed effects, 7 employment fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 19 country fixed effects. Columns 1-4 are similar to the baseline results for the sample of societies whose ancestral slavery information in the Ethnographic Atlas is not missing. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table A.4: Slave Trade, Ancestral Slavery and Distance from the Coast

Dependent Variable	Slave trade (1)	Ancestral slavery (OLS) (2)	Ancestral slavery (IV) (3)	Ancestral slavery (4)	Slave trade (OLS) (5)	Slave trade (IV) (6)
Historical distance from coast	−1.245*** (0.281)					
Slave trade		0.035* (0.021)	−0.082 (0.099)			
Historical distance from Saharan trade node				−0.345*** (0.118)		
Ancestral slavery					0.228** (0.114)	−1.155 (0.971)
First-stage F			19.17			8.50
Observations	21,136	17,808	17,808	17,808	17,808	17,808

Notes: Slave trade is defined as $log(1 + slave\,exports/area)$. *Ancestral slavery* takes 1 when any type of slavery is present in a society, and 0 otherwise, based on v70 in the Ethnographic Atlas. *Historical distance from coast* is the shortest distance, in thousands of kilometers, from each ethnicity's historical centroid to the coast. *Historical distance from Saharan trade node* is the distance, in thousands of kilometers, from each ethnicity's historical centroid to the nearest Saharan trade node prior to the trans-Atlantic slave trade. Column 3 uses *Historical distance from coast* as an instrument for slave trade exports. Column 6 uses *Historical distance from Saharan trade node* as an instrument for ancestral slavery. Baseline controls include age, age squared, a gender indicator, six living conditions fixed effects, ten education fixed effects, 43 religion fixed effects, 7 employment fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent. All specifications include country fixed effects. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table A.5: Effect of slave trade on trust, split by 1000 km distance to Saharan trade nodes

Dep. Var.	Trust of relatives (1)	Trust of neighbors (2)	Trust of local council (3)	Intra-group trust (4)	Inter-group trust (5)
	Panel A: Sample of ethnicities < 1000 km from Saharan trade node				
Slave trade	−0.156***	−0.179***	−0.133***	−0.161***	−0.120***
	(0.037)	(0.037)	(0.020)	(0.033)	(0.028)
Observations	6,401	6,383	6,025	6,375	6,296
	Panel B: Sample of ethnicities > 1000 km from Saharan trade node				
Slave trade	0.078	0.053	0.112	0.071	0.162**
	(0.056)	(0.068)	(0.071)	(0.068)	(0.072)
Observations	11,198	11,181	10,544	11,130	11,044

Notes: Slave trade is defined as $log(1 + slave exports/area)$. Distance to Saharan trade nodes is measured in thousands of kilometers, from each ethnicity's historical centroid to the nearest Saharan trade node prior to the trans-Atlantic slave trade. *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table A.6: Effect of slave trade on trust, split by 4° N latitude

Dep. Var.	Trust of relatives (1)	Trust of neighbors (2)	Trust of local council (3)	Intra-group trust (4)	Inter-group trust (5)
	Panel A: Sample of Ethnicities North of 4° Latitude				
Slave trade	−0.144***	−0.166***	−0.125***	−0.147***	−0.109***
	(0.038)	(0.038)	(0.020)	(0.035)	(0.030)
Observations	6,477	6,460	6,098	6,451	6,372
	Panel B: Sample of Ethnicities South of 4° Latitude				
Slave trade	0.082	0.058	0.112	0.075	0.164**
	(0.056)	(0.068)	(0.071)	(0.068)	(0.072)
Observations	11,122	11,104	10,471	11,054	10,968

Notes: Slave trade is defined as $log(1+slaveexports/area)$. The latitude corresponds to the centroid of each ethnicity's historical location. *Intra-group trust* is trust for people from own ethnic group. *Inter-group trust* is trust for people from other ethnic groups. Baseline controls include age, age squared, a gender indicator, five living conditions fixed effects, ten education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, an indicator for whether the respondent lives in an urban location, a measure of ethnic fractionalization at the district level, the share of the district's population that are the same ethnicity as the respondent, and 17 country fixed effects. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. $*p < 0.10, **p < 0.05, ***p < 0.01$

Table A.7: List of ethnic groups from matching slave trade data with ancestral slavery (v70) from the Ethnographic Atlas

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Matched to v70, with non-missing data (n = 160):

ALUR, AMBO, ANA, ANGAS, ANTAISAKA, ANTANDROY, ASHANTI, AULLIMINDEN, AUSHI, BAJUN, BAMBARA, BANYUN, BARA, BARARETTA, BARGU, BAUCHI, BEMBA, BERGDAMA, BETSIMISARAKA, BISA, BOBO, BORAN, BOZO, BUYE, CHEWA, CHIGA, CHOKWE, CHUABO, DAFI, DAGARI, DAGOMBA, DENDI, DIGO, DIOLA, DO-GON, DURUMA, EDO, EGBA, EKOI, EWE, FIPA, FON, FOUTATORO, GA, GANDA, GBARI, GISU, GOGO, HAUSA, HAWIYA, HAYA, HEHE, HERERO, HURUTSHE, IBIBIO, IBO, IDOMA, IGALA, IGBIRA, IJAW, ILA, IRAMBA, ISOKO, ITSEKIRI, IWA, KABRE, KAGORO, KAMBA, KANURI, KAONDE, KARAMOJONG, KASONKE, KEYU, KGALAGADI, KIKUYU, KIPSIGI, KOBA, KONSO, KWANGARE, KWENA, KWERE, LALA, LAMBA, LAMBYA, LENJE, LOMWE, LOZI, LUGBARA, LUGURU, LUNDA, LUO, LUVALE, MAHAFALY, MAKONDE, MAKUA, MA-LINKE, MASAI, MASHI, MAURI, MBUKUSHU, MBUNDU, MERINA, MERU, MINIANKA, MOSSI, MURLE, NAMA, NANDI, NDAU, NDEBELE, NGWAKETSE, NKOLE, NKOYA, NUPE, NUSAN, NYAKYUSA, NYAMWEZI, NYANJA, NYORO, PARE, PEPEL, ROLONG, RUANDA, SABEI, SAKALAVA, SENA, SENGA, SENUFO, SERER, SHEBELLE, SHUWA, SIHANAKA, SOGA, SOMBA, SONGHAI, SONINKE, SOTHO, SUBIA, SUK, SUKUMA, SWAZI, TABWA, TANALA, TAWANA, TEITA, TEKNA, TESO, THONGA, TIV, TSIMIHETY, TUMBUKA, TURKANA, TURU, VENDA, WANGA, WOLOF, YAO, YERGUM, YORUBA, ZULU

Matched to v70, with missing data (n = 24):

BETSILEO, CHAGA, CHOPI, FAJULU, GUSII, GYRIAMA, KARANGA, KGATLA, KONJO, KUNDA, LAKA (NDE-BELE), LUCHAZI, LUNGU, MADI, MASINA, MBUNDA, NGWATO, NSENGA, PEDI, SAMO, TLOKWA, TONGA, XOSA, ZEZURU

Not matched to v70 (n = 2):

NGONI, NIKA