

# CULTURE & DEVELOPMENT

## EC310

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## WHAT IS CULTURE?

- The set of shared beliefs (or attitudes, values, rules-of-thumb, short cuts, intuition, values, hunches) that characterize an organization, group of individuals or institution.
- Does culture matter for development?
- **Is there any evidence to suggest that (economically relevant) cultural differences even exist?**

## WHAT IS CULTURE? EXAMPLE FROM PUNCTUALITY

- Hardworking/Punctual... *Is it a multiple equilibria story like driving on the right (!) side of the road?*

If so, equilibria can be switched – as in Sweden the switch occurred on Sunday at 5am on Sunday Sept 3, 1967.

## WHAT IS CULTURE? EXAMPLE FROM PUNCTUALITY

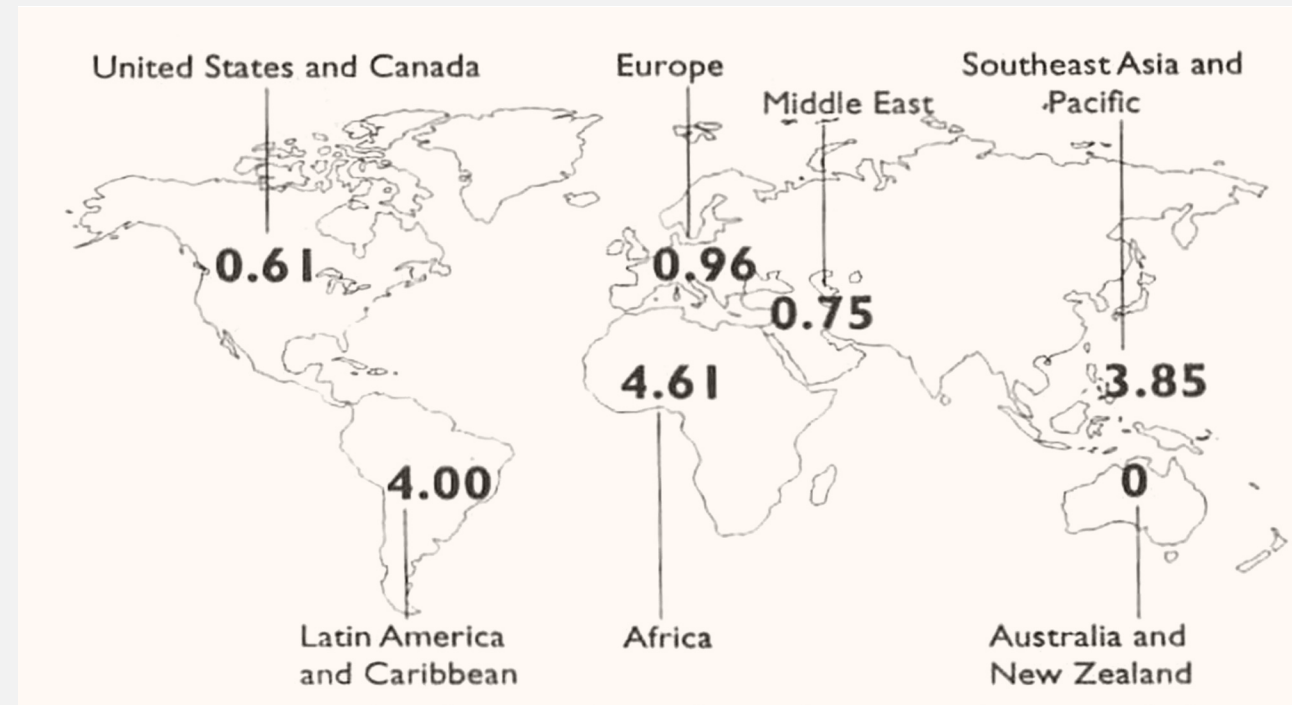
- Hardworking/Punctual... Is it a multiple equilibria story like driving on the right (!) side of the road?
- Punctuality? The theory was put to the test in **Ecuador** (estimated that habitual lateness costs 4.3 percent of GDP!) National campaign to change the equilibrium carried out. Hundreds of institutions have signed up to a promise to keep to time. Stragglers were to be barred from entering meetings. Signs put up everywhere. On one side, they say “Come in: You’re on time” and on the other “Do not enter: the meeting began on time.”

## WHAT IS CULTURE?

- Even President Lucio Gutiérrez, infamously unpunctual, vowed to participate. His spokesman, going on television to announce this vow, arrived at the studio, needless to say, several hours late!
- **However, notion of time can change.** Industrial Revolution and the rise of the factory altered notion of time in a profound way – from being based on the calendar to one based on the clock!



# AIRLINE ACCIDENTS IN THE 1990S



# WHY THESE DIFFERENCES IN ACCIDENT RATES?

- Aviation physiology & health maintenance?
- Stress, fatigue & management?
- Basic aviation psychology
  - Cognition → Attitude → Behavior
- Flight deck demographics
  - Ergonomics
  - Crew / cockpit resource management
    - » Intergroup relations
    - » Safety, performance & proficiency

# KOREAN AIR 801





# KOREAN AIR 801

- The airplane had been cleared to land on runway 6 Left at A.B. Won Guam International Airport, Agana, Guam, and crashed into high terrain about 3 miles southwest of the airport on August 6, 1997
- It was determined that the **captain's failure to adequately brief and execute the nonprecision approach and the first officer's and flight engineer's failure to **effectively monitor and cross-check** the captain's execution of the approach were primary causes.**

# CULTURE & AVIATION ACCIDENTS

- Culture was the problem. Too much reverence for the captain!  
**Mistakes were not corrected by co-pilots!**
- **Big re-training effort...**

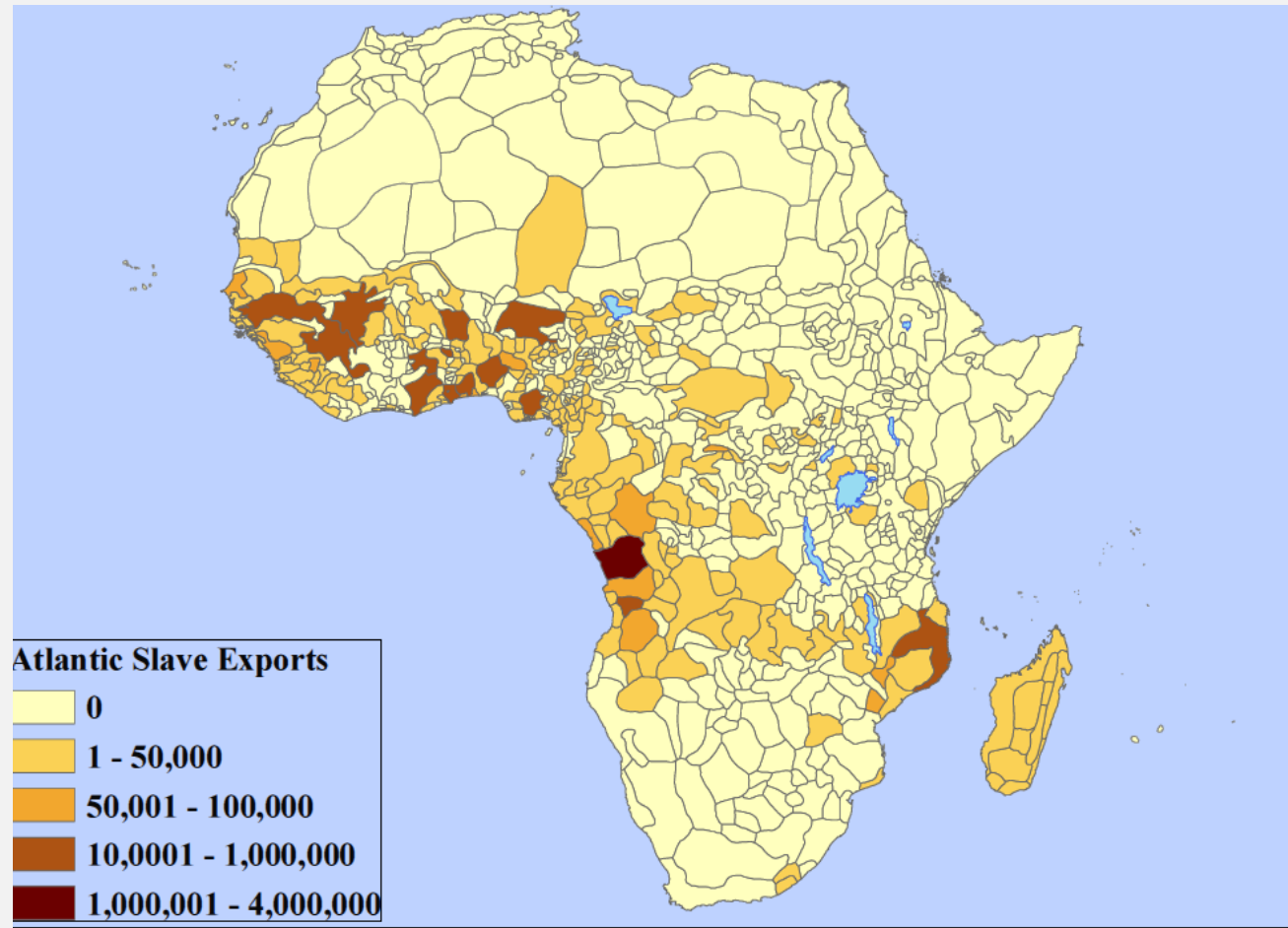
# CULTURE AND ECONOMIC DEVELOPMENT

- **(A) Does Culture affect the operation of Institutions?**
  - Michalopoulos and Pappaniannou (2012)
- **(B) Can Culture be Changed?**
  - Distrust → affects institutional development (Nunn & Wantchekon, 2011)
- **(C) Does culture matter for economic development?**
  - I. Contract Enforcement.**
    - Role of cultural beliefs and social networks (Greif, 1995)
  - II. Corruption & Culture**
    - Does culture affect corruption (Fisman and Miguel, 2007)

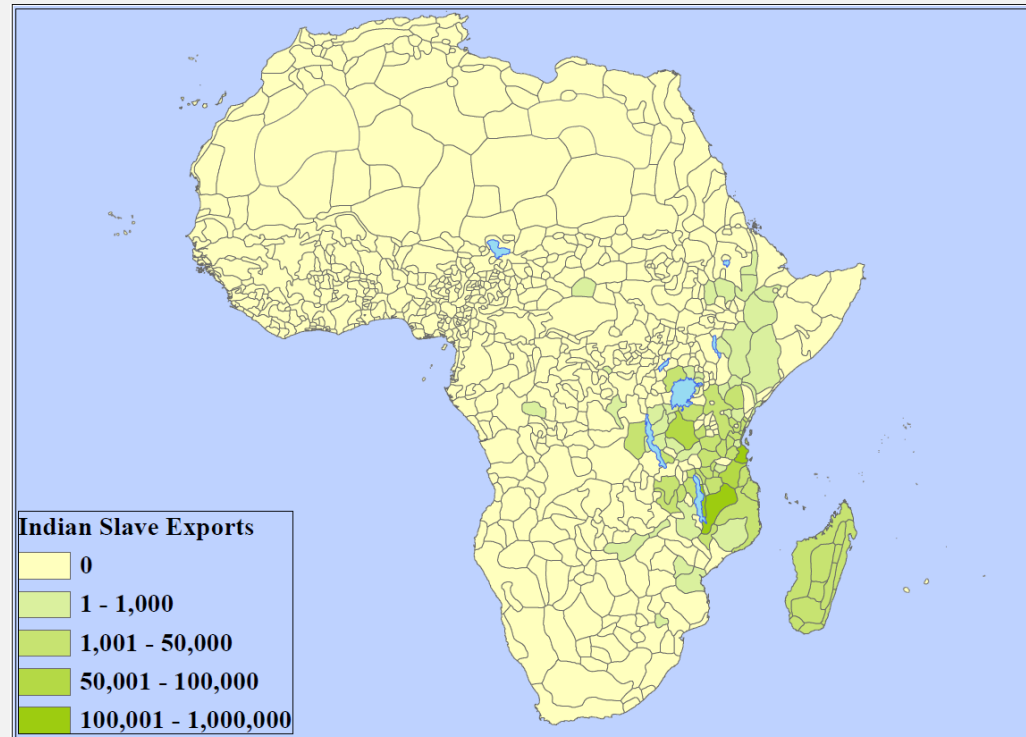
## MISTRUST IN AFRICA (NUNN AND WANTCHEKON, 2012)

- 1400–1900: 18 million slaves were exported from Africa
- Four African slave trades:
  - Trans-Atlantic
  - Trans-Saharan
  - Red Sea
  - Indian Ocean

# SLAVES TAKEN FROM AFRICA ACROSS ATLANTIC



# SLAVES TAKEN ACROSS INDIAN OCEAN



# SLAVES TAKEN

## Historical Facts



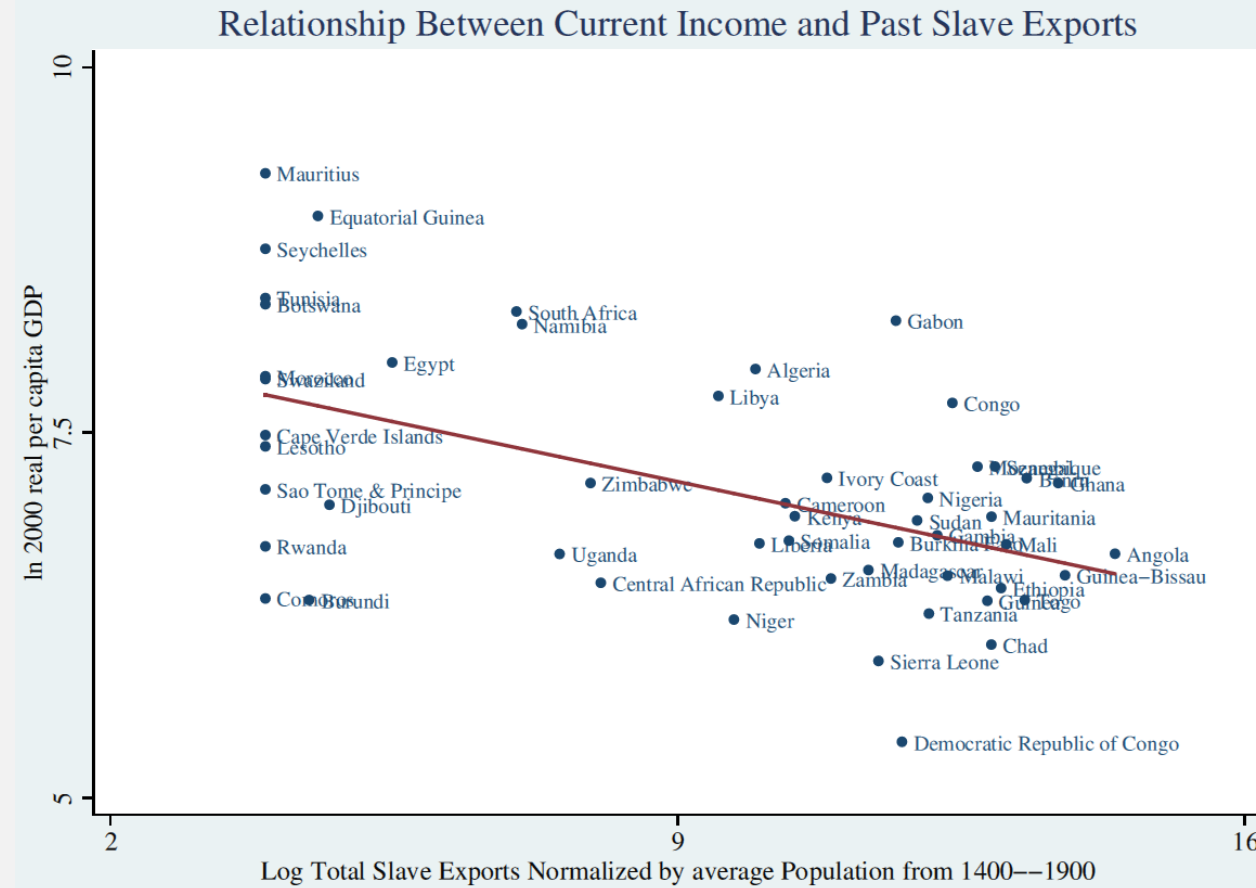
## The Deep Penetration of the Trans-Atlantic Slave Trade

- Walter Hawthorne in his book *Planting Rice and Harvesting Slaves* writes:

“the Atlantic slave trade was insidious because its effects penetrated deep into the social fabric of the Upper Guinea Coast—beyond the level of the state and to the level of the village and household . . . Hence, in many areas, the slave trade pitted neighbor against neighbor. . . .” (pp. 106–107).



# SLAVE EXPORTS AND PCY TODAY



A ten percent increase in slaves taken is correlated with a 1.1% drop in pc GDP in 2000.

Result robust to inclusion of colonial origin and many geographic variables incl. latitude...

## WHY THIS NEGATIVE RELATIONSHIP?...

**Table 1.** The Method of Enslavement of Koelle's Informants

Manner of Enslavement	Percentage
Taken in a war	24.3%
Kidnapped or seized	40.3%
Sold/tricked by a relative, friend, etc.	19.4%
Through a judicial process	16.0%

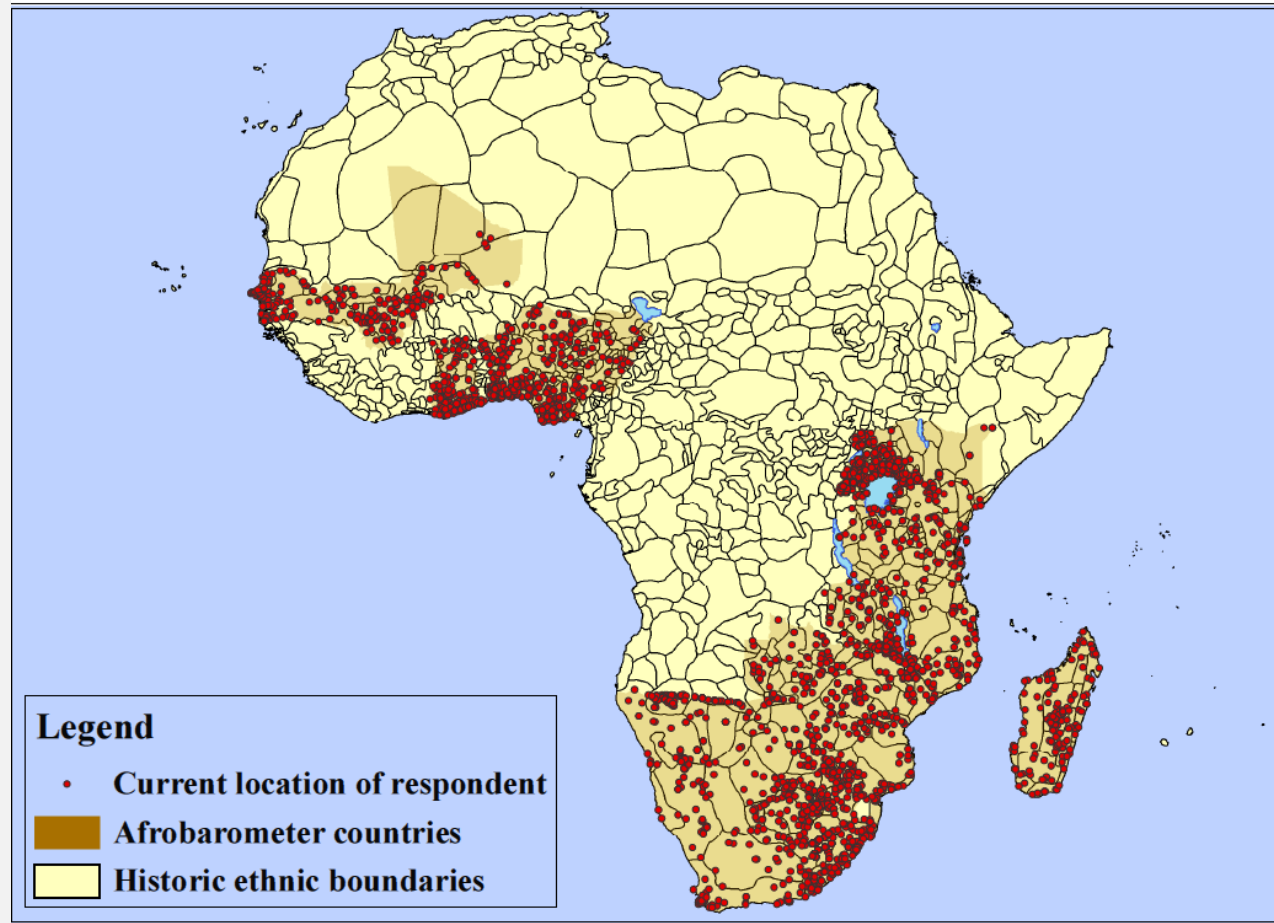
*Notes:* The data are from Sigismund Koelle's Linguistic Inventory. The sample consists of 144 informants interviewed by Koelle for which their means of enslavement is known.

# SURVEY DATA: AFROBAROMETER

## Afrobarometer Data (Round 3)

- Survey data collected from 17 sub-Saharan African countries in 2005.
- In each country 1,200 or 2,400 citizens of voting age were randomly sampled.
- The survey records individual-level characteristics, including the ethnicity of the respondent.
- Respondents' were also asked how much they trust others as well as the local and national government.

# AFROBAROMETER SURVEY LOCATION OF RESPONDENTS



# SURVEY RESPONSES

How much do you trust each of the following types of people:								
Response	Your relatives?		Your neighbors?		People from your own ethnic group or tribe?		<People> from other ethnic groups?	
Not at all	1,410	7%	2,724	13%	2,811	14%	4,476	22%
Just a little	3,713	18%	5,792	28%	6,318	31%	7,281	36%
Somewhat	5,168	25%	6,316	31%	6,109	30%	5,263	26%
A lot	10,337	50%	5,758	28%	5,274	26%	3,291	16%
Total	20,628	100%	20,590	100%	20,512	100%	20,311	100%

## Estimating Equation

$$\text{trust}_{i,e,d,c} = \alpha_c + \beta \text{slave exports}_e + \mathbf{X}'_{i,e,d,c} \mathbf{\Gamma} + \mathbf{X}'_{d,c} \mathbf{\Omega} + \mathbf{X}'_e \mathbf{\Phi} + \varepsilon_{i,e,d,c}$$

where

- $i$  indexes individuals,  $e$  ethnic groups,  $d$  districts and  $c$  countries.
- $\alpha_c$  denote country fixed effects.
- $\text{trust}_{i,e,d,c}$  is our constructed measure of trust.
- $\text{slave exports}_e$  is a (normalized) measure of the number of slaves taken from ethnic group  $e$ .
- $X_{d,c}$  denotes a vector of district-level characteristics:
  - ethnic fractionalization in district  $d$
  - the share of district  $d$ 's population that is from ethnic group  $e$
- $X_e$  denotes a vector of ethnicity-level characteristics



### Other Trust Measures

	Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust
	(1)	(2)	(3)	(4)	(5)
ln (1+exports/area)	-0.133*** (0.037)	-0.159*** (0.034)	-0.111*** (0.021)	-0.144*** (0.032)	-0.097*** (0.028)
Individual controls	Yes	Yes	Yes	Yes	Yes
District controls	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Number of observations	20,062	20,027	19,733	19,952	19,765
Number of ethnicity clusters	185	185	185	185	185
Number of district clusters	1,257	1,257	1,283	1,257	1,255
R-squared	0.13	0.16	0.20	0.14	0.11

*Notes:* The table reports OLS estimates. The unit of observation is an individual. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. The individual controls are for age, age squared, a gender indicator variable, 5 living conditions fixed effects, 10 education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, and an indicator for whether the respondent lives in an urban location. The district controls include ethnic fractionalization in the district and the share of the district's population that is the same ethnicity as the respondent. \*\*\*, \*\* and \* indicate significance at the 1, 5 and 10% level.

## HOW DO WE KNOW IT IS CAUSAL?

- "The negative correlation between slave exports and trust ... is consistent with our hypothesis that the slave trade engendered a culture-of-mistrust."
- "However, the correlation could also be explained by omitted variables that are correlated with selection into the slave trade and with subsequent trust."
- **Example of Problem: Groups that exhibited lower trust may have been more likely to be "taken" during the slave trade.**

**These ethnic groups continue to be less trusting even today...**



## SOME SOLUTIONS

- Control for many things at the ethnicity level.
- Try and find/use an Instrumental Variable (IV)...

# CONTROLS

- Try to capture colonial rule and initial conditions by controlling for:

Disease environment (following AJR), precolonial population density, historical location of railways, and missionary stations.

## IV

- We need an instrument that is correlated with slave exports, but uncorrelated with any characteristics of the ethnic groups that may affect trust today.
- **Historic distance** of each ethnic group **from the coast** is used as an instrument for the number of slaves taken during the slave trade.

# VALIDITY

- The critical issue is whether an ethnic group's historic distance from the coast is correlated with factors other than the slave trade that may affect how trusting the ethnic group is today.
- What is the most obvious problem?
- Since we control for current distance to the coast, identification will be driven by the effect of the slave trade on the trust of individuals that live in a location different from their ancestors.
- These 'movers' may be different types of people, but they show that, if anything, are more trusting.

# TRUST AND THE SLAVE TRADE

1. The slave trade may have affected the trustworthiness of the local government.
  - We control for each respondent's view of the performance of their local government.
2. The slave trade may have affected the trustworthiness of others.
  - We control for the impact of the slave trade on the ancestors of other ethnic groups in the same location.
3. Most generally, the slave trade would have affected culture and institutions.
  - We also examine the average number of slaves historically taken from the environment/location where the individual lives today.

## RESULTS

- The first stage shows that the instrument is relevant and that slave exports is primarily explained by historic distance rather than current distance from the coast.
- The second stage estimates show similar magnitudes as OLS.
- Hence, OLS is likely not biased.

## FALSIFICATION TESTS

- “As is generally the case with instruments, it is possible that despite our second stage controls, our instrument still does not satisfy the necessary exclusion restriction. For this reason, we also perform a number of falsification exercises to assess the validity of our identification strategy.”
- If the assumption is satisfied, then we should not observe a similar positive relationship between distance from the coast and trust in the parts of the world where the slave trade did not occur.
- They find no relationship between distance from the coast and trust outside of Africa.
- Or in African countries not affected by the slave trade.

# MECHANISMS

- Are people less trusting today via the evolution of vertically transmitted norms?
- Or because the slave trade damaged the institutions so that people are less trusting due to poor institutions such as (for e.g.) the weak rule of law?



## TEST

- They create a measure quantifies the number of slaves that were taken from the geographic location where the individual is living today.
- If the slave trade affects trust through internal factors, then mistrust should be correlated with the extent to which *their ancestors* were heavily impacted by the slave trade.
- If the slave trade affects trust through its deterioration of domestic institutions, then mistrust should be correlated with whether the external environment that the individual *is living in today* was heavily impacted by the slave trade.

## RESULT

- Both factors are significant but the magnitude of the internal channel is approximately twice the magnitude of the external channel.

# SUMMARY

- Historically, institutions have been relatively weak → role for trust.
- Culture → Trust;
- Culture → Contractual Enforcement.
  
- Trust within and across communities is important for **economic** and **political** reasons. Distinguish between norms of generalized morality (Northern Italy) and limited morality (Southern Italy).
- (Mis)trust within Africa
- Cultures with higher trust levels historically have had higher economic growth.
- Trust (or mistrust) can be changed. Culture is malleable. History matters.
- Can cultures adapt and change?
- What factors affect culture???

# CULTURE AND CONTRACT ENFORCEMENT

*How does trade/exchange take place in primitive societies?*

Trade/exchange between two parties presupposes some (minimal) trust.

- **Self-interest** (feedback between IQ and recognizing gains from cooperation)
- **Strong Reciprocity**: if others have treated you well, you treat them well in return. But if they hurt you. You hurt them back (independently of whether hurting them is good for you or not!)

# CULTURE AND CONTRACT ENFORCEMENT

Contracts are enforced through

1) **Emotion/Anger/Culture of Honor:** make it costly for an individual not carry out a costly punishment.

Individuals have an evolutionary tendency to be murderous/violent/suspicious towards “outsiders”. (Paul Seabright, 2010)

2) **Social Networks and Belief Systems:** use network and “collectivist” punishment strategy to punish cheaters.

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- 3) **Norms:**
  - (**internalized norms**) make it psychologically costly for an individual to cheat, i.e. feel guilty.
  - (**external “social” norms**) – social sanctions for cheaters and cost of ostracism and shame.

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  - (external “**social**” norms) – social sanctions for cheaters and cost of ostracism and shame.
- 4) **Good Institutions/Legal system** to enforce contracts

# MODES OF GOVERNANCE: HOW IS CONTRACT ENFORCEMENT ENSURED

• .

- First-party: working on the potential cheater's own internal value system.
- Second-party: detection of cheating and enforcement by counterparties in this or related transactions within a group.
- Third-party: detection and enforcement by someone with no direct participation in this set of transactions. Often done for profit.



# FIRST PARTY ENFORCEMENT

- Economists have neglected these methods, but they are very important in practice.
- Preference formation using religion, socialization etc. → Culture!
- Religion: “Thou shalt not steal” etc.
- Socialization: family and schools teaching empathy, fairness, sharing, civic duties etc.

## SECOND PARTY ENFORCEMENT

- ■ Role of social networks and religious ties i.e. multilateral enforcement among a community of traders.

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- Examples:

- Greif's Maghribi traders
- Industry associations, Better Business Bureaus

# **SOCIAL NETWORKS, CULTURAL BELIEFS AND ENFORCEMENT**

We encounter the Maghribi traders in Greif (1995). *Journal of Political Economy*

This was a set of ethnic Jews transplanted from Baghdad to the North African coast, primarily Tunisia, around 800 AD.

Far-ranging trade contacts: Spain, Italy, Egypt, Byzantium.

# REGULATION OR SELF-REGULATION?

- Overseas trade in the 11<sup>th</sup> and 12<sup>th</sup> century
- In pre-Modern trade, a merchant had 2 options:
  - Travel along with his merchandise between trade centers.
  - Hire overseas agents to handle his goods abroad.
- Employing agents was efficient, since it enabled the merchant to save the time and risk of traveling, to diversify his sales across trade centers.
- Problem: agent can act opportunistically and embezzle the merchant's goods (or lie about the price received)
  - ⇒ anticipating this, a merchant will not hire agents
  - ⇒ efficient trade does not take place (i.e. Moral Hazard problem).

# HISTORY

- Greif uses a historical source found in Fustat (Old Cairo) known as the geniza (“deposit place” in Hebrew):

## Contains

- ≈ 1,000 contracts, price lists, trade letters, accounts that reflect 11th century trade
- Written by Jewish traders, the “Maghribi traders”
- p.526: “... it is reasonable to conjecture that the documents found in the geniza contain a representative sample of their commercial correspondence.”



■ circa  
950 AD



■ circa  
1050 AD

## SO HOW DOES MERCHANT ENSURE THAT AGENT ENFORCES CONTRACTS?

- Two different solutions to this problem.
- (I) **The Genoese.** If agent cheats the Genoese merchant, the merchant will not hire him in the future.
- (II) **The Maghribi:** If agent cheats the Maghribi merchant, no other Maghribi merchant will deal with the agent nor will he deal with any merchant who deals with the agent!



# THE MAGHRIBI

- Maghribi traders were mustaribun (i.e. non-Muslims who had adopted the values and belief systems of the Muslim community). They valued their brethren and believed that all members should not only do good but also make sure that others in the community engaged in good behavior.
- Members were expected to invest in social ties (culture and economic interests reinforced each other)
- During this period – Christianity had moved in an individualistic direction (salvation was individual and not group or family based).

## SO HOW DOES MERCHANT ENSURE THAT AGENT ENFORCES CONTRACTS?

- Two different solutions to this problem.
- (I) **The Genoese.** Individualist cooperation. Merchant and agent relate to each other through the price.
  - Agent paid (very) high wage as an incentive to keep honest;
- (II) **The Maghribi:** Everybody boycotts a cheater! No trading or future employment by another Maghribi merchant.

## REGULATION OR SELF-REGULATION?

- The Maghribi traders solved the problem by organizing themselves into a group that served as a grapevine for information on (honest and dishonest) agents
- Any agent who treated a member unfairly could never hope to do business again with other members.
- The flow of information that uncovered cheating also added to the standing of the honest members of the coalition i.e. reputational capital

# SUMMARY

- Historically, institutions have been relatively weak → role for trust.
- Culture → **Trust**;
- Culture → **Contractual Enforcement**.

(institutions that were efficient in one historical context may become a fetter that handicaps future evolution of institutions and economic growth!)