

# Critical Evaluation of Ancient Origins of the Global Variation in Economic Preferences

Jixuan Li

University of Nottingham, Ningbo 315000, China

lijixuan3860@163.com

**Abstract.** Risk, time, and social partialities show huge difference both cross and inside countries, this non-uniformity is also correspond to economic results at both individual and country's aggregate levels. This essay is going to critically evaluate this paper in two sections and make some suggestions accordingly. The first section is about Research Methodology, which will be discussed in terms of Data Collection and Data Process. The second section is about Research results, dividing into three areas to discuss: across countries, within countries across populations of different ancestry, and across linguistic groups.

**Keywords:** *ancestral distances, risk preferences, time preferences, social preferences, genetic endowments, linguistic distances*

## 1. Introduction

Risk, time, and social partialities show huge difference both cross and inside countries, this non-uniformity is also correspond to economic results at both individual and country's aggregate levels. So far, in exploring what originally causes extensive partiality changes, empirical work on endogenetic partialities has concentrated upon the effect of ambient circumstances at the present age for the most part (e.g., Borghans and Golsteyn, 2006; Sutter et al, 2013; Kosfeld and Rustagi, 2015; Cohn and Maréchal, 2018). Therefore, Becker, Enke and Falk tried to retrospect to the structure of ancestral migration mode as a complementary research, to go further on the basis of the existing research.

They proposed the following two hypotheses: First, populations who have been separated from one another for a long period face dissimilar historical experiences and circumstances, which may have an effect on preferences. Second, as a result of random genetic drift or local selection pressures, long-term segregation brings genetic endowments differ at distinct populations, which may conversely affect preferences (Becker, Enke and Falk, 2018).

To prove their hypothesis, they linked distinctions in predilections among groups to the length of separation time since ancient times of each group, measured from both genetic and linguistic distances. The results obtained are as follows: In (i) cross-border regression, (ii) intra-country analysis of cross-immigrant groups, and (iii) analysis using changes in cross-language groups, distinctions in predilections increased significantly with ancestral distances.

This essay is going to critically evaluate this paper in two sections and make some suggestions accordingly. The first section is about Research Methodology, which will be discussed in terms of Data Collection and Data Process. The second section is about Research results, dividing into three areas to discuss: across countries, within countries across populations of different ancestry, and across linguistic groups.

## 2. Methodology

After brief introduction, this text will focus on the methods of data collection and processing. In this assessment material, GPS is adopted as the main data collection method, which covers more than 80,000 participants from 76 countries. A large number of data samples reduce the possible randomness of the experiment, covering people of different backgrounds, reflecting the comprehensiveness principle in data collection. In addition, survey items in GPS, such as risk-taking behavior and patience, were quantified, which made the subsequent processing of total preference and average preference more objective. Nevertheless, there are some problems with the

data using GPS. Firstly, because the scope of the survey is too broad, it is difficult for the initiator to supervise the work of subordinate organizations, so it is hard to ensure the authenticity of the survey data. Secondly, because GPS contains a large number of subjective surveys, the results may be biased due to ambiguous instruction of subjective item rating criteria. According to the data processing, the author mainly chose to build various models. Continue to discuss GPS, about the data processing, the paper gives many models of the establishment. The first model conceptualizes the impact of random shocks on preferences. The model greatly simplifies data processing and calculation, and enables readers to see the results of random shocks more clearly. However, the premise of the model is that the influence between individuals is ignored, which may be an out-of-model factor that has a great influence on the result, and may affect the final conclusion of the model or even draw the opposite conclusion. Then there is the most important model in this article, the model of linear regression of preference and ancestral distance. This seems to be quite right. The model takes into account average preference, ancestral distance, the fixation effect of countries and even the fixation interference. From the results, the table data obtained by the model does support the hypothesis, but the fitting degree obtained is not high, so the model is likely to miss some factors that can affect the average preference (Table 1).

Table 1. Preferences and ancestral distance across countries: Covariates

	<i>Dependent variable: Absolute difference in...</i>									
	All preferences		Risk taking		Prosociality		Neg. reciprocity		Patience	
	Raw	Residual	Raw	Residual	Raw	Residual	Raw	Residual	Raw	Residual
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ancestral distance	0.19 (0.05)	0.12 (0.05)	0.14 (0.07)	0.15 (0.07)	0.19 (0.05)	0.10 (0.05)	-0.000090 (0.02)	-0.015 (0.02)	0.0057 (0.05)	0.034 (0.05)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Population controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Economic and institutional controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Colonial relationship dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Distance controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2556	2556	2556	2556	2556	2556	2556	2556	2556	2556
R <sup>2</sup>	0.49	0.46	0.62	0.65	0.48	0.53	0.49	0.46	0.58	0.40

### 3. Results

#### 3.1 Cross Country

Cross-country regressions are the first kind of explanations to ancestral distance. The analysis uses a dyadic regression framework to deal with the data about ancestral distance and preference between to sample countries. To make the result more reasonable, they add country fixed effects and a country pair specific disturbance term in it. Then they collected 76 country's data and match them into 2850 sample bundles for each to data, which can be used in regression framework. The disadvantage in use the method in this paper is that when calculating every single bundle conclude country I and country J, the country effects between these two countries is fixed, however, in the sample that concludes 2850 difference preference, in this model, without 2850 ancestral distance data, there is also 2850 variable country effect data in it, which weakened the explanatory power of this model, to make compensate for this deviation, the analysis compare their results to any other researchers' studies which only concentrate on the country effects and preference, in dealing with the R<sup>2</sup> in the two different researches, the higher R<sup>2</sup> in the model conclude ancestral distance prove that this factor has its effect indirectly. Another factor geographic differences between countries has been over controlled. Geographic differences between countries can influent the ancestral distance directly, because differences in geographic and climatic conditions might be one of the channels through which ancestral distance generates differences in preferences (Table 2).

**Table 2. Preferences and ancestral distance across migrant populations within countries**

	<i>Dependent variable: Absolute difference in...</i>									
	All preferences		Risk taking		Prosociality		Neg. reciprocity		Patience	
	Raw	Residual	Raw	Residual	Raw	Residual	Raw	Residual	Raw	Residual
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ancestral distance	0.11 (0.03)	0.12 (0.03)	0.061 (0.03)	0.069 (0.03)	0.048 (0.03)	0.062 (0.03)	0.063 (0.03)	0.065 (0.03)	0.086 (0.03)	0.083 (0.03)
Country of residence FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country of birth FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4838	4838	4827	4699	4802	4674	4775	4647	4803	4675
R <sup>2</sup>	0.30	0.30	0.24	0.25	0.27	0.27	0.26	0.24	0.22	0.23

### 3.2 Within Country

The within country regression studies the relationship between different migrant groups within the same host country. Using data from the same GPS as before, the study was able to identify groups of immigrants and their preferences. These preferences were then averaged across first generation migrant groups of a given host country. Next, an immigrant country pair is assigned, and their preferences are compared. The resulting regression analyses the differences in preferences of for example, a Korean and an Italian with a German and an Indonesian, all of whom are living in the USA. The aim of this method was to hold constant many features of people’s contemporary environments that are difficult to account for in cross-country analyses. It is however worth noting that immigrants tend to cluster initially on a handful of cities, as they aim to stick within their own community (Economist, 2018), this may somewhat mitigate the desired effect of having a standardised environment as the immigrant groups are mostly confined within their own distinct cultural circles. Even if the environment is standardized, migrating to a new country may also affect different communities differently, for example, the experience of someone from Australia migrating to the USA is likely to be very different from a Vietnamese person doing the same. The former has a similar facial appearance to most of the local population and speaks the local language while the latter does not. This is likely to affect stress levels in the latter case which therefore may affect the respondents preferences in a way that may skew the results.

These factors are not taken into account by the authors.

A glimpse of the results, shown in Table 3 shows that overall, ancestral distance is positively correlated with a difference in preference. However, with an R<sup>2</sup> of only 0.3, it is clear that many other factors are at play in determining risk preference. The paper claims that the results of the within country case are stronger and more significantly correlated than the between country results. While this is true for the negative reciprocity and patience, the results are more significant for risk taking and prosociality in the between country results. The R<sup>2</sup> for the between country case is also higher across the board compared with the within country case. It is therefore unclear what the author means when they claim that the results are stronger in this case.

**Table 3. Preferences and linguistic distance across linguistic groups**

Sample:	<i>Dependent variable: Absolute difference in...</i>									
	All preferences		Risk taking		Prosociality		Neg. reciprocity		Patience	
	Full	Restricted	Full	Restricted	Full	Restricted	Full	Restricted	Full	Restricted
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Composite linguistic distance	0.16 (0.04)	0.17 (0.04)	0.19 (0.06)	0.20 (0.07)	0.094 (0.04)	0.098 (0.05)	0.048 (0.03)	0.060 (0.04)	0.0040 (0.01)	-0.0014 (0.01)
Language FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3321	2926	3321	2926	3321	2926	3321	2926	3321	2926
R <sup>2</sup>	0.55	0.54	0.56	0.57	0.44	0.42	0.52	0.52	0.60	0.62

The paper recognizes the issue faced with having a small sample size. The sample size of at least 3 respondents is however a relatively low benchmark. The experiment requires only 1 respondent

for one population and only 2 from the other. This gives room for extreme values and outliers which may skew the results.

### **3.3 Linguistic Groups**

Another proxy for ancestral distance which can substitute for the length of time populations breaking apart is linguistic distance. It is closely related to genetic distance, which is used to measure the time span passed till common ancestors have been shared by these populations. For the purpose of acquiring country-level linguistic distances, a series of measures are constructed by putting to use a language tree to quantify the degree of relatedness between different languages and counting the number of phonetic edits to estimate differential linguistic distances. It seems that each step has measuring errors causing a relatively final deviation. The analysis of relationship between average preferences across language-level individuals and ancestral linguistic distance containing the data set of the average of the z-scores of the two linguistic distance variables has been done through regression models. In both samples, respectively, language pairs and excluding main colonial languages, preference differences, the analysis found a significant association between preference differences and linguistic distance. Among several varieties of preferences, results are relatively strongest for risk taking, while they are weaker for patience and negative reciprocity. Although the estimates are positive all the way, some of the indicators are not statistically significant.

## **4. Conclusion**

By far, this evaluation concluded the basic definitions, core problems, methodologies used to analyze this topic and results gotten from data analysis about the ancient sources of world-wide different preferences in economy. These methodologies and results precisely confirmed the relationship between different immigration patterns in very early ancient era and the population-level heterogeneity in contemporary era. However, critique thinking should be taken while using them.

Starting with methodologies, researchers got preference data of risk taking, patience and social preference by self-assessment and Likert scale. This might incur an implicit error that “Does a 6 of Likert scale, 1-10, mean the same to different participants?” As different historical experiences and genetic endowments are known to cause preference differences, different preferences not only shown in economy, but also in other tiny senses. For example, Americans who likes purchasing one hundred percent perfect probably view 6 of 10 scale as just so-so. On the contrary, Germans might treat it as a high level as they always stricter and more rigorous. Considering this error, Detailed and comprehensive descriptions ought to be given by experimenters before participants making chooses, so that the misunderstanding of meaning could be minimized.

The following error is a research done within country, whose experimenters tested people with different original nationalities but lived in the same country. Participants from different original nationalities performed different preferences and experiments concluded that it was owing to different ancient origins. Nevertheless, discrimination, various native languages might also have some impacts on preferences. Comparing to Frenchmen, Vietnamese who lived in New York were more likely to face discrimination and language barrier as their appearance and mother tongue are very less similar to Americans. Hence, this research needs to be more rational while selecting the living country which it tests.

Last but not least, the errors due to geographic differences and measuring which are mentioned above need to be reconsidered and more comprehensive, more sophisticated steps should be added to those experiments.

Overall, the theory of the very early sources in world-wide different economic tastes offered the world a novel and diversified way to think about the factors that influence global economic behavior, but there is still a long way to go to perfect this theory.

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