6 Ancestry, Language and Culture

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6.1 Introduction

Populations that share a more recent common ancestry exchange goods, capital, innovations and technologies more intensively, but they also tend to fight more with each other.\(^1\) Why does ancestral distance matter for these outcomes? In this chapter, we argue that when populations split apart and diverge over the long span of history their cultural traits also diverge. These cultural traits include language and religion but also a broader set of norms, values and attitudes that are transmitted intergenerationally and therefore display persistence over long stretches of time. In turn, these traits introduce barriers to interactions and communication between societies, in proportion to how far they have drifted from each other.

While the rate at which languages, religions and values diverge from each other over time varies across specific traits, we hypothesize and document a significant positive relationship between long-term relatedness between populations, measured by genetic distance, and a wide array of measures of cultural differences. In doing so, we provide support for the argument that the effect of genealogical relatedness on economic and political outcomes captures at least in part the effects of cultural distance. In sum, genetic relatedness is a summary measure for a wide array of cultural traits transmitted vertically across generations. These differences in vertically transmitted traits introduce horizontal barriers to human interactions.

We begin our chapter with a general discussion of measures of ancestral distance. We focus on genetic distance, a measure that has been used in a

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\(^1\) For recent references on technological transmission, see Spolaore and Wacziarg (2009, 2012, 2013). On interstate wars, see Spolaore and Wacziarg (2015). On trade and financial flows, the literature documenting links with linguistic and cultural distance is vast. Salient references include Melitz (2008), Melitz and Toubal (2012), Guiso et al. (2009) and Chapter 9 in this volume.
recent emerging literature on the deep roots of economic development. This measure captures how distant human societies are in terms of the frequency of neutral genes among them. It constitutes a molecular clock that allows us to characterize the degree of relatedness between human populations in terms of the number of generations that separate them from a common ancestor population. We next turn to measures of cultural differences. We consider three classes of such measures. The first is linguistic distance. Since these measures are described in great detail elsewhere in this volume, we keep our discussion brief. The second class of measures is religious distance. We adopt an approach based on religious trees to characterize the distance between major world religions, and use these distances to calculate the religious distance between countries. Third, in the newest part of this chapter, we define and compute a series of measures of differences in values, norms and attitudes between countries, based on the World Values Survey (WVS). We show that these classes of measures are positively correlated between each other, yet the correlations among them are not large. This motivates the quest for a summary measure of cultural differences.

We next argue that genetic distance is such a summary measure. We start with a simple model linking genetic distance to cultural distance, providing a conceptual foundation for studying the relationship between relatedness and cultural distance. The model shows that if cultural traits are transmitted from parents to children with variation, then a greater ancestral distance between populations should on average be related with greater cultural distance. This relationship holds in expectations and not necessarily in each specific case (it is possible for two genealogically distant populations to end up with similar cultural traits), but our framework predicts a positive relationship between genetic distance and cultural distance. We next investigate empirically the links between genetic distance and the aforementioned metrics of cultural distance, shedding some light on their complex interrelationships. We find that genetic distance is positively correlated with linguistic and religious distance as well as with differences in values and attitudes across countries, and is therefore a plausible measure of the average distance between countries along these various dimensions jointly.

This chapter contributes to a growing empirical literature on the relationships between ancestry, language and culture over time and space. This literature has expanded in recent years to include not only work by anthropologists, linguists and population geneticists (such as, for instance, the classic contribution by Cavalli-Sforza et al., 1994), but also those of economists and other social scientists interested in the effects of such long-term variables on current economic, political and social outcomes (for general discussions, see for example Spolaore

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2 For instance, see Chapter 5 in this volume.