ECONSTOR
Make Your Publications Visible.

A Service of

ZBW Leibniz-Informationszentrum Wirtschaft
Leibniz Information Centre for Economics

Bonick, Matthew; Farfan-Vallespin, Antonio

Conference Paper

The Reversal of Fortune, Extractive Institution and the Historical Roots of Racism

Beiträge zur Jahrestagung des Vereins für Socialpolitik 2018: Digitale Wirtschaft - Session: Economic History, No. D22-V3

Provided in Cooperation with:
Verein für Socialpolitik / German Economic Association

Suggested Citation: Bonick, Matthew; Farfan-Vallespin, Antonio (2018) : The Reversal of Fortune, Extractive Institution and the Historical Roots of Racism, Beiträge zur Jahrestagung des Vereins für Socialpolitik 2018: Digitale Wirtschaft - Session: Economic History, No. D22-V3, ZBW - Leibniz-Informationszentrum Wirtschaft, Kiel, Hamburg

This Version is available at:
https://hdl.handle.net/10419/181569

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

WWW.ECONSTOR.EU

Mitglied der Leibniz-Gemeinschaft

The Reversal of Fortune, Extractive Institutions and the Historical Roots of Racism

Matthew Bonick*

Antonio Farfán-Vallespín†

February 15, 2018

Abstract

We show differences in levels of racism within a sample of former European colonies can be traced to historical institutions. Our identification strategy relies on the reversal of fortune, a historical shock capturing the exogenous establishment of different institutions during the onset of European colonization. Using both OLS and multilevel analysis, we find, extractive historical institutions to be a strong predictor of higher levels of racism independent of present and other explanatory factors at the individual and country levels. We argue and provide evidence this relationship is causal and operates through internal norms, beliefs and values.

1 Introduction

Recent research demonstrates racism and or racial intolerance has been linked to a number of outcomes relevant for economists. Racism has been shown to affect political preferences such as views on policies targeting minorities, reduced support for the welfare state, more support for residential segregation and restrictive immigration policy (Bobo 1991; Charles 2000, 2003; Ford 2006; Dustmann and Preston 2007). It has also been connected to health disparities, worse labor market outcomes and educational inequalities for minority groups (Ashraf 1994; Lang, Manove, and Dickens 2005; Goldsmith, Hamilton, and Darity 2006; Charles, Kofi, and Guryan 2008; Lang and Manove 2011; Lang and Lehmann 2012,; Dickerson and Jacobs 2013; Feagin and Bennefield 2014). Because of these many studies, it is prudent to understand the factors causing the emergence of racism.

This paper contributes to the understanding of the historical roots of racism by tracing its origins to historical institutions in former European colonies. As an identification strategy, we use the well-known event of the reversal of fortune. The reversal of fortune is a phenomenon representing the historical reversal of

*University of Freiburg : email: matthew.bonick@vwl.uni-freiburg.de
†University of Freiburg : email: antonio.farfan@vwl.uni-freiburg.de

prosperity from pre-colonial times to the present caused by the exogenous institutional change brought by European colonial powers. This strategy was first used by Acemoglu, Johnson, and Robinson (2002) who show higher levels of urbanization and population density in the 1500s, both proxies for economic prosperity, to be associated with lower levels of GDP in 1995. The authors argue, it was the establishment of different institutions which is the driving factor for the reversal. This phenomenon is a perfect natural experiment because, during the rush of European colonialization, mainly geographical factors exogenously determined the establishment of alternative forms of institutions, generally referred to as inclusive and extractive (Acemoglu, Johnson, and Robinson 2002; Chanda, Cook, and Putterman 2014). Given the exogenous formation of different institutions, we can use this event as an identification strategy to trace the causal effects of historical institutions on the path of development of racism. Overall, we argue, colonial institutions played a vital role in affecting present day racial attitudes, specifically, we hypothesize, historically extractive institutions shaped the path of development of cultural attitudes towards higher levels of racism.

We present two possible non-mutually exclusive mechanisms for the relationship between colonial institutions and racism. In our first argument, members of the white European colonial elite, who controlled extractive institutions, directly and purposefully shaped beliefs, cultural norms and established social hierarchies which promoted racism as a mechanism to maintain political and economic power. The second argument states, while not a deliberate act, when inclusive institutions were established, it created an environment conducive for the endogenous formation of a more educated, open, cooperative, and thus, a more racially tolerant society [1].

To test our hypothesis, we combine data on colonial institutions with a individual and county level measure for racism taken from the World Value Survey. The measure is derived from the question, "On this list are various groups of people. Could you please mention any that you would not like to have as neighbors?", with racism capturing those who select other races as one of their answers.

In the first step of our analysis, because our sample is restricted to a smaller set of countries, due to available data on racism, we want to confirm the reversal of prosperity happened in our sample. Using OLS analysis, we test if our proxies for historical institutions, captured by log of population density and technology in the 1500s, shape current institutions, human capital, technological advancement and income. The results of this exercise corroborate the previous literature as historical institutions generally predict lower measures for all the above outcomes in our post-European colonial sample. Next, we examine our main hypothesis that extractive historical institutions, in former European colonies, will be associated more racism in the present. The outcome of this test supports our prediction as we see a robust correlation between extractive historical institutions and higher

[1] In our case, we use a broad definition of institutions, meaning it encompasses political, legal, economic and educational institutions.

levels of racism.

To confirm the validity of our identification strategy, we conduct several control exercises. The literature has shown the phenomenon of the reversal of fortune is restricted to post-European colonies, meaning, in other regions of the world, historical prosperity is generally a predictor of higher present prosperity, indicating a persistence of fortune, not a reversal (Nunn 2014 ; Spolaore and Wacziarg 2013). Thus, if our identification strategy is valid and the reversal of fortune is a geographically unique event, we expect, when examining our non-colonial sample, the positive relationship between historical prosperity and racism will be nonexistent or reversed. When exploring this possibility, we find, a reversed or no relationship between racism and our historical variables [2]. Additionally, motivated by the fact our result may be due to omitted factors, we control for: fractionalization, genetic diversity, ancestry adjusted variables, proportion of Europeans in 1900, proportion of decent from indigenous population, colonial origin, legal origin, religion, absolute latitude, trust, respect, obedience and control. As a final step to account for omitted features, we utilize an instrumental variable approach that produce consistent results. Overall, the outcomes of these control exercises support our initial findings.

In the last part of our analysis, we want to further distinguish the channels of causality between historical institutions and racism. There are two possible mechanisms which historical institutions could shape racism. One mechanism is that extractive institutions altered cultural norms within society, making a greater proportion of individuals to have less trust, more fear and greater animosity towards other races which persists till today. However, it is also possible, since extractive historical institutions have a persistent and negative effect on present day institutions, economic prosperity and human capital, the population is more likely to be racist due to modern conditions and not a historical shift in cultural norms or beliefs. To disentangle these two possible channels, we implement several strategies.

First, we re-run our baseline regressions while controlling for current variables for institutions, economic prosperity and human capital. If these current measures are strong mediators and thus, make our historical variables lose significance, there is evidence colonial institutions only had an indirect effect on racism through present day features. When accounting for these factors, we find consistent results compared to our baseline. Next, we consider, at the individual level, if the estimated effect of historically extractive institutions remains when we control for measures of an individuals' confidence in the government and other individual and country level characteristics. Utilizing multilevel analysis, we find, for our colonial sample, extractive historical institutions predict a greater probability an individual will possess a racist attitude.

[2]We also run the same test for our measures for modern prosperity in our colonial and non-colonial samples and find similar results

In our final step, we examine the connection between an individual's racial attitudes and the historical institutions of their origin country after they have immigrated to Europe. The reasoning behind this approach is when individuals relocate, they bring their internal beliefs with them, a factor which is independent of their surrounding environment. As a result, if racism is a consequence exclusively of current institutions, the historical institutions of an individual's origin should not play a role in their level of racism. Using data from the European social survey and the same proxies for historical institutions, we find, even when accounting for the institutions of an individual's country of destination, historically extractive institutions predict higher levels of racism when they have immigrated from a former European colony. When we examine the same relationship for individuals who have migrated from non-European colonies, we see, consistent with other sections, a reversed or nonexistent relationship.

The general conclusion of our paper is, historically extractive institutions, within the geographical context of former European colonies, has a causal impact on racism at both the individual and cross-country level. Moreover, the paper also identifies racism as an internal norm, cultural value or belief persistent to changes in current institutional and cultural environments. While we do not argue historical institutions are the only factor, past or present, affecting racism, the robustness of the connection we find cannot be explained by other factors.

This paper contributes to the literature examining the connection between history, culture and institutions. However, we are by no means the first to examine the role of history on culture as there is a robust literature showing that cultural beliefs and values are rooted in historical factors (Tabellini 2010; Nunn and Wantchekon 2011; Nunn 2012; Alesina, Giuliano, and Nunn 2013; Spolaore and Wacziarg 2013; Nunn 2014; Alesina and Giuliano 2015). Our analysis is in a similar vein as Putnam, Leonardi, and Nanetti (1993), Guiso, Sapienza, and Zingales (2016) and Tabellini (2010), in that, we also concentrate on the role of historical institutions in shaping cultural norms, values and beliefs.

After the introduction in section 1, section 2 presents the theoretical context, section 3, examines if a reversal of fortune is present in our post-European colonial sample. Section 4 presents the results of the empirical analysis identifying the link between racism and historical institutions. Section 5 examines if the effect of historical institutions on racism operates through internal norms, beliefs or values and section 6 concludes.

2 Theoretical Context

In this section, we define racism, give a brief overview of the reversal of fortune and present our arguments for why historical institutions will shape levels of racism in the present. Finally, we describe why this historical shock will result in a persistence of racism.

2.1 Definition of Racism

Our understanding of racism is that it fits within the definition of culture, defined by Guiso, Sapienza, and Zingales (2006), as *"those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation"* . Specifically, culture and thus, racism, is a decision-making heuristic or rule of thumb for decisions on interactions with and treatment of other races. These decision-making heuristics appear as values, beliefs, or social norms (Boyd and Richerson 1985). However, due to the nature of our data we cannot distinguish if our measure of racism is capturing a belief, value or social norm and as a result, our definition will be flexible enough to encompass all these aspects. For example, we argue this definition covers both commonly known notions of statistical and taste based discrimination.

The first component in our definition, is that racial groups exist and someone's membership to it conveys information. This information can range from: how different races should be treated or valued in social, economic and political situations, what risks and benefits may be involved with an interaction with such a person, are they viewed as a potential partner or competitor for valuable resources, or the behavioral and productive characteristics races are likely to possess. Thus, race is used as a heuristic guiding individual choices and preferences when engaging in interaction with individuals in an economic, political or social context. There are several potential motivations for individuals to be a racist and so, how racism manifest will not be homogenous across individuals, circumstances, communities or even countries. Given this, the third element in this definition is, independent of the motivation for racism, there is justification for discrimination in some form, meaning, everything else being equal, the unequal treatment of someone from a different race is defensible or even preferred due to the belief, value or social norm an individual possesses. For example, this can cover labor market decisions driven by statistical discrimination, i.e. assumed differences in racial productivity, all the way to views on racial superiority and acceptance of social interactions such as, interracial marriage.

2.2 Reversal of fortune

Engerman and Sokoloff (1997), hence forth ES, and Acemoglu, Johnson, and Robinson (2002), hence forth AJR, argue that European colonization played a vital role in shaping paths of development through historical political, economic and educational institutions. They hypothesize, when European colonizers found mineral resources, a large and concentrated native population, agricultural land suitable for large scale plantations and or when they came upon diseased environments, a lower number of Europeans would settle in these areas. This hypothesis is corroborated by Easterly and Levine (2016), who indicates the pattern of European immigration was exogenously determined by similar geographical factors.

For environments conducive for low levels of European immigration, European elites established a basic legal framework which ensured a disproportionate share of political and economic power for themselves, an institutional context AJR defines as extractive institutions. Extractive institutions are described as areas where the elite established rules, laws, and other government policies to institutionalize their economic and political advantage. According to AJR and ES, such policies included: restricted access to democracy, lack of political rights for most segments of society, unequal enforcement of property rights, a lower provision of public schools, unequal access to financial institutions and a general lack of economic opportunity for all. AJR empirically demonstrates, territories which were historically more prosperous saw the establishment of extractive institutions with these institutional characteristics persisting to the present. Additionally, they argue these institutional factors are one if the main determinants of long-term economic development. An important question remains, why would the establishment of these different historical institutions be relevant for racism in the present?

2.3 The Connection Between Institutions and Racism

We focus on racism and historical institutions because there is an abundance of literature linking racial attitudes to education and the modern functioning of institutions (Hello, Scheepers, and Gijsberts 2002; Berggren and Nilsson 2013). Additionally, the literature on colonial and institutional racism [3] provides further support for the relationship between racism, institutions and how the institutionalization of racism is a mechanism to establish and maintain political and economic power for specific races (Bonilla-Silva 1997). As a result, the reversal of fortune provides a valuable natural experiment to examine the impact of historical institutions on the path of development of racism. Overall, we provide two main arguments for how historical institutions shape present-day levels of racism.

2.3.1 Deliberate exacerbation of Racism: Divide et impera

The first argument, inspired by the literature on institutional racism, contends racism was purposefully instilled by colonial elite using extractive institutions as a mechanism to cement their hold on political and economic power. In this case, colonial elites, not only promoted but institutionalized racism with the purpose of hindering interracial collective action and cooperation. These actions, in turn, firmly established racially based beliefs and norms and removed incentive struc-

[3] Carmichael and Hamilton (1992) define institutional racism as using political, economic and educational institutions to provide a systematic benefit to one race over another. In economic terms, this can be viewed as the implementation of particularized institutions along racial lines. Ogilvie and Carus (2014) define particularized institutions as those institutions whose application differs by group membership with the purpose of giving an advantage to one or a set of groups over others. This is in contrast to generalized institutions, which the same authors define as, institutions which are implemented independent of group identity. An example of this is, the enforcement of the law equally for all members of society.

tures for interracial interaction [4], resulting in the persistence of racism across generations till today.

In determining the origin of cultural beliefs, values and norms an interesting question arises. Who decides what values a society should have? Some papers argue, individuals decide to pass different values to their offspring based on a judgment determined by what values they believe will be beneficial (Tabellini 2008). However, when there is a small elite group, who has the power to control political, economic and social institutions, common sense would dictate, they might also have the power to shape the beliefs, values and norms of the societies they rule. Acemoglu et al. (2014) suggests the notion elites could take control of a civil societies organizations and use them as a mechanism to shape and control culture. If a small elite group controls civil organizations, education, art, and religion, they theoretically can exert a large influence on the path of development of culture. We argue, European colonial elite, under conditions optimal for extractive institutions, enjoyed this power and exerted it purposefully.

Acemoglu, Robinson, and Verdier (2004) stipulate kleptocrats can be successful in extracting resources of the greater population if they can prevent coordination among the exploited. The question now arises, what strategy is well-established in preventing collective action of a diverse society? The simple answer is the common tactic utilized throughout history, divide et impera [5]. There is evidence that colonial powers made deliberate use of this tactic in their interaction with different ethnic entities in colonized countries. For example, as Acemoglu et al. (2001) argue, extractive institutions, in certain instances, established or perpetuated ethnic hierarchies within their institutional structures providing special benefits and power to certain ethnic groups. This in turn, gave incentives, for groups higher in the hierarchy, to maintain the status quo in fear of losing these advantages even after independence from colonial powers. The hierarchical structures encouraged rivalries and grievances along group distinctions making cooperation of local political entities against the colonizing powers more difficult [6]. We can interpret such an outcome as, colonial elite not only purposefully facilitating the establishment of cultural heuristics insuring animosity and mistrust along group distinctions but

[4]Allport (1954) developed the Intergroup Contact Theory, which proposes that, under the appropriate conditions, interpersonal contact is one of the most prominent ways to reduce prejudice. The theory argues, when there are encounters across racial and ethnic lines, the majority group members can communicate with minority group members and are then better able understand these groups resulting in a diminishment of their previously held prejudice.

[5]Posner, Spier, and Vermeule (2010) provide a taxonomy of different game theoretical settings demonstrating the logic of divide et impera and cites different historical examples of its implementation. One example he discusses is imperial Rome, who systematically divided the Germanic tribes threatening the border of the Roman Empire by making them fight amongst themselves.

[6]An example of this tactic can be seen in the case of Rwanda. Nunn (2014) argues, while they do point out there is still debate on this theory, colonial institutions exacerbated the already present tensions along ethnic lines. Colonial rulers, in this context, established policies to purposefully aggravate the already present class differences between the Hutus and Tutsis. Specifically, the Census of 1933/1934 institutionalized the Hutu and Tutsis divisions by creating ethnic identity cards, and as an additional tactic, they segregated the educational system.

also, establishing an institutional environment which insures this cultural heuristic is self-enforcing. Additionally, it is conceivable, colonial elites applied these tactics to the education system they controlled. For example, if they can instill fear, hatred and notions of racial or ethnic superiority, it will make coordination among these different communities against the ruling elites more difficult due to cultural barriers to cooperation. [7]

In the specific application to racism, powerful elite members had the incentive to institutionalize their economic and political advantage and could use race as a means to do so. Given, especially in societies conducive for extractive institutions, the enslavement of different races and or the exploitation of the indigenous population was a vital part of the elite's income, and race was a visible and thus potentially exploitable group distinction, we can see why the establishment of racism and its institutionalization would be a useful tool to maintain political and economic power. First, if elites can shape values, beliefs and norms promoting: racial superiority, racial segregation, fear, stereotypes and general animosity along racial lines, they have successfully instilled a cultural heuristic inhibiting cooperation and interaction across these racial identities. Second, by creating and institutionalizing racial hierarchies, they provide incentives for the maintenance of the status quo even by certain members of the non-elite as they fear losing the advantaged they possess compared to other races below them in society. Meaning the perpetuation of such a heuristic, unless there is a large shock to the current institutional environment and hierarchy, can become self-enforcing. While we will not go into the detail of the exact mechanisms extractive institutions used to instill racism, as they may vary from country to country, we see how the introduction of racism and its institutionalization is a classic example of Divide et impera leading to a society that is not only more racist but possesses the incentives for the perpetuation of racism across generations.

2.3.2 History, Institutions and the Endogenous Path of Racism

The second argument, in the vein of the intolerance literature and the work of authors such as Putnam, Leonardi, and Nanetti (1993), the establishment of inclusive and, more specifically, generalized institutions, endogenously created an environment favorable for equal treatment, cooperation and exchange among members of different races, which in turn, established the conditions for the emergence of a less

[7] Our argumentation is also supported by the literature on institutional racism. This strand of literature views racism from a structural standpoint and it is seen as the connection of prejudice and power which the dominant races use to institutionalize its supremacy at all levels of society Carmichael and Speaks (1971); Alvarez and Lutterman (1979); Carmichael and Hamilton (1992); Bonilla-Silva (1997), Carmichael and Hamilton (1992), are one of the first to introduce the concept of institutional racism. They describe it as racial inequality which results from social institutions such as the: justice, education, and economic system which put blacks and other people of color at a systematically disadvantageous position while providing whites an undeserved benefit. Bonilla-Silva (1997), argues, racial notions and stereotypes are a result of the established social and institutional structures which also provide the rationalization for the maintenance of current political, social, and economic status of different races.

racist and a more tolerant society compared to those that experienced exclusive and particularized institutions. The factors in which we focus, encompassed by our broad definition of institutions are: economic, legal, political and educational. We focus on these institutions because, as we have discussed in the section on the reversal of fortune, all these institutions were exogenously shaped by European colonialization and, are factors which the literature has shown to shaped racism. Overall, this argument states, even in countries where colonial elite did not actively promote racism as part of their strategy, the establishment of extractive and particularized institutions created the incentives leading to higher levels of racism. We stress here that the two arguments presented are not mutually exclusive meaning, the applicability of one argument over the other may vary from country to country.

According to Berggren and Nilsson (2013, 2014), racism in a society will be lower under the conditions of the rule of law because, properly enforced laws ensure legal rules apply equally to everyone. As a result, there is no need to fear the actions of other racial groups since equally enforced rules ensure violators will be punished independently of their racial group [8] . The rule of law directly leads to less racism because it creates legal assurances that facilitate a higher frequency of interracial interaction. Over time, this contact leads to higher trust across groups.

Beyond the rule of law, generalized vs particularized political and economic institutions can also shape racism. For example, if particularized institutions lead to segregation and limited access to politics, markets, geographical living spaces and social situations along racial distinctions, it would provide less incentive and opportunity for interracial interaction and cooperation. Additionally, political and or economic segregation along with limited political and economic opportunity for large swaths of society could enhance the probability racial groups begin or continue to view others as a threat given they must compete over limited opportunities and resources. Such a theory is known as group threat, one important explanation for racism and racial stereotypes (Blumer 1958). Thus, under the conditions of particularized political and economic institutions, groups may view cooperation or interaction as a zero-sum game rather than an opportunity for mutual benefit. This will limit the prospect of interaction and potentially increase animosity as other races are a competitor [9].

[8] We believe this notion fits with the definition of generalize vs particularized from Ogilvie and Carus (2014)

[9] Berggren and Nilsson (2013) also stipulates generalized economic institutions, which promote market exchange, provide incentive structures which can lead to less racism through three possible mechanisms. First, because of repeated successful transactions with other races in the market place, individuals begin to internalize positive beliefs of other races. Second, in seeking mutually beneficial exchange and production, an individual may realize using a racially based heuristic for treatment of, and gathering information on, an individual may no longer be profitable and thus, they have the incentive to treat others based on productivity and revealed factors, not race. Such an argument is also made by Becker (1957), who stipulates, non-discriminating firms possess a competitive advantage over discriminatory firms in terms of productivity and access to a wider set of customers. Third, markets provide a mechanism for the transformation of a society consisting of a small set of closed groups to a set of multiple interconnected ones. This result can lead to the expansion of social capital across racial identities leading to more trust, interconnected networks and shared values and social norms. When social capital expands across racial groups, racist attitudes may become a violation of social norms coming at a social or economic cost.

A historical example if this phenomenon can be taken from Jha (2013) who shows cities and towns in medieval India participating in overseas trade generally saw less Hindu-Muslim riots in the late 19th and early 20th centuries. Using the presence of natural harbors as an instrument for trading cities, Jha stipulates, interaction across religious lines were incentivized because Muslims allowed for Hindu access to markets in the Middle East. Thus, the benefits of cooperation across religions were greater in locations with access to international trade. Jha argues, the institutional environment supported exchange and interaction between Hindus and Muslims which shaped the likelihood of peaceful coexistence in the future. Additionally, beyond our specific hypothesis on racism, there is empirical support for the connection between historical institutions and cultural features, indicating connecting racism, a cultural belief, value or norm, to historical institutions is a logical step (Nunn 2008; Tabellini 2010; Nunn and Wantchekon 2011; Grosjean 2014; Becker et al. 2016; Guiso, Sapienza, and Zingales 2016; Lowes et al. 2017).

The literature on racism has also shown a clear connection between higher education and individuals being more tolerant which highlights the importance of educational institutions. The relationship indicates educated individuals keep less social distance from ethnic minorities, meaning they possess a greater willingness to engage with other ethnic groups, are less likely to be prejudiced and less ethnocentric (Selznick and Steinberg 1969; Hyman and Wright 1979; Jackman and Muha 1984; Hello, Scheepers, and Gijsberts 2002). Some of the main explanations of these findings are that education makes individuals more liberal, open-minded and less likely to view other races as a potential competitor for valuable resources.(Hyman and Wright 1979; Hello, Scheepers, and Gijsberts 2002; Hello, Scheepers, and Sleegers 2006). As we can see, there is an abundance of evidence linking higher levels of education to less social distance and fear of other races, meaning a more educated society is likely to have interracial interaction and cooperation leading to a lower racist equilibrium.

The propagation of education to a wider section of society requires a substantial investment in, and the establishment of, educational institutions. Engerman and Sokoloff (1997; 2002) argue, one of the consequences of, what we refer to as extractive institutions, is a broad underinvestment in the public provision of education which effected, for example, the level of literacy in such countries [10]. Thus, less investment in educational institutions in the past, indicates a smaller proportion of individuals will be educated in these territories. Such an environment is conducive for less tolerance and more racism.

Because of the shift in social norms, the incentive structure for possessing and passing on a racist attitude to one's children becomes less attractive.

[10]Sokoloff and Zolt (2007) and Galor, Moav, and Vollrath (2009) support this notion by linking different measures of greater inequality, a feature that was exogenously determined by geographical factor endowments and is conducive for extractive institutions, to less spending on education.

2.4 Persistence of Racism

An important question we still face is why territories who historically faced extractive institutions saw the persistent effect of racism which is measurable after several generations? In this section, we follow a similar strategy as Nunn (2008) and Alesina, Giuliano, and Nunn (2013) in that, we present a number of plausible theories for the persistence of racism while not trying to distinguish between these explanations in practice. The most important component is that independent of the mechanism of persistence, the reversal of fortune was a shock which, through institutions, influenced the path of development of racism which persists to the present.

The first explanation for the persistence of racism rests in the model derived by Tabellini (2008), who argues there is the possibility of a complementary connection between one generation being affected by a negative shock, to a shift in both internal norms and preferences of institutions across generations. According to Tabellini, individuals inherit norms from their parents which shape their policy preference and political choices which can, through the process of political engagement, shape institutions. The extension of this theory to racism is supported by the many surveys indicating the existence of racially based policy preferences and its connection to racial attitudes. For example, racially centered tastes for laws protecting the right to discriminate, views on interracial schools, government spending on other races, affirmative action, school busing and interracial marriage (Bobo 1997, 1998; Charles 2000; Bobo 2012). From this perspective, we can see how historically extractive institutions lead to, for example, conditions of unequal access and application of the law across racial lines that will positively affect racism and racially based policy preferences, resulting in, the perpetuation of both racism and racially based particularized institutions across time.

Guiso, Sapienza, and Zingales (2008) present another theory for the persistence of cultural traits, with the concept being an overlapping generations model. In our application of the theory, children absorb racial values and beliefs from their parents and then, gain real world experience which results in an updating of their cultural attitudes. Using this framework, the long run effect of different institutional contexts is in shaping the environment and incentives related to the updating of racism and what cost and benefits a person then weighs when determining what beliefs, norms and values to pass on to their children. There is the additional explanation that cultural shocks may take several generations to vanish even when institutional conditions have changed (Bisin and Verdier 2000, 2011) [11]

[11] Evidence of this theory can be seen in the experiments of (Hoff, Kshetramade, and Fehr 2011). They show the cultural effect of the caste system in India continues to be present over half a century after its elimination. The results indicate individuals originating from a lower caste are less willing to punish violations of cooperation or reciprocity norms compared to those of a higher caste. We see another example of potentially persistent behavior in post- Apartide South Africa, (Pecenka and Kundhlande 2013) and their experiment using an augmented dictator game, show racial identity influence theft decisions. The outcome highlights, even among black players, participants were more likely to engage in theft when paired with black individuals, highlighting the existence

.

3 Reproduction of the Reversal of Fortune

The first step in our empirical analysis is to test the validity of our identification strategy. To capture historical institutions, we use 2 proxies, the log of population density and technological development in the 1500s. The measure for log of population density in the 1500s is taken from AJR (2002). One question may be, why are we not using the variable, as AJR (2002), urbanization in the 1500s? Given the already limited size of our sample for racism and the sparseness for the data points for urbanization, we chose to use another proxy that result in a larger set of observations. Additionally, while population density is a widely used measure for pre-colonial development, some argue there are drawbacks with regards to the measures quality and theoretical correctness in capturing historical prosperity. As a result, we use another variable which captures levels of development in the 1500s (Chanda, Cook, and Putterman 2014).

The second proxy is the level of technology in the 1500s, taken from Comin, Easterly, and Gong (2010) via Chanda, Cook, and Putterman (2014). The measurement index is based on the presence of 24 technologies across 5 different sectors within a given territory. The measure captures the availability of such technology around the 1500s in sectors which include; communication, agriculture, military, industry and transportation before European contact and colonialization. Studies have demonstrated this variable predicts levels of current income and higher population density in the 1500s (Comin, Easterly, and Gong 2010; Ashraf and Galora 2011). In terms of our sample selection, in order to replicate AJR's (2002) results, we use the same classification for what is and what is not a post-colonial country. As a result, only territories which were colonized by Western European powers are considered in our colonial sample. See the appendix for the list of countries considered as colonial and non-colonial. Additionally, we restrict our analysis to countries that always have data points for log of population density in the 1500s, technology index in the 1500s, log of GDP per capita in 2000 and technology index in the year 2000.

The first stage in testing the validly our identification strategy is to verify that indeed the reversal of fortune is present in our smaller set of colonial countries. Second, the literature has shown the reversal of fortune is restricted to post-European colonies and so, we test if the reversal of fortune is indeed a unique geographical phenomenon (Nunn 2014). If our strategy is valid, we expect to find a negative and significant association between historical prosperity and modern outcomes in former European colonies, representing a reversal of fortune, and the opposite relationship between the same variables for our non-colonial sample, indicating a

and persistence of a particularized moral norm along racial lines

Table 1: Testing The Reversal of Fortune

	1	2	3	4	5	6
Panel A						
	Dependent Variable: Present Outcomes Below					
	Colonial Sample			Non-Colonial Sample		
	Technology Index 2000	Log GDP pc 2000	Log GDP pc	Technology Index 2000	Log GDP pc 2000	Log GDP pc
Log pop density 1500 CE	-0.140***	-0.642***	-0.976***	0.161***	0.549***	1.029***
	(-0.025)	(-0.121)	(-0.149)	(-0.034)	(-0.136)	(-0.27)
Observations	36	36	36	24	24	24
R-squared	0.537	0.399	0.513	0.376	0.271	0.365
	Colonial Sample			Non-Colonial Sample		
	WGI 1996	Rule Law	Avg Sch	WGI 1996	Rule Law	Avg Sch
Log pop density 1500 CE	-0.569***	-0.535***	-1.713***	0.708***	0.727***	0.969
	(-0.093)	(-0.115)	(-0.275)	(-0.2)	(-0.206)	(-0.568)
Observations	36	36	33	24	24	22
R-squared	0.549	0.439	0.51	0.275	0.279	0.131
Panel B						
	Dependent Variable: Present Outcomes Below					
	Colonial Sample			Non-Colonial Sample		
	Technology Index 2000	Log GDP pc 2000	Log GDP pc	Technology Index 2000	Log GDP pc 2000	Log GDP pc
Technology 1500 CE	-0.082*	-0.211	-0.497*	0.212***	0.696*	1.395*
	(-0.041)	(-0.21)	(-0.288)	(-0.072)	(-0.387)	(-0.728)
Observations	36	36	36	24	24	24
R-squared	0.116	0.027	0.084	0.178	0.118	0.181
	Colonial Sample			Non-Colonial Sample		
	WGI 1996	Rule Law	Avg Sch	WGI 1996	Rule Law	Avg Sch
Technology 1500 CE	-0.304*	-0.201	-1.336***	1.256***	1.135***	1.817**
	(-0.169)	(-0.189)	(-0.476)	(-0.296)	(-0.393)	(-0.779)
Observations	36	36	33	24	24	22
R-squared	0.099	0.039	0.201	0.234	0.184	0.091

Notes : All historical variables have been standardized . All regressions contain a constant. OLS coefficients are reported in each column. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

persistence of fortune. In table 1, using OLS, we examine the association between historical institutions with modern political institutions, human capital, technological advancement and economic prosperity for colonial and non-colonial samples. We use 6 different measures for modern outcomes including: technology in 2000, two measures for log of GDP per capita, one measures for overall institutions, one measure for the rule of law and human capital proxied by average schooling.

Table 1 shows for our sample of ex-colonies, those who had higher pre-colonial prosperity faced a reversal of fortune across all outcome variables. Panel A reports the relationship between log of population density in the 1500s, for both our colonial and non-colonial samples and our 6 measures for present day outcomes. For our colonial sample, we see a negative and statistically significant relationship, at the 1 percent level, between log of population density and all the outcomes of interest. For the non-colonial sample, we find the opposite relationship with 5 of the 6 variables tested displaying a positive and statistically significant correlation with population density in the 1500s at the 1 percent level. The factor average schooling does not display a significant connection, however, it is positive in sign.

Panel B displays the results of the relationship between historical institutions, proxied by technological progress in the 1500s, on our variables for modern prosperity. The results indicate, for our colonial sample, technology in the 1500s is a weaker predictor for modern prosperity compare to log of population density as only 4 of the 6 coefficients display a statistically significant relationship. However, all the point estimates are negative in sign. When examining our non-colonial sample, all variables see reversal in sign with all coefficients being significant at least at the 10 percent level. Table 1 supports that utilizing the reversal of fortune is a valid identification strategy for testing the effect of historical institutions on the path of development of racism.

4 Racism and Historical Institutions

Our measure for racism is based on one question in the World Value Survey: *"On this list are various groups of people. Could you please mention any that you would not like to have as neighbors?"* The answer is coded 1 if the individuals mention people of a different race in his or her response [12]. For national regressions, we average this variable from individual level responses, by country, over all waves [13].

[12] Given our measure for racism is based on the question,*"On this list are various groups of people. Could you please mention any that you would not like to have as neighbors?"* and, this question or other follow up questions do not ask the motivation for such an answer, we cannot determine the reasoning behind their choice. However, the answer to this question does indicate, an individual attaches some negative utility to having someone of another race as a neighbor in a broad sense. This means, we can identify individuals attaching different benefits to proximity or interaction with people based on racial distinctions, which we interpret as the use of a racist base heuristic. As a result, we can identify an individual possessing a racially based heuristic without determining its underlying motivation. Our measure of racism is consistent with our definition, meaning, the identification of the presence of a broadly defined racist heuristic.

[13] The waves include: 1981-1984, 1990-1993, 1995-1998, 1999-2004, 2005-2009 and 2010-2014. Additionally, since many countries only have one data point, we choose to utilize averages across all waves. This is a common

Table 2: Historical Institutions and Racism

	1	2	3	4
Panel A				
	Dependent Variable: Racism			
	Colonial Sample		Non-Colonial Sample	
log population density, 1500	0.073***		-0.034	
	(0.015)		(0.25)	
Log of GDP per cap 2000		-0.034***		-0.031**
		(0.021)		(0.013)
Observations	36	36	24	24
R -Squared	0.402	0.157	0.083	0.230
Panel B				
	Dependent Variable: Racism			
	Colonial Sample		Non-Colonial Sample	
Technology Index, 1500 CE	0.093***		-0.105*	
	(0.020)		(0.59)	
Technology Index, 2000 CE		-0.254***		-0.257***
		(0.056)		(0.079)
Observations	36	36	24	24
R -Squared	0.406	0.176	0.210	0.321

Notes : All historical variables have been standardized . All regressions contain a constant. OLS coefficients are reported in each column. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

In table 2, we examine if historical institutions predict present day levels of racism for both colonial and non-colonial samples. Additionally, we test the relationship between racism and modern measures for prosperity and technological advancement. In this case, if our identification strategy is indeed correct, we expect greater historical prosperity in the colonial sample to be correlated with higher levels of racism, with the opposite relationship for non-European colonies. We also expect to find a consistent negative relationship between greater modern prosperity and racism across both samples. This is because racism has been shown to be negatively correlated with better institutions and education, both of which are linked to greater prosperity and thus, we expect to find a similar relationship.

The coefficients in table 2 provide evidence for the validity of our hypothesis as all our measures for the reversal of fortune, within the colonial sample, predict higher levels of racial intolerance while they display no or the opposite connection for the non-colonial sample. Column 1 indicates a 1 standard deviation increase in the log of population density in the 1500s is correlated with an increase in the average level of racism by 7.3 percent. Given the mean value of racism for the colonial sample is around 18 percent, this represents a change of around 39 percent. Additionally, the log of population density accounts for 40 percent of the variation of racism and displays a coefficient statistically significant at the 1 percent level. Technology in the 1500s, shown in column 3, displays a similar and slightly stronger relationship with racism in terms of sign, magnitude and R squared as population density. When examining the non-colonial sample, we see, as hypothesized, the opposite relationship. All coefficients are negative in sign with technology in the 1500s displaying a statistically significant correlation, albeit at the 10 percent level.

In columns 2 and 4, we conduct the same analysis as columns 1 and 3 for log of GDP per capita [14] and the technology index in the year 2000, both of which are modern counterparts to our historical measures. In column 2 and 4, we observe that when our proxies for the extractiveness of institutions are measured in 2000, we find a negative and significant relationship with racism across both samples. This means, for our colonial sample, more prosperous countries in the 1500s are now more prone to be racist, while the opposite is true for the association between modern prosperity and racism. Such a result confirms we are capturing the impact of the change of historical institutions for the colonial sample. There is no other reason for explaining the change in sign for the relationship of prosperity and

strategy used in the literature on generalized trust (Bjornskov and Mèon 2013).

[14]We compare log of population density in the 1500s with log of GDP per capita in 2000 because we subscribe to the Malthusian theory. The Malthusian theory stipulates that in the pre-industrial periods, unlike the post-industrial period, an advancement of technology or increases in land availability did not result in long-term increases in income per capita but was reflected in the rise in population density. Thus, more technologically sophisticated societies had a denser population but not necessary a higher standard of living or greater income per capita (Ashraf and Galor 2011) . As a result, comparing log of population density in the 1500s and log of GDP per capita in 2000 is appropriate because they are the measures that best capture societal prosperity given their time periods.

racism across time. Our interpretation is further supported by the outcomes in the non-colonial sample as both modern and historical measures for prosperity have a consistent and negative connection with racism.

4.1 Controlling for Fractionalization, Migration and Genetic Diversity

To insure our relationship is not due to omitted factors which have been shown to effect group level interactions, we control for three forms of fractionalization and modern migration (Alesina et al. 2003; Hodler 2006; Putnam 2007; Stolle, Soroka, and Johnston 2008; Koopmans and Veit 2014b, 2014a). Our measures for fractionalization are ethnic, linguistic and religious, all of which are taken from Alesina et al. (2003). Additionally, in all the following regressions in our control exercises, we account for absolute latitude as a proxy for geographical characteristics. The point estimates in table 4 indicate fractionalization in all its forms has a negligible effect on the relationship between racism and historical institutions. To account for the potential contact effect of modern migration on racism, we create our own variable which is the net migration over total population averaged over 1984-2012, a variable which is taken from the World Bank database that we call migration ratio. When we control for modern migration, we see little effect on our coefficients of interest compared to our baseline.

Additionally, we account for genetic and ancestry adjusted genetic diversity, the measures of which are taken from Ashraf and Galor (2013). In their 2013 paper the authors find genetic diversity has a hump shaped relationship with economic prosperity. They argue high levels of genetic heterogeneity have several consequences including; disarray, mistrust, a reduction in cooperation and a disruption of the socioeconomic order of society. In conjunction with this argument, Spolaore and Wacziarg (2009) and Spolaore and Wacziarg (2013) claim genetically rooted differences can create mistrust, a lack of communication across group distinctions, and racial or ethnic biases leading to discrimination. Overall, these conditions hinder interactions between group distinctions with in the population. As a result, it is very plausible genetic diversity is the real driving factor of racism and not historical institutions. When controlling for different measures of genetic diversity, in columns 5 and 6, we see a slight drop in coefficient size but consistent outcomes in terms of sign and statistical significance. Moreover, controlling for different features of a populations diversity and modern migration cannot account for the relationship between historical institutions and racism.

4.2 Controlling for Ancestry Adjusted Variables, Share of Europeans and Indigenous Population

In table 4, we focus on controlling for other possibly important omitted factors prevalent in the literature linking history to present outcomes. First, Chanda, Cook, and Putterman (2014) when focusing on descent and ancestry rather than

Table 3: Controlling for Fractionalization, Migration and Genetic Diversity

Panel A	1	2	3	4	5	6
	Dependent Variable: Racism					
Control Variables	Ethnic Frac	Lingustic Frac	Religious Frac	Migration Ratio	Genetic Diversity	AA Gentic Diversity
log population density, 1500	0.072***	0.072***	0.068***	0.079***	0.055***	0.077***
	(0.017)	(0.017)	(0.019)	(0.019)	(0.019)	(0.021)
Observations	35	35	35	36	36	30
R-squared	0.421	0.415	0.417	0.422	0.446	0.424
Panel B						
	Dependent Variable: Racism					
Control Variables	Ethnic Frac	Lingustic Frac	Religious Frac	Migration Ratio	Genetic Diversity	AA Gentic Diversity
Technology Index, 1500 CE	0.094***	0.090***	0.083***	0.089***	0.071***	0.097***
	(0.024)	(0.023)	(0.024)	(0.020)	(0.022)	(0.024)
Observations	35	35	35	36	36	30
R-squared	0.436	0.425	0.440	0.502	0.457	0.462

Notes : All historical variables have been standardized . All regressions contain a constant. OLS coefficients are reported in each column. All specifications control for absolute latitude. AA Gentic Diversity stands for Ancesrty Adjusted gentic diversity. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

territory with regard to the reversal of fortune, find a persistent economic effect not a reversal. They show both a reversal of fortune when examining territories and a persistence of fortune when analyzing countries in terms of ancestry. The authors stipulate these are two different channels linking history and economic prosperity. Putterman and Weil (2010) argue, territorial factors, such as institutions, cannot explain all aspects of development and other characteristics of the population must be accounted. Their theory goes as follows, when populations came to the New World they brought cultural traits which are important in shaping economic outcomes and are independent of institutional and other territorial specific features. It is easy to extend this line of reasoning to racism as individuals who migrated to the new world would have brought norms, beliefs and values regarding other races.

To isolate the effect of historical institutions and account for historical population movements, we control for ancestry adjusted variables for their respective measures for the reversal of fortune. By this we mean, for example, when regressing log of population density in the 1500s on racism, we control for ancestry adjusted log of population density. All of our Ancestry adjusted variables are migration weighted factors over the time frame 1500 to 2000 CE and are extracted from Putterman and Weil (2010) via Chanda, Cook, and Putterman (2014). In addition to the specific ancestry adjusted variables (log of population density and technology in the 1500s), we control for two other ancestry adjusted components. The measures include millennia of agriculture and the length of state history [15]. From table 4 columns 1, 2 and 3 we can see, controlling for ancestry adjusted features have little to no impact on the size or significance of our coefficients of interest. Additionally, Easterly and Levine (2016) show that a large population share of Europeans during colonialization is related to greater economic development in the present. Similar to the arguments for ancestry adjusted variables, Europeans may have brought cultural characteristics, technology and human capital with them during migration to the new world. As a result, the cultural traits of the Europeans themselves could be what is shaping levels of racism and not institutions. To account for this possibility, we control for the share of Europeans in the 1900s, a variable taken from AJR (2002). As an additional control for historical characteristics of the population, we account for the share of indigenous population decent from the 1500s, a measure which is extracted from Chanda, Cook, and Putterman (2014) via Putterman and Weil (2010).

When controlling for the percentage of Europeans in the population in the

[15] Ancestry adjusted millennial of agriculture measures the years since the population started to utilize agriculture to a greater degree than foraging as the primary source of food after being adjusted for historical population movements. Ancestry adjusted state history, is the proportion of time in which present-day countries had, first, a supra-tribal polity, second, how large the area in which the polity covered, and, finally, if it was internally developed or imposed by an external source adjusted for population migration. Chanda, Cook, and Putterman (2014), Putterman and Weil (2010) and Spolaore and Wacziarg (2013) find the ancestry adjusted variables of millennia of agriculture and state history to be positive and significant predictors of present income levels and thus, we find it important to control for these factors for additional robustness.

Table 4: Controlling for Ancestry Adjusted Variables, Share of Europeans, and Indigenous Pop

	1	2	3	4	5
Panel A					
	Dependent Variable: Racism				
Control Variables	Ancestry Adjusted Variables	Millenia of Agriculture AA	State History AA	Share Euro 1900	Indiginous Pop
log population density, 1500	0.068***	0.072***	0.070***	0.046**	0.066**
	(0.016)	(0.018)	(0.017)	(0.021)	(0.031)
Observations	36	36	35	36	36
R-squared	0.414	0.420	0.415	0.445	0.412
Panel B					
	Dependent Variable: Racism				
Control Variables	Ancestry Adjusted Variables	Millenia Agriculture AA	State History AA	Share Euro 1900	Indigenous Pop
Technology Index, 1500 CE	0.104***	0.097***	0.107***	0.061**	0.067***
	(0.021)	(0.022)	(0.023)	(0.026)	(0.021)
Observations	32	36	35	36	36
R-squared	0.390	0.459	0.485	0.455	0.496

Notes : Our proxies for historical institutions have been standardized . All regressions contain a constant. OLS coefficients are reported in each column. All specifications control for absolute latitude. AA stands for ancestry adjusted. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

1900s, shown in column 4, we see a drop in the size and level of significance of our independent variables of interest. Log of population density sees a drop in its point estimate from 7.3 to 4.6 with a reduction in the level of its statistical significance from 1 to 5 percent. Technology in the 1500s sees a similar change. While column 4 highlights the importance Europeans and the potential cultural traits they brought play as a mediating factor, however, historical institutions remain a significant feature in predicting racism. When controlling for the percentage of indigenous population in the 1500s, shown in column 5, the coefficient for log of population density and technology sees a reduction in its magnitude and statistical significance, from the 1 to 5 percent level.

4.3 Controlling for Religion, Colonial Origin and Other Cultural Factors

Another potential confounding factor which could affect both racism and historical institutions is religion. Different religions may shape vertical and horizontal hierarchal structures within society affecting levels of social capital and tolerance (Fukuyama 2001). This theory is empirically supported by Guiso, Sapienza, and Zingales (2003), as they show certain individuals from specific religions, in some contexts, are more likely to display different forms of intolerance. Additionally, religion has historically played an important role in influencing the path of development of both political and educational institutions, another important reason to account for this variable (Becker and Woessmann 2009; Woodberry 2012; Acemoglu, Gallego, and Robinson 2014). To control for religion, we take variables from La Porta (1999) that measures the proportion of different religions in societies in the 1980s. In table 6, column 1, when including religion in our specification we see little influence on our variables of interest in terms of magnitude, sign and statistical significance.

As ES (1997) argue, be it French, English, Spanish, or other nations, Europeans established extractive institutions entailing slavery or other forms of native extraction when it was economically beneficial to do so. Thus, we argue, Europeans in general, lacked a cultural believe of equal treatment regarding other races and peoples and as a result, where they settled and the institutions they established were driven by exogenously determined economic factors, not cultural beliefs. From this, we reject the notion more racist European nations historically established worse institutions and invested less in human capital development because of racial beliefs. However, to insure this is indeed true, we include dummies for colonial identity, extracted from La Porta (1999) in column 2. The inclusion of colonial identity into our specification results in little to no change to our coefficients compared to the baseline. We also control for legal origin for robustness. Doing so in column 3, produces similar results as column 2. In column 4, we control for regional fixed effects, while their inclusion has a large impact on the

Table 5: Controlling for Religion, Colonial Origin, Legal Origin and Other Cultural Factors

	1	2	3	4	5	6	7	8
Panel A								
	Dependent Variable: Racism							
Control Variables	Religion	Colonial Origin	Legal Origin	Regional Effects	Trust	Respect	Obedience	Control
log population density, 1500	0.062***	0.062***	0.073***	0.049**	0.074***	0.071***	0.076***	0.076***
	(0.013)	(0.018)	(0.018)	(0.021)	(0.016)	(0.020)	(0.017)	(0.023)
Observations	36	36	36	36	36	36	36	36
R-squared	0.495	0.526	0.459	0.523	0.439	0.412	0.428	0.416
Panel B								
	Dependent Variable: Racism							
Control Variables	Religion	Colonial Origin	Legal Origin	Regional Effects	Trust	Respect	Obedience	Control
Technology Index, 1500 CE	0.083***	0.083***	0.087***	0.049*	0.092***	0.106***	0.095***	0.093***
	(0.022)	(0.027)	(0.024)	(0.025)	(0.023)	(0.028)	(0.021)	(0.025)
Observations	36	36	36	36	36	36	36	36
R-squared	0.449	0.488	0.433	0.506	0.436	0.469	0.468	0.430

Notes : Proxies for historical institutions have been standardized . All regressions contain a constant. OLS coefficients are reported in each column. All specifications control for absolute latitude. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

size and significance of our coefficients, indicating the importance of regional characteristics in shaping levels of racism, historical institutions remain a significant factor.

Another important possibility is that racism maybe acting as a proxy for a broader set of cultural features. As shown by Tabellini (2010) trust, control, respect and obedience are shaped by historical institutions and education. As a result, it is important to account for these potential confounding factors to insure racism is an independent phenomenon. To do so, we control for all four of these variables in four different specifications [16]. When controlling for these 4 features, columns 5 to 8, we see little change in our point estimates as they remain consistent in size, sign and significance.

4.4 Controlling for Different Samples and IVs

In this section, we insure our results are not driven by well-known sub-samples in the reversal of fortune literature and other potential outliers. Additionally, to account for other potentially omitted factors, we utilize an instrumental variable approach for both of our proxies for historical institutions. AJR (2002) is concerned their results might be driven by four countries that they define as neo-Europe which include the US, Canada, Australia, and New Zealand. These countries have the potential to bias our results because these nations were relatively backward in terms of prosperity in the 1500s but today are among the most advanced countries in the world, a fact which may be especially important given our limited sample size. We can additionally apply this concern to Hong Kong and Singapore as they both saw a very large swing in their reversal of fortune from highly underdeveloped in the 1500s to high incomes in the present.

As a result of these concerns, we follow the strategies of AJR (2002) and Chanda, Cook, and Putterman (2014). First, we examine if the relationship between historical institutions and racism persists when excluding neo-European countries and second, when Hong Kong and Singapore and neo-European countries are removed from our sample. The point estimates of the coefficients when removing neo European countries or Hong Kong and Singapore individually or together see a small decrease, no change or a slight increase in size while maintaining statistical significance at the 1 percent level.

Next, we remove two countries which are also potentially outliers. Libya and Bangladesh consistently display a large deviation of their standard residuals and have a high level of racism at fifty-four and forty four percent respectively. Thus, we find it prudent to test our results absent these two countries. The results indicate, while all coefficients remain negative and significant, we do see a drop

[16] All measures are extracted from the world value survey and are created in the same manner as our measure for racism. Trust captures generalized trust, control is the degree to which individuals feel they have control over their life, and respect and obedience measure respondents' answers to the questions, how important it is to teach children tolerance and respect and obedience.

Table 6: Controlling for different samples and IVs

	1	2	3	4	5	6
Panel A						
	Dependent Variable: Racism					
Control Specifications	Excluding Neo-Europe	Excluding Sing, HK and Neo-Europe	Excluding Bangladesh and Libyia	MM	IV 1	IV 2
log population density, 1500	0.075*** (0.019)	0.090*** (0.019)	0.053*** (0.014)	0.062*** (0.018)	0.085*** (0.029)	0.070*** (0.020)
Observations	32	30	34	36	35	32
R-squared	0.325	0.378	0.406		0.399	0.432
p-value of Hansen J statistic					0.955	0.326
F stat for weak identification					16.909	79.459
Panel B						
	Dependent Variable: Racism					
Control Specifications	Excluding Neo-Europe	Excluding Sing, HK and Neo-Europe	Excluding Bangladesh and Libyia	MM	IV 1	IV 2
Technology Index, 1500 CE	0.085*** (0.022)	0.100*** (0.022)	0.069*** (0.018)	0.083*** (0.023)	0.092*** (0.027)	0.122*** (0.033)
Observations	32	30	34	36	35	32
R-squared	0.333	0.422	0.452		0.428	0.401
p-value of Hansen J statistic					0.686	0.869
F stat for weak identification					52.948	27.958

Notes : Proxies for historical institutions have been standardized . All regressions contain a constant. OLS coefficients are reported in each column. We control for absolute latitude in all regressions. IV 1 entails unadjusted state history and millennia of agriculture. IV 2 entails log of population density in 1000 and technology index in 0 CE . Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

in all variables magnitude, justifying our suspicion. As a final test to deal with potential outliers we run an MM estimation. A MM-estimation is a useful tool as it attempts to retain the robustness of a S-estimation, while benefiting from the efficiency of a M-estimation. We use a MM estimation with a breakdown value of .5 and an efficiency of 85 percent. The outcomes show consistent coefficients in terms of size, sign and significance. Overall, from this table, we can see our analysis is robust to removing potentially important subsamples and controlling for outliers.

As a final step to account for potential omitted factors and issues of measurement error with our historical data, similar to the strategy as AJR (2002), we utilize an instrumental variable approach using two different sets of instruments. In the first set of instruments, we use non-adjusted measures for millennia of agriculture and state history. Millennia of agriculture is a measure capturing the timing of the Neolithic revolution. As argued by Diamond (1997) and further supported by Putterman (2008) and Ashraf and Galor (2011), the onset of the Neolithic Revolution allowed for the formation of a non-food-producing class which facilitated the development of language, science, technology, military advancements and nation states [17]. Ashraf and Galor (2011), Putterman (2008) and Spolaore and Wacziarg (2013) empirically show the earlier the Neolithic transition of a country the higher their population density in the 1500s. For the second measure, state history, Chanda, Cook, and Putterman (2014) stipulate, the earlier the emergence of the state allowed for innovative technologies and larger historical populations[18]. Given these studies, we believe these are both valid instruments for population density and technology in the 1500s. For our second set of instruments, we use log of population density in 1000 and technology in the year 0 CE taken from AJR (2002) and Comin, Easterly, and Gong (2010) respectively.

The outcomes when using instruments for log of population density and technology in the 1500s, shown in columns 5 and 6, produce similar results compared to the OLS analysis in table 2. In all cases there is little change to the size of the coefficients with all outcomes being statistically significant at the 1 percent level. The p value for the Hanson j statistic and the F statistic for weak identification are also reported. The results of these tests support our argument that we are using valid instruments. The first stage of these regressions are reported in the appendix. Overall, we can see the use of an instrumental variable approach further supports the notion that historical institutions have a causal impact on racism and are not due to other omitted factors.

[17] Additionally, Olsson and Hibbs (2005) argue, the transition from a hunter gather society to one of agricultural production was a vital event facilitating technological progress which contributed to the future immergence of the Industrial Revolution. More specifically, they claim, and present evidence that geographic and biogeographic factors determined the area and timing of a society's agricultural transition with it leading to a more multifaceted set of social organizations and, ultimately, a modern production capacity and higher economic development.

[18] Additionally, Putterman (2008) hypothesizes that state history can serve as a proxy for the Neolithic transition and shows it is a strong predictor of log of population density in the 1500s.

5 Racism as an Internal Norm or a Result of Present Institutions?

As of now, we have asked and examined if historically extractive institutions caused the descendants in such countries to display a higher level of racism. The evidence we show is consistent with our argument that extractive institutions shaped the path of development of the cultural norm of racism towards higher levels. However, there are still two possible explanations for this phenomenon. First, those exposed to extractive institutions became more racist or maintained their high levels of racism which persisted to their descendants. Second, extractive institutions could be correlated with higher levels of racism through its effect on present day institutions, a possibility given our results in tables 1 and 2. Since we show that institutional effects persist in our sample and worst institutions are also associated with higher levels of racism then, people today may have higher levels of racism because of their poor institutional environment. In this section, we perform three empirical tests to distinguish between the two channels.

The first step in trying to determine if racism is an internal norm is to reexamine our baseline specification from table 2 while controlling for current outcomes (political institutions, human capital and economic prosperity) at the cross-country level. Next, we move to the individual level, still using World Value Survey data, and focus on the same relationship while controlling for an individual's confidence in the government along with other individual level characteristics. Finally, we examine, using data from the European Social Survey, if our historical measures predict an individual's level of racism after immigrating from a former colony to Europe.

5.1 Cross-country Analysis Controlling of Present Day Prosperity

Table 7 is the first phase in trying to determine if racism is an internal cultural value or just a response to institutional and social environments. In this table, we test the connection of our historical variables on racism while simultaneously controlling for prosperity and different measures for institutions at the cross-country level. Columns 1 and 2 show the correlations between racism and our historical variables while controlling for measures of modern prosperity proxied by GDP per capita and technology in the year 2000. When controlling for these two modern factors, there is little change to the point estimates for log of population density or technology in the 1500s. In column 3, we account for the general institutional setting, measured by the average of the world governance indicators in 1996, and in column 4, we control specifically for the rule of law given its potential importance. In column 3, we see a general drop in the magnitude of our coefficients of interest, however, both maintain their sign and level of significance. Controlling for the rule of law results in almost no change. In column 5, we control for average schooling which also

Table 7: Controlling for Present Outcomes Variables

	1	2	3	4	5	6
Panel A						
	Dependent Variable: Racism					
Control Variables	Technology Index 2000	Log GDP pc 2000	WGI 1996	Rule Law	Avg Sch	Economic Freedom
log population density, 1500	0.088***	0.083***	0.072***	0.076***	0.082***	0.064***
	(0.026)	(0.024)	(0.019)	(0.017)	(0.020)	(0.018)
Observations	36	36	36	36	33	36
R-squared	0.431	0.429	0.412	0.415	0.452	0.417
Panel B						
	Dependent Variable: Racism					
Control Variables	Technology 2000	Log GDP pc 2000	WGI 1996	Rule Law	Avg Sch	Economic Freedom
Technology Index, 1500 CE	0.081***	0.086***	0.078***	0.084***	0.082***	0.078***
	(0.023)	(0.022)	(0.019)	(0.020)	(0.023)	(0.019)
Observations	36	36	36	36	33	36
R-squared	0.454	0.465	0.500	0.490	0.469	0.515

Notes : Proxies for historical institutions have been standardized . All regressions contain a constant and contol for absolute latitude. OLS coefficients are reported in each column. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

results in little variation to our point estimates. Column 6 controls for economic institutions, proxied by economic freedom, which produces consistent outcomes [19] . Overall, from table 7, we see strong evidence that racism, in our colonial sample, is shaped by historical institutions, a notion which cannot be explained by present day factors of prosperity or institutions.

5.2 Individual Level Analysis

Our second step in identifying if racism is an internal norm is to examine our proposed relationship at the individual level while controlling for a person's confidence in the government along with other individual and country level characteristics for the same sample of countries as the previous section. For our measure of racism, we use the same question as the country level variable before it was aggregated. As a result, racism now takes the value 0 or 1, with 1 indicating an individual does not want to have someone of a different race as a neighbor. For our proxies for historical institutions, we use the same country level variables of log of population density and technology in the 1500s.

Given we combine data from the individual and country levels, our data is hierarchical and clustered and thus, if we use simple OLS it will increase the probability of a type 1 error due to the underestimation of standard errors because they do not possess a normal distribution (Klein et al. 2000). To account for the nature of our data, we use hierarchical linear modeling methods. To estimate the effects of historical institutions, country level data, on racism, individual level data, we use a linear multilevel random effects model. In multilevel methods, random effects refer to group-specific factors, in our case historical institutions that are assumed to influence the dependent variables. In using random effects, we assume, unobserved country-specific effects are randomly distributed with a mean of zero, have constant variance, and are uncorrelated to the predictor variables. These assumptions allow the constant term to vary randomly across countries (Autio, Pathak, and Wennberg 2013).Using this strategy has two advantages. First, it allows us to test if the connection between racism and historical institutions extends to the individual level, with the additional benefit of the examination being in a far larger sample size, ranging from 101,356 to 50,694 individual observations. Second, it allows us to more precisely control for an individual's perception on the functioning of their institutions and other individual characteristics such as education and income which are not captured in country level analysis.

Table 8 column 1, reports the relationship between racism and our two different measures for historical institutions with only individual level controls. Consistent with our baseline results in table 2, there is a robust, positive and statistically significant relationship, at the 1 percent level, between racism and historical in-

[19]We choose economic freedom as our proxy for economic institutions because Berggren and Nilsson (2013) empirically show, different aspects of economic freedom can foster tolerance.

Table 8: Multi-level Analysis

	1	2	3	4	5	6
Panel A						
	Dependent Variable: Racism					
	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Non-Colonial Sample
log population density, 1500	0.034***	0.039***	0.031***	0.037***	0.034***	0.006
	(0.008)	(0.014)	(0.011)	(0.012)	(0.012)	(0.011)
Observations	101,346	101,346	101,346	93,869	93,869	50,694
Number of groups/clusters	36	36	36	33	33	20
Panel B						
	Dependent Variable: Racism					
	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Non-Colonial Sample
Technology Index, 1500 CE	0.275***	0.263***	0.238***	0.255***	0.300***	-0.488**
	(0.063)	(0.066)	(0.060)	(0.069)	(0.053)	(0.227)
Observations	101,346	101,346	101,346	93,869	93,869	50,694
Number of groups/clusters	36	36	36	33	33	20
Specifications						
Indiviudal Controls	Yes	Yes	Yes	Yes	Yes	Yes
Control Log GDP Per Cap	No	Yes	No	No	Yes	Yes
Control Insitituions	No	No	Yes	No	Yes	Yes
Control Avg Schooling	No	No	No	Yes	Yes	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes : All regressions contain a constant. The unit of observation is the individual. All coefficients are reported in each column separated by panels. Individual level controls include: confidence in the government, income, level of education, life satisfaction, subjective health, a dummy for sex and age. Our dependent variables of interest are measures at the country level. Other controls are at the country level, which include: institutions, measured by the average of the world governance indicators index in 1996, log of GDP per capita in 2000 and average schooling from 1985-1995. Additionally, to account for time, we use wave fixed effects. Robust standard errors clustered by country are in parentheses
*** p<0.01, ** p<0.05, * p<0.1

stitutions. The results indicate an individual's confidence in the government and other individual features do not affect the association of our variables of interest. While these results indicate worse historical institutions are predictors of a higher probability an individual will be racist, given we are not utilizing a model with country fixed effects, we need to account for omitted country level factors. To account for the level of prosperity and the institutional environment an individual is imbedded, in column 2 to 4, we also control separately for country level measures for Log of GDP per capita in 2000, institutions and average schooling. In column 5, we account for all three of these country level factors in the same specification. Controlling for these features individually or together has little effect on the coefficients. As a placebo test, in column 6, we run the same specification as column 5 for our non-colonial sample resulting in a similar outcome as table 2, in that, there is a reversal in the sign of the point estimates and in some cases a statistically significant negative relationship between historical institutions and racism. We also check the robustness of our results to an alternate estimation method. Using OLS with robust standard errors clustered by country and a multilevel-logit model produce nearly identical outcomes to table 8. Additionally, to further control for other potential omitted country level factors, we reproduce the regressions from tables 3 to 5 at the individual level while controlling for i characteristics. The outcomes of these regressions produce consistent results as the country level counterparts. These tables are shown in the appendix.

5.3 Examining Individuals Who Have Immigrated to Europe

The final stage in determining if racism is an internal norm is to examine individuals who are from former European colonies and have immigrated to a new environment, specifically Europe. The logic behind this analysis is if racism is indeed an internal norm and not a result of one's present context, people will bring such an attitude with them to a new environment. To test this, using data from the European Social Survey, we examine, at the individual level, if our proxies for historical institutions from a person's origin country predict their level of racism even after they have immigrated to Europe.

To capture an individuals level of racism, we use four different measures which are generally taken from a set of rotating questions asked in the first (2002) and seventh (2014) waves of the European Social Survey. We do not examine questions with regard to race that do not appear on both these waves. The first measure is the response to the question, *"To what extent do you think your country should allow people of a different race or ethnic group from most people?"*. The answers are on a scale from 1 to 4 with 1 corresponding to allowing many into the country and 4 indicating allowing none, we refer to this variable as, race immigration. The second variable is in response to the question *"Thinking of people who have come to live in your country from another country who are of a different race or ethnic*

group from most people. How much would you mind or not mind if someone like this was appointed as your boss". The response is on a scale from 0 to 10 with 0 indicating, do not mind at all and 10 indicating mind a lot. We refer to this feature as, race boss. The third measure is derived from the question *"Now thinking of people who have come to live in your country from another country who are of a different race or ethnic group from most people. How much would you mind or not mind if someone like this married a close relative of yours"*. The variable is also on a scale from 0 to 10 and has the same responses as race boss. We call this variable, race marriage. The final variable is in response to the question, *"How good or bad is it for a country to have a law against racial or ethnic discrimination in the workplace?"*. The answers are on a scale from 0 to 10 with 0 being extremely bad and 10 extremely good. We refer to this feature as, laws against discrimination. Given these questions do not refer to a specific race, only those who are not the majority race or ethnicity, similar to the WVS survey question, it provides us the flexibility to examine views on race of individuals from a variety of countries and cultures without being bogged down by exactly how they identify with what specific race or, how they feel about certain races.

In table 9, we examine the relationship between racism and an individual's ancestral historical institutions at the individual level using OLS with country fixed effects. We use country fixed effects to account for the institutional and cultural environment in which an individual has immigrated. Since we use country fixed effects, in order to insure we have a large enough sample size for each country, we restrict our analysis to a set of countries that generally have at least 15 observations for all our specifications [20]. We additionally limit our analysis to immigrants who do not identify as being part of a minority ethnic group. This is done because most of the questions are in reference to different races or ethnicities as the majority, clearly, individuals who identify as the minority will respond differently to such questions. In our case, what matters is that the individuals do not self-identify as being part of a minority group, not necessarily how other individuals would classify them. There are a number of other additional individual level controls included in all specifications which are: education, life satisfaction, feelings towards household income, gender, age, health, dummies for religious denomination, trust in the legal system, how long one as lived in the country and the number of people of minority race and ethnicity in their current living area.

The results of table 9 indicate, for those individuals from a post-colonial European nation, worse historical institutions from their birth country have a statistically significant relationship with higher levels of racism across all measures even when accounting for individual and country of destination characteristics. All coefficients, minus race immigration for one specification, display a statistically significant correlation with both measures for historical institutions at least at the

[20]We also examine table 9 without such a sample restriction resulting in nearly identical outcomes. The results are shown in the appendix

Table 9: Immigrants to Europe

	1	2	3	4	5	6	7	8
Panel A								
	Colonial Origin Sample				Non-Colonial Origin Sample			
	Race Boss	Race Marriage	Laws Against Discrimination	Race Immigration	Race Boss	Race Marriage	Laws Against Discrimination	Race Immigration
log population density, 1500	0.250***	0.189***	-0.233***	0.024*	-0.048	-0.050	0.139**	-0.048***
	(0.057)	(0.031)	(0.067)	(0.011)	(0.054)	(0.055)	(0.050)	(0.009)
Observations	725	731	718	716	2,070	2,068	2,145	2,145
R -Squared	0.166	0.320	0.115	0.177	0.123	0.208	0.097	0.169
Panel B								
	Colonial Origin Sample				Non-Colonial Origin Sample			
	Race Boss	Race Marriage	Laws Against Discrimination	Race Immigration	Race Boss	Race Marriage	Laws Against Discrimination	Race Immigration
Technology Index, 1500 CE	2.200***	1.762***	-1.267**	0.299**	-0.801	-1.883	-0.320	-0.291
	(0.478)	(0.453)	(0.464)	(0.115)	(0.781)	(1.149)	(0.771)	(0.337)
Observations	673	679	669	666	1,479	1,481	1,536	1,544
R -Squared	0.171	0.322	0.114	0.177	0.145	0.201	0.102	0.172
Specifications								
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of groups/clusters	10	10	10	10	16	16	17	17

Notes: All regressions contain a constant. The unit of observations is the individual. All coefficients are reported in each column separated by panels. Controls include: education, life satisfaction, feelings towards household income, dummy for gender, age, health, 8 dummies for religious denomination, trust in legal system, years living in country and people of minority race and ethnicity in current living area. We restrict our analysis to countries that in general have at least 15 observations for all the specifications. Additionally, we only examine people who do not identify as being part of a minority race or ethnic group. Robust standard errors clustered by country are in parentheses . *** p<0.01, ** p<0.05, * p<0.1

Table 10: Immigrants to Europe Controlling for Origin Country Factors

	1	2	3	4	5	6	7	8	9	10	11	12
Panel A												
	Dependent Variable: 4 Different Measures for Racism											
	Race Boss	Race Boss	Race Boss	Race Marriage	Race Marriage	Race Marriage	Laws Against Discrimination	Laws Against Discrimination	Laws Against Discrimination	Race Immigration	Race Immigration	Race Immigration
log population density, 1500	0.237***	0.218**	0.198**	0.206***	0.214**	0.171**	-0.206**	-0.193**	-0.184*	0.024	0.023	0.030
	(0.073)	(0.074)	(0.072)	(0.058)	(0.073)	(0.060)	(0.079)	(0.075)	(0.084)	(0.014)	(0.014)	(0.020)
Observations	719	719	649	725	725	655	712	712	642	710	710	642
R -Squared	0.165	0.165	0.154	0.319	0.319	0.302	0.116	0.116	0.126	0.179	0.179	0.179
Panel B												
	Dependent Variable: 4 Different Measures for Racism											
	Race Boss	Race Boss	Race Boss	Race Marriage	Race Marriage	Race Marriage	Laws Against Discrimination	Laws Against Discrimination	Laws Against Discrimination	Race Immigration	Race Immigration	Race Immigration
Technology Index, 1500 CE	1.975***	2.026***	1.621***	1.716***	2.028***	1.466**	-0.929*	-0.753	-0.820	0.305***	0.327***	0.307***
	(0.478)	(0.478)	(0.446)	(0.508)	(0.453)	(0.575)	(0.455)	(0.457)	(0.487)	(0.088)	(0.065)	(0.060)
Observations	667	667	608	673	673	614	663	663	603	660	660	602
R -Squared	0.170	0.169	0.154	0.320	0.321	0.306	0.118	0.118	0.127	0.178	0.178	0.176
Specifications												
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Origin Log GDP Per Cap	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No
Origin Insitituions	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No
Origin Avg Schooling	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Number of groups/clusters	10	10	10	10	10	10	10	10	10	10	10	10

Notes: All regressions contain a constant. The unit of observations is the individual. All coefficients are reported in each column separated by panels. Controls include: education, life satisfaction, feelings towards household income, dummy for gender, age, health, 8 dummies for religious denomination, trust in legal system, years living in country and people of minority race and ethnicity in current living area. We restrict our analysis to countries that in general have at least 15 observations for all the specifications. Additionally, we only examine people who do not identify as being part of a minority race or ethnic group. Origin country controls include: institutions, measured by the average of the world governance indicators index in 1996, log of GDP per capita in 2000 and average schooling from 1985-1995 Robust standard errors clustered by country are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

5 percent level. When testing the same relationship for people from a non-colonial society, we find, consistent with our previous results, the opposite and a generally weaker relationship in almost all cases. These outcomes support the validity of our previous findings that historical institutions shape racism through internal norms, beliefs and values and supports the notion that our identification strategy is capturing the reversal of fortune for post-European colonies. One problem with our measures for racism is that they generally refer to immigrants of a different race. As a result, we could be capturing the association of historical institutions and views on immigration and not racism. To test this possibility, we examine the relationship between historical institutions and an individual's answer to question :*"To what extent do you think your country should allow people of the same race or ethnic group as most people?*. The answers are on a scale from 1 to 4 with 1 corresponding to allowing many into the country and 4 indicating allowing none. If we see a significant positive connection between this measure and historical institutions it is an indication we maybe capturing anti-immigrant views. When exploring this, we find no significant relationship. The outcome supports that we are indeed capturing views on race and ethnicity. The results of the test can be seen in the appendix.

In table 10, we control for modern economic prosperity, institutional quality and education levels of an individual's country of origin separately across different specifications. We account for log of GDP per capita in columns 1,4,7 and 10, institutions in 2,5,8 and 11 and average schooling in 3,6,9 and 12. This is done to directly test if different modern features of an individual's origin country mitigate the relationship between different aspects of racism and extractive historical institutions. Columns 1 to 6 show both proxies for historical institutions continue to predict that individuals will mind to a greater degree if people who are a different race or ethnicity as the majority is their boss or if they marry a relative independent of modern origin controls. For a person's views on laws against discrimination and its connection to historical institutions is dependent on the proxies used and the model specification. When historically worse institutions are proxied by log of population density in the 1500s, they are associated with an increased likelihood an individual will think such laws are bad for the country at the 5 or 10 percent level. When institutions are measure by technology in the 1500s, while still having the same sign as log of population density, it is, at best, only significant at the 10 percent level. For people's views on how many immigrants should be allowed into the country who are of a different race or ethnicity as the majority, technology in the 1500s predicts they feel that less should be let in, a relationship which is significant at the 1 percent level. Log of population density, however, at no point displays a significant connection with this measure for racism.

The outcomes of table 10 provide some evidence that the effect of historical institutions may have a different channel depending on the specific question asked as they could be capturing different aspects of racist or discriminatory beliefs.

For example, questions about races with regard to being one's boss or marrying a relative are always significantly correlated with historical institutions. However, this is not the case for views on laws against discrimination or immigration for other races. While the purpose of this paper is to establish a connection between historical institutions and racism, which is supported by these tables, such results open the door for a deeper exploration of racism as different aspects of it may be historically rooted while others are shaped to a greater degree by modern phenomenon of an individual's origin country. This further exploration is outside the scope of the paper.

One potential problem maybe there is a large number of individuals from a single origin country biasing the results. When exploring this potential possibility, we find there are a large number of people from Morocco (around 160) and the United States (around 51) in our baseline specifications from table 9. To account for this potential issue, we rerun our regressions from table 9 while removing all individuals from Morocco (table 11) and the United States (table 12). When excluding the sub-sample of Morocco in table 11, we generally see consistent results minus the fact technology in the 1500s is no longer significant with views on laws against discrimination. In table 12, when excluding individuals from the United States, the outcomes are similar to table 9 with a few coefficients dropping a level of statistical significance.

6 Conclusion

In our study, we show, first, there is a reversal of fortune in the countries composing our sample of former European colonies. Following the literature, we claim this is a consequence of the establishment of extractive institutions which were exogenously determined. We use this fact as an identification strategy to show that former colonies with extractive institutions exhibit higher levels of racism today. We argue this could be caused by both a deliberate instillation of racism in the population of extractive colonies, and or that extractive institutions created an environment conducive for the endogenous formation of higher levels of racism. We then show that this relationship is robust to controlling for several potential confounding factors. Finally, we examine the mechanism for how historical institutions shape levels of racism. We identify, using three different strategies, historical institutions effect on modern levels of racism mainly operates through internal beliefs, values and norms.

Our results contribute to the literature in several ways. First, we show that the impact of colonial institutions goes far beyond its well-known effects on modern institutional quality, in that, it also left an imprint on cultural values which persists until today. Second, the paper contributes to the understanding of how racism persists across time by identifying that is an internal norm, belief and value. Linking this result with the recent findings of the literature about the

Table 11: Immigrants to Europe Dropping Morocco

	1	2	3	4
Panel A				
	Race Boss	Race Marriage	Laws Againts Discrimination	Race Immigration
log population density, 1500	0.245***	0.182***	-0.217**	0.022*
	(0.048)	(0.037)	(0.090)	(0.011)
Observations	530	537	533	524
R -Squared	0.163	0.304	0.139	0.170
Panel B				
	Race Boss	Race Marriage	Laws Against Discrimination	Race Immigration
Technology Index, 1500 CE	2.473***	2.126***	-1.332	0.338**
	(0.455)	(0.368)	(0.729)	(0.112)
Observations	490	497	496	486
R -Squared	0.178	0.314	0.141	0.172
Specifications				
Individual controls	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes
Number of groups/clusters	9	9	9	9

Notes: All regressions contain a constant. The unit of observations is the individual. All coefficients are reported in each column separated by panels. Controls include: education, life satisfaction, feelings towards household income, dummy for gender, age, health, 8 dummies for religious denomination, trust in legal system, years living in country and people of minority race and ethnicity in current living area. We restrict our analysis to countries that in general have at least 15 observations for all the specifications. Additionally, we only examine people who do not identify as being part of a minority race or ethnic group. Robust standard errors clustered by country are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 12: Immigrants to Europe Dropping USA

	1	2	3	4
Panel A				
	Race Boss	Race Marriage	Laws Against Discrimination	Race Immigration
log population density, 1500	0.241*** (0.055)	0.242*** (0.042)	-0.222** (0.084)	0.023* (0.012)
Observations	666	670	657	656
R -Squared	0.178	0.322	0.103	0.189
Panel B				
	Race Boss	Race Marriage	Laws Againts Discrimination	Race Immigration
Technology Index, 1500 CE	2.057*** (0.470)	1.897*** (0.487)	-1.039* (0.533)	0.299** (0.105)
Observations	614	618	608	606
R -Squared	0.185	0.323	0.103	0.188
Specifications				
Individual controls	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes
Number of groups/clusters	10	10	10	10

Notes: All regressions contain a constant. The unit of observations is the individual. All coefficients are reported in each column separated by panels. Controls include: education, life satisfaction, feelings towards household income, dummy for gender, age, health, 8 dummies for religious denomination, trust in legal system, years living in country and people of minority race and ethnicity in current living area. We restrict our analysis to countries that in general have at least 15 observations for all the specifications. Additionally, we only examine people who do not identify as being part of a minority race or ethnic group. Robust standard errors clustered by country are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

negative economic and political impact of racist attitudes, we can claim that the persistence of racism might be one factor contributing to the persistence of extractive institutions across time, a result which has been shown to have consequences on economic development. Our results also support the hypothesis that abrupt massive changes of institutions can dramatically change cultural values in ways that are not easily reversed in the future. This research also opens new avenues of research to the investigation of the impact of extractive institutions on other historical cultural values different than racism and their persistence until today as a potential explanation for differences in long term development.

Data Appendix Country Level

Racism: The question in the survey is: "On this list are various groups of people. Could you please mention any that you would not like to have as neighbors?" Answer is coded (1) if people of a different race is mentioned and 0 if not. For the country level, the variable is averaged by country. Source: World Value Surveys.

Ancestry Adjusted variables: Ancestry adjusted covers population density, millennia of agriculture, state history, and technology. The measures are migration weighted measures for the period 1500 to 2000 CE. Source: Putterman and Weil (2010) via Chanda, Cook, and Putterman (2014).

Colonial Origin: Colonizer dummies are for the identity of the European colonizer country which include British, French, German, Spanish, Italian, Belgian, Dutch, and Portuguese. Source: La Porta (1999)

Control: Derived from the question "Some people feel they have completely free choice over their lives, while other people feel that what they do has no real effect on what happens to them". Please use this scale where (1) means "no choice at all" and (10) means "a great deal of choice" to indicate how much freedom of choice and control you feel you have over the way your life turns out. The measure is averaged by country over all available waves. Source: World Value Surveys.

Economic Freedom: Measure for the degree of economic freedom with in a society. The measures encompasses 5 sub-components which are the size of government, legal structure and security of property rights, access to sound money, Freedom to trade internationally and Regulation of credit, labor and business. The variable is averaged over all years available. Source: Gwartney and Joshua (2011)

Fractionalization: Measures for ethnic linguistic and religious fractionalization are taken from Alesina et al. (2003)

Genetic Diversity and Ancestry Adjusted Genetic Diversity: Measures capture the migration adjusted and unadjusted levels of predicted genetic diversity on the modern country level. Source: Ashraf and Galor (2013).

Latitude: Absolute value of latitude scaled between zero and one. Source: La Porta (1999).

Legal Origin: Dummy variables that indicate the legal tradition of a country which includes British, French, German or Scandinavian. Source: La Porta (1999)

Log of GDP per capita in 2000 CE: log of real GDP per capita, in constant 2000 international dollars, as reported by the Penn World Table, version 6.2 taken via Ashraf and Galor (2013)

Log of GDP per capita: log of GDP per capita in constant 2005 US dollars averaged over the period 1984-2013. Source: World Bank Development Indicators

Millennia of Agriculture: The quantity of millennia a country has utilized agriculture until 2000 CE. Source: Putterman and Trainor (2006) via Chanda, Cook, and Putterman (2014).

Obedience: Derived from the question "Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important?" If obedience is mentioned, it is coded as (1), if not mentioned (0). The measure is averaged by country over all available waves. Source: World Value Surveys.

Population Density in 1500 and 1000: Total population in relation to arable land in 1500 and 1000 CE. Source: McEvedy and Jones (1978) via Acemoglu, Johnson, and Robinson (2002)

Regional Dummies: Latin America, Europe and Central Asia, South Asia, SubSaharan Africa, East Asia and the Pacific and Western Europe. Source: World Bank .

Religion: Religion measures the percent of a country in which the population identifies with a specific religion which includes Roman Catholic, Protestant, Muslim, and Other in 1980. Source: La Porta (1999)

Respect: Derived from the question "here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important?" If tolerance and respect for other people is mentioned, it is coded as (1,) if not mentioned (0). The measure is averaged by country over all available waves. Source: World Value Surveys.

Rule of Law: Our proxy for legal institutions is the rule of law. This measure captures the level of confidence agents have in and abide by the rules of society. Specially, the quality of contract enforcement, property rights, the police, the courts and finally, the probability of crime and violence. The measure is averaged over the years 1996-2013: Source Kaufmann, Kraay, and Mastruzzi (2013)

Share of European 1900s: Percentage of settlers of European decent 1900s.

Source: Acemoglu, Johnson, and Robinson (2002)

Share of indigenous population decent 1500: Share of people in the population who are of indigenous decent from 1500 CE. Source: Putterman and Weil (2010).

State History in 1500 CE: An index of state antiquity for the period 1 CE to 1500 CE. Source : Putterman (2007) via Chanda, Cook, and Putterman (2014).

Technology in 0 AD, 1500 and 2000 CE: These measures, though they are constructed differently, capture the level of technology in a country around the year 0, 1500 and 2000 respectively. Source: for technology in 1500 was taken from Comin, Easterly, and Gong (2010) via Chanda, Cook, and Putterman (2014) . Current technology and technology in 0 AD was taken directly from Comin, Easterly, and Gong (2010)

Trust: Derived from the question "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" Answer is coded (1) if people can be trusted and (0) if you cannot be too careful. The measure is averaged by country over all available waves. Source: World Value Surveys.

World Governance Indicators 1996 average: The average of all world governance indicators for 1996. It captures voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption. Source: Kaufmann, Kraay, and Mastruzzi (2013).

Years of Schooling, Average 1985 to 1995: The country-level average years of schooling for the population above 15 years of age over the period 1985 to 1995. Source: Barro and Lee (2010).

Data Appendix WVS Individual Level

Racism: The question in the survey is : "On this list are various groups of people. Could you please mention any that you would not like to have as neighbors?" Answer is coded (1) if People of a different race is mentioned and 0 if not.

Education: The question in the survey is: What is the highest educational level that you have attained? (1) Inadequately completed elementary education, (2) Completed (compulsory) elementary education, (3) Incomplete secondary school: technical/vocational type, (4) Complete secondary school: technical/vocational type, (5) Incomplete secondary: university-preparatory, (6) Complete secondary: university-preparatory, (7) Some university without degree/higher education, (8) University with degree/higher education.

Income: A scale of incomes in which the household falls into, before taxes and other deductions. This variable takes values from 1 to 10, 1 being the lowest decile and 10 the highest. The data is recollected in local currency, scaled and then aggregated so the deciles represent a country level income ranking.

Life Satisfaction:The question in the survey is : All things considered, how satisfied are you with your life as a whole these days? Using this card on which 1 means you are "completely dissatisfied' and 10 means you are "completely satisfied" where would you put your satisfaction with your life as a whole? Source : World Value Surveys.

Age and Gender: Respondent's age. Gender of the respondent. (0) Female and (1) Male

Health: Respondent's Subjective health. This variable takes values from 1 to 5, 1 being very good health and 5 being very poor.

Confidence Government: Respondent's Confidence in the Government. This variable takes values from 1 to 4, 1 a great deal of confidence and 4 being non at all.

Data Appendix ESS Individual Level

Race Boss: Response to the question, thinking of people who have come to live in your country from another country who are of a different race or ethnic group from most people. How much would you mind or not mind if someone like this was appointed as your boss. The response is on a scale from 0 to 10 with 0 indicating, do not mind at all and 10 indicating mind a lot.

Race Marriage: Response to the question, thinking of people who have come to live in your country from another country who are of a different race or ethnic group from most people. How much would you mind or not mind if someone like this married a close relative of yours. The response is on a scale from 0 to 10 with 0 indicating, do not mind at all and 10 indicating mind a lot.

Race Immigrant: Response to the question,to what extent do you think your country should allow people of a different race or ethnic group from most people? The answers are on a scale from 1 to 4 with 1 corresponding to allowing many into the country and 4 indicating allowing none.

Laws Discrimination: Response to the question, how good or bad is it for a country to have a law against racial or ethnic discrimination in the workplace? The answers are on a scale from 0 to 10 with 0 being extremely bad and 10 extremely good.

Immigrants Same Race: Response to the question,to what extent do you think your country should allow people of the same race or ethnic group from most people? The answers are on a scale from 1 to 4 with 1 corresponding to allowing many into the country and 4 indicating allowing none.

Education: Years of full-time education completed.

Feelings Income: Feeling about household's income nowadays. This variable takes values from 1 to 4, 1 being living comfortably on present income and 4 very difficult living on present income.

Trust Legal System: Respondent's trust in the legal system. This variable takes values from 0 to 10, 0 being non at all and 10 complete trust.

Age and Gender: Respondent's age. Gender of the respondent. (2) Female and (1) Male

Life Satisfaction: Respondents life satisfaction. This variable takes values

from 0 to 10, 0 being extremely dissatisfied and 10 extremely satisfied.

Living Minorities: If people of a minority race/ethnic group are in the respondents current living area. This variable takes values from 1 to 3, 1 almost no one and 3 many.

Religious Denomination : Fixed effects for religious denomination. Includes: Roman Catholic, Protestant, Eastern Orthodox, Other Christian denomination, Jewish, Islamic, Eastern religions and Other non-Christian religions.

Lived in Country: Years lived in the county. Includes : with last year, 1 to 5 years, 6 to 10 years, 11 to 20 years and more than 20 years.

Appendix Figures and Tables

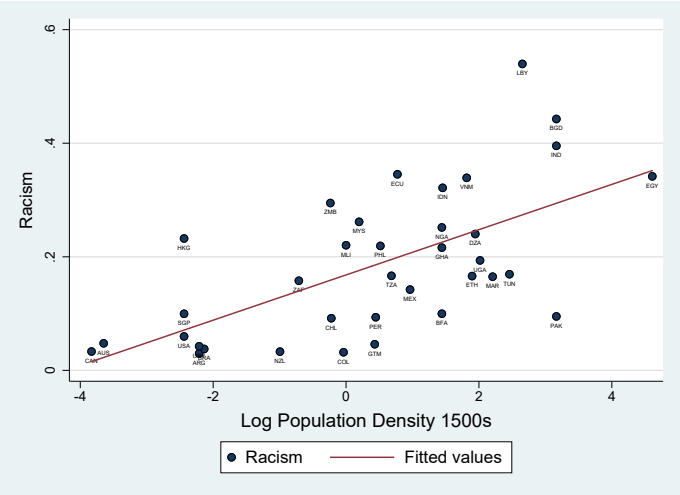

Figure 1: Scatter Plot Racism and Log of Population Density 1500s Colonial Sample

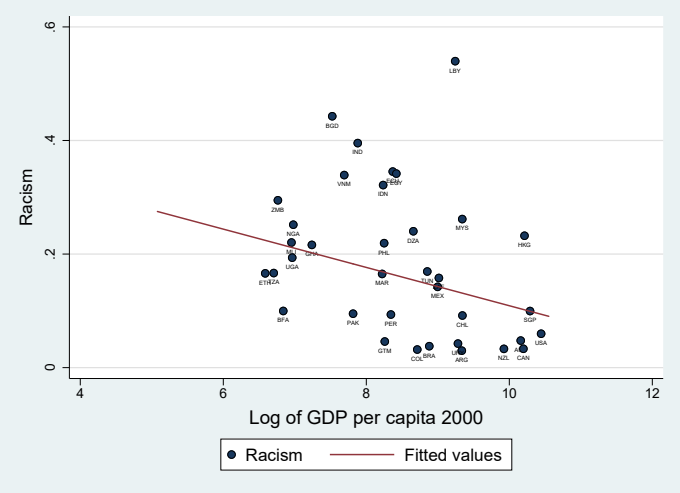

Figure 2: Scatter Plot Racism and Log of GDP Per Capita Colonial Sample

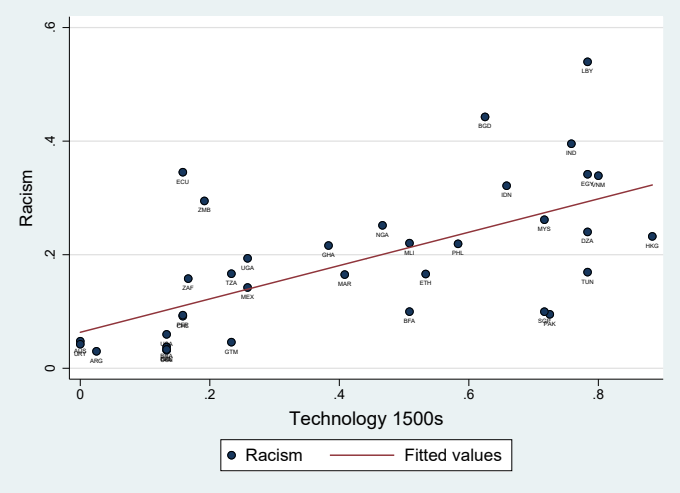

Figure 3: Scatter Plot Racism and Technology Index 1500s Colonial Sample

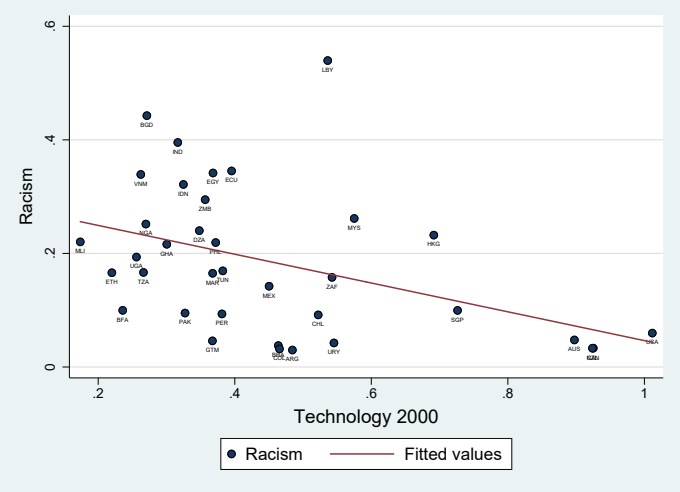

Figure 4: Scatter Plot Racism and Modern Technology Colonial Sample

Appendix 1 : Samples for Cross Country and Multi-Level Analysis

Colonial Sample	Non-Colonial Sample
Argentina	Bosnia and Herzegovina
Australia	China
Algeria	Czech Republic
Bangladesh	Finland
Brazil	France
Burkina Faso	Germany
Canada	Hungary
Chile	Iran
Colombia	Iraq
Ecuador	Italy
Egypt	Japan
Ethiopia	Lithuania
Ghana	Netherlands
Guatemala	Norway
Hong Kong, China	Poland
India	Romania
Indonesia	Saudi Arabia
Libya	Spain
Malaysia	Sweden
Mali	Switzerland
Mexico	Thailand
Morocco	Turkey
New Zealand	Uganda
Nigeria	Ukraine
Pakistan	Uzbekistan
Peru	
Philippines	
Singapore	
South Africa	
Tanzania	
Tunisia	
Uganda	
United States	
Uruguay	
Vietnam	
Zambia	

Appendix Table 2 : Summary Stats Country Level

Variable	Obs	Mean	Std. Dev.	Min	Max
Racism	60	0.177	0.116	0.024	0.540
Log Population Density 1500s	60	1.195	2.064	-3.831	5.643
Technology Index 1500s	60	0.575	0.305	0.000	1.000
Log GDP Per Capita in 2000	60	8.807	1.102	6.587	10.445
Technology Index 2000	60	0.508	0.220	0.174	1.012
Log of GDP Per Capita	60	8.298	1.597	5.079	10.933
Rule of Law	60	0.185	1.013	-1.649	1.941
World Governance Indicators 1996	60	0.173	0.972	-1.806	1.836
Average Years of Schooling 1985-1995	55	6.861	2.658	0.902	12.319

Appendix Table 3 : Sum Stats Individual Level WVS

Variable	Obs	Mean	Std. Dev.	Min	Max
Racism	220,605	0.169	0.375	0.000	1.000
Log Population Density 1500s	220,604	0.930	2.148	-3.831	5.643
Technology Index 1500s	220,605	0.521	0.322	0.000	1.000
Satisfaction	218,190	6.834	2.376	1.000	10.000
income	197,452	4.619	2.345	1.000	10.000
education	189,566	4.606	2.223	1.000	8.000
age	219,001	40.345	16.121	13.000	99.000
sex	215,970	0.491	0.500	0.000	1.000
Health	218,174	2.12876	0.872367	1	5
Lack of Confidence Government	192,162	5.411137	2.887504	1	10

Appendix Table 4 : First Stage IVs from Table 6

	(1)	(2)	(3)	(4)
Dependent Variables	Log Population Density 1500s		Technology Index 1500s	
	Column 5 Panel A	Column 6 Panel A	Column 5 Panel B	Column 6 Panel B
Millennial of Agr	0.236***		0.168***	
	(0.075)		(0.056)	
State History	1.252*		1.402***	
	(0.623)		(0.408)	
Technology 0 CE		1.293***		1.641***
		(0.436)		(0.472)
Log Pop 1000 CE		0.415***		0.095
		(0.070)		(0.081)
Absolute Latitude	-1.380	0.788	-0.681	0.387
	(0.940)	(0.694)	(0.606)	(0.810)
Observations	35	32	35	32
R-squared	0.503	0.848	0.629	0.519

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Appendix Table 5 : Replication Table 8 Multi-level Logit

	1	2	3	4	5	6
Panel A						
	Dependent Variable: Racism					
Samples	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Non-Colonial Sample
log population density, 1500	0.291***	0.296***	0.272***	0.285***	0.279***	0.014
	(0.059)	(0.089)	(0.095)	(0.097)	(0.106)	(0.103)
Observations	101,346	101,346	101,346	93,869	93,869	50,694
Number of groups/clusters	36	36	36	33	33	20
Panel B						
	Dependent Variable: Racism					
Samples	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Non-Colonial Sample
Technology Index, 1500 CE	2.384***	2.229***	2.065***	2.116***	2.598***	-3.970**
	(0.432)	(0.418)	(0.435)	(0.480)	(0.404)	(1.584)
Observations	101,346	101,346	101,346	93,869	93,869	50,694
Number of groups/clusters	36	36	36	33	33	20
Specifications						
Indiviudal Controls	Yes	Yes	Yes	Yes	Yes	Yes
Control Log GDP Per Cap	No	Yes	No	No	Yes	Yes
Control Insitituions	No	No	Yes	No	Yes	Yes
Control Avg Schooling	No	No	No	Yes	Yes	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes : All regressions contain a constant. The unit of observation is the individual. All coefficients are reported in each column separated by panels. Individual level controls include: confidence in the government, income, level of education, life satisfaction, subjective health, a dummy for sex and age. Our dependent variables of interest are measures at the country level. Other controls are at the country level, which include: institutions, measured by the average of the world governance indicators index in 1996, log of GDP per capita in 2000 and average schooling from 1985-1995. Additionally, to account for time, we use wave fixed effects. Robust standard errors clustered by country are in parentheses
*** p<.01, ** p<0.05, * p<0.1

Appendix Table 6 : Reproduction Table 8 OLS with clustered standard errors by country

	1	2	3	4	5	6
Panel A						
	Dependent Variable: Racism					
Samples	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Non-Colonial Sample
log population density, 1500	0.041***	0.045***	0.043***	0.041***	0.044***	0.009
	(0.007)	(0.012)	(0.011)	(0.010)	(0.012)	(0.015)
Observations	101,346	101,346	101,346	93,869	93,869	50,694
R-squared	0.067	0.067	0.067	0.071	0.072	0.054
Number of groups/clusters	36	36	36	33	33	20
Panel B						
	Dependent Variable: Racism					
Samples	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Colonial Sample	Non-Colonial Sample
Technology Index, 1500 CE	0.330***	0.299***	0.291***	0.290***	0.313***	-0.692***
	(0.056)	(0.058)	(0.056)	(0.058)	(0.056)	(0.201)
Observations	101,346	101,346	101,346	93,869	93,869	50,694
R-squared	0.074	0.078	0.079	0.082	0.086	0.068
Number of groups/clusters	36	36	36	33	33	20
Specifications						
Indiviudal Controls	Yes	Yes	Yes	Yes	Yes	Yes
Control Log GDP Per Cap	No	Yes	No	No	Yes	Yes
Control Insitituions	No	No	Yes	No	Yes	Yes
Control Avg Schooling	No	No	No	Yes	Yes	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes : All regressions contain a constant. The unit of observation is the individual. All coefficients are reported in each column separated by panels. Individual level controls include: confidence in the government, income, level of education, life satisfaction, subjective health, a dummy for sex and age. Our dependent variables of interest are measures at the country level. Other controls are at the country level, which include: institutions, measured by the average of the world governance indicators index in 1996, log of GDP per capita in 2000 and average schooling from 1985-1995. Additionally, to account for time, we use wave fixed effects. Robust standard errors clustered by country are in parentheses *** p<0.01, ** p<0.05, * p<0.1

Appendix 7 : Controlling for Fractionalization, Migration and Genetic Diversity at the Individual Level

	1	2	3	4	5	6
Panel A						
	Dependent Variable: Racism					
Control Variables	Ethnic Frac	Lingustic Frac	Religious Frac	Migration Ratio	Genetic Diversity	AA Gentic Diversity
log population density, 1500	0.032***	0.033***	0.030***	0.037***	0.025**	0.037***
	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.011)
Observations	98,929	98,929	98,929	101,346	101,346	86,405
Number of Groups	35	35	35	36	36	30
Panel B						
	Dependent Variable: Racism					
Control Variables	Ethnic Frac	Lingustic Frac	Religious Frac	Migration Ratio	Genetic Diversity	AA Gentic Diversity
Technology Index, 1500 CE	0.277***	0.266***	0.245***	0.264***	0.233***	0.302***
	(0.076)	(0.069)	(0.069)	(0.064)	(0.075)	(0.080)
Observations	98,929	98,929	98,929	101,346	101,346	86,405
Number of Groups	35	35	35	36	36	30
Specifications						
Indiviudal Controls	Yes	Yes	Yes	Yes	Yes	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes : All regressions contain a constant. The unit of observation is the individual. All coefficients are reported in each column separated by panels. Individual level controls include: confidence in the government, income, level of education, life satisfaction, subjective health, a dummy for sex and age. Our dependent variables of interest are measures at the country level. Other controls are at the country level which includes controls for absolute latitude in specifications. Additionally, to account for time, we use wave fixed effects. Robust standard errors clustered by country are in parentheses *** p<0.01, ** p<0.05, * p<0.1

Appendix Table 8 : Controlling for Religion, Colonial Origin, and Other Cultural Factors Individual Level

	1	2	3	4	5	6	7	8
Panel A								
	Dependent Variable: Racism							
Control Variables	Religion	Colonial Origin	Legal Origin	Regional Effects	Trust	Respect	Obedience	Control
log population density, 1500	0.026***	0.026***	0.033***	0.021**	0.032***	0.031***	0.032***	0.032***
	(0.007)	(0.008)	(0.009)	(0.010)	(0.009)	(0.009)	(0.009)	(0.009)
Observations	101,346	101,346	101,346	101,346	96,393	101,346	101,346	99,576
Number of Groups	36	36	36	36	36	36	36	36
Panel B								
	Dependent Variable: Racism							
Control Variables	Religion	Colonial Origin	Legal Origin	Regional Effects	Trust	Respect	Obedience	Control
Technology Index, 1500 CE	0.261***	0.239***	0.255***	0.160**	0.260***	0.260***	0.264***	0.264***
	(0.075)	(0.075)	(0.072)	(0.073)	(0.067)	(0.068)	(0.067)	(0.067)
Observations	101,346	101,346	101,346	101,346	96,393	101,346	101,346	101,346
Number of Groups	36	36	36	36	36	36	36	36
Specifications								
Indiviudal Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes : All regressions contain a constant. The unit of observation is the individual. All coefficients are reported in each column separated by panels. Individual level controls include: confidence in the government, income, level of education, life satisfaction, subjective health, a dummy for sex and age. Our dependent variables of interest are measures at the country level. Other controls are at the country level which includes controls for absolute latitude in specifications. Additionally, to account for time, we use wave fixed effects. In this case we do not restrict our sample to countries that have at least 15 observations. Robust standard errors clustered by country are in parentheses *** p<0.01, ** p<0.05, * p<0.1

Appendix Table 9 : Testing Views on Immigrants from the Same Race ESS

	(1)	(2)	(3)	(4)
VARIABLES	Colonial Sample Immigrants Same Race	Non-Colonial Sample Immigrants Same Race	Colonial Sample Immigrants Same Race	Non-Colonial Sample Immigrants Same Race
ln Population Density, 1500 CE	0.014	-0.007		
	(0.014)	(0.011)		
Technology Index, 1500 CE			0.148	-0.101
			(0.129)	(0.169)
Observations	716	1,525	666	975
R-squared	0.295	0.276	0.308	0.298
Individual controls	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes
Clusters	10	13	10	13

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Appendix Table 10 : Reproduction of Table 9 Full Sample

	1	2	3	4	5	6	7	8
Panel A								
	Colonial Origin Sample				Non-Colonial Origin Sample			
	Race Boss	Race Marriage	Laws Againts Discrimination	Race Immigration	Race Boss	Race Marriage	Laws Againts Discrimination	Race Immigration
log population density, 1500	0.231***	0.172***	-0.228***	0.031**	-0.052	-0.046	0.142***	-0.044***
	(0.062)	(0.031)	(0.057)	(0.012)	(0.052)	(0.053)	(0.048)	(0.010)
Observations	817	824	814	811	2,285	2,285	2,359	2,364
R -Squared	0.179	0.336	0.127	0.194	0.143	0.211	0.099	0.172
Panel B								
	Colonial Origin Sample				Non-Colonial Origin Sample			
	Race Boss	Race Marriage	Laws Againts Discrimination	Race Immigration	Race Boss	Race Marriage	Laws Againts Discrimination	Race Immigration
Technology Index, 1500 CE	2.025***	1.640***	-1.182***	0.334***	-1.288*	-2.096*	-0.536	-0.284
	(0.513)	(0.399)	(0.383)	(0.114)	(0.648)	(1.092)	(0.649)	(0.327)
Observations	745	751	743	740	1,561	1,563	1,616	1,622
R -Squared	0.188	0.339	0.123	0.196	0.157	0.205	0.102	0.176
Specifications								
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of groups/clusters	20	20	20	21	23	23	24	24

Notes: All regressions contain a constant. The unit of observations is the individual. All coefficients are reported in each column separated by panels. Controls include: education, life satisfaction, feelings towards household income, dummy for gender, age, health, 8 dummies for religious denomination, trust in legal system, years living in country and people of minority race and ethnicity in current living area. Additionally, we only examine people who do not identify as being part of a minority race or ethnic group. Robust standard errors clustered by country are in parentheses . *** p<0.01, ** p<0.05, * p<0.1

References

Acemoglu, D., S. Johnson, and J. A. Robinson. 2002. "Reversal of Fortune. Geography and Institutions in the Making of the Modern World Income Distribution." *The Quarterly Journal of Economics*, 117(4): 1231–94.

Acemoglu, Daron, Francisco A. Gallego, and James A. Robinson. 2014. "Institutions, human capital, and development." *Annual Review of Economics*, 6(1): 875–912.

Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2001. "The Colonial Origins of Comparative Development. An Empirical Investigation." *American Economic Review*, 91(5): 1369–401.

Acemoglu, Daron, James A. Robinson, and Thierry Verdier. 2004. "Alfred Marshall Lecture. Kleptocracy and Divide-and-Rule: A Model of Personal Rule." *Journal of the European Economic Association*, 2(2-3): 162–92.

Alesina, Alberto, Arnaud Devleeschauwer, William Easterly, Sergio Kurlat, and Romain Wacziarg. 2003. "Fractionalization. Journal of Economic Growth." *Journal of Economic Growth*, 8(2): 155–94.

Alesina, Alberto and Paola Giuliano. 2015. "Culture and Institutions." *Journal of Economic Literature*, 53(4): 898–944.

Alesina, Alberto, Paola Giuliano, and Nathan Nunn. 2013. "On the Origins of Gender Roles. Women and the Plough." *QUARTERLY JOURNAL OF ECONOMICS-CAMBRIDGE MASSACHUSETTS-*, 128(2): 469–530.

Alvarez, Rodolfo and Kenneth G. Lutterman. 1979. *Discrimination in organizations*: Jossey-Bass Inc Pub.

Ashraf, Javed. 1994. "Differences in Returns to Education: An Analysis by Race." *American Journal of Economics and Sociology*, 53(3): 281–90.

Ashraf, Quamrul and Oded Galor. 2011. "Dynamics and Stagnation in the Malthusian Epoch." *The American Economic Review*, 101(5): 2003–41.

Ashraf, Quamrul and Oded Galor. 2013. "The "Out of Africa" hypothesis, human genetic diversity, and comparative economic development." *The American Economic Review*, 103(1): 1–46.

Ashraf, Quamrul and Oded Galora. 2011. "Dynamics and stagnation in the Malthusian epoch." *The American Economic Review*, 101(5): 2003–41.

Autio, Erkko, Saurav Pathak, and Karl Wennberg. 2013. "Consequences of cultural practices for entrepreneurial behaviors." *Journal of International Business Studies*, 44(4): 334–62.

Becker, Gary S. 1957. *The Economics of Discrimination*. Chicago & London: University of Chicago Press.

Becker, Sascha O., Katrin Boeckh, Christa Hainz, and Ludger Woessmann. 2016. "The Empire Is Dead, Long Live the Empire! Long-Run Persistence of Trust and Corruption in the Bureaucracy." *The Economic Journal*, 126(590): 40–74.

Becker, Sascha O. and Ludger Woessmann. 2009. "Was Weber Wrong? A Human Capital Theory of Protestant Economic History *." *QUARTERLY JOURNAL OF ECONOMICS-CAMBRIDGE MASSACHUSETTS-*, 124(2): 531–96.

Berggren, Niclas and Therese Nilsson. 2013. "Does Economic Freedom Foster Tolerance?" *Kyklos*, 66(2): 177–207.

Berggren, Niclas and Therese Nilsson. 2014. "Market institutions bring tolerance, especially where there is social trust." *Applied Economics Letters*, 21(17): 1234–37.

Bisin, Alberto and Thierry Verdier. 2000. “"Beyond the Melting Pot". Cultural Transmission, Marriage, and the Evolution of Ethnic and Religious Traits*.” *QUARTERLY JOURNAL OF ECONOMICS-CAMBRIDGE MASSACHUSETTS-*, 115(3): 955–88.

Bisin, Alberto and Thierry Verdier. 2011. “The Economics of Cultural Transmission and Socialization.” In *Handbooks in economics*. Vol. 1, *Handbook of social economics. Volume 1A*, ed. Jess Benhabib, Matthew O. Jackson, and Alberto Bisin, 339–416. Amsterdam, Boston: North Holland.

Bjørnskov, Christian and Pierre-Guillaume Méon. 2013. “Is trust the missing root of institutions, education, and development? Public Choice.” *Public Choice*, 157(3-4): 641–69.

Blumer, Herbert. 1958. “Race relations as a sense of group position.” *Pacific Sociological Review*, 1: 3–7.

Bobo, Lawrence. 1991. “Social responsibility, individualism, and redistributive policies.” *Sociological Forum*, 6(1): 71–92.

Bobo, Lawrence. 1997. “Race, Public Opinion, and the Social Sphere.” *The Public Opinion Quarterly*, 61(1): 1–15.

Bobo, Lawrence. 1998. “Race, Interests, and Beliefs About Affirmative Action.” *American Behavioral Scientist*, 41(7): 985–1003.

Bobo, Lawrence. 2012. “The Real Record on Racial Attitudes.” In *Social Trends in American Life : Findings from the General Social Survey since 1972*, 38–83.

Bonilla-Silva, Eduardo. 1997. “Rethinking Racism. Toward a Structural Interpretation.” *American Sociological Review*, 62(3): 465–80.

Boyd, Robert and Peter J. Richerson. 1985. *Culture and the evolutionary process*. Chicago, London: University of Chicago Press.

Carmichael, Stokely and Charles V. Hamilton. 1992. *Black power. The politics of liberation in America / Kwame Ture & Charles V. Hamilton ; with new afterwords by the authors*. New York: Vintage Books.

Carmichael, Stokely and Stokely Speaks. 1971. “Black Power Back to Pan-Africanism.” *New York: RandomHouse, Vintage Books*, 92.

Chanda, Areendam, C. J. Cook, and Louis Putterman. 2014. “Persistence of Fortune. Accounting for Population Movements, There Was No Post-Columbian Reversal.” *American Economic Journal: Macroeconomics*, 6(3): 1–28.

Charles, Camille Z. 2000. “Neighborhood Racial-Composition Preferences. Evidence from a Multiethnic Metropolis.” *Social Problems*, 47(3): 379–407. https://academic.oup.com/socpro/article-pdf/47/3/379/4601887/socpro47-0379.pdf.

Charles, Camille Z. 2003. “The Dynamics of Racial Residential Segregation.” *Annual review of sociology*, 29: 167–207.

Charles, Kerwin, Kofi, and Jonathan Guryan. 2008. “Prejudice and Wages: An Empirical Assessment of Becker’s The Economics of Discrimination.” *Journal of Political Economy*, 116(5): 773–809.

Comin, Diego, William Easterly, and Erick Gong. 2010. “Was the Wealth of Nations Determined in 1000 BC?” *American Economic Journal: Macroeconomics*, 2(3): 65–97.

Diamond, Jared. 1997. “Guns, steel and germs. The fate of human societies.” *New York*.

Dickerson, Niki T. and Jerry A. Jacobs. 2013. “Race differentials in college selectivity, 1981–2000.” *Journal of African American Studies*, 10(1): 3–18.

Durlauf, Steven N. and Marcel Fafchamps. 2005. “Chapter 26 - Social Capital.” In *Handbook of Economic Growth*, ed. Philippe Aghion and Steven N. Durlauf, 1639–99: Elsevier.

Dustmann, Christian and Ian P. Preston. 2007. “Racial and Economic Factors in Attitudes to Immigration.” *The B.E. Journal of Economic Analysis & Policy*, 7(1).

Easterly, William and Ross Levine. 2016. “The European origins of economic development.” *Journal of Economic Growth*, 21(3): 225–57.

Engerman, Stanley and Kenneth Sokoloff. 2002. *Factor Endowments, Inequality, and Paths of Development Among New World Economics*. Cambridge, MA: National Bureau of Economic Research.

Engerman, Stanley L. and Kenneth L. Sokoloff. 1997. "Factor endowments, institutions, and differential paths of growth among new world economies." *How Latin America Fell Behind*: 260–304.

Engerman, Stanley L. and Kenneth L. Sokoloff. 2012. *NBER series on long-term factors in economic development, Economic development in the Americas since 1500. Endowments and institutions / Stanley L. Engerman, Kenneth L. Sokoloff*. Cambridge, New York: Cambridge University Press.

Feagin, Joe and Zinobia Bennefield. 2014. "Systemic racism and U.S. health care." *Structural Stigma and Population Health*, 103: 7–14.

Ford, Robert. 2006. "Prejudice and White Majority Welfare Attitudes in the UK." *Journal of Elections, Public Opinion and Parties*, 16(2): 141–56.

Fukuyama, Francis. 2001. "Social capital, civil society and development." *Third World Quarterly*, 22(1): 7–20.

Galor, Oded, Omer Moav, and Dietrich Vollrath. 2009. "Inequality in Landownership, the Emergence of Human-Capital Promoting Institutions, and the Great Divergence." *Review of Economic Studies*, 76(1): 143–79.

Goldsmith, Arthur H., Darrick Hamilton, and William Darity. 2006. "Shades of Discrimination. Skin Tone and Wages." *American Economic Review*, 96(2): 242–45.

Grosjean, Pauline. 2014. "A HISTORY OF VIOLENCE. THE CULTURE OF HONOR AND HOMICIDE IN THE US SOUTH." *Journal of the European Economic Association*, 12(5): 1285–316.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales. 2003. "People's opium? Religion and economic attitudes." *Journal of Monetary Economics*, 50(1): 225–82.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales. 2008. "Alfred Marshall Lecture Social Capital as Good Culture." *Journal of the European Economic Association*, 6(2-3): 295–320.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales. 2016. "LONG-TERM PERSISTENCE." *Journal of the European Economic Association*, 14(6): 1401–36.

Hello, Evelyn, Peer Scheepers, and Mérove Gijsberts. 2002. "Education and Ethnic Prejudice in Europe. Explanations for cross-national variances in the educational effect on ethnic prejudice." *Scandinavian Journal of Educational Research*, 46(1): 5–24.

Hello, Evelyn, Peer Scheepers, and Peter Sleegers. 2006. "Why the more educated are less inclined to keep ethnic distance. An empirical test of four explanations." *Ethnic and Racial Studies*, 29(5): 959–85.

Hodler, Roland. 2006. "The curse of natural resources in fractionalized countries." *European Economic Review*, 50(6): 1367–86.

Hoff, Karla, Mayuresh Kshetramade, and Ernst Fehr. 2011. "Caste and Punishment. The Legacy of Caste Culture in Norm Enforcement*." *The Economic Journal*, 121(556): F449-F475.

Hyman, Herbert H. and Charles R. Wright. 1979. "Education's Lasting Influence on Values."

Jackman, Mary R. and Michael J. Muha. 1984. "Education and Intergroup Attitudes. Moral Enlightenment, Superficial Democratic Commitment, or Ideological Refinement?" *American Sociological Review*, 49(6): 751–69.

Jha, Saumitra. 2013. "Trade, Institutions, and Ethnic Tolerance. Evidence from South Asia." *The American Political Science Review*, 107(4): 806–32.

Johnston, David W. and Grace Lordan. 2016. "Racial prejudice and labour market penalties during economic downturns." *European Economic Review*, 84: 57–75.

Klein, Katherine J., Paul D. Bliese, Steve W. J. Kozolowski, Fred Dansereau, Mark B. Gavin, Mark A. Griffin, David A. Hofmann, Lawrence R. James, Francis J. Yammarino, and Michelle C. Bligh. 2000. "Multilevel analytical techniques. Commonalities, differences, and

continuing questions." In *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions*, 512–53. San Francisco, CA, US: Jossey-Bass.

Koopmans, Ruud and Susanne Veit. 2014a. "Cooperation in Ethnically Diverse Neighborhoods: A Lost-Letter Experiment." *Political Psychology*, 35(3): 379–400.

Koopmans, Ruud and Susanne Veit. 2014b. "Ethnic diversity, trust, and the mediating role of positive and negative interethnic contact: A priming experiment." *Social Science Research*, 47: 91–107.

La Porta, R. 1999. "The quality of government." *Journal of Law, Economics, and Organization*, 15(1): 222–79.

Lang, Kevin and Jee-Yeon K. Lehmann. 2012. "Racial Discrimination in the Labor Market. Theory and Empirics." *Journal of Economic Literature*, 50(4): 959–1006.

Lang, Kevin and Michael Manove. 2011. "Education and Labor Market Discrimination." *American Economic Review*, 101(4): 1467–96.

Lang, Kevin, Michael Manove, and William T. Dickens. 2005. "Racial Discrimination in Labor Markets with Posted Wage Offers." *American Economic Review*, 95(4): 1327–40.

Lowes, Sara, Nathan Nunn, James A. Robinson, and Jonathan L. Weigel. 2017. "The Evolution of Culture and Institutions. Evidence From the Kuba Kingdom." *Econometrica : journal of the Econometric Society*, 85(4): 1065–91.

Nunn, Nathan. 2005-<2014 >. "Historical Development." In *Handbooks in economics*. Vol. 2, *Handbook of economic growth*. 1st ed., ed. Philippe Aghion and Steven N. Durlauf, 347–402. Amsterdam: Elsevier.

Nunn, Nathan. 2008. "The Long-Term Effects of Africa's Slave Trades *." *QUARTERLY JOURNAL OF ECONOMICS-CAMBRIDGE MASSACHUSETTS-*, 123(1): 139–76.

Nunn, Nathan. 2012. "Culture and the Historical Process." *Economic History of Developing Regions*, 27(sup1): S108-S126.

Nunn, Nathan. 2014. "Historical Development." In *Handbook of Economic Growth*, ed. Philippe Aghion and Steven Durlauf, 347–402: North-Holland.

Nunn, Nathan and Leonard Wantchekon. 2011. "The Slave Trade and the Origins of Mistrust in Africa." *The American Economic Review*, 101(7): 3221–52.

Olsson, Ola and Douglas A. Hibbs. 2005. "Biogeography and long-run economic development." *European Economic Review*, 49(4): 909–38.

Pecenka, Clinton J. and Godfrey Kundhlande. 2013. "Theft in South Africa: An Experiment to Examine the Influence of Racial Identity and Inequality." *The Journal of Development Studies*, 49(5): 737–53.

Posner, E. A., K. E. Spier, and A. Vermeule. 2010. "Divide and Conquer." *Journal of Legal Analysis*, 2(2): 417–71.

Putnam, Robert, Robert Leonardi, and Raphaëlle Nanetti. 1993. "Making democracy work Princeton." *NJ: Princeton University Pi-ess*.

Putnam, Robert D. 2007. "E Pluribus Unum. Diversity and Community in the Twenty-first Century The 2006 Johan Skytte Prize Lecture." *Scandinavian Political Studies*, 30(2): 137–74.

Putterman, Louis. 2008. "Agriculture, Diffusion and Development. Ripple Effects of the Neolithic Revolution." *Economica*, 75(300): 729–48.

Putterman, Louis and David N. Weil. 2010. "Post-1500 Population Flows and the Long Run Determinants of Economic Growth and Inequality." *QUARTERLY JOURNAL OF ECONOMICS-CAMBRIDGE MASSACHUSETTS-*, 125(4): 1627–82.

Selznick, Gertrude J. and Stephen Steinberg. 1969. "The tenacity of prejudice. Anti-Semitism in contemporary America."

Sokoloff, Kenneth L. and Stanley L. Engerman. 2000. "History Lessons. Institutions, Factor Endowments, and Paths of Development in the New World." *Journal of Economic Perspectives*, 14(3): 217–32.

Spolaore, Enrico and Romain Wacziarg. 2009. "The Diffusion of Development *." *Quarterly Journal of Economics*, 124(2): 469–529.

Spolaore, Enrico and Romain Wacziarg. 2013. “How Deep Are the Roots of Economic Development?” *Journal of Economic Literature*, 51(2): 325–69.

Stolle, Dietlind, Stuart Soroka, and Richard Johnston. 2008. “When Does Diversity Erode Trust? Neighborhood Diversity, Interpersonal Trust and the Mediating Effect of Social Interactions.” *Political Studies*, 56(1): 57–75.

Sullivan, J. L. and J. E. Transue. 1999. “The psychological underpinnings of democracy: A selective review of research on political tolerance, interpersonal trust, and social capital.” *Annual review of psychology*, 50: 625–50.

Tabellini, Guido. 2010. “Culture and Institutions: Economic Development in the Regions of Europe.” *Journal of the European Economic Association*, 8(4): 677–716.

WOODBERRY, ROBERT D. 2012. “The Missionary Roots of Liberal Democracy.” *American Political Science Review*, 106(02): 244–74.