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WORK ETHIC AND THE LEGACIES OF POLITICAL REGIMES

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ABSTRACT

This article studies the cross-country differences in work ethic and claims that different political regimes transmitted different work ethics that still persist today. Using the *World Values Survey* and starting our political regime analysis in 1900, we find that Democratic regimes promote more effectively work relevance and competitiveness than Autocratic and Anocratic regimes, and that the political regime history of the country is more important than the present level of democracy. Moreover, we prove that this differences were transmitted through generations by parents, who optimally choose what work ethic to transmit taking into account their own values.

KEYWORDS: Work Ethic, Democracy, Autocracy, Anocracy

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I dedicate this thesis to my always best professor of history, my grandfather.

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1. Introduction

Central to a great deal of research from a wide variety of academic disciplines is the relationship between values, attitudes and behaviour, and their tremendous spatial variation across countries and regions. Recent literature has been increasingly recognising the influence of norms on economic behaviour, with attention concentrated both on ethics, regarded as normalized norms and social norms, upheld by the agreement or condemnation of others. A vast literature has been demonstrating that cultural values are an enduring and autonomous influence on society; consequently, in long-term perspectives, it is of interest to endogenize norms, explain how they emerge, upheld and change.² Culture and its effects on labour markets is at the heart of economic analysis, in that sense, it is important to have a better understanding what are the driving forces behind the different work attitudes that end up leading to diverse economic outcomes across countries.³

This work compares the economically-relevant values transmitted in the past by democratic and non-democratic regimes based on predictions that stem from differences in the political regime and societal organization. In particular, it argues that different behaviours and values that were transmitted by the political regimes in the past still fit in the present with differences in beliefs and in the enforcement mechanisms that characterize them. Comparative to non-democracy, democracy augments the voice of the great number of poor to that of the few rich, permitting to change the composition of the citizenry influencing the political process; also, it reduces the discretionary nature of power in the sense that political decisions become more responsive to constraints beyond the control of politicians (Tavares and Wacziarg, 2001). This differences affected a number of factors that impinge on individual success and how institutions

² See for instance Alesina *et al.* (2015), Algan and Cahuc (2009), Giuliano (2007), Luttmer and Singhal (2009), among many others. This literature proves that cultural values persists among generations even if individuals move to other countries.

³ Aghion *et al.* (2011), Algan and Cahuc (2009), Giavazzi *et al.* (2013) and Michau (2009) are a few examples.

and the economy work. In particular, while democracy favours pluralism and organisational infrastructure, non-democracy limits or even forbids pluralism. Following this line of reasoning we test the hypothesis to which the work ethic produced by the political regimes in the past still has an effect in the present using two waves of the World Values Survey (WVS), 2005-2009 and 2010-2014, denoted henceforth 2005 and 2010, covering 47 countries, and approximately 34000 individuals. In particular, starting the analysis in 1900 and finishing in the year of the survey wave, we studied the effects of democracies, autocracies and anocracies in the current work ethic; to our knowledge, this is the first attempt in trying to explain the spatial variation in work ethic across countries through the political regime history of a country.

The rest of the article is structured as follows. Section 2 develops a framework for analysing the effects of regime types on work ethic based on a typology of enforcement systems and their transmission through generations. Section 3 describes the WVS data, the specific variables employed and the statistical regressions used to test the hypothesis. Section 4 presents and discusses the results. Section 5 concludes.

2. Analytical Framework

2.1. Comparative Analysis of Regime System Enforcements

In all societies there is a branch of rules of behaviour based on ideas about what is morally good and evil, right and wrong, virtue and vice, justice and crime. These rules that compose the ethic of a society are defined and enforced by different means, such as the regime that governs a country. Following Arruñada (2009), we distinguish three types of structures to which party is responsible for enforcing norms and rules in a given interaction.⁴

⁴ Although Arruñada (2009) studied the Protestant work ethic, he started from three standard enforcement types that can also be applied in the case of regime systems.

Under 'first party' enforcement, individuals evaluate their behaviour in relation to their own reading of a moral code that includes several economically-relevant preferences towards effort, thriftiness and so on. Tocqueville (1835) is often credited for first noting the relationship between democracy and work ethic. During his visit to the United States he wrote his most notable work *Democracy in America* [1835], where he contrasted the case of American democratic people where every man worked to earn a living and hard-work and money-making was the dominant ethic, with the aristocratic ethic in France with hereditary wealth, by promoting equal opportunities, wealth was available to the ones who worked hard, favouring an increase in the labour supply and a work ethic that favoured effort, leading individuals to concentrate on productive activities and abandon unproductive ones.

However, the degree of motivation on work provided by Democracy in comparison with dictatorial regimes is open to doubt. Linz (1975) claims that Authoritarian regimes promote the idea that citizens should concentrate on work and family, and leave the politics to the government, while Lane (1990) highlights that Communist societies develop a work ethic that glorifies labour during the processes of rapid industrialization.

'Second party' enforcement is related with the verification and sanction by the party suffering the consequences of breach. Partners and peers are second parties as they exert pressure on non-compliant members through different modes such as shaming, ostracising or even killing. Lindbeck and Nyberg (2006) claim that norms are tied to outcomes and this norms are more felt intensively as more people adhere to it, as it was observed by Tocqueville in the case of hard work in America. Under dictatorial regimes populations are encouraged to denounce peers or even family that do not meet with the norms and rules of the system in order to this ones being punished, generating low levels of trust and social capital. In contrast, individuals in democracies generally accept values that are related with passivity, toleration, communication and deliberation.

Lastly, under ‘third party’ enforcement, specialized agents such as political rulers, judges or police forces, verify the behaviour of citizens and punish those who do not follow the rules. Linz (1975) pointed out that Totalitarian and Authoritarian regimes (two forms of dictatorship) try to homogenise the society and mobilise the population to actively support the regime and learn/being subject of the discipline of the state, although the state is less active in the degree of social pluralism and mobilisation in Authoritarian regimes. In more homogeneous societies it is likely that individuals will have low preferences for competition. The discipline of the state is maintained through repression, being carried out by secret police forces, army, paramilitary groups or death squads. Relatively to democracy, democratic institutions increase the costs of using repressive behaviour because if actions are inappropriate, authorities can be voted out of office (Davenport, 2007).

To the extent that the discipline of the state in Autocratic regimes is completely effective is not so clear since it offers low work incentives. Individuals are expected to work hard due to altruism for their country, with low individual compensations; also, at high levels of inequality, work motivation is low because the wealth is concentrated in the elite. Fehr and Falk (2002) demonstrated that the framing of an incentive in terms of extra rewards elicits more effort compared to a frame in terms of punishment, even if in the end the total compensation is identical. Lin (1988) and Nolan (1988) declare that in the case of the collective agriculture in China, collective farms were not viable institutions, as they failed to effectively link effort with reward, failing to provide strong work incentives to farm workers. Consequently, we predict that democracy is more effective in transmitting a “good” work ethic than autocratic regimes.

Though, it is plausible that autocracies transmit more effectively a good work ethic than anocracies, which are characterised by “politically weak central governments” with “weak local policing or inept and corrupt counterinsurgency practices” (Fearon and Latin, 2003).

2.2. The transmission of the work ethic through generations

To analyse how work values evolve endogenously, we follow the work of Tabellini (2008). Assuming imperfect empathy, parents optimally choose what work ethic to transmit to their children by evaluating their children's welfare with their own values, reflecting held moral convictions or beliefs, which are not randomly chosen to suit children's tastes. The assumption of imperfect empathy implies that the equilibrium will be both backward- and forward-looking. Backward-looking first because the parents' values influence their educational choices. Algan and Cahuc (2009) provided empirical evidence of this, by using the same question about the willingness to cheat on benefits, and demonstrated that, on average, a citizen tends to provide the same answer as someone living in his country of origin, showing the relevance of cultural transmission from one generation to the other and suggesting the important role played by parents in this process. In consequence, values evolve gradually over time and reflect historical features of the external environment. Also forward-looking since parents adapt their educational choices to the future environment of their children. Bisin and Verdier (2004), by driving their results by the voting process, demonstrated that if the majority of agents have a high work ethic, low distribution will be implemented by politicians, encouraging a high work ethic, however, if most part of the agents have a low work ethic, redistribution will be high and have a low work ethic will be more attractive. Following this reasoning and assuming that parents will take into account the institutional enforcement when they choose what values to transmit, countries where the majority of the population has low work ethic will enter in a 'low work ethic trap' while in countries where the majority of the population has a high work ethic good values will persist.

3. Methodology

3.1. Data and Sample

The tests rely on several econometric models built with cross-section data from the World Values Survey (WVS). The WVS is a worldwide project carried out by social scientists that explores people's values and beliefs and allows to study what social and political impacts they might have had. This work concentrates only on the last two waves available: 2005 and 2010, including 79 countries and more than 169000 individuals. The WVS contains only few questions related with work ethic and these questions are only sporadically included in the surveys and not always the same; concentrating in the last two waves has two main benefits: first, it permits to study the relationship between the regime history of a country since the XXth century and the work ethic in XXIth century; second, two important questions regarding the citizenship of the parents of the individual surveyed were just included in the last two waves, permitting to control for vertical transmission and allowing for a better estimation.

3.2. Tests

3.2.1. Work Ethic

The work ethic hypothesis will be tested by examining how Autocratic, Anocratic and Democratic regimes compare in three dimensions:

- (1) Work importance. The first question asks directly how important is work in the individual's life and can take values from 1 to 4 (with 1 being very important and 4 not important at all), we called the variable "Work important". The second question examines the opinion of the respondent about changes in our way of live that could take place in the near future: "*Less importance placed on work in our lives*", taking the values from 1 to 3, with 1 being good, 2 don't mind and 3 bad, we called the variable "Importance of work in the future".

(2) Competitiveness is the answer to the question from 1 to 10, where 1 is “*Competition is good. It stimulates people to work hard and develop new ideas.*” and 10 is “*Competition is harmful. It brings out the worst in people.*”.

(3) Willingness to work hard is the answer to the question from 1 to 10, where 1 is “*In the long run, hard work usually brings a better life.*” and 10 is “*Hard work doesn’t generally bring success – it’s more a matter of luck and connections.*”.

All the questions were recoded, with the exception of the variable “Importance of work in the future”, therefore a higher coefficient in all variables indicates a higher work ethic. Also, all the questions were normalized to take values between 0 and 1, to facilitate interpretation of the coefficients.

3.2.2. The transmission of the work ethic through generations

The WVS provides, among other things, a range of indicators on the qualities that children can be encouraged to learn at home. Three questions probes whether the respondent considered important to transmit qualities related with work ethic: hard work. feeling of responsibility and determination, perseverance (taking the value of 1 if it mentioned and 2 if not). The questions were recoded to take the value of 1 if it mentioned and 0 if not, and we called respectively “Hard work”, “Responsibility” and “Determination”.

3.3. Variables

3.3.1. Main independent variables

Different regimes led to the enforcement of different norms and rules. In order to take into account this effects, classification of the different regimes was performed using the Polity IV dataset. The Polity IV provides information for all countries since independence starting in 1800, allowing to start our analysis in 1900. The Polity score ranges from -10 to +10, with -10

to -6 corresponding to autocracies, -5 to 5 corresponding to anocracies, 6 to 10 to democracies and three special values: -66, -77 and -88, which denote, respectively, cases of foreign “interruption”, anarchy and “transition”. Using this classification and analysing the regime history of a country since 1900 until the year in which the wave was conducted, permitted to construct three variables for each country:

(1) *Autocracy history*, which was operationalized in the following manner: $\frac{\sum_{i=1}^n Autocracy_{it}}{Total\ years}$

, where i represents country i ; *Autocracy* takes values 0 or 1 if Polity scores between -10 and -6 in year t ; *Total years* is the number of years analysed.

(2) *Anocracy history*, which was obtained in the following manner: $\frac{\sum_{i=1}^n Anocracy_{it}}{Total\ years}$, where

i represents country i ; *Anocracy* takes value 0 or 1 if Polity scores between -5 and 5 in year t ; *Total years* is the number of years analysed.

(3) *Democracy history*, using the subsequent procedure: $\frac{\sum_{i=1}^n Democracy_{it}}{Total\ years}$, where i

represents country i ; *Democracy* takes value 0 or 1 if Polity scores between 6 and 10 in year t ; *Total years* is the number of years analysed.

As a consequence, the three variables take values between 0 and 1. No classification was used in the years that Polity scored special values.

Two problems emerged during the construction of this variables. First, several of the countries in the sample just acquired independence during the period of analysis since before that they were part of other countries or territories, suffered (re)unifications, periods of invasion or even (re)conquests, and Polity just starts the classification in the year of independence. In order to solve this, we considered that the country had the same political regime as the country to which made part; for example, in the case of Serbia, between 1900 and 1914 Polity classifies all the years as it had an anocratic regime, however between 1921 and 2002 Serbia was part of

Yugoslavia, after 2003 it was part of Serbia and Montenegro, and since the separation of the two territories in 2006 it has been an independent country; another example can be Georgia, which was part of the Russian Empire between 1900 and 1918, in 1918 it won independence, having been conquered in 1922 by the Soviet Union and finally declared independence in 1991.⁵ Second, the sample included former colonies; creating a new variable that had a similar procedure as the other main variables and took into account the colonial history of the country would not be completely correct and could “contaminate” the results; Europeans adopted different colonization policies, creating different institutions (Acemoglu *et al.*, 2001), leading to different ‘third party’ enforcements, therefore, constructing a variable that would consider this institutions as equal would be wrong, subsequently it was necessary to remove from the sample former colonies (more specifically, 26 countries); the effects of different types of colonization on work ethic will be left for future research.

In order to study for the relation between the present democracy level of the country and the work ethic, a fourth variable was added to our specification:

(4) *Democracy*: which was created using the Polity score in the year of the wave that varied between -10 and 10, the variable was normalized to take values within 0 and 1.

A few countries surveyed in the WVS, such as e.g. Tunisia in 2013, were scored with special values in the year of the wave, therefore, these countries were removed from my sample, remaining in the end with 47 countries.⁶ After dropping observations with missing values in the independent variables, approximately 34000 observations remained.

⁵ Although Georgia and Ukraine were independent between 1918 and 1921, we did not classify the regime type during those years, since Polity does not provide any classification.

⁶ Andorra and Palestine were not also included in the sample since Polity does not provide a classification for these countries.

3.4. Main model

To perform the tests, the following equations will be estimated:

$$(1) Y_{it} = \alpha_0 + \beta_1 Democracy\ history + \beta_2 Anocracy\ history + \beta_3 Democracy + \\ \sum_t(\gamma_t Individual_m\ control) + \sum_o(\rho_o Country_n\ control) + \\ \sum_r(\delta_r Country_n\ dummies) + \sum_v(\varphi_v Wave\ dummies) + \varepsilon$$

where each dependent variable, Y_{it} represents a value or action, as stated by respondents to the survey. Variables that measure work importance, competitiveness and willingness to work hard are expressed in terms of categories with a natural order, and so ordered probit models are estimated for this cases; while the variables that measure the transmission of the work ethic on children only took two values and in these cases probit models are used. All equations were estimated with robust standard errors. Independent variables, besides the already specified, are as follows:

- Individual controls were introduced for the sex of respondents, their age, religion (a vast literature has been testing the Protestant Weber's hypothesis, that implies a positive correlation between religious beliefs and work ethic, with a positive correlation between work versus leisure for protestants), level of education, income scale, political orientation, employment status (in order to minimize the risk that the answers simply reflect the personal labour market experience of the respondent), marital status, number of children and two important controls: if the mother and father of the respondent were citizens or immigrants in the country surveyed.
- Country controls were also included: GDP per capita, GDP growth, unemployment rate, fractionalization ethnic (Alesina *et al.*, 2003) and civil war. GDP per capita has a significant impact in predicting traditional/secular-rational and survival/self-expression values; also, economic development promotes self-expression values such as social

toleration and public expression while recessions lead to retrograde movements sponsoring survival values that are related with low levels of trust and tolerance (Inglehard and Baker, 2000).⁷ Using the Correlates of War database, we constructed a variable that measures the total years of civil war in a country divided by the total years analysed (again, the analysis starts in 1900 and ends in the year of the wave); civil wars have direct economic and social costs, with these effects being highly persistent after the end of the war (Collier and Hoeffler, 2004), henceforth individuals will privilege more survival values.

- Country and wave dummies which capture the role of specific national and time features. United States are considered as the reference group since this country always displayed a democratic regime and as referred by Tocqueville (1835) introduced a work ethic that privileged hard work.

A summary statistics is provided in Table 1.

4. Results

4.1. Work importance

We start the analysis by assessing the relationship between the regime type and the importance that individuals give towards work. Table 2 reports the ordered probit estimates of the questions on work importance.

Relatively to “Work important”, none of the main variables is statistically significant, as it is reported in column (1). However, this results are not completely disappointing to the extent that this type of question might not be the best measure to evaluate the individual importance

⁷ See Inglehard and Baker (2000) on the effects of economic development on cultural changes and persistence of traditional values.

Table 1 – Summary statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Main variables					
Autocracy history	98573	.367	.298	0	.964
Democracy history	98573	.339	.328	0	1
Anocracy history	98573	.234	.187	0	.752
Democracy	98573	.776	.312	.05	1
Dependent variables					
Work important	96637	.812	.263	0	1
Importance of work in the future	92467	.635	.429	0	1
Competitiveness	94417	.672	.281	0	1
Willingness to work hard	94681	.615	.310	0	1
Hard work	98568	.541	.498	0	1
Responsibility	98567	.760	.427	0	1
Determination	98562	.403	.490	0	1
Individual controls					
Male	98465	.468	.499	0	1
Age	98481	43.920	17.036	15	99
Religion:					
No religion	97235	.239	.426	0	1
Buddhist	97235	.045	.207	0	1
Protestant	97235	.048	.214	0	1
Roman catholic	97235	.260	.439	0	1
Muslim	97235	.113	.316	0	1
Jew	97235	.002	.047	0	1
Hindu	97235	.001	.029	0	1
Other religion	97235		.455	0	1
Education:					
Lower	94315	.199	.399	0	1
Middle	94315	.544	.498	0	1
Upper	94315	.257	.437	0	1
Income scale	91094	.401	.248	0	1
Employment status:					
Full time	61634	.569	.495	0	1
Part time	61634	.137	.344	0	1
Self-employed	61634	.163	.370	0	1
Unemployed	61634	.131	.337	0	1
Political orientation:					
Center	71610	.445	.497	0	1
Left	71610	.239	.427	0	1
Right	71610	.316	.465	0	1
Married	98150	.635	.482	0	1
Children	93541	.215	1.565	0	8
Mother citizen	74185	.937	.243	0	1
Father citizen	74103	.937	.242	0	1
Macro controls					
GDP per capita	98573	15254.29	16790.59	189.381	69094.74
GDP growth	98573	4.241	3.204	-6.551	14.195
Unemployment	98573	7.825	3.976	.7	21.7
Fractionalization ethnic	98573	.373	.209	.0119	.7235
Civil war	98573	.043	.077	0	.336

towards work⁸. On average, individuals reported work being important in their life 0.812, in a scale that goes from 0 to 1, with a standard deviation of 0.263 (the lowest of all questions analysed), it is plausible that individuals over-valued work in their life for ‘political correctness’. The second question “Importance of work in the future” seems to be a better measure of personal work importance since it permits to estimate the opportunity cost of working in relation with leisure. Relatively to column (2) *Democracy history* has a positive coefficient, significant at the 5% level, meaning that the longer is the duration of a democracy in a country, the more individuals give importance to work, relative to autocracies. *Anocracy history* has a negative coefficient, although not statistically significant. It is interesting to note that although *Democracy* has also a positive coefficient it is not statistically significant and its value is considerably lower than *Democracy history*, proving that it is the history that matters.

4.2. *Competitiveness and willingness to work hard*

Table 3 presents the results with respect of considerations about competition and hard work. In Table 3 column (1) reports the results when “Competitiveness” is the dependent variable. The results confirm our predictions. First, *Democracy history* has a positive sign and significant at 5% level, while *Democracy* has also a positive coefficient although much smaller and not statistically significant, supporting the idea that the longer is the duration of a democracy, the more competitive are individuals on work (in relation with autocracy). Second, *Anocracy history* has a strong negative sign significant at the 10% level, showing that the work ethic transmitted by Autocratic regimes is still passed, although less effective than in Democratic regimes.

⁸ Schwartz (1999) notes that self-reports questions are subject to distortion, with various features of the questions such as ambiguity and format readily producing unintended effects on subjects’ responses.

Table 2 – Work importance

	Work important (1)	Importance of work in the future (2)
Regime type		
Autocracy history	Reference	Reference
Democracy history	-2.622 (1.561)	4.818 ** (1.592)
Anocracy history	3.207 (2.016)	-.111 (1.920)
Democracy	-.049 (.209)	.313 (.191)
Individual controls		
Male	.040 ** (.014)	.002 (.014)
Age	-.00002 (.001)	.002 *** (.001)
Religion:		
No religion	Reference	Reference
Buddhist	-.193 (.119)	-.060 (.102)
Protestant	-.091 ** (.035)	.091 * (.036)
Roman catholic	.040 (.023)	.053 * (.023)
Muslim	.022 (.052)	.216 *** (.047)
Jew	.014 (.121)	.017 (.107)
Hindu	.357 (.295)	.021 (.219)
Other religion	.029 (.023)	.079 *** (.023)
Education:		
Lower	Reference	Reference
Middle	.021 (.024)	.028 (.022)
Upper	-.027 (.027)	-.038 (.025)
Income scale	-.140 *** (.033)	-.141 *** (.031)
Employment status:		
Full time	Reference	Reference
Part time	-.121 *** (.021)	.012 (.021)
Self-employed	.007 (.022)	.022 (.020)
Unemployed	-.253 *** (.024)	.007 (.022)
Political orientation:		
Center	Reference	Reference
Left	-.099 *** (.018)	-.128 *** (.017)
Right	-.012 (.017)	.021 (.016)
Married	.048 ** (.016)	.021 (.016)
Children	.021 ** (.007)	.016 ** (.006)
Mother citizen	-.061 (.041)	.012 (.039)
Father citizen	-.017 (.041)	.024 (.039)
Macro controls		
GDP per capita	-.0002 *** (.00005)	-.0001 *** (.00005)
GDP growth	-.038 *** (.008)	.004 (.008)
Unemployment	-.035 * (.016)	-.024 (.017)
Fractionalization ethnic	9.057 * (3.569)	-8.033 * (3.728)
Civil war	-4.062 (3.330)	-1.214 (2.844)
Country dummies	Yes	Yes
Wave dummies	Yes	Yes
Observations	33873	32635
R-squared	0.0611	0.0523

Source: WVS and WB. ***significant at 1%; ** significant at 5%; * significant at 10%. Robust standard errors in parentheses. Ordered probit models.

The results reported in column (2) that test the individual willingness to work hard and the belief that hard work brings a better life do not support our work ethic hypothesis, as none of the coefficients of the independent variables that measure the regime history are statistically significant. It is plausible that the unemployment conjuncture in the country or the employment status is removing some significance in our main variables, as they are especially important in this type of questions. Long and frequent spells of unemployment change the values of the unemployed (Lindbeck *et al.*, 1999; Clark, 2003). Still, *Democracy* is positive and significant at the 1%, meaning that democratic regimes promote hard work through the incentive of making wealth available to the ones that work hard.

4.3. The transmission of the work ethic through generations

Table 4 reports probit estimates of the variables that test what qualities, related with work ethic, children should be encouraged at home. Results clearly confirm our predictions that parents that live in countries with longer durations of democracy transmit higher levels of work ethic to their children than in autocracies or anocracies, leaving to the persistence of these values through generations.

First, relatively to hard work, in column (1), *Democracy history* has a positive coefficient and significant at 1% level, meaning that the longer is the democratic history of a country, the more are individuals willing to transmit to their children the value of hard work, in relation with autocratic regimes. *Anocracy history* has a positive sign although not statistically significant.

Second, in column (2), the results are similar to the ones obtained in column (1). The longer is the duration of democracy in a country, the more willing are individuals to transmit to their children values related with the feeling of responsibility. In this specification, *Anocracy history* has a negative sign even though not statistically significant.

Table 3 – Competitiveness and willingness to work hard

	Competitiveness (1)	Willingness to work hard (2)
Regime type		
Autocracy history	Reference	Reference
Democracy history	3.216 ** (1.166)	-.787 (1.174)
Anocracy history	-4.089 * (1.709)	.217 (1.720)
Democracy	.202 (.164)	.477 ** (.162)
Individual controls		
Male	.098 *** (.012)	.041 *** (.012)
Age	.003 *** (.001)	-.0002 (.001)
Religion:		
No religion	Reference	Reference
Buddhist	.017 (.111)	.147 (.102)
Protestant	.106 *** (.029)	.141 *** (.029)
Roman catholic	.039 * (.020)	.044 * (.020)
Muslim	.060 (.043)	.157 *** (.042)
Jew	-.071 (.104)	.086 (.101)
Hindu	-.104 (.186)	.047 (.237)
Other religion	-.108 (.185)	.068 *** (.020)
Education:		
Lower	Reference	Reference
Middle	.077 *** (.020)	-.038 * (.020)
Upper	.209 *** (.022)	-.010 (.022)
Income scale	.039 (.029)	.175 *** (.029)
Employment status:		
Full time	Reference	Reference
Part time	-.067 *** (.018)	.008 (.018)
Self-employed	.024 (.018)	.033 (.018)
Unemployed	-.087 *** (.019)	-.050 * (.019)
Political orientation:		
Center	Reference	Reference
Left	-.070 *** (.015)	-.061 *** (.015)
Right	.073 *** (.013)	.031 * (.014)
Married	.026 (.013)	.036 ** (.013)
Children	-.019 (.032)	.011 * (.005)
Mother citizen	-.032 (.032)	.0003 (.033)
Father citizen	.036 (.032)	.030 (.032)
Macro controls		
GDP per capita	-.0001 ** (.00004)	-.0001 *** (.00004)
GDP growth	-.009 (.007)	-.049 *** (.006)
Unemployment	-.034 * (.014)	-.051 *** (.014)
Fractionalization ethnic	-5.968 * (2.704)	5.696 * (2.720)
Civil war	7.542 ** (2.620)	-5.053 * (2.607)
Country dummies	Yes	Yes
Wave dummies	Yes	Yes
Observations	33685	33736
R-squared	0.0159	0.0179

Source: WVS and WB. ***significant at 1%; ** significant at 5%; * significant at 10%. Robust standard errors in parentheses. Ordered probit models.

Third, in column (3) we test the hypothesis of transmitting determination, perseverance values to the children. *Democracy history* has a strong positive sign, yet not statistically significant. *Anocracy history* has a robust negative sign significant at the 10% level, meaning that the longer is the duration of an Anocratic regime, the less disposed are parents to transmit values related with determination to their children.

It is also noteworthy to compare the size of the estimated *Democracy history* coefficient with that of the *Democracy*, which is always smaller in all specifications, meaning that what is more relevant in the transmission of work ethic values is the regime history of the country and not the present level of democracy.

4.4. Discussion

These results suffer several limitations. First of all, correlation does not imply causation. Although we attenuate this problem by including country and wave dummies, it is possible that hidden variables may be affecting both our main variables and other values. In cross-sectional analysis it is difficult to control for all the factors that might be correlated with the work ethic, political system, level of freedom, etc., since this factors are endogenously determined and influenced by geography, history and institutions. However, focusing our analysis in just one country, would turn difficult to generalise, as a country might have some characteristics that other countries do not necessarily share; concentrating in the characteristics that all autocratic, anocratic and democratic regimes have in all countries allows us to apply our work ethic hypothesis to all countries.

Second, the data are built from statements on values instead of observations on actual behaviour. It is expected some bias caused by a certain tendency to lie because of ‘political correctness’ (for example, whether one considers work important or not). Nonetheless, given

Table 4 - Qualities that children can be encouraged at home

	Hard work (1)	Responsibility (2)	Determination (3)
Regime type			
Autocracy history	Reference	Reference	Reference
Democracy history	7.489 *** (1.868)	5.335 ** (1.936)	2.588 (1.652)
Anocracy history	2.048 (2.240)	-.668 (2.327)	-5.221 * (2.063)
Democracy	3.600 *** (.243)	.464 * (.232)	1.259 *** (.214)
Individual controls			
Male	.113 *** (.016)	-.119 *** (.016)	.002 (.015)
Age	.004 *** (.001)	.003 *** (.001)	.0004 (.001)
Religion:			
No religion	Reference	Reference	Reference
Buddhist	-.095 (.137)	-.308 * (.138)	.137 (.129)
Protestant	.038 (.041)	-.080 (.043)	-.055 (.039)
Roman catholic	.039 (.026)	-.038 (.027)	-.085 *** (.025)
Muslim	.151 ** (.058)	-.087 (.055)	-.075 (.050)
Jew	-.199 (.151)	.168 (.161)	-.179 (.139)
Hindu	.404 (.306)	.266 (.345)	-.172 (.276)
Other religion	.046 (.027)	-.047 (.028)	-.069 ** (.025)
Education:			
Lower	Reference	Reference	Reference
Middle	-.135 *** (.025)	.101 *** (.026)	.189 *** (.024)
Upper	-.184 *** (.028)	.214 *** (.029)	.296 *** (.027)
Income scale	.006 (.036)	.069 * (.037)	.225 *** (.033)
Employment status:			
Full time	Reference	Reference	Reference
Part time	-.076 ** (.025)	-.070 ** (.025)	-.038 (.022)
Self-employed	-.040 (.023)	-.012 (.024)	-.015 (.022)
Unemployed	-.087 *** (.025)	-.074 (.025)	-.043 * (.023)
Political orientation:			
Center	Reference	Reference	Reference
Left	-.061 ** (.020)	-.076 *** (.021)	.031 (.018)
Right	-.007 (.018)	-.053 ** (.018)	-.005 (.017)
Married	-.021 (.018)	.048 ** (.018)	-.015 (.017)
Children	.002 (.007)	.016 * (.007)	-.005 (.006)
Mother citizen	.032 (.047)	.043 (.047)	.025 (.042)
Father citizen	-.003 (.047)	-.021 (.047)	-.022 (.042)
Macro controls			
GDP per capita	-.0001 * (.0001)	-.0001 (.0001)	.0001 (.00004)
GDP growth	-.034 *** (.009)	-.011 (.009)	.024 ** (.008)
Unemployment	.028 (.018)	-.009 (.019)	.017 (.017)
Fractionalization ethnic	-8.850 * (4.220)	-12.775 ** (4.424)	-11.263 ** (3.827)
Civil war	-3.932 (2.984)	5.281 (3.169)	9.301 *** (2.822)
Country effects	Yes	Yes	Yes
Wave effects	Yes	Yes	Yes
Observations	33992	33992	33996
R-squared	.2456	.0552	.062

Source: WVS and WB. ***significant at 1%; ** significant at 5%; * significant at 10%. Robust standard errors in parenthesis. Probit models.

that our work focuses on differences between the political regimes, the bias only matters if the three political regimes lead to a variation in the proclivity to lying.

Third, we assumed that the political regime in each year has the same impact on current work ethic, which might not be necessarily true even considering that norms and values change slowly; political regimes during the second half of the XXth century have possibly more impact on current work ethic than political regimes during the first half. However, to the extent that we do not have data available during the complete XXth century and do not precisely know how values evolve over time, it is not possible to give different weights to the impacts of political regimes over time.

Lastly, we did not account for variation within the regime type, e.g. anocratic regimes with the classification of -5 are not necessarily equal in terms of repression and tolerance as regimes with the classification of 5, as the first ones might have features more related with autocratic regimes and the last ones with democratic.

5. Conclusion

This paper argues that the type of political regime is a key ingredient in the explanation of different work attitudes across countries. Overall, the article supports a “democratic work ethic”, by which citizens in a democratic country tend to value more work and be more competitive than in autocratic or anocratic countries. By permitting equal opportunities and access to wealth for the ones who work hard, it provides incentives to develop a high work ethic; on the other hand, autocratic regimes are less effective in transmitting a high “work ethic” as individual benefits are low and individuals are expected to work for altruism for their country. Assuming imperfect empathy, this differences in work values tend to persist, as parents optimally choose what values to transmit to their children, by evaluating their children welfare

with their own values and taking into account the future environment; more specifically, we proved that in democratic regimes, parents have more tendency to transmit the values of hard work, responsibility and determination. We theorized that the longer is the period of length of the regime type, the stronger is its effect on work ethic, being more significant the duration of the regime than the actual level of democracy in the country. Anocratic regimes, which are characterised by political instability and ineffectiveness, were found to be the ones who transmit the worst work ethic.

Our work has several implications. For example, Brügger *et al.* (2009) found that differences in culture explain differences in unemployment duration on the order of 20%, in that sense, in countries where democratic regimes have a longer duration, individuals are more likely to have shorter periods of unemployment. Zhan (2015) found that cultural attitudes play a significant role in occupational choices, in this case, in longer-length democratic countries individuals will favour jobs where there is high competition and individual ambition and success are highly valued, making their industries more adaptable and responsive to changing environments, on the other hand, in longer-length autocratic and anocratic countries individuals will prefer jobs where competition is less fierce.

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