

Preferences for Redistribution: the role of Self-Interest, Social Values and Beliefs

RESUMO

As preferências por redistribuição são guiadas pelo auto-interesse, embora todos os sistemas motivacionais que concernem à vida social afetam esta atitude, conforme nossos resultados para 57 países, estimados com os dados da sexta onda da World Value Survey. Testamos a importância de variáveis individuais (com e sem o efeito fixo de país), estimando o modelo econométrico com MQO, tendo um conjunto de variáveis categóricas como variáveis independentes, dadas as não linearidades observadas na amostra e confirmadas nos resultados, notadamente para renda e educação. Estado civil importa, assim como ideologia, a crença na importância relativa entre sorte e esforço na renda, bem como a importância de Deus.

Palavras-chave: Preferências por Redistribuição/ Desigualdade/ Psicologia Evolucionista/ Fundações Morais

ABSTRACT

Self-Interest is the main motivational system that determines preferences for redistribution, although all main socially directed motivation systems have some contribution, according to our results, for 57 countries, using data from the sixth wave of the Word Value Survey. We tested the role of individual variables using OLS to estimate pooled and fixed effects models, using a set of categorical variables. Non-linearities were specially found for the effects of the income and educational status variables. Marital status matters, as well as beliefs about the relative importance of luck and effort, ideology and the importance of God. Gender and age were not significant.

Keywords: Preferences for Redistribution/ Inequality/ Evolutionary Psychology/ Moral Foundations

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I - Introduction

Tackling the global income inequality is one of the biggest challenges of our days and it is one of the global goals established by the United Nations in 2015. National programs of income redistribution have been created. There are different forms of approaching the issue, such as evaluating the impact of such programs, but we follow the branch of literature that discuss attitudes toward redistribution, as in Alesina & Giuliano (2010), Corneo & Gruner (2002), Dion & Birchfield (2010), Guillard (2013), initiated in the second half of the 2000s.

In five years, several hypotheses were corroborated, such as the importance of race, gender, income (based on the Meltzer-Richard model), externalities of crime, income mobility, beliefs about the origin of success, if luck or effort, ideology. Individual attitudes within specific countries or within macro regions were the usual units of observation. The above references are the most important ones dealing with cross-country concerns.

The motivation for this paper came after Snycer et al (2017) have concluded, using experiments in the USA, UK, India and Israel, that self-interest, envy and compassion were the major drivers of individuals' preferences for redistribution (PR), but "not a bit of fairness". Snycer et al (2017) observe that there are several concepts of fairness, and their discussion is specific about "distribution fairness" (if there is variance in outcomes) and "procedural fairness" (if the rules are applied equally to citizens). It is important to observe that attitudes towards "distributional fairness" is equal to an intrinsic value for equality. The role of fairness in shaping Preferences for Redistribution should be appraised again, which is one of the general aims of this paper.

Meanwhile, we have observed that the economic literature has been increasingly testing hypotheses informed by social psychology, such as the "impressionable years" hypothesis, the role of socio economic background, the importance of family attachment, and the role of beliefs. On the other hand, we have also observed that the rationale for some controls, that could come from psychology, were not explained (as in the case of gender), or not structured in layers of explanation. Ideology itself has been well studied by authors from cultural social psychology, as in Haidt (2012), who makes an effort to uncover its foundations, while the determinants of culture are also discussed in psychology. This literature has not yet been integrated into economic literature.

The authors from psychology cited above depart from assumptions from Evolutionary Psychology (Tooby & Cosmides (1992), Buss (2005)) which is making an effort to integrate human studies in an Unified Integrate Theory, what we find a promising approach to organize some Economic Literature. We claim that this approach could lead to new and more precise predictions. Another general aim of this paper is to integrate explanations from Economics (and other Social Sciences) with the explanations that can be provided by Evolutionary Psychology.

We want to encompass the variables discussed in the literature in a framework in which social redistribution is approached as a social "good", while the individual decides how to allocate his/her resources between this "good" and everything else. This good serves the role

of redistributing resources within a group, while the other goods fulfill other goals (such as buying food, giving a gift to the boyfriend, buying food to the kids, buying the best car in town). There is an opportunity cost between these bundles, which gives the rate of exchange between goods. The predictions will be based on EP, although we strongly want to clarify that this approach does not imply rigidity of human behaviour, nor the lack of the importance of the environment (much to the contrary), not to mention the role of human creativity.

As a final motivation for this paper, observing the data and the literature results, it was clear that several relationships with Preferences for Redistribution (PR) were not linear, as in Guillard (2013), and that the effort to identify total, between and within-country effects, as in Dion & Birchfield (2010), was the source of interesting results.

The specific aims of this paper are as follows: a) testing if income, gender, age, social class, health, education and marital status are correlated with Preferences for Redistribution (PR); b) testing if beliefs about luck and effort, valuing equality, valuing family and the daily importance of religion affects PR; c) integrating those variables and generating predictions through a framework unified by Evolutionary Psychology (EP); d) updating Alesino & Giuliano (2010) by using the sixth World Value Survey wave.

Using data provided by the sixth wave (2010 - 2014) of the World Value Survey (WVS) for 57 countries, covering about 80,000 individuals, we estimate models explaining people's preferences for redistribution by using a large set of indicators informed by economics and evolutionary psychology. We found that the higher the income, the social class and the health status, the lower the support for redistribution. Completing a secondary degree and during the years of the undergraduate course (but not after obtaining the degree), individuals are more averse to redistribution, while gender and age do not alter these preferences. Beliefs and values matter: ideology, importance of God and the relative importance of luck and effort alter attitudes toward redistribution. While the results for individual variables are mainly driven by within-country effects, there are important differences in fixed effects that the literature needs to address.

The following section (Section II) integrates the literature using the Unified Integrated Theory, section III describes the data and methodology and section IV displays and discusses the results. A conclusion follows.

II - Humans and Redistribution

The hardest question for this work is: what does Preference for Redistribution (PR) mean for a human being? Does it have any root in our evolutionary past? Our primary drive to redistribution is kin care, but we know that human beings have developed a cooperative form of social behaviour (reciprocal altruism), whose roots were the benefits of collective work, either for precautionary actions (storing food for winter), or for exploring the benefits of the division of labor (Buss, 2005).

It seems that hunting was crucial for selecting these human characteristics (de Vore & Tooby, 1985). Hunting was our major first collective enterprise in producing and a risky one (subject to a probability distribution of success), which gave an advantage to smoothing individual scarcity through sharing.

Critical for understanding Evolutionary Psychology's approach, the main goals of a human being are: surviving (finding resources and protection), finding mates, caring for children (and close kin), and dealing with other human beings. Social life can be understood from its challenges: dealing with your family; working with your group; redistributing resources; forming coalitions to fight with other groups and self-positioning in social hierarchies (Buss, 2005). Motivational systems, hardwired in our brains, help us search for our goals.

Sharing is a human behaviour related to several aims, as smoothing scarcity, status displaying, but, in this paper, due to the specific question of the WVS, we claim that it can be mainly related to the goal of sustaining a positive pay off for the strategy of collective working, by redistributing resources in accordance to the contribution of someone's effort, avoiding cheaters benefits, following Tooby and Cosmides (1992), Haidt (2012) and Graham et al (2013). Graham et al (2013) call the motivation systems that guide fairness the "fairness/cheating" moral foundation. The concept of fairness of this framework is similar to the concept of distributional fairness of Snycer et al (2017).

Following Graham et al (2013), the motivational systems, besides self-interest, are described by the pairs: care /harm (for yourself, for children), fairness/cheating, that guides redistribution, loyalty/betrayal authority/subversion (that guides self-positioning in hierarchies), and sanctity/degradation (probably a function of the coevolution with parasites). We argue that these systems, hardwired in the past, are helpful to understand preferences for redistribution in the modern world (Haidt, 2012; Graham et al, 2013).

The self-interest motivation is driven by emotions such as fear, joy, sadness and happiness, when they are a response to situations that benefit ourselves. Desires are powerful drivers of this system, as hunger, thirstiness and sexual desire. The Meltzer-Richard (MR, 1981) model refers to purely self-interested motivated individuals. Individuals with income higher than the mean will have to pay taxes to finance redistribution, being averse to it. Individuals who will receive the benefits, the ones with income below the mean, will favor redistribution. Income and education variables that have been discussed in the literature are subject to this interpretation. Corneo & Gruner (C&G) (2002) include the variable "I would gain" to assess self-interest, as Snycer et al (2017).

Alesina & Giuliano (A&G) (2010) introduces the negative externalities of crime in the utility function as an argument that could connect preferences for redistribution and inequality, assuming, as Dion & Birchfield (2010), that crime is caused by inequality. Security is a goal tuned by the same motivational system. Safer environments should decrease preferences for redistribution.

The caring system includes the emotion of compassion for the children and has been extended toward the vulnerables, as the older and the sick. As well as we feel compassion for the vulnerable, we feel anger for the ones who violate the rules of this system. Parental love is the most important emotion in this category, while the love for the spouse is a very curious emotion, since there is no genetic relatedness between the pair, but they obviously share common interest in the reproduction of their kids (in ancestral times) (Pinker, 2002). We will join the caring system for the nuclear family with the self-interest one.

Since we are integrating the individual self-interest and his concerns with nuclear family, marital status, another traditional variable in the literature, is easily captured in our framework, as well as variables that capture the vulnerability of the individuals (as unemployment, for example). Married individuals should prefer less redistribution, as well as “living together individuals” (with respect to other categories).

Envy, especially of peers, motivates us to change our position in social hierarchies, although we also have the feeling of respect when we believe that somebody’s position is deserved, and we may also accept leadership due to fear, when power is the source of status. The motivation system that includes envy is the authority/subversion system, that helps us to deal with social hierarchies, either accepting it or not. The variable that we will consider to capture status considerations is the individual social class. An important branch of the literature discusses mobility, which is neatly integrated in this category. Using our data, we cannot fully explore mobility, and we will restrict the discussion to the interpretation of the results of education, health and the combination of income and social class. Controlling for income, we expect a negative coefficient for social class; given the social class, a negative coefficient for income may also indicate the wish to climb the ladder. A zero coefficient would indicate social conformity (mobility was specially discussed by A&G, C&G and Guillard (2013)).

It is difficult to disentangle the relative importance of each moral foundation for a specific choice, but we first thought that the main trade-off between redistribution and “other goods” would be dictated by self-interest and fairness (to a lesser degree, to status seeking), but this interpretation was questioned by the work of Snycer et al (2017), that challenged the role of fairness. Reviewing the literature, we observed that its organization could be even better if we included the role of the other “moral foundations” in the discussion.

Religiosity or type of religion have been found to be associated with social emotions (as trust) and with PR, what motivates us to include a religious variable in our framework, which is the importance of God in daily life. We thought that this belief could influence the opportunity cost of redistribution, maybe due to a feeling of protection (self-interest) - predicting a negative coefficient, or due to the communal values that are universally taught by religion (predicting a positive coefficient). A&G include types of religion in its discussion of the results for the WVS, which we can map into the “sanctity/degradation” moral foundation.

C&G and A&G have discussed the importance of beliefs of the source of life outcomes, as from luck or effort. This is a fairness concern. The main hypothesis is that if poverty is a matter of luck, it is fair to share, but if you have not contributed as much as you should, it is not fair to help you. We will address the whole of luck and effort, as well.

Ideology has been found to significantly affect PR, and left-wing individuals favour PR more than right-wing individuals (A&G, 2010). Usually, left-wing individuals display higher concern for inequality (distributional fairness) . So, ideology is a connection of social values that weights opportunity cost in terms of fairness and could be discussed in this framework. Snycer et al (2017) did find that belonging to left-wing political parties positively affects PR.

Not only does the ideology variable measure one concept of fairness (“distributional fairness”), but it may be related to another moral foundation, which is the loyalty/subversion one. The issue is that in modern National States, based on market systems, redistribution is a function of the market. The role of government redistribution cannot be easily associated with fairness, unless the “rules of the game” are accepted by all players, and the rules of capitalism are more frequently found unfair among individuals from the left. So, for some individuals of the left, to say that inequality should be decreased by the governmental action may really be a form of subverting or at least strongly changing the group hierarchy.

Are modern states expected to care? Modern National States do redistribute income (and services) based on the caring system, when they provide help for vulnerable people and social protection, but these reasons are not related to the fairness one. This is interesting, since we associate taxation and redistribution with “making incomes more equal”, while equality in the ancient world would be due to collective work. The ancient functions that government fulfills are much more related to the caring reasons that we have expanded to “broader circles”. The above considerations are corroborated to the findings of Snycer et al (2017) that did not find any relevance of “fairness” in explaining preferences for redistribution, but only of self interest, compassion and envy.

Finally, group/loyalty may act against national redistribution when society is very fragmented: individuals tend to help their own group in this situation, what can decrease generalized morality, what integrates the importance of race, as found by A&G.

From the Evolutionary Psychology (EP) lens, for a complete characterization of an individual we need to specify his/her age, gender, education, health, marital status, income and social status, what motivated us to include health and social class in our specifications. We can only exclude a characteristic from the analysis after mapping the modern human task (choice between sharing in modern world mapped into sharing food in ancestral world) into the ancestral human task, and identifying which human goals (and motivation systems) are mostly engaged in the task (fairness and self-interest in our choice of supporting redistribution). Despite the literature on PR persistently including age and gender, we could not predict any relationship between each of this variable and PR, although the literature has found a positive coefficient for gender (A&G) and a positive (or u-shaped) coefficient for age. We will include these variables, predicting that their coefficients are not different from zero.

We can observe that all variables discussed in the literature are coherently integrated in this approach, giving a coherent justification for the inclusion (or not) of the “usual” socio-demographic controls and for testing the role of beliefs and values. Predictions born out of the opportunity costs among human goals.

III - Data and Econometric Model

The source of the data is the sixth wave of the World Value Survey (WVS), containing, in our sample 57 countries, representing almost 80,000 individuals. With the exception from Haiti (2016), the remaining countries have had their surveys conducted between 2010 and 2014.

Our dependent variable was inspired by the work of Alesina & Giuliano (2010): it is a 10-point Likert scale type question which asks whether the government should take full responsibility in order to ensure that everyone is provided for (scale value 1), or people should be fully responsible for it (scale value 10). For ease of interpretation of results, we re-coded this variable by inverting its order so that the higher its value, the stronger a person's preference for redistribution. Therefore, the value of 1 in our re-coded dependent variable indicates a strong preference against redistribution while the value of 10 indicates a strong preference towards distribution. The individual responses range between these two extreme cases.

Education was also changed in order to simplify its interpretation; therefore, it ranges from 1 to 6, in which the first level is no formal education or incomplete primary school, and 6 is completed college education. Concerning Family and Health variables, the higher the number you scored, the higher your relative importance to your family and the better health situation you find yourself.

The pecuniary proxies Income and Social Class are positive related to wealth. The first states 10 levels of income inside the respondent's country and ask in which of them he or she is, and the second one 5 social classes, with the first one the lower and the fifth one the higher. The employment data at the WVS was also modified here at this work for the purpose of simplicity: it was condensed into three categories, Employed (including both the part-time and full-time jobs and the self-employed), unemployed and other types (students, retirees, housewives and etc.).

Marital status was spread into five categories: married (1), living together as married (2), divorced and separated (3), widowed (5) and single (6). Also, the Gender categories were (1) male and (2) female. Regarding more personal aspects, Ideology, Luck Vs. Effort and Importance of God are Likert scales, going from one to ten. The first one begins with (1) as left and (10) as right, the second one, the first category (1 - Effort) states that person thinks that at the long run, hard work brings a better life, and (10 - Luck) that this success is more a matter of luck and connections. The last variable measures how important God is in their lives, stating (1) as not at all important and (10) very important.

The last group of variables are proxies to determine the vulnerability aspects of the individual. Personal crime and Family crime are questions made to see if the respondent or any member of its closer family was victim of any crime at the 12 months prior to the survey. The other one is Unsafety, that states how unsafe (due to crime) the individual felt in their own homes; it goes from (1), often and (4), never.

There are some exceptions regarding the data disposal of some variables in some countries. Ideology is not available for China, Jordan and Kuwait. The importance of God was not marked in Egypt and Kuwait.

In our estimations, we use a pooled cross-section data for 57 countries. As explained in greater detail in Section 2, the independent variables included to explain variations in individuals' preferences for redistribution are informed by the economics and the evolutionary psychology literatures. All our explanatory variables, other than age, are measured by sets of dummy variables. Regression analysis of a Likert scale dependent variable would normally require estimation of an ordered discrete choice model (i.e. ordered

probit / ordered logit). However because our dependent variable of preference for redistribution is based on a 10 point Likert scale, it mimics the behaviour of a continuous variable. Therefore, we apply Ordinary Least Squares to estimate the following models of PR: (1) Alternative specifications relating PR with individual characteristics, (2) model including all individual characteristics together with country specific dummies. In Model 1, our baseline specification includes a set of demographic and socio economic characteristics (Eq. 2.1.1). We extend this baseline specification by including variables measuring individuals' beliefs and attitudes regarding the role of luck versus effort in life achievements; ideology; importance of family; religion; and crime. Each of these five sets of dummy variables on social value and beliefs are added separately into the baseline specification to observe how inclusion of each affects the coefficient estimates on individual demographic and socio economic characteristics. In the final specification, all these variables are combined under one estimation. Model 2 further builds on this by additionally including country dummies. These country dummies control for the unobserved country fixed effects and hence provide coefficient estimates based on within country variation while the former model provides estimates based on both between and within country variation (with equal weight of each). In the following section, we provide an interpretation of our results based on this distinction. All regression models are estimated by clustering standard errors at country level.

IV - Results

We have organized the results discussing attitudes to PR guided by self-interest, family care and social mobility (section IV.1), and social values and beliefs (section IV.2) related to fairness, sanctity and hierarchical acceptance.

IV.1 - Surviving: the role of self-interest in shaping our Preferences for Redistribution

Self-interest guides us in surviving, motivating our actions towards provisioning, self-protection and expanding our lifetime. We tested the role of self-interest in determining Preferences of Redistributing (PR) using household income categories, education levels, health status, marital status, importance of family, personal vulnerability and environmental safety. We also discuss social conformity, using the income and the social class variables (as well as education and health).

Results are displayed for the pooled model (Table 2.1) and for the fixed-effect model (Table 2.2). Each column corresponds to the specifications described in section III.

Observing the results of the pooled model (Table 2.1), the higher the income the lower the preferences for redistribution (PR). In the basic model, individuals in the world's mean (and in the median) income report 0.639 units less in their PR with respect to the poorest individuals (the mean income is 4.76). The highest income earners have less 1.667 units of PR than the poorest individuals, which is a high quantitative impact since the range of the variable PR is ten (10). Observing variation in preferences within countries (Table 2.2), the pattern is the same: the higher the income group, the lower the PR. In the basic model (Table 2.2, col 1), the average category displays a coefficient of -0.565 and the top ten displays a coefficient of -1.330. Comparing the results from Table 2.1 and Table 2.2, we observe that

PR income sensitiveness is due to within-country effects, since the coefficients reported in each table are not statistically different from each other.¹

Comparing the columns in Table 2.2, the results for the bottom of the income distribution are most sensitive to the inclusion of ideology and religion in the model. The lowest coefficients for income category 2, 5 and 10, are in columns (3) , (5), and in the complete specification, (7). Controlling for these variables, there is a decrease in the coefficient of PR (in absolute value), suggesting that the importance of God and general concerns with equality (ideology) makes people more inclined towards redistribution.

The results are in accordance with previous literature: Alesina & Giulliano (A&G, 2010) found a within country coefficient of -0.258 for the four initial waves of the WVS, in which one standard deviation from the income mean would decrease PR by 0.196. His mean income individual would have less -0.508 units of PR. In our within-fixed estimation (Table 2.2, col 1), our mean income individual (category 5) would also have less -0.565 units of PR. This suggests that preferences for redistribution have not changed in time, since we use the most recent wave.

Dion & Birchfield (D&G, 2010) were also concerned with distinguishing between and within results. Since, in the case of income, we found that the within-country results were more relevant, it explains why the coefficient of their between and within-country effects models are similar (0.36 and 0.28, respectively, observing that this is a rough calculation, due to the differences in model specifications, data and scale). Their coefficients imply smaller income sensitivity than ours and match our sensitivity for categories 3 and 4.

¹ The 95% confidence intervals for the coefficients on each income category in the pooled and within group estimations overlap.

Table 2.1

	Individual Models						
	Basic (1)	Beliefs (2)	Ideology (3)	Family (4)	Religion (5)	Crime (6)	Complete (7)
Gender	-0.0039 (0.0409)	0.0009 (0.0400)	-0.0067 (0.0458)	-0.0080 (0.0412)	-0.0016 (0.0427)	-0.0085 (0.0415)	-0.0153 (0.0494)
Age	-0.0134*** (0.0038)	-0.0127*** (0.0038)	-0.0145*** (0.0041)	-0.0133*** (0.0038)	-0.0123*** (0.0038)	-0.0141*** (0.0037)	-0.0137*** (0.0039)
Health2	-0.3953*** (0.0783)	-0.3741*** (0.0779)	-0.3320*** (0.0767)	-0.4016*** (0.0779)	-0.4072*** (0.0846)	-0.4013*** (0.0787)	-0.3298*** (0.0862)
Health3	-0.7426*** (0.1239)	-0.7426*** (0.1251)	-0.6916*** (0.1290)	-0.7507*** (0.1237)	-0.7726*** (0.1306)	-0.7559*** (0.1251)	-0.7145*** (0.1420)
Health4	-0.8586*** (0.1440)	-0.8825*** (0.1446)	-0.8610*** (0.1477)	-0.8711*** (0.1436)	-0.8975*** (0.1524)	-0.8829*** (0.1471)	-0.9014*** (0.1650)
Marital2	-0.2995** (0.1366)	-0.2461* (0.1335)	-0.3023** (0.1354)	-0.2940** (0.1361)	-0.2470* (0.1356)	-0.2973** (0.1302)	-0.2224* (0.1255)
Marital3	-0.1442 (0.1045)	-0.1311 (0.0993)	-0.1713 (0.1050)	-0.1266 (0.1044)	-0.1221 (0.1073)	-0.1244 (0.1078)	-0.0910 (0.1020)
Marital5	0.2471*** (0.0877)	0.2378*** (0.0853)	0.2993*** (0.0936)	0.2540*** (0.0878)	0.2229** (0.0930)	0.2548*** (0.0892)	0.2839*** (0.0979)
Marital6	-0.2030** (0.1004)	-0.1775* (0.0976)	-0.2264** (0.1026)	-0.1911* (0.1003)	-0.1668 (0.1034)	-0.2108** (0.1017)	-0.1789* (0.1023)
Income2	-0.1320 (0.1004)	-0.1075 (0.0979)	-0.0381 (0.1024)	-0.1310 (0.1007)	-0.0844 (0.0998)	-0.1113 (0.1024)	0.0023 (0.1010)
Income3	-0.2463* (0.1358)	-0.2026 (0.1392)	-0.1785 (0.1368)	-0.2455* (0.1366)	-0.1840 (0.1339)	-0.2243 (0.1384)	-0.1165 (0.1406)
Income4	-0.4870*** (0.1509)	-0.4410*** (0.1543)	-0.3216** (0.1546)	-0.4866*** (0.1520)	-0.4268*** (0.1501)	-0.4741*** (0.1535)	-0.2886* (0.1593)
Income5	-0.6389*** (0.1544)	-0.5883*** (0.1585)	-0.5059*** (0.1547)	-0.6413*** (0.1553)	-0.5836*** (0.1531)	-0.6202*** (0.1585)	-0.4454*** (0.1577)
Income6	-0.8925*** (0.1853)	-0.8314*** (0.1891)	-0.7464*** (0.1911)	-0.8940*** (0.1861)	-0.8229*** (0.1823)	-0.8724*** (0.1912)	-0.6637*** (0.1924)
Income7	-1.0324*** (0.2104)	-0.9820*** (0.2132)	-0.8944*** (0.2209)	-1.0343*** (0.2115)	-0.9617*** (0.2094)	-1.0172*** (0.2157)	-0.8350*** (0.2215)
Income8	-1.2640*** (0.2320)	-1.2248*** (0.2341)	-1.1837*** (0.2384)	-1.2651*** (0.2329)	-1.2317*** (0.2311)	-1.2681*** (0.2333)	-1.1607*** (0.2375)
Income9	-1.4439*** (0.2752)	-1.4267*** (0.2748)	-1.2961*** (0.2871)	-1.4500*** (0.2748)	-1.4022*** (0.2824)	-1.4039*** (0.2770)	-1.2452*** (0.2824)
Income10	-1.6667*** (0.3043)	-1.6641*** (0.3138)	-1.5807*** (0.3225)	-1.6701*** (0.3031)	-1.6340*** (0.3118)	-1.6178*** (0.3081)	-1.4862*** (0.3221)
Social.Class2	0.0334 (0.1470)	0.0110 (0.1458)	-0.0051 (0.1556)	0.0362 (0.1478)	0.0425 (0.1490)	0.0383 (0.1366)	-0.0046 (0.1466)
Social.Class3	0.0168 (0.1806)	0.0113 (0.1778)	-0.0510 (0.1831)	0.0179 (0.1817)	0.0191 (0.1812)	0.0179 (0.1699)	-0.0448 (0.1713)
Social.Class4	-0.1174 (0.2245)	-0.1346 (0.2191)	-0.2049 (0.2305)	-0.1165 (0.2256)	-0.1116 (0.2233)	-0.1318 (0.2139)	-0.2110 (0.2142)
Social.Class5	-0.0867 (0.2495)	-0.1254 (0.2497)	-0.1700 (0.2536)	-0.0798 (0.2505)	-0.0717 (0.2490)	-0.1013 (0.2417)	-0.1748 (0.2454)

Education2	-0.4721*** (0.1146)	-0.4369*** (0.1173)	-0.5185*** (0.1334)	-0.4736*** (0.1147)	-0.4240*** (0.1131)	-0.4705*** (0.1165)	-0.4309*** (0.1376)
Education3	-0.3127* (0.1603)	-0.2619 (0.1629)	-0.2972* (0.1746)	-0.3144** (0.1600)	-0.2612 (0.1602)	-0.3126* (0.1610)	-0.2168 (0.1849)
Education4	-0.4904** (0.2036)	-0.4193** (0.2052)	-0.5293** (0.2273)	-0.4945** (0.2035)	-0.4432** (0.2070)	-0.4905** (0.2063)	-0.4178* (0.2334)
Education5	-0.6991*** (0.2145)	-0.6297*** (0.2155)	-0.7979*** (0.2339)	-0.6994*** (0.2146)	-0.6755*** (0.2157)	-0.6968*** (0.2157)	-0.6804*** (0.2415)
Education6	-0.3304 (0.2061)	-0.2758 (0.2105)	-0.3503 (0.2244)	-0.3350 (0.2060)	-0.2792 (0.2116)	-0.3193 (0.2033)	-0.2612 (0.2321)
Employed	-0.0378 (0.0750)	-0.0209 (0.0743)	0.0123 (0.0884)	-0.0382 (0.0747)	-0.0196 (0.0761)	-0.0366 (0.0763)	0.0617 (0.0910)
Unemployed	-0.0339 (0.1137)	-0.0160 (0.1128)	-0.0354 (0.1212)	-0.0357 (0.1137)	-0.0055 (0.1123)	-0.0187 (0.1141)	0.0551 (0.1205)
Lucky2		-0.3192*** (0.1019)					-0.2556** (0.1190)
Lucky3		-0.4346*** (0.1073)					-0.3186*** (0.0908)
Lucky4		-0.5918*** (0.1260)					-0.4910*** (0.1167)
Lucky5		-0.5025*** (0.1267)					-0.4214*** (0.1117)
Lucky6		-0.7895*** (0.1436)					-0.6183*** (0.1295)
Lucky7		-0.7154*** (0.1552)					-0.5560*** (0.1505)
Lucky8		-0.7644*** (0.1647)					-0.6717*** (0.1623)
Lucky9		-0.7849*** (0.2075)					-0.7380*** (0.2229)
Lucky10		-0.3373 (0.2083)					-0.3969* (0.2268)
Ideology2			-0.0314 (0.0957)				0.0034 (0.0981)
Ideology3			-0.2977** (0.1171)				-0.2077* (0.1135)
Ideology4			-0.5118*** (0.1209)				-0.4235*** (0.1122)
Ideology5			-0.4516*** (0.1013)				-0.4389*** (0.1024)
Ideology6			-0.7254*** (0.1239)				-0.6943*** (0.1262)
Ideology7			-0.8026*** (0.1517)				-0.7338*** (0.1420)
Ideology8			-0.7570*** (0.1670)				-0.7299*** (0.1648)
Ideology9			-0.8727*** (0.2320)				-0.8661*** (0.2387)

Ideology10			-0.6076*** (0.1507)				-0.7017*** (0.1524)
Family2			0.1740 (0.1238)				0.0982 (0.1530)
Family3			0.2912*** (0.1105)				0.1272 (0.1193)
GodImportance2				0.0545 (0.1048)			0.0605 (0.1186)
GodImportance3				0.0040 (0.1325)			-0.0323 (0.1495)
GodImportance4				0.0082 (0.1200)			-0.0028 (0.1508)
GodImportance5				0.0870 (0.1425)			0.0537 (0.1539)
GodImportance6				-0.1009 (0.1488)			-0.1082 (0.1632)
GodImportance7				-0.0653 (0.1581)			-0.0629 (0.1644)
GodImportance8				-0.0032 (0.1939)			-0.0084 (0.2001)
GodImportance9				0.1518 (0.1778)			0.1410 (0.1944)
GodImportance10				0.2272 (0.1964)			0.1311 (0.2101)
Unsafety2						-0.1386 (0.1207)	0.0166 (0.0865)
Unsafety3						-0.1876 (0.1617)	-0.0805 (0.1017)
Unsafety4						-0.1168 (0.1841)	-0.0009 (0.1394)
Person.Crime						0.0608*** (0.0156)	0.0572*** (0.0168)
Family.Crime						0.0140 (0.0177)	0.0118 (0.0177)
Constant	8.8940*** (0.3887)	9.1639*** (0.3885)	9.3193*** (0.4014)	8.6257*** (0.4112)	8.5892*** (0.3815)	8.7026*** (0.3989)	8.9091*** (0.4089)
Observations	78,858	76,637	59,481	78,665	74,948	75,579	54,560
R2	0.0382	0.0476	0.0488	0.0385	0.0393	0.0397	0.0553
Adjusted R2	0.0378	0.0471	0.0482	0.0381	0.0388	0.0393	0.0542
F Statistic	107.9393***	100.7941***	80.2570***	101.5776***	80.6479***	91.8473***	50.5919***

Note: *p<0.1; **p<0.05; ***p<0.01

Table 2.2

	Fixed Models						
	Basic (1)	Beliefs (2)	Ideology (3)	Family (4)	Religion (5)	Crime (6)	Complete (7)
Gender	0.0495 (0.0341)	0.0512 (0.0341)	0.0285 (0.0425)	0.0446 (0.0342)	0.0496 (0.0350)	0.0478 (0.0358)	0.0262 (0.0456)
Age	-0.0014 (0.0015)	-0.0019 (0.0015)	-0.0018 (0.0016)	-0.0015 (0.0015)	-0.0020 (0.0015)	-0.0019 (0.0015)	-0.0031* (0.0017)
Health2	-0.1513*** (0.0474)	-0.1461*** (0.0472)	-0.1014* (0.0545)	-0.1578*** (0.0477)	-0.1667*** (0.0491)	-0.1636*** (0.0496)	-0.1229** (0.0568)
Health3	-0.2994*** (0.0637)	-0.3071*** (0.0648)	-0.2412*** (0.0755)	-0.3073*** (0.0638)	-0.3290*** (0.0633)	-0.3109*** (0.0635)	-0.2740*** (0.0756)
Health4	-0.3159*** (0.0686)	-0.3342*** (0.0717)	-0.2958*** (0.0791)	-0.3272*** (0.0683)	-0.3433*** (0.0708)	-0.3356*** (0.0692)	-0.3416*** (0.0862)
Marital2	0.0986* (0.0509)	0.0987* (0.0555)	0.0692 (0.0633)	0.1023** (0.0517)	0.1004* (0.0527)	0.0842 (0.0538)	0.0707 (0.0666)
Marital3	-0.0450 (0.0452)	-0.0485 (0.0430)	-0.0603 (0.0481)	-0.0289 (0.0459)	-0.0282 (0.0453)	-0.0316 (0.0444)	-0.0175 (0.0493)
Marital5	0.0751* (0.0396)	0.0739* (0.0396)	0.1008** (0.0499)	0.0834** (0.0404)	0.0711* (0.0414)	0.0831** (0.0404)	0.1096** (0.0502)
Marital6	0.0060 (0.0357)	0.0063 (0.0361)	-0.0062 (0.0442)	0.0146 (0.0365)	0.0216 (0.0357)	-0.0041 (0.0364)	0.0033 (0.0460)
Income2	-0.1915*** (0.0689)	-0.1854*** (0.0701)	-0.1318* (0.0772)	-0.1921*** (0.0686)	-0.1461** (0.0678)	-0.1756*** (0.0678)	-0.0963 (0.0730)
Income3	-0.2627*** (0.0801)	-0.2456*** (0.0836)	-0.2340*** (0.0902)	-0.2626*** (0.0800)	-0.1933** (0.0754)	-0.2361*** (0.0787)	-0.1589* (0.0855)
Income4	-0.4702*** (0.0880)	-0.4520*** (0.0923)	-0.3585*** (0.1047)	-0.4701*** (0.0881)	-0.3954*** (0.0843)	-0.4464*** (0.0862)	-0.2938*** (0.0984)
Income5	-0.5651*** (0.0936)	-0.5457*** (0.0954)	-0.4836*** (0.1029)	-0.5668*** (0.0933)	-0.4865*** (0.0886)	-0.5383*** (0.0932)	-0.3983*** (0.0936)
Income6	-0.7421*** (0.1009)	-0.7121*** (0.1047)	-0.6739*** (0.1195)	-0.7438*** (0.1002)	-0.6421*** (0.0931)	-0.7102*** (0.1017)	-0.5518*** (0.1101)
Income7	-0.8677*** (0.1142)	-0.8431*** (0.1178)	-0.7972*** (0.1373)	-0.8687*** (0.1140)	-0.7617*** (0.1059)	-0.8367*** (0.1142)	-0.6864*** (0.1283)
Income8	-1.0337*** (0.1202)	-1.0147*** (0.1235)	-1.0059*** (0.1372)	-1.0330*** (0.1200)	-0.9575*** (0.1158)	-1.0176*** (0.1211)	-0.9257*** (0.1320)
Income9	-1.2062*** (0.1696)	-1.2000*** (0.1733)	-1.0868*** (0.1972)	-1.2124*** (0.1686)	-1.1244*** (0.1714)	-1.1585*** (0.1694)	-1.0090*** (0.1926)
Income10	-1.3295*** (0.2189)	-1.3427*** (0.2239)	-1.2889*** (0.2500)	-1.3309*** (0.2168)	-1.2858*** (0.2249)	-1.2760*** (0.2164)	-1.1944*** (0.2397)
Social.Class2	-0.0891 (0.0574)	-0.1091* (0.0575)	-0.1352** (0.0666)	-0.0891 (0.0578)	-0.1107** (0.0555)	-0.0851 (0.0571)	-0.1648*** (0.0630)
Social.Class3	-0.1390** (0.0659)	-0.1439** (0.0660)	-0.2008*** (0.0700)	-0.1396** (0.0665)	-0.1582** (0.0650)	-0.1345** (0.0645)	-0.2073*** (0.0685)
Social.Class4	-0.2436*** (0.0808)	-0.2643*** (0.0802)	-0.3056*** (0.0904)	-0.2452*** (0.0814)	-0.2612*** (0.0803)	-0.2541*** (0.0795)	-0.3502*** (0.0877)

Social.Class5	-0.2226* (0.1255)	-0.2490* (0.1291)	-0.2807** (0.1368)	-0.2175* (0.1260)	-0.1971 (0.1214)	-0.2387* (0.1288)	-0.3068** (0.1418)
Education2	-0.0560 (0.0498)	-0.0576 (0.0509)	-0.0749 (0.0619)	-0.0586 (0.0495)	-0.0660 (0.0524)	-0.0570 (0.0521)	-0.0828 (0.0696)
Education3	-0.0385 (0.0586)	-0.0430 (0.0595)	-0.0272 (0.0676)	-0.0419 (0.0581)	-0.0547 (0.0641)	-0.0432 (0.0596)	-0.0434 (0.0774)
Education4	-0.1382** (0.0623)	-0.1261** (0.0620)	-0.1465** (0.0719)	-0.1428** (0.0618)	-0.1626** (0.0645)	-0.1462** (0.0633)	-0.1728** (0.0783)
Education5	-0.1909*** (0.0691)	-0.1882*** (0.0692)	-0.2132*** (0.0696)	-0.1945*** (0.0687)	-0.2273*** (0.0664)	-0.2028*** (0.0682)	-0.2498*** (0.0759)
Education6	-0.0713 (0.0752)	-0.0784 (0.0770)	-0.0713 (0.0890)	-0.0773 (0.0743)	-0.0996 (0.0783)	-0.0741 (0.0748)	-0.1116 (0.0950)
Employed	0.0589* (0.0358)	0.0717** (0.0354)	0.0815* (0.0445)	0.0592* (0.0356)	0.0650* (0.0373)	0.0611 (0.0379)	0.0941** (0.0479)
Unemploye d	0.0432 (0.0466)	0.0552 (0.0478)	0.0275 (0.0523)	0.0412 (0.0467)	0.0473 (0.0467)	0.0495 (0.0479)	0.0667 (0.0534)
Lucky2		-0.2322*** (0.0716)					-0.1663** (0.0767)
Lucky3		-0.3510*** (0.0905)					-0.2836*** (0.0929)
Lucky4		-0.4609*** (0.1121)					-0.3768*** (0.1144)
Lucky5		-0.5002*** (0.1148)					-0.4446*** (0.1127)
Lucky6		-0.6833*** (0.1279)					-0.5600*** (0.1199)
Lucky7		-0.6757*** (0.1452)					-0.5793*** (0.1520)
Lucky8		-0.6918*** (0.1411)					-0.6149*** (0.1475)
Lucky9		-0.8232*** (0.1809)					-0.7960*** (0.2026)
Lucky10		-0.4919*** (0.1542)					-0.5652*** (0.1805)
Ideology2			0.0744 (0.0974)				0.1100 (0.0947)
Ideology3			-0.1226 (0.1041)				-0.0476 (0.0978)
Ideology4			-0.3546*** (0.1017)				-0.2922*** (0.0941)
Ideology5			-0.3213*** (0.1037)				-0.2864*** (0.1036)
Ideology6			-0.5123*** (0.1211)				-0.4458*** (0.1233)
Ideology7			-0.6353*** (0.1434)				-0.5501*** (0.1390)
Ideology8			-0.5699*** (0.1627)				-0.5191*** (0.1655)

Ideology9						-0.7588*** (0.1940)	-0.6976*** (0.2006)
Ideology10						-0.4703*** (0.1583)	-0.4915*** (0.1621)
Family2				0.0644 (0.1269)			-0.0511 (0.1402)
Family3				0.2104 (0.1285)			0.0552 (0.1149)
GodImportance2						-0.0589 (0.0828)	-0.0990 (0.0921)
GodImportance3						-0.1592 (0.1132)	-0.2340** (0.1081)
GodImportance4						-0.2143* (0.1248)	-0.2630* (0.1394)
GodImportance5						-0.1877 (0.1199)	-0.2389* (0.1221)
GodImportance6						-0.3705*** (0.1235)	-0.4155*** (0.1253)
GodImportance7						-0.3405*** (0.1183)	-0.3745*** (0.1133)
GodImportance8						-0.2437* (0.1278)	-0.2809** (0.1338)
GodImportance9						-0.1260 (0.1289)	-0.1513 (0.1320)
GodImportance10						0.0720 (0.1381)	-0.0346 (0.1383)
Unsafety2							-0.1069 (0.0847)
Unsafety3							-0.1283 (0.1036)
Unsafety4							-0.0907 (0.1035)
Person.Crime							0.0205* (0.0119)
Family.Crime							-0.0316** (0.0123)
Constant	7.8573*** (0.1507)	8.1739*** (0.1590)	8.1804*** (0.2021)	7.6852*** (0.2226)	7.8214*** (0.2084)	8.0094*** (0.1927)	8.6027*** (0.3131)
Observations	78,858	76,637	59,481	78,665	74,948	75,579	54,560
R2	0.1351	0.1428	0.1444	0.1355	0.1375	0.1375	0.1514
Adjusted R2	0.1341	0.1417	0.1431	0.1346	0.1365	0.1364	0.1496
F Statistic	144.7294***	135.6243***	110.1370***	141.6140***	129.7477***	133.6674***	84.4519***

Note: *p<0.1; **p<0.05; ***p<0.01

Guillard (2013) has used ordered logit estimation and we agree with the results that PR's income sensitivities are not linear, decreasing for upper categories. The sensitivity of his result is higher, but his sample only includes richer democracies than the WVS sample. It is important to recall that Guillard (2013) interprets their coefficients as not corroborating the linear negative function usually predicted by theoretical discussions based on the MR model.

We concluded that our econometric specifications were more useful to distinguish between the original source of PRs income sensitivity - if from within-country effects or from between-country effects. We also showed that the non-linearities of income sensitivities were richer than what was previously discovered. Finally, judging from (A&G) estimation, there was no change in the average sensitivity among years.

Table 2.1 does not show that PR responds to social class, but when we control for the fixed effects, in Table 2.2 (both in the basic equation (1) and in the complete one (7)), individuals

from social classes 3, 4 and 5 have lower PR than the lower classes individuals. Considering that we are controlling for income, it seems that the wish to climb the ladder strongly affects PR in the middle and upper classes (but not in the top ten).

The effect of education is not completely dazzled by income, as we can observe by the negative coefficients of the PR educational sensitivities in some educational levels (Table 2.1, col 1 and 7). The results are not linear: complete primary degree and complete secondary degree show an equal and higher negative coefficient than the reference category (no formal education or incomplete primary). Complete technical secondary degree and complete university degree show the same PR than the referential category. At incomplete university levels we found the highest (absolute value) coefficient for PRs.

The within-country results (Table 2.2, cols 1 and 7) are only significantly negative for complete academic secondary levels and incomplete university levels. Comparing the differences in statistical significance and magnitude of the coefficients in these tables, the main source of variation comes from between-country effects, and are probably explained by a compositional effect: countries with fewer average years of education have lower variance among their individuals, what would imply a not statistical significance in any relationship with the bottom educational groups in the within-country results. In the within-country results, we would observe, on average, higher inequality in the individual years of education in higher categories, which is exactly what our results show, since categories 4 and 5 display significant coefficients. Interestingly, and in accordance with the literature, the complete university degree either does not show any difference in PR, with respect to the referential category.

The within group quantitative effect is much smaller than the results from (A&G) for the WVS. The within-country effect coefficient on education from D&B is not significantly different from zero, since their results are estimated on the average level of education. With this set of results and previous literature, we conclude that educational status is a good proxy for social mobility, and, accordingly with the POUM hypothesis, mobility expectations make us averse to redistribution, since we will not want to pay higher taxes in the future. At very low levels of education, the expected mobility should be null, and self-interest will incline individuals towards redistribution. Completing the secondary school and joining a university would turn on status driven motivations.

It is quite interesting to comment on the results from Guillard (2013), who found that more skilled and specialized occupational groups have lower preferences for redistribution, what is interpreted as not only the effect of social mobility, but also the effect of risk aversion.

We tested self-interest with health, which is a variable not so much used in this literature, while it is considerably very reliable by the Economics of Health literature. The overall effect of this variable is quite strong: a report of poor health status explains almost ten percent of the range of PR.

The health sensitivities of preferences for redistribution are negative, since the poorer the health status, the higher (in absolute value) the coefficient of PR (Table 2.1, cols 1 and 7). The within-country results show the same negative relationship between PR and health

(Table 2.2, cols 1 and 7). The results are very robust in both tables, and important in magnitude.

Comparing the differences in coefficients between both tables, the within-effect would be responsible for 37% of the variation in PR. The higher between effect is also probably due to the compositional effect due to health country differences.

We include marital status among our surviving issues, since we have assumed higher concerns with the direct family than with more distant relatives. Married people should have lower preferences for redistribution with respect to non-married people, since maintenance of long term relationships is costly. Since our income variable is household income, we were not expecting differences in PR.

Observing the results for marital status in Table 2.1, cols 1 and 7, our predictions were wrong: married people and divorced/separated individuals have the same PR. Widowed individuals prefer 0.247 units more of PR. Another interesting result is for marital status category 2, which records the answers to “living together as married”, that behave differently from married people.

Family values sensitivities are displayed in Tables 2.1 and 2.2, columns (4) and (7). The results are only statistically different in column (4) of Table 2.1, which captures the total effect of the variable. The positive and statistically significant estimate on Family3 in Table 2.1 (col 4) contradicts our predictions and the findings of (A&G), but we consider this result as not robust because the coefficients on family dummies lose significance in the complete specification (col 7) and when unobserved country effects are controlled for.

We have included two other categories to discuss vulnerability: crime related variables and employment status.

Only the within-country results were significant for employment status, showing a positive effect of being employed, compared to less secure occupational status, with respect to PR (Table 2.2, col 1 and col 7). The unemployed have the same PR than individuals in lower safety occupational levels. The magnitude of the coefficient does not imply significant quantitative results.

For discussing crime, we have investigated person or family experience of crime and the perceived safety of the neighbourhood. Person experience with crime makes us, surprisingly, more averse to redistribution, when total effects are estimated Table 2.1, column (6). In Table 2.2, col 6, the within-country effect predicts, on the other hand, that when family experiences crime, there is higher aversion to redistribution. The magnitude of both effects are small. None of the environmental variables were significant.

We finally want to investigate the role of gender and age in self-interest. The results of the literature usually shows a positive coefficient for women and a negative coefficient for age. In Table 2.1 and in Table 2.2, we do not observe any role for gender, in accordance with our prediction. Age showed a similar coefficient than the one found in the literature, but mainly in Table 2.1. In Table 2.2, it is only significant in the complete specification (7), but also with

small sensitivity. Only after reaching 70 years old you would change your PR in 1 unit (in 10). The within-results (Table 2.2) are even less sensitive to age.

Concluding, our concern with the non-linearities and lack of uniformity among categories led us to observe a much more subtle pattern of PR sensitivity for education, marital status and, specially, for household income. The inclusion and the same concern with non-linearities brought interesting results for health status and social class. The comparison among our results and the literature allow us to understand some of our differences, making comparison possible, while highlighting similarities that encourages us to further investigate the evolution (or not) of the sensitivities.

The concern with between, within and total effects will guide us in checking if country-level results are driven by compositional effects or if there are some causal relationships at the country level, that, for example, would explain differences in incentives among countries.

The motivation to include health and social class came from our integrated approach, and we could predict and explain the non-linearities more precisely. We specially were able to predict the not significant coefficient of gender.

IV.2 - Social Values and Beliefs

In this section we discuss values from four fundamental human tasks: redistributing resources and dealing with social hierarchies - beliefs about luck and effort and ideology. We also discuss the importance of belief in God, as the source of social values.

Belief that outcomes in life are a function of luck or effort is considered an important determinant of the perception of fairness in redistribution. Results for the impact of these beliefs on PR are in Table.2.1 and Table 2.2, columns (2) and (7), showing mainly within effects.

When an individual slightly decreases his beliefs in effort (luck 2, Table 2.2, col 7), his PR luck effort sensitivity decreases (in absolute value) by 0.167. It continues to decrease as luck increasingly replaces effort as the believed source of fortunes. Our results are different from the negative coefficient of Corneo & Gruner (2010), for “hardworking”, also differing from the small positive magnitude found by A&G (0.076). Once more, the presence of non-linearities are important to understand the support for redistribution.

We also find that ideology is a very important determinant of PR (Tables 2.1 and 2.2, columns (3 and 7)). Category 10 includes the results for individuals that disagree that the government should change inequality, while category 1 shows the highest importance for government intervention to decrease inequality. This variable is a reasonable proxy for the direct effect of inequality in the utility function. Results show that the lower the agreement with government intervention in market distribution, the lower the individual PR. However, the relative aversion to inequality only starts in category (3), although it would still be associated with the political left. Similarly pattern holds for the within-effects.

Finally, we observe the set of answers with respect to the importance of God (Tables.2.1 and 2.2, columns (5) and (7)). The first interesting result is that all significant results are within-country effects. The coefficient is only significantly different from zero at moderate

levels of importance (i.e. levels 4 to 8, with stronger significance at levels 6 and 7 (col5)). At very weak and strong levels, the effects of the importance of God are similar. The importance of God decreases PR at categories 3, 4 and 8, and has a stronger (negative) effect on categories 6 and 7, except in the highest level of importance.

Once more, departing from the existence of non-linearities was critical to our conclusion, which reopens the need to check the importance of religion, luck and effort and ideology. The identification of the source of variation was fruitful for the importance of God, which reveals stronger within-effects. More importantly, fairness does play a role in supporting preferences for redistribution, through ideology or beliefs, while the importance of God changes individuals' attitudes.

V- Conclusion

Social Sciences research would benefit from an ongoing attempt to integrate Sciences, called Unified Integrated Theory, which uses Evolutionary Psychology as a reference. In this way, inclusion of variables and their predictions would have a more clear guidance. The role of beliefs and the very definition of ideology and culture deserve an explanation which are aims of this framework.

The literature on Preferences for Redistribution, which has been impressively contributing to the task of decreasing income inequality, needs to be aware of the nonlinearities from the inclusion of categorical variables, as well as, following the approach of Dion & Birchfield (2010), needs to distinguish between total, between and within-country effects. Our results identified important nonlinearities especially in income, while have identified that the within-effects were paramount for the results from the individual variables (with the exception of education, health and marital status).

Our results are in accordance with previous literature that found that the higher the income, the lower the acceptance of a redistributive policy. The same is true for social class and health, which were inclusions guided by our framework. These results once more highlight the importance of self-interest and the human choice of sharing, as in Snycer et al (2017).

Comparing the results for income, social class and education, we conclude that the wish to climb the income ladder is higher in middle to upper middle classes. Deciding where to self-position oneself in social hierarchies is another important task for humans, as found in Snycer et al (2017) through the role of envy. As we have predicted, age and gender are not statistically significant, while employment status and safety related variables were not robust. We fail in our predictions for marital status and the importance of family. The results for marital status further reinforces the role of the more vulnerable in redistribution.

Contrary to Snycer et al (2017), we do find a role of fairness (distributional fairness) through the importance of ideology, captured by aversion to inequality. Beliefs that luck and/or effort affects life outcomes are also a fairness consideration and have a role in attitudes toward redistribution, although not the one we predicted. Snycer et al (2017) did find this result since individuals from left wing political parties showed higher PR in their experiment.

The moral foundation of sanctity affects preferences for redistribution measured by the strength of the Importance of God.

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