

Intergenerational transmission of preferences for redistribution: the case of Uruguay

Martín Leites

Gonzalo Salas

Intergenerational transmission of preferences for redistribution: the case of Uruguay*

Martín Leites, ORCID ID: 0000-0002-5373-3457.

Instituto de Economía - Universidad de la República, Uruguay and EQUALITAS.

Email: martin.leites@fcea.edu.uy

Gonzalo Salas, ORCID ID: 0000-0003-3571-4962.

Instituto de Economía - Universidad de la República, Uruguay and EQUALITAS.

Email: gonzalo.salas@fcea.edu.uy

Abstract

We explore whether preferences for redistributive policies are transmitted from parents to children and study the empirical relevance of three modulators: family mobility, parents' personality traits, and children's abilities. We draw on a novel and rich dataset, the Longitudinal Study of Well-being in Uruguay. We use a flexible model to explain the intergenerational persistence. We find that, on average, the intergenerational persistence of preferences for redistribution is relatively high. However, there is heterogeneity associated with parents' learning. Finally, the intergenerational transmission of preferences is more relevant when intergenerational mobility is lower, parents have greater self-control, and children present higher abilities.

Keywords: preferences for redistribution, social mobility, personality traits, cultural transmission

JEL Code: D31, D64, H23

*We thank Marcelo Bérgho, Gabriel Burdin, Flavio Comin, Xavier Ramos, Cesar Zucco, and participants in ALCADCA, Jornadas Académicas de FCEyA, and Congreso AUCiP for helpful comments, and the Fondo Clemente Estable (ANII) for financial support. We are very grateful to Paola Cazulo, who provided excellent research assistance.

1 Introduction

In the last decades, a consensus has arisen in the field of economics that people have heterogeneous social preferences, which guide their behavior and establish their tolerance for inequality and their demand for redistributive policies. These advances have resulted in different formulations that model the formation of redistributive preferences as a socio-cultural characteristic (see e.g., [Luttmer and Singhal, 2011](#)), and various empirical contributions that have improved the understanding of them. However, there is no evidence on these preferences' intergenerational transmission and the mechanisms that explain it. The aim of this paper is to provide evidence responding to both questions based on a data panel for Uruguay, which allows us to link the preferences of parents and children.

Theoretical approaches to the intergenerational transmission of socio-cultural traits have been proposed by [Cavalli-Sforza and Feldman \(1981\)](#) and [Boyd and Richerson \(1985\)](#), who draw upon evolutionary models from biology. In recent years, there have been several contributions from the economic literature that aim to analyze the mechanisms underlying the transmission of attitudes. [Bisin and Verdier \(2000b, 2001, 2011\)](#) have made significant contributions to this field of study by distinguishing between socialization processes within the family (direct vertical transmission) and other processes that arise from learning and imitation (oblique and horizontal transmission). Their models take into account the costs that parents face in socializing their children, which depend on their characteristics and corresponding distributions at the population level. Additionally, these models assume that parental behavior is based on imperfect empathy, in which altruism is biased towards the cultural characteristics of the parents. Other researchers have also found that children tend to replicate the attitudes they observe in their parents ([Brenøe and Epper, 2022](#); [Dohmen et al., 2012](#)), and that parents can deliberately influence their children's preferences through investments made during their upbringing ([Zumbühl et al., 2021](#)).

Among socio-cultural traits, a relevant candidate to be explored is preferences for redistributive

policies. The models developed in [Piketty \(1995\)](#) and [Benabou and Tirole \(2006\)](#) postulate alternative mechanisms to explain the intergenerational transmission of preferences for redistribution. According to these models, parents with the same features and preferences will have different degrees of intergenerational transmission based on their economic performance, their personality traits, and their learning process. Another group of economic models assumes that the transmission of preferences responds to parents' optimization decisions and can be interpreted in the traditional human capital investment frameworks ([Becker and Tomes, 1986](#)). In this case, the characteristics of children and the beliefs of parents about their returns on investments are key.

Each of these models suggests alternative mechanisms to explain intergenerational persistence or transmission of redistributive preferences. However, there is little evidence on the extent to which intergenerational persistence explains redistributive preferences and which mechanisms are empirically relevant. Aiming to fill this gap, this paper focuses on the preferences for redistribution among young people and the relevance of intergenerational transmission in establishing these preferences. In addition, there is little existing evidence about how individuals form their preferences before they begin their productive life, accumulate their own experience, and have active political participation. The literature discusses the relevance of this period in the life cycle. The "hypothesis of impressionable years" suggests that during adolescence and early adulthood, people are most susceptible to forming and changing their preferences and attitudes ([Inglehart and Baker, 2000](#)). This willingness to change decreases with age, as attitudes become more stable. In contrast, [Hogg and Vaughan \(2008\)](#) pose the "lifelong openness hypothesis," which suggests that attitudes are malleable and can be altered in the face of certain events, even in adulthood. In more general terms, [Borrell-Porta et al. \(2018\)](#) point out that evidence of both hypotheses is inconclusive, and that results depend on the dimensions considered.

The evidence regarding both hypotheses is inconclusive when considering the relevance of the period of life on preferences for redistribution. On the one hand, social psychology suggests that

historical experiences, particularly during youth, can leave permanent marks on individuals' political and economic beliefs. [Alesina and Giuliano \(2011\)](#) demonstrate that a history of macroeconomic volatility or recession experienced during critical years of youth has a long-term effect on people's beliefs. Individuals who grow up in periods of recession or volatility tend to believe that success depends more on luck than on effort and are therefore more supportive of redistribution. However, the same authors find an inverted U-shaped relationship with age, in which young people view such policies more favorably, suggesting that these preferences can be modified in adulthood. On the other hand, [Pittau et al. \(2013\)](#) report varied results when considering the US and Europe, although they do not suggest possible reasons for such differences.

Regarding intergenerational transmission, [Giavazzi et al. \(2019\)](#) study the persistence of cultural traits among US immigrants. They conclude that persistence is not the same across cultural traits; while some of them converge to the prevailing norm in the US, others show a high persistence, as in the case of attitudes towards politics and redistribution. In the same vein, there is evidence of the intergenerational transmission of other attitudes, like trust, risk aversion, and time preferences ([Dohmen et al., 2012](#); [Arrondel, 2013](#)). Using information about donations, [Wilhelm et al. \(2008\)](#) finds that generosity is positively correlated across generations and that families play an essential role in cultivating a sense of charity.

Based on the Longitudinal Welfare Study in Uruguay (ELBU, by its Spanish acronym), we estimate the intergenerational transmission of parents' redistributive preferences to their children. We considered children's contemporaneous preferences for redistribution (2015/16), and this variable for parents at the same time and a few years lagged (2011/12). Therefore, we explore the intergenerational transmission of preferences based on both generations' direct responses, which has not been used in previous papers. Also, we consider a parental learning component associated with changes in preferences during the period. Finally, we exploit the information about parents and children to explore the mechanisms underlying the transmission process.

First, the results suggest that persistence between generations is relevant. Second, the findings

support the idea that transmission between generations also involves a less stable component associated with parental learning based on recent experiences. As a result, the transmission processes are not homogeneous, and some modulators are found that alter the persistence of preferences between generations. Transmission is higher when parents do not experience income mobility, have self-control and are more risk-averse, and are optimistic about their children's abilities. Our result that higher intensity of transmission occurs when income mobility is low, and parents have self-control could be related to the finding of [Giuliano and Nunn \(2021\)](#), who suggest that cultural transmission is higher in a more stable environment.

The contributions of this paper are related to two fields of literature. First, the findings of this research contribute to the economic literature on cultural transmission. Building on previous research that has focused on the intergenerational transmission of socio-cultural traits, we shed light on a less explored dimension, confirming a relatively high persistence of redistributive preferences between parents and children. Second, this paper contributes to the field of preferences for redistribution by providing new evidence for an age group that has received less attention. We analyze the main modulators of intergenerational transmission of redistributive preferences suggested by the literature. The predictions of these models have not been tested in depth. The results suggest that mobility and parental learning matter in explaining the intergenerational transmission of preferences (hypothesis suggested by Piketty). In agreement with the previous findings of [Cojocaru \(2014\)](#) and [Choi \(2019\)](#), our evidence suggests that individuals' perceptions also matter in explaining the transmission of preferences. Finally, other determinants that have been scarcely analyzed empirically are explored, such as personality traits, which have relevance in explaining the transmission of redistributive preferences, as discussed in [Benabou and Tirole \(2006\)](#).

These results are relevant in light of the predictions of theoretical models on intergenerational learning and preference formation. Individuals' parental household matters in explaining redistributive preferences, but parents' recent experiences are also crucial determinants of transmission. The latter finding suggests that parental preferences may not be stable over time and

may depend on their life trajectory. This generates a learning process that affects the intergenerational transmission of preferences significantly. The aforementioned learning dynamics could lead to temporary inconsistencies since preferences for redistribution, through some aggregation mechanisms, are translated into actual redistributive policies. Even if there were a set of policies that resulted in a socially optimal redistribution level, the intergenerational transmission process hardly allows us to arrive at the expected preferences from these models. This is consistent with the predictions of [Piketty \(1995\)](#), in which people's beliefs lead to an equilibrium that is not Pareto optimal. Finally, the relatively high persistence between generations helps explain the striking variation in income inequality and redistributive policies worldwide. For example, this could explain why there is no direct relationship between the level of income inequality in a country and the redistributive preferences of its citizens ([Atkinson et al., 2011](#)).

This article is organized as follows. First, the basic conceptual framework and hypotheses for our analysis are considered in [Section 2](#). In [Section 3](#), the characteristics of the ELBU and the main variables are presented, as well as the empirical strategy that will help us to contrast the different hypotheses. The main results are in [Section 4](#), where we investigate the transmission of redistributive preferences from parents to children, and [Section 5](#) explores different sources of heterogeneity in that transmission. Our conclusions are presented in [Section 6](#).

2 Conceptual framework and hypotheses

To analyze the intergenerational transmission of redistributive preferences, we first take as a reference the model developed by [Piketty \(1995\)](#), which proposes a learning process and focuses on intra-home transmission between parents and children. This model allows us to consider how parents learn from their life trajectories and to incorporate the role of mobility (one of the determinants of preferences that has received the most support empirically). The model developed by [Piketty \(1995\)](#) is based on three premises. The first is that people have imperfect information about the magnitude of the parameters that explain their economic outcomes.

Second, people choose their level of effort and desired level of redistribution based on their a priori beliefs. Third, based on the outcomes obtained, they update their beliefs through the Bayesian learning mechanism and transmit them to their offspring.

The model establishes two stylized facts: first, the beliefs of children have a direct link with the previous beliefs of their parents, generating an intergenerational persistence of family preferences for redistribution; second, throughout the life cycle, parents' beliefs and preferences change as their a priori beliefs are adjusted based their own mobility experience (the signal they receive). As a result, the transmission is mediated by the trajectory of the parents generating heterogeneity among the families. These two stylized facts are directly related to the following hypotheses:

H.Ia) There is a high positive correlation between the redistributive preferences of parents and those of their children.

H.Ib) Changes in parental preferences mediate the intensity of transmission from parents to children. Those parents with more stable (or consolidated) preferences are those who transmit them with higher intensity, while, conditional on their initial preferences, individual experience introduces confirmatory (or revisionist) mechanisms that stimulate (or discourage) intergenerational transmission.

Favorable evidence for hypothesis H.Ib suggests that parental learning matters in explaining the intergenerational transmission of preferences, and it may explain heterogeneity in the transmission process among families. This opens the question of which modulators affect parental learning and the intensity of intergenerational transmission. Bayesian learning allows us to interpret why two individuals with the same a priori beliefs can transmit very different beliefs to their children, based on the signals they receive. The learning process modeled in Piketty's model reflects a relationship between mobility (the signal to update beliefs) and preferences for redistribution, mediated by parents' beliefs about what explains the generation of income — effort versus circumstances. The belief-updating mechanism states that when the parents' mobility confirms their a priori expectations, they reinforce their a priori beliefs and increase

the intensity of intergenerational transmission to their offspring.¹

[Benabou and Tirole \(2006\)](#) build on [Piketty's](#) model, but they emphasize the influence of some psychological and personality characteristics. First, they incorporate the possibility that individuals have imperfect willpower. This leads to parents facing incentives to transmit motivational beliefs so that their children are resilient to adversity and prioritize effort. Second, people tend to need to believe in a fair world. When their experiences contradict this belief, they tend to reinterpret their experience to preserve their initial beliefs to avoid the cost of cognitive dissonance. In these circumstances, optimistic people believe that the world is fair and that every effort will be rewarded. Therefore, they have more incentives to transmit to their children the idea that effort is important. This vision of fairness and optimism leads to an equilibrium with low preferences for redistribution. In contrast, a more pessimistic vision will lead to support for a broader welfare state and more significant redistribution. Thus, this model suggests that when parents believe that effort is relevant and anticipate that redistribution will be low, they have higher stimuli to transmit those same beliefs to their children. This could even happen when their mobility experiences suggest that effort is insufficient, introducing additional heterogeneity in the intergenerational transmission process. This could be associated with personality traits of parents and children, in particular with levels of self-control (or with perceptions of their mastery over their own fate). These arguments support hypothesis H.II.

H.II) Parents' experienced mobility, their personality traits, and their beliefs about fairness affect the intensity of the transmission of redistributive preferences from parents to children.

Finally, other models explain the transmission of preferences from parents to children as an investment decision, in which parents are optimizing the utility of two generations ([Becker and Tomes, 1986](#)). [Bisin and Verdier \(2011, 2000a\)](#) incorporate the imperfect empathy assumption, which implies that parents perceive the welfare of their offspring through the filter of their own preferences. They decide how much to invest in socializing their children to their own

¹ Note that the results of this model are also consistent with the assumption of imperfect empathy used by [Bisin and Verdier \(2000b\)](#), where altruism towards children is biased towards parents' own beliefs

preferences, and this socialization imposes a cost for the parents. The latter models assign relevance to investment costs (generally associated with the allocation of time, the abilities of the child, and competitive socialization modulators) and expected benefits. Because these aspects are not explicitly considered in the models of [Benabou and Tirole \(2006\)](#) and [Piketty \(1995\)](#), they generate an additional source of heterogeneity in intergenerational transmission and offer a framework to support the third hypothesis.

H.III) Some characteristics of the children (real or perceived by their parents) change the intensity of the transmission of preferences because they affect parental expected returns on their human capital investments in their children. Particularly, the intensity of the transmission of preferences is higher when the number of children is lower and when the children have greater abilities.

This last hypothesis establishes that the characteristics of children and the return on the time allocated by parents to socialize their children are critical determinants of the parents' decision to transmit their preferences. The fact that some characteristics of children are unobservable (the strength of their abilities) and that parents have imperfect information about the returns on their investments once again places relevance on the parents' perceptions of their children's abilities.

3 Data and Methodology

3.1 The ELBU

The data source used is the ELBU. This is a longitudinal survey whose sample frame is households that in 2004 had children attending the first year of public school in the departmental capitals of Uruguay. This accounts for 85% of the cohort. As a result, households with children that at that time were located on the high tail of the income distribution are underrepresented since there is no information on those who attended private schools in that year. However, in the 2015/16 wave, some homes had moved up to the top decile of the income distribution.

After the first wave of the survey, carried out in 2004, two more waves were completed throughout the country in 2011/12 and 2015/16. These last waves are the ones that contain relevant information for this article. In particular, in the last wave, information on the same adult as in

the previous waves—in general, the mother of the child—and on the children themselves, who were between 18 and 20 years old by that time, is presented. Therefore, the data have low variability in the age of the children and the sex of the parents. Table 1 shows the number of cases of parents in each wave and children in the last wave. The last column refers to instances in which information is available in 2015/16 for parents and children.

[INSERT TABLE 1]

To verify that household characteristics do not bias the information collected in the last wave, we estimate the probability of finding 2015/16 the children and/or parents, given that the latter was interviewed in the first wave. As shown in Table A1 in the Appendix, when the estimates identify the probability of finding simultaneously in the family, both the children and the adult, none of the variables studied are significant.

Table 2 presents the descriptive statistics for both parents and children. All children belong to the same educational cohort, predominantly aged 17-18 years, resulting in a significant concentration within this age group. In contrast, the average age of the parents is 46 years. As expected, a low proportion of these children are married (3.8%), and they have attained more years of education compared to their parents (9.8 vs. 9.1). It is important to note that the children are still at an age where they can continue to accumulate human capital. Additionally, their unemployment rate is twice that of their parents (30% vs. 15%). The majority of the responding parents are women, whereas the distribution among children is more balanced.

[INSERT TABLE 2]

3.2 Preferences for redistribution

Previous papers in the field used a variety of measures of redistributive preferences. Some of them focus on absolute redistribution, others on relative redistribution, and others on social expenditure (Choi, 2019). The most common operationalization of redistributive preferences considers the degree to which respondents agree that firm actions are needed to reduce the gap between the rich and the poor. A drawback of this question is that responses may be affected by respondents' evaluations of their own relative position in the distribution and that this type

of question does not mention the potential cost of redistribution (Choi, 2019; Holland, 2018; Cruces et al., 2013).

In our paper, preferences for redistribution are measured based on perceptions of the level of taxes paid in Uruguay. From the seminal work of Meltzer and Richard (1983), in which the highest preferences for redistribution were associated with higher optimal taxes, different papers have used, with different formulations, perceptions of the appropriate tax rates as a proxy for this type of preference (e.g., Alesina et al., 2018; Durante et al., 2014; Corneo and Fong, 2008; Fong, 2001). We use the following question: *Do you think that in Uruguay: (i) people pay low taxes, (ii) what people pay in taxes is appropriate, or (iii) people pay high taxes.* Due to the small number of responses in (i), we use a dichotomous variable, grouping the responses (i) and (ii), which correspond with a high preference for redistribution.

One potential limitation of this question is that it does not explicitly consider the degree of the progressivity of the tax. However, this question has some advantages compared with other alternatives. First, it is easier to understand for respondents than other questions, and it is directly related to the concept used in the theoretical models (e.g., Piketty, 1995 uses the income tax rate). Secondly, it focuses on tax preferences, one of the main redistributive instruments used for public policy and to finance the welfare state (a fact known to respondents). Furthermore, because it focuses on taxes, it implicitly considers the cost of redistribution.²

While our measure of preferences for redistribution presents some specific concerns, it is also true that it shows a high correlation with other standard questions that have been used in the literature. Firstly, it has a positive association with preferences for higher taxes levied on the richest but not on the middle class, implying an implicit notion of progressivity. Additionally, it is correlated with support for cash transfers for the poorest households (but not for food).

Unfortunately, these alternative questions are only available in the last wave of the ELBU

² A methodological concern is that the participants' responses might be motivated by a desire to obtain 'moral satisfaction' or to reinforce specific characteristics of their identity as 'self-image motive' (Gaertner and Schokkaert, 2012; Akerlof and Kranton, 2000; Kahneman and Knetsch, 1992; Beshears et al., 2008). Since the question about tax support is formulated in abstract terms, it is possible to argue that it does not directly relate to the taxes paid by the respondents. Therefore, these effects might be mitigated. However, it is expected that the respondents consider how they are affected by the current level of taxation. Still, the same effect might also be present in a question about reducing the gap between rich and poor

survey. Therefore, we focus on our measure of preferences for redistribution, as this strategy allows us to include lagged information on parents' preferences. However, we also estimate the intergenerational transmission of these alternative measures of preferences for redistribution. In this case, we use the parent and children's responses in the last wave. These specifications confirm our main results.³

The question used in this paper is present in the 2011/12 and 2015/16 waves for parents (PR_p) and 2015/16 for children (PR_{ch}), so it is possible to observe the dynamics of the preferences. Table 3 shows the parents' transitions between the two waves (Panel a) and between parents and children in the 2015/16 wave (Panel b). Three results are interesting. On the one hand, there is a decrease in parental redistributive preferences (high preferences are reduced from 22.7% to 12.8%). 76% of the parents interviewed in the ELBU maintained their high or low preferences. While we did not investigate the reasons for these changes, prior research suggests that such changes are generally attributable to income mobility (Piketty, 1995; Benabou and Ok, 2001; Alesina and La Ferrara, 2005; Alesina and Giuliano, 2011) and unexpected shocks (economic crises, unemployment, and family breakdown (Fisman et al., 2015; Martén, 2019; Alesina and Giuliano, 2011)). On the other hand, there are considerable differences between parents and children. In 2015/16, 24.2% of children had high preferences for redistribution compared to 12.8% of parents. Finally, the persistence of preferences between generations is relatively high and is even more pronounced than intragenerational persistence, mainly when parents present high preferences. This suggests the relevance of studying intergenerational transmission modulators and indicates that, when there are deviations, it is important to contrast empirically which modulators amplify or reduce said transmission.

The described evolution of the parent's preferences for redistribution during the period opens the question about the potential role of the Uruguay tax system. Tax reform was introduced in Uruguay in 2007, creating a personal income tax system. Furthermore, indirect taxes like VAT

³ In the specification, we consider two alternative measures of preference for redistribution: preferences for higher taxes levied on the richest and cash transfers for the poorest households. However, the article does not include these tables and estimates due to space constraints. Nevertheless, they are available if the authors are requested to provide them.

and other specific taxes on consumption were slightly reduced. In 2012, a personal income tax reform changed the progressive tax schedule of the top labor incomes (Bergolo et al., 2021). The tax burden is still heavily based on indirect taxes, and only one-third of formal workers paid personal income taxes during this period. Although tax collection increased, the overall tax burden in terms of GDP is still much lower than the OECD average and slightly larger than the Latin American average. As a result, the general increase in preferences for lower taxes does not seem to be directly related to the institutional changes or modifications in the Uruguayan Tax system.⁴

[INSERT TABLE 3]

3.3 Empirical strategy

3.3.1 Intergenerational persistence and parental learning processes

Firstly, we consider a flexible model to explain children's preferences, which incorporates the lagged and contemporary values of parental preferences through the parameter β_1 and β_2 , respectively:

$$PR_{ch,t}^H = \alpha + \beta_1 \cdot PR_{p,t-1}^H + \beta_2 \cdot PR_{p,t}^H + \eta_p \cdot X_{p,t} + \eta_{ch} \cdot X_{ch,t} + \epsilon_{ch,t} \quad (1)$$

where the subindex *ch* refers to the child and the subindex *p* to the parent, *H* indicates that the dummy variable for the preference for redistribution takes value 1 when it is high, while *x* represents a set of controls and η is a vector of parameters that measure their incidence. Finally, *t* and *t* - 1 refer to the time when the information is collected, respectively, in 2015/16 and 2011/12

The significance of $\beta_1 + \beta_2$ allows us to test hypothesis Ia regarding intergenerational persistence, while the analysis of β_2 allows us to consider hypothesis Ib and explore the role of parental learning in intergenerational transmission.⁵ Note that the parameter β_2 allows us to

⁴ Additionally, Uruguay's social transfer system offers a range of benefits targeted at different population groups based on demographics, economic activity status, and income levels. These benefits include family allowances, unemployment insurance, and contributory and non-contributory pensions. These various components enable the Uruguayan social security system to achieve high coverage compared to other countries in the region (Rofman et al., 2016; Muinelo-Gallo and Miranda, 2020).

⁵ We assume that the change in parental preferences represents an updating of their preferences for redistribution. Given the theoretical models presented previously, we interpret that change as parental learning. Observe that $PR_{p,t}^H$ could be rewritten as $PR_{p,t-1}^H + \Delta$, where Δ reflects the change in parental preferences ($PR_{p,t}^H - PR_{p,t-1}^H$). If we introduce this term in the equation 1, we arrive at the fact that $\beta_1 + \beta_2$ reflects the persistence or the long-term effect, while β_2 represents the short-term effect of parental preferences.

identify the effects of a change in parental preferences, regardless of its direction (a downward or upward change in preferences).

To advance our understanding of hypothesis Ib, we adapt equation 1 to take into account the direction of the movement of parental preferences. We distinguish between parents who experienced upward movement in preferences (Δ^U) and those with a downward movement in preferences (Δ^D) in the analyzed period, conditioned on their starting point (high preferences for redistribution, $PR_{p,t-1}^H$, or low preferences for redistribution, $PR_{p,t-1}^L$). Two specifications are made; the first considers parents whose starting point is a high preference for redistribution:

$$PR_{ch,t}^H = \alpha^* + \beta_1^* \cdot PR_{p,t-1}^H + \beta_2^* \cdot \Delta^D \cdot PR_{p,t}^H + \eta_p^* \cdot X_{p,t} + \eta_{ch}^* \cdot X_{ch,t} + \epsilon_{ch,t}^* \quad (2)$$

where

$$\Delta^D = \begin{cases} 1 & \text{if } PR_{p,t}^L = 1 \text{ and } PR_{p,t-1}^H = 1 \\ 0 & \text{if otherwise} \end{cases}$$

The second specification considers parents whose starting point is a low preference for redistribution:

$$PR_{ch,t}^H = \alpha' + \beta_1' \cdot PR_{p,t-1}^L + \beta_2' \cdot \Delta^U \cdot PR_{p,t}^L + \eta_p' \cdot X_{p,t} + \eta_{ch}' \cdot X_{ch,t} + \epsilon_{ch,t}' \quad (3)$$

where

$$\Delta^U = \begin{cases} 1 & \text{if } PR_{p,t}^H = 1 \text{ and } PR_{p,t-1}^L = 1 \\ 0 & \text{if otherwise} \end{cases}$$

Taking Piketty's model as a reference, the parameter β_2^* (or β_2') represents the incidence of parental learning: the parents learned "something" during the period, altered their preferences, and transmitted them to their children.⁶ If $\beta_1^* = 1$ and $\beta_2^* = 0$ (or $\beta_1' = 1$ and $\beta_2' = 0$), we would be in a world where the learning process has been exhausted, the persistence between generations is complete, and there is no more room to update beliefs

We carried out an F-test to identify whether the direction of parental learning affects the

⁶ Note that equations 2 and 3 are analogous only if $\Delta^D = 0$ and $\Delta^U = 0$ in all cases. Furthermore, these equations are not a linear combination of them, since the $\sum_p (\Delta^D \cdot PR_{p,t-1}^H + \Delta^U \cdot PR_{p,t-1}^L) \neq N_p$, with N_p being the total number of parents. As was described in Table 2, there are groups of parents who do not change their preferences for redistribution in the period

persistence coefficient, which is assessed by testing the null hypotheses $\hat{\beta}_1^* + \hat{\beta}_2^* = 0$ (or $\hat{\beta}_1' + \hat{\beta}_2' = 0$). The sum of both coefficients reflects the extent of intergenerational transmission in cases where there was parental learning, while the persistence coefficient $\hat{\beta}_1^*$ (or $\hat{\beta}_1'$) is associated with parental transmission where preferences for redistribution were stable.

3.3.2 Heterogeneity in the intergenerational transmission of redistributive preferences

An additional specification is introduced to incorporate another source of heterogeneity, inspired by the conceptual framework proposed in the previous section. This specification explains the modulators that affect the transmission of redistributive preferences from parents to children. These modulators are identified by d and are expected to enhance or mitigate the intensity of intergenerational transmission. The following specification allows us to contrast hypotheses II and III.

$$PR_{ch,t}^H = \alpha'' + \gamma_1 \cdot PR_{p,t-1}^H + \gamma_2 \cdot d_{m,s} \cdot PR_{p,t-1}^H + \gamma_3 \cdot d_{m,s} + \eta_p'' \cdot X_{p,t} + \eta_{ch}'' \cdot X_{ch,t} + \epsilon_{ch,t}'' \quad (4)$$

where s is the moment when the modulator is considered (in almost all cases $t - 1$), while m refers to whether the modulator is an attribute of the parents (hypothesis II) or the child (hypothesis III). The parameter γ_2 allows us to test the existence of different modulators that enhance or mitigate transmission associated with the characteristics of parents or children.

Again, we performed an F-test, in this case, to identify whether the effects of the modulators generate significant heterogeneities. For this, we consider whether the modulator is a dummy or continuous variable. Thus, we perform the test $\hat{\gamma}_1 + \hat{\gamma}_2 \times \text{Modulator} = 0$, where Modulator takes a value of one if the modulator is a dummy variable and the sample's mean if it is a continuous variable.

This proposed strategy will allow us to explore the origin of heterogeneity in the intensity of intergenerational transmission based on different potential modulators. Table A2 of the Appendix details the questions used to measure each modulator and presents some descriptive statistics. The first group of variables is linked to the characteristics of the parents and allows us to test hypothesis II. On the one hand, we consider parents' mobility, which is one of the main

modulators used in the literature to explain the transmission of preferences for redistribution. Following the discussion of [Cojocaru \(2014\)](#) and [Choi \(2019\)](#), we alternatively use perceptions of mobility and objective measures of mobility. On the other hand, variations in parents' perceptions of their level of empowerment are identified. When parents have been successful or perceive they have been (high mobility or increased empowerment), they will transmit to their children a low preference for redistributive policies. Finally, the revised models suggest that parental perceptions about fairness are key modulators in explaining the intergenerational transmission of preferences. To address this issue, we consider a notion of fairness based on the equal opportunity approach (Fairness). In terms of Piketty's model, when parents believe that effort "pays," they will transmit to their offspring weaker preferences for redistribution.

A second group of variables related to the parents' characteristics concerns their personality traits, which have received much less attention in the literature. These traits can be approximated by the Big Five Inventory (BFI). In this paper, we consider only two dimensions for the parents based on previous literature about political preferences: Openness to Experience (Open.), associated with liberalism, and Conscientiousness (Conscient.), associated with more conservative attitudes ([Gerber et al., 2011](#)). Parents with greater Openness to Experience may give more freedom to their children, resulting in lower transmission among parents with this trait. Conscient. can be associated with a higher valuation of either effort (high Conscient.) or circumstance (low Conscient.). Thus, this dimension reflects parental beliefs about what constitutes a "just world," which may affect the intensity of intergenerational transmission of redistributive preferences ([Benabou and Tirole, 2006](#)). Heterogeneity in intergenerational transmission also may be associated with levels of self-control. We expect that parents with an internal locus perceive that they have a higher capacity to influence their children when transmitting their beliefs, which would result in a higher transmission intensity.

Finally, another personality trait that can be related to the transmission of preferences for redistributive policies is the risk aversion of individuals. On the one hand, risk aversion may directly affect the intensity of transmission due to the decisions of parents, who may prefer

to reduce the incidence of horizontal/oblique socialization. On the other hand, [Dohmen et al. \(2012\)](#) show that risk aversion is transmitted from parents to children, which would indirectly result in the higher transmission of redistributive preferences. People with a higher degree of risk aversion view taxes and income transfers as insurance against adverse events ([Harsanyi, 1953](#); [Benabou and Ok, 2001](#); [Alesina and Giuliano, 2011](#)).

The third group of variables refers to the characteristics of children and allows us to test hypothesis III. First, strongly exogenous traits are considered: sex, the presence of siblings, and the order of birth. Regarding children's sex, the relevance of intergenerational transmission modulators of social norms and gender identity is documented in the literature, both in terms of preferences regarding gender roles and the link between women and the labor market ([Johnston et al., 2013](#); [Bütikofer, 2013](#); [Farré and Vella, 2013](#); [Morrill and Morrill, 2013](#); [Fernández and Fogli, 2009](#); [Fernández et al., 2004](#)). The number of children parents have could also affect the intensity of transmission. [Becker et al. \(1974\)](#) predicts a trade-off between the quality and the number of children, while [Bisin and Verdier \(2011\)](#) suggests that the number of children increases the cost of socialization, and then the transmission may be weak when the number of children is higher. Finally, the child's abilities are expected to play a role in intergenerational transmission, either because of parents' time investment decisions or their children's receptive capacity (we expect a higher transmission when the child's abilities are more elevated). We approximate low non-cognitive abilities with two measures: i) Neuroticism (Neurot.), a dimension of the BFI, and ii) internalized and externalized problems as identified by the Strengths and Difficulties Questionnaire (SDQ). Another psychometric instrument captures children's cognitive abilities, the Similarities subtest of the Wechsler Adult Intelligence Scale-IV (WAIS). So far, we consider children's abilities through objective variables. However, these abilities are not perfectly observable by their parents, and parental decisions are based on their perceptions. To take this into account, some parental beliefs about their children's abilities are included. Three variables are considered that identify whether parents i) believe that their children should work harder to achieve, in adulthood, a set of goals they deem desirable; ii) aspire for their children to finish

university, and iii) consider their children to be students who are below the average of their classmates.

3.3.3 Estimation procedure

All estimates used in this paper are based on Ordinary Least Squares regression models with robust standard errors. The estimated model does not have a causal interpretation so it may face endogeneity problems, either due to issues of measurement error in parents' preferences and/or the omission of relevant variables. Considering the theoretical models cited, we expect parents' preferences to influence the formation of their children's preferences, and reverse causality is not likely to be a problem.⁷ To mitigate potential effects caused by problems of reverse causality and contemporaneous measurement errors, the longitudinal nature of the ELBU is exploited, which makes it possible to reconstruct the parent-child bond and evaluate how preferences are affected by the redistribution preferences of the latter in 2015/16, compared to what was expressed by their parents in 2011/12.

Additionally, in the case of parents, this information is available for two points in time (2011/12 and 2015/16), which allows us to explore whether changes in parental preferences have a specific effect on transmission. When identifying the modulators that can enhance or mitigate the transmission of these beliefs, lagged data for parents is also used, which gives more support for a potential causal interpretation. The information on the modulators related to children's characteristics is only available for 2015/16. In this case, we have to be even more cautious about the implications of this relationship. However, most of the children's characteristics considered are fixed (sex, the order of birth) or expected to be relatively stable (personality traits) (Cobb-Clark and Schurer, 2012; Cobb-Clark et al., 2014; Cobb-Clark, 2015).

4 Transmission of redistributive preferences from parents to children

⁷ Some papers suggest that gender explains changes in parents' attitudes and find, for example, that having a daughter (assumed to be exogenous) leads to US members of Congress being more open to liberal policies (Washington, 2008; Iacus et al., 2011), and parents voting for more left-wing parties (Oswald and Powdthavee, 2010) and adopting more liberal attitudes about gender roles (Borrell-Porta et al., 2018). There is some controversy on this point, as some papers have found effects in the opposite direction (Conley and Rauscher, 2013) or that have found that the sex of the child does not affect the ideological identification of the parents (Lee and Conley, 2016). To address this concern, we employ alternative specifications that include either simultaneously or alternatively the current preferences of the parents and the preferences of the parents lagged by four or five years.

This section presents evidence on the dynamics of the intergenerational transmission of redistributive preferences and focuses on the persistence of preferences and the role of parental learning. Table 4 presents the results of five specifications based on equations 1 to 3. In all cases, the dependent variable is the children's preferences for redistribution and included as controls are their characteristics, those of their household, those of their parents, and the redistributive preferences of their parents.

In the first and second specifications, we use a reduced version of equation 1, assuming respectively, $\beta_1 = 0$ and $\beta_2 = 0$. Thus, estimates of the persistence coefficients based on contemporaneous or lagged PR_p^H are presented in Col. 1 and Col. 2, respectively. Intergenerational transmission seems to be a very relevant factor in explaining the PR_{ch}^H with a highly significant relationship with recent dynamics. Persistence is found to have a considerable effect on children's preferences, both when the contemporary preferences of their parents are considered (0.317) and when a lag of parental preferences is included (0.113). Both coefficients are statically significant at the 1% level. Furthermore, the magnitude of the coefficient on intergenerational persistence is relatively high when compared with other papers that study the stability over time of preferences for the same respondents (Chuang and Schechter, 2015).

The third specification (Col. 3) is based on equation 1, but we do not impose a priori constraints on β_1 and β_2 . This allows us to consider the long-term relationship and to assess whether the intensity of transmission to their children varies when parents have more or less stable preferences. Both coefficients are positive and statistically significant. Our results suggest that among parents who have more stable preferences over time (potentially reflecting more consolidated preferences), the sum of persistence coefficients reaches the value of 0.390. This magnitude is comparable with the estimates of Dohmen et al. (2012) about the intergenerational transmission of risk attitudes and trust. When parents have more unstable preferences and there is parental learning, the coefficient of persistence is 0.305 among those parents that increased their preferences (if $PR_{p,t-1}^H = 0$ and $PR_{p,t}^H = 1$), and it is only 0.085 among those who

decreased them (if $PR_{p,t-1}^H = 1$ and $PR_{p,t}^H = 0$). These results suggest that parental learning is relevant in explaining the intensity of intergenerational transmission.⁸

The last two specifications include the lagged preferences of parents and their interaction with the conditioned change in parental preferences (equations 2 and 3). On the one hand, we include a dummy variable that identifies whether parents had high preferences for redistribution in 2011/12 ($PR_{p,t-1}^H$, Col. 4). On the other hand, we changed the covariates and included a dummy variable that identifies parents with low preferences ($PR_{p,t-1}^L$, Col. 5). As a result, this allows us to discuss the role of the direction of parental learning on the intensity of transmission, given their initial preferences. A significant correlation in the expected direction is confirmed between PR_{ch}^H and the level of lagged parents' preference ($PR_{p,t-1}^H$ or $PR_{p,t-1}^L$).

Furthermore, conditional on initial parental preferences, changes in parental preferences lead to an adjustment in their children's preferences. Specifically, when parents reduce their initial preferences, the persistence coefficient falls by 78%, from 0.303 to 0.066 (0.303 - 0.237). Even for this group of parents, parental learning compensates for the incidence of the persistence coefficient since the joint F-test does not reject the null hypothesis. In the case of the last estimate, in which the parents' preferences increase, the transmission intensity also increases. In this case, the intensity is higher, going from -0.150 to 0.186 (-0.150 + 0.336). Additionally, the null hypothesis of the joint F-test is rejected. Therefore, the persistence coefficient is positive and statistically significant when parental learning leads them to increase their preferences.⁹

In sum, these results contribute favorable evidence in support of hypotheses Ia and Ib. We confirm significant persistence between generations. The parent's current preferences matter more than the initial preferences to explain the child's preferences. However, the parent's initial preferences also matter, and it represents 22% of the total intergenerational persistence

⁸ Our coefficient of intergenerational transmission of preferences for redistribution may be reflecting a minimal threshold. We are considering children at a stage in their lifecycle where the search for an independent identity could lead to divergent opinions from their parents, which we anticipate will diminish over time.

⁹ Our estimation sample includes only mothers as we have a very reduced number of fathers in the sample. However, we estimate the baseline specifications of Table 3 using only the sample of fathers, and we confirm the intergenerational transmission of preferences for redistribution. Results are available upon request to the authors.

(0.085/0.39). Furthermore, parental learning, which is captured through the changes in PR_p^H , modifies the intensity of intergenerational transmission. Finally, our result suggests that parental learning direction could be relevant in explaining the intensity of intergenerational transmission.

[INSERT TABLE 4]

It should be noted that few control variables are statistically significant: only children's gender (male children are positively associated with greater preferences for redistribution) and household income, although the latter is weakly significant. When we estimate the same model for children but without considering the incidence of parental preferences, the explanatory capacity of the model is low, and few variables are statistically significant (see Col. 1 Table A.3 in the Appendix). Our results indicate that most of the variables usually considered in the literature cannot be concluded to be relevant at this stage in the life cycle. This is to be expected to the extent that young people are just entering the labor market and receiving their first pay checks (with expectations that their incomes will improve in the future). Surely they do not have much experience in how state transfers and taxes will affect them. This does not imply that these variables will not be relevant at later stages in the life cycle when individuals begin to display the rationality implicit in economic models.

We assess the robustness of our results by including additional variables that approximate preferences for redistribution, though their data is only available from the latest wave (see to cols. (1) to (3) in Table A4 in the Appendix). The results align with those presented in Table 4 and confirm the intergenerational persistence of preferences for redistribution. Additionally, in the same table, we demonstrate how these new variables, when answered by parents, correlate with our measure of preferences for redistribution as reported by children (see to cols. (4) to (7)). We find that our measure ($PR_{ch,t}^H$) is influenced solely by the variable 'Increase taxes Middle class'. This result suggests that our measure of preferences for redistribution is primarily aligned with the decision to increase or not increase taxes on the middle class.

The social environment is a pivotal determinant of preferences for redistribution (Chen and Li,

2009; Costa-Font and Cowell, 2015; Klor and Shayo, 2010; Luttmer, 2001). In this regard, the neighborhood of residence plays a critical role in shaping these preferences, influencing both parents and children alike, which can be a problem for our estimates. Our analysis utilizes a sample of children who began their first year in public schools in 2004, enabling us to identify the classmates of these individuals and their reported preferences for redistribution. In Uruguay, children typically attend public schools located within their residential areas. By including school-fixed effects in our analysis, we are able to control for neighborhood influences. Estimates with this fixed effect are presented in Table A5 of the Appendix as a robustness check of our results. The findings remain consistent, with significance persisting and relevant coefficients showing only a modest decrease, ranging between 3 and 7%.

Our results support the interest in exploring the mechanisms by which preferences for redistribution are formed during adolescence and early adulthood, which for some authors, plays a crucial role in the formation of preferences for the rest of people's lives (Inglehart and Baker, 2000). This starting point may determine the trend around which young people's preferences will fluctuate throughout their life cycle, depending on their trajectories. Furthermore, exploring whether the transmission of these preferences presents heterogeneities is relevant, leading us to inquire whether parents' and children's specific characteristics affect persistence between generations. These questions inspire hypotheses II and III; their results are presented in the next section.

5 Modulators of intergenerational transmission of redistributive preferences

This section explores the modulators that may explain why the transmission of preferences from parents to children is heterogeneous. Estimates are based on equation 4, which contains parents' preferences in 11/12 as the regressor variable; this variable interacts with each modulator presented in section 3.3.2. We consider three groups of modulators: first, the mobility and fairness beliefs of the parents; second, the personality traits of the parents; and finally, a set of characteristics of the children.

5.1 Mobility and parents' beliefs

Mobility could affect the transmission of redistributive preferences from parents to children through two mechanisms, the first related to the learning and updating of beliefs, as suggested by the models of [Piketty \(1995\)](#) and [Benabou and Tirole \(2006\)](#). Upwardly mobile trajectories could lead to a strengthening of the belief that effort "pays" and that, therefore, redistributive policies might not be justified. The second mechanism, based on [Benabou and Ok \(2001\)](#) and [Meltzer and Richard \(1983\)](#), describes how people perceive redistributive policies will benefit them (self-interest motivation). An upwardly mobile trajectory could place households above the average voter's income or might increase children's future income expectations. Both mechanisms would affect the intensity of intergenerational transmission, and the results obtained in the previous section support the potential of this modulator.

Mobility measurements of the parents' households are incorporated based on their generation (intragenerational) and the grandparents' generation (intergenerational). The results are presented in panel I. of [Table 5](#) using the parent's perceptions of mobility (or subjective mobility) (Cols. 1 and 2) and the real mobility (or objective measures) (Cols. 3 and 4). The first relevant result is that in all cases (except intergenerational objective mobility), we find that the lagged variable $PR_{p,t-1}^H$ of the parents is positively related to the children's preferences for redistribution, which in this framework should be interpreted as the persistence of preferences among those who did not either experience or perceive mobility. The magnitude of the persistence coefficient is comparable with our previous estimates.

A second result confirms the relevance of mobility in explaining heterogeneity in the intensity of intergenerational transmission. In this case, we consider the coefficient of the interaction between parents' preferences and the modulator. Greater intragenerational mobility of parents (perceived -Col. 2- or real -Col. 4-) and subjective improvement of the household's situation during the children's adolescence (Col. 1) are associated with a weaker transmission of preferences ($\hat{\gamma}_2 < 0$). However, only the coefficient related to subjective intergenerational mobility is statistically significant. We find that the greater the parents' upward mobility, the lower the

transmission intensity. An increase of one step in perceived intergenerational mobility implies a fall of 4 percentage points in the intergenerational intensity of transmission of preferences. It represents 30% of their initial persistence coefficient. For the other two interaction terms, the relationship is weaker. However, note that the marginal effect is not constant and for those parents with very high intragenerational mobility (more than two or three positions in the subjective and objective variable, respectively), the learning process reduces the persistence coefficient significantly (that is, the hypothesis $\gamma_1 + \gamma_2 \times \text{Mobility} = 0$ is not rejected).

This result would be consistent with theoretical models that suggest mobility leads to updating parents' beliefs and generates intergenerational learning. Upward mobility leads to an adjustment in parents' previous beliefs insofar as they now perceive that effort "pays." Thus they tend to revise their initial preferences and reduce the intensity of the transmission of preferences. However, it is pertinent to mention that this transmission may not be related directly to the parents' beliefs; children from these families may instead respond to their perception that their parents were successful. In this case, children prefer less redistribution because they are in a better economic situation than their parents and they expect that redistributive policies will not improve their well-being.

When upward intergenerational mobility is assessed in educational terms (objective indicator - Column 3), some differences emerge. Firstly, the persistence coefficient is not statistically significant. Additionally, the sign of the interaction coefficient turns positive, suggesting that parents who have experienced upward educational mobility are more likely to transmit their preferences strongly. However, the interaction term itself is not significant according to the individual test of significance. Nevertheless, the joint test indicates that the aggregate effect of the two coefficients, $\gamma_1 + \gamma_2$, is statistically significant at the 5% level. This finding suggests that for parents with upward educational mobility, the persistence coefficient is 0.133, aligning with the average levels observed in other specifications. It is important to note that the estimate from this specification is based on a smaller sample size, which may limit comparability. These findings imply that intergenerational educational mobility and income mobility represent distinct

dimensions of family trajectories, influencing the formation of beliefs in different ways. Further analysis is required to understand these dynamics fully.

To further explore the role of learning and mobility in the transmission of redistributive preferences, in panel II. of Table 5, some parents' beliefs associated with perceptions of fairness or improvements (deterioration) in levels of empowerment are incorporated into the regression. The persistence coefficients remain statistically significant and have comparable magnitudes in all cases. The interaction coefficient is still negative but is statistically significant only in the case of Power 1. However, the joint F test results suggest that the interaction term significantly reduces the persistence coefficient when Power 1 (or Power 2) is higher than 2 (the F test does not reject the hypothesis: $\gamma_1 + \gamma_2 \times \text{Power} = 0$). Consistent with the mobility results, when parents perceive that their power has increased, they revise their a priori beliefs and reduce the intensity of transmission of preferences for redistribution. In the case of the fairness variable, the joint significance test does not reject the null hypothesis, which shows no heterogeneous effects are associated with this modulator.¹⁰

[INSERT TABLE 5]

5.2 Personality traits of the parents

As discussed in previous sections, the [Benabou and Tirole \(2006\)](#) model incorporates aspects of parents' personalities to explain variations in the degree of intergenerational transmission of preferences. To address this issue, the estimates included in Table 5 consider the following parental variables as modulators: risk aversion, a variable that identifies LoC and distinguishes those who have an internal locus from those who have an external locus, and the two BFI dimensions that were mentioned in section 3.3.2 (Conscientiousness and Openness to experience).

First, the most risk-averse parents are the ones who transmit their preferences most strongly to

¹⁰ The literature indicates that exposure to traumatic or unexpected events influences preferences for redistribution ([Fisman et al., 2015](#); [Martén, 2019](#); [Alesina and Giuliano, 2011](#)). Events such as family breakdown or unemployment may alter beliefs, particularly if the income generation process is perceived as luck-based, or due to an income loss effect. We tested whether parents' unemployment affects the intergenerational transmission of preferences and found no significant effects. However, our tests on family breakdown indicate a slight increase in the transmission from parents to children following parental separation. Due to space constraints, these results are not presented in detail but are available upon request from the authors

their children. The joint test rejects the hypothesis $\gamma_1 + \gamma_2 = 0$ (see Col. 1 in Table 6). For these parents, the persistence coefficient is 0.188 (0.048+0.140). This result suggests that there are differences in the intergenerational transmission of preferences for redistribution when parents exhibit variations in their risk aversion. The interpretation is that when parents are more risk-averse, they may directly transmit to their children their preferences due to imperfect empathy and to avoid the potential risk of horizontal/oblique socialization. Alternatively, previous evidence supports the idea that risk aversion is a characteristic transmitted intergenerationally, which suggests an indirect modulator (Dohmen et al., 2012). Benabou and Ok (2001) suggests a positive relationship between individuals' preferences for redistribution and risk aversion. This opens the alternative hypothesis that parents transmit risk aversion to their children, and the correlation between parents and children's preferences for redistribution is an indirect effect. Based on equation 4, we cannot distinguish which of these two mechanisms underlies the results. While addressing this aspect is beyond the scope of this document, we introduce an auxiliary specification to explore the empirical relevance of these two mechanisms. The children's preferences are modelled by an additive component that reflects the direct contribution of parental preferences and the indirect contribution of risk aversion transmission. The specification incorporates a dummy variable, which equals one when parents and children are simultaneously highly risk-averse, and an interaction term of that variable with parental preferences. Under this specification, if the intergenerational transmission of risk aversion is the mechanism that explains the correlation between parents and children's preferences for redistribution, the magnitude of the persistence coefficient should be reduced, and there would be a positive and significant correlation between children's preferences for redistribution and the interaction term. Table A6 of the Appendix presents the results, which suggest that the direct transmission of preferences dominates. The coefficient of lagged parental preferences is the only statistically significant coefficient, and its magnitude is relevant (0.103; see Col. 1). Additionally, we estimate the coefficient of persistence for two sub-samples. On the one hand, we consider those parent and child pairs with the same degree of risk aversion (Col. 2); on the

other hand, we consider the sub-sample in which the risk aversion differs between parent and child (Col. 3). The persistence coefficient is only significant in the second case (and at 1%), which suggests that the transmission of redistributive preferences is higher when the correlation between parental and child risk aversion is low. Again, this result is consistent with the direct transmission of preferences for redistribution.

Second, we consider another personality trait of the parents, their Locus of control. The results suggest that only parents with an internal Locus transmit their preferences for redistribution to their children. While the individual significance test results indicate that coefficients γ_1 and γ_2 are not statistically significant, the joint test rejects the null hypothesis $\gamma_1 + \gamma_2 = 0$ (see Col. 2 in Table 5). In this case, $\gamma_1 + \gamma_2 = 0.131$ suggests that when parents believe that the outcomes they achieve are a consequence of their actions, they have a proactive attitude in transmitting their own beliefs to their children. Furthermore, the coefficient of the internal Locus coefficient is significant and positive, suggesting that these parents also have higher preferences for redistribution.

Finally, previous literature has studied the link between the BFI and political preferences. Our results suggest that the persistence coefficient is only statistically significant, with a relevant magnitude when the $PR_{p,t-1}^H$ interacts with the Conscient. dimension. The joint significance test rejects the hypothesis $\gamma_1 + \gamma_2 \times \text{Modulator} = 0$ in the case of Conscient. (see Col. 3 in Table 5). Furthermore, the coefficient $\gamma_2 < 0$ is significant, suggesting that parents with high preferences for redistribution in 2011/12 and greater conscientiousness are associated with lower transmission intensity.

In addition, our a priori hypothesis was that parents whose traits are associated with a higher score in Open. would give their children more freedom. Therefore, intergenerational persistence of references would be lower. In this case, neither the $PR_{p,t-1}^H$ nor the interaction of this variable with Open. is significant. However, the F test of the aggregate effect is significant for the mean value of this dimension. This implies that there is persistence and that the intensity of

transmission is increasing with the score of this variable. When verifying the significance of the F test for the different values of the Open. score, we find that the persistence coefficient becomes significant and positive when the score is higher than 27. This result is contrary to our a priori hypothesis and suggests that a more in-depth analysis is needed. However, one possible explanation is that, in contrast to parents with a high Conscient. score, parents with relatively high Open. score may be more liberal due to their positive response to unconventional and complex stimuli (Gerber et al., 2010, 2011), conveying a stronger intensity of intergenerational transmission.

[INSERT TABLE 6]

5.3 Characteristics of children and parents' beliefs about their children

In this subsection, we present a group of estimates which allow us to explore whether some characteristics of children alter the intensity of the intergenerational persistence of distributive preferences. This could be explained by parents having different behaviors regarding how and how much to invest in forming their children's preferences or because children's characteristics affect their receptivity. We consider three groups of variables. The first refers to exogenous characteristics of children, such as their sex, siblings' presence, and birth order. The second group includes some instruments that measure children's abilities (cognitive and non-cognitive), while the third group corresponds to parents' opinions or expectations regarding their children. First, we explore the children's sex, the presence of siblings, and birth order (see panel I. of 7). The first variable is related to the potential role of gender biases, but the interaction term is not statistically significant. Additionally, we conducted separate estimates for sons and daughters, as detailed in Table A7 in the Appendix. In this analysis, we included both contemporaneous and lagged variables of parents' preferences for redistribution. In the case of sons, the transmission of high preferences for redistribution requires parents to maintain consistently high preferences for extended periods. This requirement is less pronounced for daughters. Note that the lagged variable of preferences for redistribution is only significant for sons. Among daughters, a higher baseline is associated with unobservable factors, as indicated by the magnitude of the intercept.

This may suggest that women generally have a stronger preference for redistribution than men (Alesina and Giuliano, 2011). Moreover, the intercept may capture gender-specific factors shared between mothers and daughters."

Regarding the presence of siblings and birth order, we expect intergenerational transmission to be more intense in contexts where parents have more resources and time for their children. The signs of the latter two variables support that hypothesis, but only the interaction term of the sibling is statistically significant at 10%. As a result, we confirm the intergenerational persistence, but in the case of the presence of siblings, the intensity of transmission is lower but positive (the joint significance test rejects the null hypothesis).

Second, panel II. of Table 7 shows how children's abilities play a role in the transmission of parents' preferences. First, when we consider cognitive ability, using the subscale of similarities from WAIS, we find that intergenerational transmission is more intense for children with a higher score on this instrument and, therefore, higher cognitive ability. The interaction term is significant and positive, leading the persistence coefficient to be 0.423 for those children who scored 40 in WAIS ($0.012 \times 40 - 0.057$). When SDQ-based measurements are used, the transmission of preferences is lower among children with both externalized and internalized problems. In this case, the interaction term is negative but is not statistically significant. Also, in these specifications, the persistence coefficient remains significant. Finally, intergenerational transmission is not differentially affected when considering the average of Neurot. score for the children.

When we used the F-test to assess the hypothesis $\gamma_1 + \gamma_2 \times \text{Modulator} = 0$ for alternative values of the Modulator variables (within their current range), an additional consistent result is obtained. The significance of the persistence coefficients tends to disappear when the score of WAIS is low (less than 11) or when the scores of SDQ (internal or external) and Neurot. are high (higher than 8/8 and 31, respectively). The joint reading of these results suggests that the transmission of preferences is more intense among children with better performance in these ability indicators, which agrees with the hypothesis suggested by theoretical models.

In panel III. of Table 7, some parents' beliefs about their children's abilities and attitudes are included as modulators. First, we identify whether parents have high educational aspirations for their children. Second, the effort and peer variables take a value of 1 when the parents have more pessimistic beliefs (parents think their child makes little effort or is a poor student compared to their peers). The coefficient of persistence remains significant only with these last two variables. In addition, parents who expect their children to obtain a high level of education transmit their preferences to a greater extent. The transmission of preferences is more than three times higher when parents are optimistic about the future educational achievements of their children (compared with those parents with low educational aspirations). The persistence coefficient is 0.064 for parents with low educational aspirations, while it increases to 0.216 for parents with high aspirations for their children. The individual significance of γ_1 suggests that transmission is only relevant when parents have optimistic beliefs about their children's performance (if the modulators considered take a value of 0). These results are consistent with our findings regarding parental educational aspiration and are in accordance with the hypothesis suggested by theoretical models.¹¹

[INSERT TABLE 7]

6 Conclusions

This paper provides novel evidence about the transmission of redistributive preferences from parents to children. It is a relatively new field of study, with no previous papers that attempt to explain these preferences among young people, a crucial stage of life during which beliefs are formed.

First, our evidence suggests that the intergenerational persistence of preferences for redistribution is statistically significant. Furthermore, its magnitude is relatively high when we compare it with the stability of preferences for the same person over time (Chuang and Schechter, 2015).

¹¹ As one reviewer points out, there is a potential issue of reverse causality, as it is likely that children with higher academic achievements are more susceptible to influence, and it is probable that parents with a higher level of education can transmit their preferences more effectively. However, we believe our interpretation remains plausible since the parents' beliefs and preferences were collected in the previous wave, which minimizes the problem of reverse causality.

Also, it is consistent with the intergenerational correlation that found [Dohmen et al. \(2012\)](#) in other dimensions (as risks and trust), and with the high persistence in attitudes towards politics and redistribution found by [Giavazzi et al. \(2019\)](#) for US immigrants. This evidence suggests that parental household matters for explaining redistributive preferences, and it also supports the "hypothesis of impressionable years" proposed in [Inglehart and Baker \(2000\)](#). At the same time, the results are consistent with the previous findings on the intergenerational transmission of attitudes and cultural traits.

Second, we find that the recent learning process of parents is relevant in explaining the preferences of the average child. Those parents who have increased their preferences for redistribution in recent years transmit their preferences more intensely to their children. This result suggests that parental learning leads to an adjustment in their preferences, which affects intergenerational transmission. Furthermore, the changes in parental preferences and their role in intergenerational transmission might represent favorable evidence of "the lifelong openness hypothesis" ([Hogg and Vaughan, 2008](#)).

Third, we use a variety of variables to analyze how three modulators suggested by the theoretical literature affect the intensity of intergenerational transmission of redistributive preferences. So far, these hypotheses have not been previously tested empirically, and even some of the modulators addressed in this paper have been less considered in the literature on redistributive preferences. The transmission of preferences is less intense when parents perceive upward income mobility and when they experience greater empowerment. We also find evidence of the role of parental personality traits in transmission. Intergenerational persistence is higher when parents are more risk-averse, have a more internal locus of control, and are more conscientious. Finally, the transmission of preferences is more intense when parents are more optimistic about their children's abilities or if the objective measures of their children's abilities are stronger.

Finally, the transmission of preferences is robust to different specifications, alternative samples, and measures of preferences for redistribution. We exploit the longitudinal nature of the data to mitigate potential endogeneity problems associated with measurement errors and omitted

variables. However, our estimates cannot be interpreted in causal terms. This issue is a potential avenue for future research. Another limitation of our study is that ELBU's sample excludes top-income households. Finally, our main results only focus on mothers' intergenerational transmission. However, most of the previous papers on intergenerational transmission of preferences focus on the role of fathers, so the results of this research could provide new insights into the field.

The findings presented in this article thus constitute a relevant contribution to the field of political economics. First, they are consistent with the coexistence of heterogeneous preferences for redistribution among individuals and families, in which preference characteristics are relatively permanent. They also highlight the role of intra-family transmissions in forming tastes, preferences, and attitudes, which could be relevant in other areas that transcend preferences for redistribution. Furthermore, our results confirm that there is persistence in preferences at the family level, but the experiences and events that parents face affect the intensity of transmission significantly. Namely, a component of preference formation seems much more volatile. Also, we provide novel evidence about the empirical relevance of the main transmission modulators suggested by the theoretical models in this field. This finding supports the importance of parental households in explaining the heterogeneity of preferences for redistribution. At the same time, it rejects the main predictions of the canonical model of [Meltzer and Richard \(1983\)](#): individual preferences for redistribution share characteristics of a cultural trait and cannot be fully explained by economic self-interest or by the current political and economic environment. Furthermore, the relatively high persistence of redistributive preferences helps explain the stylized fact that societies with high-income inequality coexist with most individuals with a low demand for redistribution.

References

Akerlof, G. A. and Kranton, R. E. (2000). Economics and identity. *Quarterly Journal of Economics*, 115(3):715-753.

- Alesina, A. and Giuliano, P. (2011). Preferences for redistribution. In *Handbook of Social Economics*, p.p. 93-131. North-Holland.
- Alesina, A. and La Ferrara, E. (2005). Preferences for redistribution in the land of opportunities. *Journal of Public Economics*, 89(5-6):897-931.
- Alesina, A., Stantcheva, S., and Teso, E. (2018). Intergenerational Mobility and Preferences for Redistribution. *American Economic Review*, 108(2):521-554.
- Amador Campos, J. A. (2013). Escala de inteligencia de Wechsler para adultos-IV (WAIS-IV). *Facultat de Psicologia. Univ. de Barcelona*.
- Arrondel, L. (2013). Are "daddy's boys" just as rich as daddy? The transmission of values between generations. *Journal of Economic Inequality*, 11(4):439-471.
- Atkinson, A. B., Piketty, T., and Saez, E. (2011). Top incomes in the long run of history. *Journal of Economic Literature*, 49(1):3-71.
- Becker, G., Lewis, G., and Schultz, T. (1974). *Economics of the family: Marriage, children, and human capital*. University of Chicago Press, Chicago.
- Becker, G. S. and Tomes, N. (1986). Human capital and the rise and fall of families. *Journal of Labor Economics*, 4(3, Part. 2): S1-S39.
- Benabou, R. and Ok, E. A. (2001). Social mobility and the demand for redistribution: The POUM hypothesis. *Quarterly Journal of Economics*, 116(2):447-487.
- Benabou, R. and Tirole, J. (2006). Belief in a Just World and Redistributive Politics. *The Quarterly Journal of Economics*, 121(2):699-746.
- Bergolo, M., Burdin, G., De Rosa, M., Giacobasso, M., and Leites, M. (2021). Digging Into the Channels of Bunching: Evidence from the Uruguayan Income Tax. *Economic Journal*, 131(639):2726-2762.
- Beshears, J., Choi, J. J., Laibson, D., and Madrian, B. C. (2008). How are preferences revealed? *Journal of Public Economics*, 92(8-9):1787-1794.
- Bisin, A. and Verdier, T. (2000a). A model of cultural transmission, voting and political ideology. *European Journal of Political Economy*, 16(1):5-29.

- Bisin, A. and Verdier, T. (2000b). "Beyond the melting pot": Cultural transmission, marriage, and the evolution of ethnic and religious traits. *Quarterly Journal of Economics*, 115(3):955- 988.
- Bisin, A. and Verdier, T. (2001). The Economics of Cultural Transmission and the Dynamics of Preferences. *Journal of Economic Theory*, 97(2):298-319.
- Bisin, A. and Verdier, T. (2011). The economics of cultural transmission and socialization. In Benhabib, J., Bisin, A., and Jackson, M., editors, *Handbook of social economics*, chapter 9, pages 339-416. North-Holland.
- Borrell-Porta, M., Costa-Font, J., and Philipp, J. (2018). The 'mighty girl' effect: Does parenting daughters alter attitudes towards gender norms? *Oxford Economic Papers*, 71(1):25-46.
- Boyd, R. and Richerson, P. J. (1985). *Culture and the Evolutionary Process*. University of Chicago Press.
- Brenøe, A. and Epper, T. (2022). Parenting Values Moderate the Intergenerational Transmission of Time Preferences. *European Economic Review*, 148.
- Bütikofer, A. (2013). Revisiting 'mothers and sons' preference formation and the female labor force in Switzerland. *Labour Economics*, 20:82-91.
- Cavalli-Sforza, L. L. and Feldman, M. W. (1981). *Cultural transmission and evolution: A quantitative approach*. Princeton University Press., Princeton.
- Chen, Y. and Li, S. X. (2009). Group identity and social preferences. *American Economic Review*, 99(1):431-457.
- Choi, G. (2019). Revisiting the redistribution hypothesis with perceived inequality and redistributive preferences. *European Journal of Political Economy*, 58:220-244.
- Chuang, Y. and Schechter, L. (2015). Stability of experimental and survey measures of risk, time, and social preferences: A review and some new results. *Journal of Development Economics*, 117:151-170.
- Cobb-Clark, D. A. (2015). Locus of control and the labor market. *IZA Journal of Labor Economics*, 4(3):1-19.
- Cobb-Clark, D. A., Kassenboehmer, S. C., and Schurer, S. (2014). Healthy habits: The

connection between diet, exercise, and locus of control. *Journal of Economic Behavior and Organization*, 98:1-28.

Cobb-Clark, D. A. and Schurer, S. (2012). The stability of big-five personality traits. *Economics Letters*, 115(1):11-15.

Cojocaru, A. (2014). Prospects of upward mobility and preferences for redistribution: Evidence from the Life in Transition Survey. *European Journal of Political Economy*, 34:300-314.

Conley, D. and Rauscher, E. (2013). The Effect of Daughters on Partisanship and Social Attitudes Toward Women. *Sociological Forum*, 28(4):700-718.

Corneo, G. and Fong, C. M. (2008). What's the monetary value of distributive justice? *Journal of Public Economics*, 92(1-2):289-308.

Costa-Font, J. and Cowell, F. (2015). Social identity and redistributive preferences: A survey. *Journal of Economic Surveys*, 29(2):357-374.

Cruces, G., Perez-Truglia, R., and Tetaz, M. (2013). Biased perceptions of income distribution and preferences for redistribution: Evidence from a survey experiment. *Journal of Public Economics*, 98:100-112.

Dohmen, T., Falk, A., Huffman, D., and Sunde, U. (2012). The intergenerational transmission of risk and trust attitudes. *Review of Economic Studies*, 79(2):645-677.

Durante, R., Putterman, L., and van der Weele, J. (2014). Preferences for redistribution and perception of fairness: An experimental study. *Journal of the European Economic Association*, 12(4):1059-1086.

Farré, L. and Vella, F. (2013). The intergenerational transmission of gender role attitudes and its implications for female labour force participation. *Economica*, 80(318):219-247.

Fernández, R. and Fogli, A. (2009). Culture: An empirical investigation of beliefs, work, and fertility. *American Economic Journal: Macroeconomics*, 1(1):146-77.

Fernández, R., Fogli, A., and Olivetti, C. (2004). Mothers and sons: Preference formation and female labor force dynamics. *Quarterly Journal of Economics*, 119(4):1249-1299.

Fisman, R., Jakiela, P., and Kariv, S. (2015). How did distributional preferences change during

- the Great Recession? *Journal of Public Economics*, 128:84-95.
- Fong, C. (2001). Social preferences, self-interest, and the demand for redistribution. *Journal of Public Economics*, 82(2):225-246.
- Gaertner, W. and Schokkaert, E. (2012). *Empirical social choice: Questionnaire-experimental studies on distributive justice*. Cambridge University Press.
- Gerber, A., Huber, G., Doherty, D., and Dowling, C. (2011). The Big Five Personality Traits in the Political Arena. *Annual Review of Political Science*, 14:265-287.
- Gerber, A. S., Huber, G. A., Doherty, D., Dowling, C. M., and Ha, S. E. (2010). Personality and political attitudes: Relationships across issue domains and political contexts. *American Political Science Review*, 104(1):111-133.
- Giavazzi, F., Petkov, I., and Schiantarelli, F. (2019). Culture: persistence and evolution. *Journal of Economic Growth*, 24(2):117-154.
- Giuliano, P. and Nunn, N. (2021). Understanding Cultural Persistence and Change. *The Review of Economic Studies*, 88(4):1541-1581.
- Goldberg, L. R. (1993). The Structure of Phenotypic Personality Traits. *American Psychologist*, 48(1):26.
- Goodman, R. (1997). The strengths and difficulties questionnaire: A research note. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 38(5):581-586.
- Harsanyi, J. C. (1953). Cardinal Utility in Welfare Economics and in the Theory of Risk-taking. *Journal of Political Economy*, 61(5):434-435.
- Hogg, M. and Vaughan, G. (2008). *Social Psychology*. Pearson/Prentice Hal.
- Holland, A. (2018). Diminished Expectations: Redistributive Preferences in Truncated Welfare States. *World Politics*, 70(4):555-594.
- Iacus, S. M., King, G., and Porro, G. (2011). Multivariate matching methods that are monotonic imbalance bounding. *Journal of the American Statistical Association*, 106(493):345-361.
- Inglehart, R. and Baker, W. E. (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review*, pp. 19-51.

- John, O. and Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In Pervin, L. and John, O., editors, *Handbook of personality: Theory and research*, pages 102-138. Guilford Publications.
- Johnston, D. W., Schurer, S., and Shields, M. A. (2013). Maternal gender role attitudes, human capital investment, and labour supply of sons and daughters. *Oxford Economic Papers*, 66(3):631-659.
- Kahneman, D. and Knetsch, J. L. (1992). Valuing public goods: The purchase of moral satisfaction. *Journal of Environmental Economics and Management*, 22(1):57-70.
- Klor, E. F. and Shayo, M. (2010). Social identity and preferences over redistribution. *Journal of Public Economics*, 94(3-4):269-278.
- Lee, B. and Conley, D. (2016). Does the gender of offspring affect parental political orientation? *Social Forces*, 94(3):1103-1127.
- Lefcourt, H. M. (1991). Locus of control. In J. P. Robinson, P. R. Shaver, . L. S. W., edi- tor, *Measures of social psychological attitudes, Vol. 1. Measures of personality and social psychological attitude*, pages 413-499. Academic Press, San Diego, CA, US.
- Levenson, H. (1981). Differentiating among internality, powerful others, and chance. In Lefcourt, H.(ed.), *Research with the Locus of Control Construct*. Academic Press, New York.
- Luttmer, E. F. (2001). Group loyalty and the taste for redistribution. *Journal of Political Economy*, 109(3):500-528.
- Luttmer, E. F. and Singhal, M. (2011). Culture, context, and the taste for redistribution. *American Economic Journal: Economic Policy*, 3(1):157-179.
- Martén, L. (2019). Demand for Redistribution: Individuals' Responses to Economic Setbacks. *Scandinavian Journal of Economics*, 121(1):225-242.
- Meltzer, A. H. and Richard, S. F. (1983). Tests of a rational theory of the size of government. *Public Choice*, 41(3):403-418.
- Morrill, M. S. and Morrill, T. (2013). Intergenerational links in female labor force participation. *Labour Economics*, 20:38-47.

- Muinelo-Gallo, L. and Miranda, R. (2020). The behaviour of social transfers over the business cycle: Empirical evidence of Uruguay. *Hacienda Pública Española*, 233(2):25-54.
- Oswald, A. J. and Powdthavee, N. (2010). Daughters and left-wing voting. *Review of Economics and Statistics*, 92(2):213-227.
- Piketty, T. (1995). Social Mobility and Redistributive Politics. *The Quarterly Journal of Economics*, 110(3):551-584.
- Pittau, M. G., Massari, R., and Zelli, R. (2013). Hierarchical modelling of disparities in preferences for redistribution*. *Oxford Bulletin of Economics and Statistics*, 75(4):556-584.
- Rofman, R., Amarante, V., and Apella, I. (2016). *Demographic Change in Uruguay: Economic Opportunities and Challenges*. World Bank, Washington, DC.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs*, 80(1):1.
- Washington, E. L. (2008). Female socialization: How daughters affect their legislator fathers' voting on women's issues. *American Economic Review*, 98(1):311-32.
- Wilhelm, M. O., Brown, E., Rooney, P. M., and Steinberg, R. (2008). The intergenerational transmission of generosity. *Journal of Public Economics*, 92(10-11):2146-2156.
- Zumbühl, M., Dohmen, T. J., and Pfann, G. A. (2021). Parental Involvement and the Intergenerational Transmission of Economic Preferences, Attitudes and Personality Traits. *The Economic Journal*, 131(638):2642-2670.

Tables

Table 1: Number of observations in each ELBU wave. Parents and children

	Parents			Children	Parents and children
	2004	2011-12	2015-16	2015-16	2015-16
Total observations	3187	2138	1515	1532	1425
Observations with information on preferences for redistribution	.-	2117	1426	1263	1020 (806)

In the last column, the number of cases includes the parent-child binomial, where both are present. In parentheses is the number of observations where information on preferences for redistribution is available from the child (2015/16) and parents (2011/12 and 2015/16).

Table 2: Descriptive statistics of parents and children

	Children				Parents			
	Mean	Std. Dev.	Max.	Min.	Mean	Std. Dev.	Max.	Min.
Sex (1=Male)	0.491	0.500	0	1	0.082	0.274	0	1
Age	18.14	0.728	16	21	46.48	7.252	34	70
Married (1=Yes)	0.038	0.192	0	1	0.675	0.469	0	1
Years of education	9.834	2.383	0	18	9.141	3.490	0	20
Unemployed (1=Yes)	0.299	0.458	0	1	0.153	0.360	0	1
Family income	0.869	0.978	0.021	5.722	--	--	--	--
Montevideo (1=Yes)	0.444	0.497	0	1	--	--	--	--

Table 3: Transition matrix. Preferences for redistribution

		PR _p 2015/16			Distribution (PR _p 2011/12)
		Low	High	Total	
PR _p 2011/12	Low	89,4	10,6	100	77,3
	High	79,9	20,1	100	22,7
Distribution (PR _p 2015/16)		87,2	12,8	100	100

		PR _{ch} 2015/16			Distribution (PR _p 2015/16)
		Low	High	Total	
PR _p 2015/16	Low	79,8	20,2	100	87,2
	High	48,5	51,5	100	12,8
Distribution (PR _{ch} 2015/16)		75,8	24,2	100	100

The number of observations in the transition matrices is 806

Table 4: Dynamics of the intergenerational transmission of preferences for redistribution

	(1)	(2)	(3)	(4)	(5)
PR _{p,t} ^H	0.317*** (0.052)		0.305*** (0.053)		
PR _{p,t-1} ^H		0.113*** (0.039)	0.085** (0.038)	0.303*** (0.087)	
PR _{p,t-1} ^H × Δ ^D				-0.237** (0.093)	
PR _{p,t-1} ^L					-0.150*** (0.039)
PR _{p,t-1} ^L × Δ ^U					0.336*** (0.064)
F test				2.572	6.870
p-value				0.109	0.009
Obs.	806	806	806	806	806
R2	0.079	0.032	0.086	0.043	0.076

The dependent variable is children's preferences for redistribution. $PR_{p,t-1}^H$ ($PR_{p,t-1}^L$) is parents' preferences for redistribution in 11/12, and $PR_{p,t}^H$ is parents' preferences for redistribution in 15/16. $PR_{p,t-1}^H \times \Delta^D$ ($PR_{p,t-1}^L \times \Delta^U$) is a variable that refers to whether parental preferences for redistribution decreased (increased) between the two waves. The F test considers the significance of the following null hypothesis: $\beta_1^* + \beta_2^* = 0$ (or $\beta_1' + \beta_2' = 0$). We only have responses from 66 fathers. Therefore, the coefficient of intergenerational transmission should primarily be interpreted as the transmission from mothers to sons and daughters. Controls include age (parents), race (children), marital status (parents and children), years of education (parents and children), sex (children), region of residence (household), unemployment (children), family income (divided by 10000), and family income² (divided by 10000000). Coefficients are OLS estimates. Probit estimates are very similar to those shown in the Table, and are available upon request. Robust standard errors are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% level, respectively.

Table 5: Modulators of intergenerational transmission of preferences for redistribution: mobility and parents' beliefs

	I. Parents/household mobility				II. Parents' beliefs		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PR _{p,t-1} ^H	0.139*** (0.040)	0.157*** (0.049)	0.094 (0.059)	0.109*** (0.040)	0.162** (0.064)	0.146*** (0.043)	0.121*** (0.041)
PR _{p,t-1} ^H × Intergenerational Subjective Mobility	-0.043** (0.018)						
							0.022***

Intergenerational Subjective Mob.	(0.007)						
$PR_{p,t-1}^H \times$ Intragenerational Subjective Mobility		-0.038					
		(0.028)					
Intragenerational Subjective Mobility		0.020					
		(0.013)					
$PR_{p,t-1}^H \times$ Intergenerational Objective Mobility			0.039				
			(0.085)				
Intergenerational Objective Mobility			-0.032				
			(0.040)				
$PR_{p,t-1}^H \times$ Intragenerational Objective Mobility				-0.005			
				(0.016)			
Intragenerational Objective Mobility.				0.001			
				(0.007)			
$PR_{p,t-1}^H \times$ Fairness					-0.083		
					(0.081)		
Fairness					-0.040		
					(0.034)		
$PR_{p,t-1}^H \times$ Power 1						-0.037***	
						(0.014)	
Power 1						0.004	
						(0.006)	
$PR_{p,t-1}^H \times$ Power 2							-0.018
							(0.023)
Power 2							-0.009
							(0.011)
F test	9.01	8.82	4.91	7.42	2.55	9.05	8.28
p-value	0.003	0.003	0.027	0.007	0.111	0.003	0.004
Obs.	803	805	680	785	790	770	777
R^2	0.043	0.036	0.042	0.031	0.037	0.040	0.034

The dependent variable is children's preferences for redistribution. $PR_{p,t-1}^H$ is the parents' preferences for redistribution in 11/12. The F test considers the significance of the following null hypothesis: $\gamma_1 + \gamma_2 \times \text{Modulator} = 0$. In cases where the variable is continuous, the F test is performed on the variable's mean value. A higher score on modulators means more mobility, an upward in empowerment (Power 1 and 2), and beliefs that effort is important in mobility (Fairness). The variables' definitions and mean values are presented in Table A2 of the Appendix. The control variables used are the same as in Table 4. Coefficients are OLS estimates. Robust standard errors are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% level, respectively.

Table 6: Modulators of intergenerational transmission of preferences for redistribution: personality traits of parents

	(1)}	(2)}	(3)}	(4)}
$PR_{p,t-1}^H$	0.048	0.087	0.451**	0.020
	(0.051)	(0.060)	(0.202)	(0.204)
$PR_{p,t-1}^H \times$ Risk Aversion	0.140			
	(0.079)			
Risk Aversion	-0.064			
	(0.034)			
$PR_{p,t-1}^H \times$ LoC		0.044		
		(0.079)		
LoC		0.063*		
		(0.034)		
$PR_{p,t-1}^H \times$ Conscient			-0.010*	
			(0.007)	
Conscient			0.004	
			(0.003)	
$PR_{p,t-1}^H \times$ Open.				0.003
				(0.006)
Open.				0.001
				(0.002)
F test	9.48	6.38	7.66	9.27
p-value	0.002	0.011	0.006	0.002
Obs.	776	778	799	789
R^2	0.037	0.039	0.035	0.033

The dependent variable is children's preferences for redistribution. $PR_{p,t-1}^H$ is the parents' preferences for redistribution in 11/12.

Risk aversion and *Loc* variables correspond to the 3rd wave and the BFI to the 4th wave. A higher score on modulators means more risk aversion, internal locus, and better performance in the BFI. The F test considers the significance of the following null hypothesis: $\gamma_1 + \gamma_2 \times \text{Modulator} = 0$. In cases where the variable is continuous, the F test is performed on the variable's mean value. The variables' definitions and mean values are presented in Table A2 of the Appendix. The control variables used are the same as in Table 4. Coefficients are OLS estimates. Robust standard errors are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% level, respectively.

Table 7: Modulators of intergenerational transmission of preferences for redistribution: characteristics of the children and parents' beliefs about their children

	I. Children's characteristics			II. Children's abilities				III. Beliefs about their children		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$PR_{p,t-1}^H$	0.098*	0.227***	0.077*	-0.057	0.151**	0.183**	0.127	0.205***	0.064	0.122***
	(0.054)	(0.091)	(0.044)	(0.068)	(0.067)	(0.073)	(0.161)	(0.059)	(0.046)	(0.041)
$PR_{p,t-1}^H \times \text{Male}$	0.031									
	(0.077)									
Male	-0.223***									
	(0.070)									
$PR_{p,t-1}^H \times \text{Sibling}$		-0.151*								
		(0.091)								
Sibling		0.071*								
		(0.036)								
$PR_{p,t-1}^H \times \text{Firstborn}$			0.146							
			(0.091)							
Firstborn			-0.065*							
			(0.036)							
$PR_{p,t-1}^H \times \text{WAIS}$				0.012***						
				(0.004)						
WAIS				-0.002						
				(0.002)						
$PR_{p,t-1}^H \times \text{SDQ int.}$					-0.007					
					(0.010)					
SDQ int.					0.005					
					(0.005)					
$PR_{p,t-1}^H \times \text{SDQ Ext.}$						-0.012				
						(0.010)				
SDQ Ext.						0.004				
						(0.005)				
$PR_{p,t-1}^H \times \text{Neurot.}$							-0.001			
							(0.007)			
Neurot.							-0.003			
							(0.003)			
$PR_{p,t-1}^H \times \text{Effort}$								-0.171**		
								(0.078)		
Effort								-0.003		
								(0.033)		
$PR_{p,t-1}^H \times \text{Aspirations}$									0.216**	
									(0.091)	
Aspirations									-0.003	
									(0.037)	
$PR_{p,t-1}^H \times \text{Peers}$										-0.094
										(0.125)
Peers										-0.039
										(0.055)
F test	5.39	2.97	7.76	9.35	8.52	8.82	8.67	0.46	12.96	0.05
p-value	0.020	0.085	0.006	0.002	0.004	0.003	0.003	0.499	0.0003	0.818
Obs.	806	806	806	806	806	806	805	806	753	851
R ²	0.032	0.037	0.036	0.041	0.033	0.033	0.033	0.041	0.044	0.034

The dependent variable is children's preferences for redistribution. $PR_{p,t-1}^H$ is the parents' preferences for redistribution in 11/12. F test considers the significance of the following null hypothesis: $\gamma_1 + \gamma_2 \times \text{Modulator} = 0$. The variables' definitions and mean values are presented in Table A.2 of the Appendix. The SDQ score corresponds to the 3rd wave, while the WAIS and the BFI are obtained from the 4th wave. The modulators' higher score reflects low SDQ and BFI abilities and high abilities in the WAIS. The modulators used in cols. (8), (9), and (10) of this table are three dummy variables collected in wave 3. These dummy variables take a value of 1 if performance is low in Effort or Peer or if individuals present high Aspirations. The variables' definitions and mean values are presented in Table A2 of the Appendix. The control variables used are the same as in Table 4. Coefficients are OLS estimates. Robust standard errors are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% level, respectively.

Online Appendix

Table A1: Probability of being interviewed in 2015/16. Wave 1 and 4. Parents and children

	Parents	Children	Parents and children
Sex (1=Male)	0.005 (0.003)	0.001 (0.021)	0.004 (0.021)
Size of household	0.009 (0.005)	0.004 (0.006)	0.004 (0.006)
Years of education	0.008** (0.004)	0.004 (0.003)	0.0054 (0.003)
Family Income/1000	0.002 (0.004)	0.001 (0.004)	0.003 (0.004)
Montevideo	-0.056*** (0.027)	-0.047** (0.021)	-0.022 (0.021)
Constant	0.368*** (0.034)	0.431*** (0.050)	0.370*** (0.049)
Obs.	2778	2778	2778
R ²	0.006	0.003	0.002

Coefficients are OLS estimates. Robust standard errors are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% level, respectively.

Table A2: Descriptive statistics. Modulators

	Mean	Sd	Min	Max	Obs.	Codification and questions
(1a) Household/parents mobility						
Subjective Intergenerational	0,52	2,078	-9	9	803	Difference of this statement "Imagine a scale from 1 to 10 where 1 is the poorest people and 10 the richest": (i) "Where are you?", and (ii) "... home where you lived during your childhood? (9=High mobility)
Subjective Intragenerational	1,088	1,384	-4	9	805	Difference between the 11/12 and 15/16 waves of this statement "Imagine a scale from 1 to 10 where 1 is the poorest people and 10 the richest Where are you?" (9=High mobility)
Objective Intergenerational	0,065	2,497	-9	9	785	Change in household income decile observed between 11/12 and 15/16 (9=High mobility)
Objective Intragenerational	0,523	0,5	0	1	680	Educational level of the parents is higher than that of the grandparents (1=High mobility)
(1b) Parents' beliefs						
Fairness	0,581	0,494	0	1	790	Takes a value of 1 if the parents believe that a person who is born poor and works hard can become rich (0 otherwise). Variables collected in 2011/12.
Power 1	0,681	2,886	-8	8	770	The people believe they have no power (=1) / believe they have a lot of power (=9). The variable identifies the difference between the position in which parents were located in 15/16 and the position in which they were located in 11/12 (8=High power)
Power 2	0,443	1,571	-8	8	777	The people believe they have no power (=1) / believe they have a lot of power (=9). The variable identifies the difference between their position in 11/12 and the one that they declared five years before (8=High power)
(2) Parents' personality						
Risk aversion	0,42	0,494	0	1	776	Takes a value of one if, in any of the three options (going on vacation, replacing your broken kitchen, or replacing your sofa), indicate that if you don't have the

						money, you should save before buying/doing it. Variables collected in 2011/12.)
LoC	0,599	0,49	0	1	778	Some people believe that individuals can build their destiny ... do you believe that...?" (1=Internal locus: "We make our destiny" or "Mostly self"). Variables collected in 2011/12.)
BFI: Conscient.	34,947	6,366	11	45	799	In the BFI 44 statements are made where the interviewee is told: "I see Myself as Someone Who ...". The response scale is from 1 to 5 (1 =Disagree strongly and 5 = Agree strongly), where each statement is associated with one of the five dimensions. The score of each dimension is constructed from the sum of the answers given in each statement (in some cases the reverse of the statement). (9 items in Conscient, 45 = High; 10 items in Open., 50 = High. Variables collected in 2015/16.)
BFI: Open.	34,422	7,153	13	50	789	
(3a) Characteristics of the children						
Sex	0.494	0.500	0	1	806	1=Male
Sibling	0.743	0.437	0	1	806	1=Yes
Firstborn	0.259	0.438	0	1	806	1=Yes
(3b) Children's abilities						
WAIS	15,037	8,805	0	36	806	The similarities subtest consists of 18 items where the interviewee has to link two common objects or concepts. Depending on the quality of the response it is scored with 0, 1 or 2, and then the total score of this subtest is added (36=High abilities). Variable collected in 2015/16.
SDQ Int.	5,23	3,835	0	18	806	Each subscale has 10 statements, with three answer options (0 = Not true; 1 = somewhat true; 2 = Totally true). The total score for each subscale arises from the sum of the score for each statement (18=Low abilities). Variable collected in 2011/12.
SDQ Ext.	5,76	3,798	0	18	806	
BFI: Neurot.	22,606	5,929	8	40	805	Same characteristics as Open and Conscient. (8 items, 40=Low abilities. Variable collected in 2015/16.
(3c) Parents' beliefs about their children (all variables collected in 2011/12)						
Effort	0,501	0,5	0	1	806	Parents believe that their children should be more responsible and try harder to achieve the goals that they want to achieve at age 30 (1=Need more effort)
Aspirations	0,355	0,479	0	1	753	Parents believe that their children will finish university (1=High aspirations)
Peers	0,093	0,291	0	1	806	Parents believe that their children's school performance is below average or that their child is one of the worst students in the class (1=Low performance)

The BFI questionnaire identifies five personality traits, explained in Goldberg (1993). Conscient. describes impulse control, such as thinking before acting, delaying gratification, following rules and regulations, and planning, organizing, and prioritizing tasks. Open. pertains to mental and experiential life's breadth, depth, originality, and complexity. Neurot. measures the child's feelings of anxiety, nervousness, sadness, and tension (John and Srivastava, 1999). SDQ allows us to identify problems with peers and emotional symptoms (internalized problems) and group behavior and hyperactivity problems (externalized problems) (Goodman, 1997). LoC is an instrument that shows how individuals perceive the causal connection between their actions and the achievements they obtain (Rotter, 1966; Levenson, 1981; Lefcourt, 1991). Individuals with an external LoC think that many aspects of their lives are beyond their control, whereas individuals with an internal LoC believe that they have control over their lives. The similarities subtest is one of the components of WAIS that allows evaluation of the cognitive area "verbal comprehension." It consists of 18 items in which the interviewee is presented with two words that represent common objects or concepts, with the objective that the interviewee determines how these objects or concepts are linked and thus approximates their capacity for verbal abstraction and associative thinking (Amador Campos, 2013).

Table A3: Dynamics of the transmission of preferences for redistribution

	(1)	(2)	(3)	(4)	(5)	(6)
$PR_{p,t}^H$		0.317*** (0.052)		0.305*** (0.053)		
$PR_{p,t-1}^L$			0.113*** (0.039)	0.085** (0.038)	0.303*** (0.087)	
$PR_{p,t-1}^H \times \Delta^D$					-0.237** (0.093)	
$PR_{p,t-1}^{L^L}$						-0.150*** (0.039)
$PR_{p,t-1}^L \times \Delta^L$						0.336*** (0.064)
Parental characteristics						
Age	0.001 (0.002)	0.000 (0.002)	0.001 (0.002)	0.000 (0.002)	0.000 (0.002)	0.000 (0.002)
White	0.035 (0.045)	0.048 (0.046)	0.034 (0.046)	0.047 (0.046)	0.034 (0.046)	0.048 (0.046)
Married	-0.030 (0.033)	-0.018 (0.032)	-0.027 (0.033)	-0.017 (0.032)	-0.026 (0.033)	-0.017 (0.032)
Years of education	-0.006 (0.005)	-0.008 (0.005)	-0.006 (0.005)	-0.008 (0.005)	-0.007 (0.005)	-0.007 (0.005)
Children characteristics						
Male	0.083*** (0.032)	0.082*** (0.031)	0.080** (0.031)	0.081*** (0.031)	0.084*** (0.031)	0.076** (0.031)
Years of education	-0.001 (0.007)	0.000 (0.007)	0.000 (0.007)	0.001 (0.007)	0.001 (0.007)	0.000 (0.007)
Married	0.067 (0.084)	0.068 (0.086)	0.068 (0.084)	0.069 (0.085)	0.072 (0.085)	0.064 (0.084)
Unemployed	-0.058* (0.033)	-0.043 (0.032)	-0.055* (0.033)	-0.041 (0.032)	-0.047 (0.033)	-0.051 (0.032)
Household characteristics						
Family income	-0.070 (0.054)	-0.083 (0.053)	-0.072 (0.054)	-0.084 (0.053)	-0.077 (0.053)	-0.079 (0.053)
Family income ²	0.002* (0.001)	0.003** (0.001)	0.002* (0.001)	0.003** (0.001)	0.002* (0.001)	0.003* (0.001)
Montevideo	0.003 (0.032)	0.003 (0.031)	0.001 (0.032)	0.002 (0.031)	0.005 (0.032)	-0.004 (0.031)
Constant	0.262** (0.125)	0.243* (0.124)	0.241* (0.125)	0.227* (0.124)	0.254** (0.125)	0.357*** (0.127)
Obs.	806	806	806	806	806	806
R^2	0.019	0.079	0.032	0.086	0.043	0.076

The dependent variable is children's preferences for redistribution. $PR_{p,t-1}^H$ ($PR_{p,t-1}^L$) is parents' preferences for redistribution in 11/12, and $PR_{p,t}^H$ is parents' preferences for redistribution in 15/16. $PR_{p,t-1}^L \times \Delta^D$ ($PR_{p,t-1}^L \times \Delta^U$) is a variable that refers to whether parental preferences for redistribution decreased (increased) between the two waves. Coefficients are OLS estimates. Probit estimates are very similar to those shown in the Table, and are available upon request. Robust standard errors are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% level, respectively

Table A4: Intergenerational transmission of preferences for redistribution. Alternative measures

Preference for redistribution of children:	Increase taxes		Cash transfer	Our measure ($PR_{ch,t}^H$)				
	Upper class	Middle class		(4)	(5)	(6)	(7)	(8)
	(1)	(2)	(3)					
Preference for redistribution of parents:								
Increase taxes Upper class	0.193*** (0.033)			0.049 (0.031)			0.039 (0.031)	
Increase taxes Middle class		0.170*** (0.034)			0.067** (0.031)		0.065** (0.031)	0.045 (0.030)
Cash transfer			0.203*** (0.035)			0.043 (0.033)	0.037 (0.033)	
Our measure ($PR_{p,t}^H$)								0.309*** (0.053)
Obs.	806	788	763	806	794	795	784	794
R^2	0.069	0.065	0.087	0.022	0.025	0.020	0.028	0.082

Cash transfer variable is defined using the following question: "Do you think the government should give money to the poor?" The variable is coded 1=Yes, 0=No. Increase taxes Upper class is defined using the following question: "Think of an upper-class family. Do you think the government should . . .". The variable is coded: 1=Increase their taxes, 0=Leave them the same/Lower their taxes). Increase taxes Middle class is defined using the following question: "Think of a middle-class family. Do you think the government should . . .". The variable is coded using: 1=Increase their taxes/Leave them the same, 0=Lower their taxes. The three variables are available only for the 4th wave. The control variables used are the same as in Table 4. Coefficients are OLS estimates. Robust standard errors in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% level, respectively.

Table A5: Dynamics of the intergenerational transmission of preferences for redistribution. School Fixed Effect

	(1)	(2)	(3)	(4)	(5)
$PR_{p,t}^H$	0.301*** (0.055)		0.291*** (0.055)		
$PR_{p,t-1}^H$		0.106** (0.042)	0.083** (0.041)	0.285*** (0.091)	
$PR_{p,t-1}^H \times \Delta^D$				-0.221** (0.097)	
$PR_{p,t-1}^L$					-0.145*** (0.042)
$PR_{p,t-1}^L \times \Delta^L$					0.327*** (0.068)
F test				1.98	5.79
p-value				0.160	0.016
Obs.	806	806	806	806	806
R^2	0.214	0.176	0.219	0.184	0.212

The dependent variable is children's preferences for redistribution. $PR_{p,t-1}^H$ ($PR_{p,t-1}^L$) is parents' preferences for redistribution in 11/12, and $PR_{p,t}^H$ is parents' preferences for redistribution in 15/16. $PR_{p,t-1}^L \times \Delta^D$ ($PR_{p,t-1}^L \times \Delta^U$) is a variable that refers to whether parental preferences for redistribution decreased (increased) between the two waves. The F test considers the significance of the following null hypothesis: $\beta_1^* + \beta_2^* = 0$ (or $\beta_1^L + \beta_2^L = 0$). Controls include age (parents), race (children), marital status (parents and children), years of education (parents and children), sex (children), region of residence (household), unemployment (children), family income (divided by 10000), and family income² (divided by 10000000). Coefficients are OLS estimates. Robust standard errors are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% level, respectively

Table A6: Modulators of intergenerational transmission of preferences for redistribution: Risk aversion

	All (1)	Risk aversion (parents and children)	
		Equal (2)	Different (3)
$PR_{p,t-1}^H$	0.103** (0.042)	0.066 (0.054)	0.151*** (0.057)
$PR_{p,t-1}^H \times$ Risk aversion (1=High parents and children)	0.031 (0.116)		
Risk aversion (1=High parents and children)	0.005 (0.048)		
F test	1.53		
p-value	0.216		
Obs.	775	421	354
R^2	0.031	0.050	0.067

The dependent variable is children's preferences for redistribution. $PR_{p,t-1}^H$ is parents' preferences for redistribution in 11/12. The parents' Risk aversion variables correspond to the 3rd wave, and children's Risk aversion to the 4th wave. Parents' Risk aversion is a dummy variable that takes a value of one if, in any of the three options (going on vacation, replacing your broken kitchen, or replacing your sofa), parents indicate that if they don't have the money, you should save before buying/doing it. The children's Risk aversion is a dummy variable that takes value one if, in any of the three options (change your cell phone, buy a musical instrument, or replace your sneakers), children indicate that if they don't have the money, you should save before buying/doing it. The control variables used are the same as in Table A3. Coefficients are OLS estimates. Robust standard errors are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% level, respectively.

Table A7: Intergenerational transmission of preferences for redistribution according to the sex of children

Children:	Daughters	Sons
$PR_{p,t}^H$	0.324*** (0.075)	0.265*** (0.075)
$PR_{p,t-1}^H$	0.065 (0.052)	0.117** (0.056)
Constant	0.348** (0.043)	0.127 (0.174)
N	410	369
R^2	0.107	0.100

Probability that children have high preferences for redistribution

	Daughters	Sons	p-value
Parents always high preferences for redistribution:	0.531 (0.018)	0.589 (0.022)	0.103
Parents increase preferences for redistribution between t-1 and t:	0.455 (0.011)	0.500 (0.015)	0.045
Parents lower preferences for redistribution between t-1 and t:	0.219 (0.008)	0.333 (0.010)	0.000
Parents always low preferences for redistribution:	0.150 (0.005)	0.217 (0.006)	0.000

The dependent variable is children's preferences for redistribution. $PR_{p,t-1}^H$ is parents' preferences for redistribution in 11/12, and $PR_{p,t}^H$ is parents' preferences for redistribution in 15/16. Controls include age (parents), race (children), marital status (parents and children), years of education (parents and children), sex (children), region of residence (household), unemployment (children), family income (divided by 10000), and family income² (divided by 10000000). Coefficients are OLS estimates. Standard errors in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% level, respectively.