Intergenerational Transmission of Preferences and Parental Behaviours

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IEU Workshop, April 15, 2024

Objective

- In this paper, we explore the link between parents' and children's "preferences" such as:
  - patience,
  - propensity to save,
  - conscientiousness.

- We examine whether and how specific parental behaviours, such as the sharing of information and decisions in the family's economic domain, contribute to strengthening this link.

- We focus on adolescent children living in Italy.

Motivation

- ▶ Patience, propensity to save, and conscientiousness are considered soft skills that yield high returns (Heckman and Kautz, 2012; Attanasio, 2015; Epper et al., 2020; Prevoo and ter Weel, 2015; Hanushek et al., 2022):
    - ▶ They enhance individuals' schooling performances and productivity in the labor market,
    - ▶ They facilitate the accumulation of cognitive skills.

- ▶ They tend to remain malleable over extended time periods compared to cognitive skills, allowing for different interventions to boost them.

Motivation

- New strands of economic literature show how positive ad-hoc parenting attitudes can (Del Boca et al., 2022; Daly et al., 2014):
  - affect the transmission of these "good preferences" from parents to children,
  - be "taught" to parents through suitable programs.

- We choose Italy as a case study:
  - Countries with strong family ties provide a natural context to investigate alternative channels for enhancing soft skills (Eurostat, 2022).
  - Social mobility is low, and it appears that the educational system alone is insufficient to address this issue (Acciari et al., 2022, Checchi et al., 2013).

Our findings

- We find significant and robust correlations between parents' and children's preferences.
- The socialization of financial information through "sharing" of information mediates the transmission of patience, particularly among:
  - children under 18 years of age,
  - households with a socioeconomic status (SES) above the median,
  - daughters.

The former literature

- ▶ Webley and Nyhus (2006) found that parents' attitudes and willingness to engage in discussions about financial matters significantly impact children's economic orientation in the Netherlands.

- ▶ Dohmen et al. (2012) revealed a significant, albeit weak, correlation between the risk preferences of parents and their children in Germany.

- ▶ Brown and van Der Pol (2015) find a significant correlation only for very risk-averse or very risk-seeking individuals in Australia, particularly among mothers and daughters.

The former literature

▶ Chowdhury et al. (2022) conducted a large-scale survey in rural Bangladesh, where they found that both mothers' and fathers' risk, time, and social preferences are significantly positively correlated with their children's economic preferences.

▶ Alan et al. (2017) investigated the transmission of risk preferences in a nationally representative survey of mothers and children in Turkey. Interestingly, they observed that for daughters, the degree of transmission increased consistently with maternal involvement or effort.

The former literature

- ▶ Zumbuehl et al. (2021) discovered in Germany that children whose parents were more actively involved in their upbringing exhibited greater similarity to their parents in terms of attitudes and traits, although not specifically in patience.

- ▶ Brenoe and Epper (2022) discovered in Denmark that children with patient parents are 7 to 8 percentage points more likely to also be patient. Increased parental time investment did not significantly contribute to the transmission of patience overall, nor did the authoritative parenting style. Instead, authoritarian and permissive parents transmit patience to their children. Same-gender parent–child dyads experienced the strongest transmission.

Data

- ▶ Original data from a unique survey, designed by MdR-Turin and conducted in 2022:
  - ▶ All parents listed in the well-established Nielsen Telepanel database (CSA) with cohabiting children aged between 14 and 20 years were invited to participate in the survey.

- ▶ The survey collected information from 311 households, including:
  - ▶ 444 parents and 380 cohabiting children,
  - ▶ totalling 576 parent-child dyads.

To elicit preferences

- **Patience - Child(Parent):** Would you rather receive 20(50) euros today or 40(100) in six months? (Possible answers: 20(40) today, it's the same, **40(80) in six months**).

- **Propensity to save - Child:** Do you have a habit of planning how much to save? (Possible answers: never, often, **always**).

- **Propensity to save - Parent:** Do you have the habit of thinking about how to divide your income between consumption and savings and then what to do with the latter? (Possible answers: never, sometimes, **always**).

To elicit preferences

- **Conscientiousness - Child:** Do you finish what you start to do? (Possible answers: never, sometimes, often, **always**).

- **Conscientiousness - Parent:** Are you someone who always finishes what you start, or do you sometimes find yourself abandoning things before the end? (Possible answers: I often abandon, I sometimes abandon, **I never abandon**).

Descriptive statistics on parents

	Obs	Mean	Std. dev.	Min	Max
Parents					
Male	444	0.489	0.500	0	1
Age	444	48.874	5.724	35	61
Elementary	444	0.146	0.354	0	1
High school	444	0.561	0.497	0	1
University	444	0.293	0.456	0	1
Blue collar or others	444	0.385	0.487	0	1
White collar	444	0.484	0.500	0	1
Manager	444	0.131	0.337	0	1
More than 500 books at home	444	0.074	0.263	0	1
SES	444	0.000	1.310	-2.3	3.6
Allowance	444	0.588	0.493	0	1
Patience	444	0.363	0.481	0	1
Propensity save	444	0.511	0.500	0	1
Conscientiousness	444	0.534	0.499	0	1

Note: The classification of occupation types is as follows: Managers, officers and professionals fall under the category of "Managers"; Traders, craftsmen, self-employed, employees and teachers are classified as "White collar workers"; Unemployed, housewives, students, pensioners etc. are grouped under the category "Blue collar or others". SES is calculated as the standardized first principal component of three variables: level of education, type of occupation, and number of books at home.

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Descriptive statistics on children

	Obs	Mean	Std. dev.	Min	Max
Children					
Age	380	16.618	2.118	14	20
Male	380	0.589	0.493	0	1
Patience	380	0.287	0.453	0	1
Propensity to save	380	0.137	0.344	0	1
Conscientiousness	380	0.808	0.394	0	1

To elicit the "sharing" behaviour

- Parents are considered to be "sharing" if they respond "always" to either of the following questions:
  - Do you inform or involve your children in important economic decisions of the family (such as buying a house or car, or managing an inheritance)?(Possible answers: never, often, always);
  - Do you share observations about money with your children that also pertain to everyday decisions (such as goods purchased at the supermarket, the cost of insurance, the cost of leisure activities, etc.)? (Possible answers: never, often, always).

- In our sample, 24 percent of parents are "sharing", and there is no distinction based on age or SES.

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Empirical strategy

OLS with clustered errors:

$$y_{h,i} = X_i \boldsymbol{\alpha} + \varepsilon_{h,i} \qquad [1]$$

$$y_{h,i} = X_i \boldsymbol{\alpha} + \beta H_i + \varepsilon_{h,i} \qquad [2]$$

$$y_{h,i} = X_i \boldsymbol{\alpha} + \beta H_i + \theta S_i + \varepsilon_{h,i} \qquad [3]$$

$$y_{h,i} = X_i \boldsymbol{\alpha} + \beta H_i + \theta S_i + \gamma S_i * H_i + \varepsilon_{h,i} \qquad [4]$$

SURE:

$$Y = \begin{pmatrix} y_1 \\ y_2 \\ y_3 \\ y_4 \end{pmatrix} = \begin{bmatrix} X_1^T & 0 & 0 & 0 \\ 0 & X_2^T & 0 & 0 \\ 0 & 0 & X_3^T & 0 \\ 0 & 0 & 0 & X_4^T \end{bmatrix} \begin{pmatrix} \boldsymbol{\beta_1} \\ \boldsymbol{\beta_2} \\ \boldsymbol{\beta_3} \\ \boldsymbol{\beta_4} \end{pmatrix} + \begin{pmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \varepsilon_3 \\ \varepsilon_4 \end{pmatrix} = X^T \boldsymbol{\beta} + \boldsymbol{\varepsilon}^T \qquad [5]$$

Results

Dependent var: Child's Patience (dummy) - OLS etimates

	(1)		(2)		(3)		(4)	
Male	-0.042		0.018		0.019		0.023	
	(0.048)		(0.043)		(0.043)		(0.042)	
Age	-0.005		-0.005		-0.005		-0.003	
	(0.012)		(0.011)		(0.011)		(0.011)	
Parent_male	0.022		-0.028		-0.029		-0.034	
	(0.022)		(0.023)		(0.024)		(0.024)	
SES	0.050	**	0.024		0.024		0.019	
	(0.024)		(0.022)		(0.022)		(0.022)	
Allowance	-0.104	**	-0.066		-0.065		-0.063	
	(0.048)		(0.041)		(0.042)		(0.041)	
Parent_Patience			0.384	***	0.385	***	0.345	***
			(0.047)		(0.046)		(0.051)	
Parent_Sharing					-0.010		-0.081	*
					(0.048)		(0.043)	
Parent_Patience*Sharing							0.174	*
							(0.091)	
Intercept	0.457	**	0.276		0.274		0.260	
	(0.196)		(0.181)		(0.182)		(0.179)	
Number of observations	576		576		576		576	
Adjusted R-squared	0.02		0.17		0.17		0.17	

Test (P-value):
Parent_Sharing+
Parent_Patience*Sharing=0   0.2804

Note: Robust standard errors clustered at household level in parentheses.*** p<.01, ** p<.05, * p<.1

Results

Dependent var: Child's Propensity to save (dummy) - OLS etimates

	(1)	(2)		(3)		(4)	
Male	0.039	0.052		0.054		0.054	
	(0.035)	(0.034)		(0.034)		(0.034)	
Age	0.015	0.014		0.015		0.015	
	(0.010)	(0.009)		(0.009)		(0.009)	
Parent_male	0.009	0.002		0.000		0.000	
	(0.017)	(0.018)		(0.019)		(0.019)	
SES	0.016	0.011		0.011		0.011	
	(0.019)	(0.019)		(0.019)		(0.019)	
Allowance	0.038	0.021		0.023		0.022	
	(0.037)	(0.035)		(0.037)		(0.037)	
Parent_Propensity to save		0.163	***	0.166	***	0.156	***
		(0.031)		(0.031)		(0.034)	
Parent_Sharing				-0.017		-0.048	
				(0.044)		(0.032)	
Parent_Propensity to save*Sharing						0.049	
						(0.066)	
Intercept	-0.156	-0.231		-0.234		-0.227	
	(0.156)	(0.155)		(0.153)		(0.150)	
Number of observations	576	576		576		576	
Adjusted R-squared	0.01	0.06		0.06		0.06	

Test (P-value):
Parent_Sharing+
Parent_Patience+Sharing=0   0.9861

Note: Robust standard errors clustered at household level in parentheses. *** p<.01, ** p<.05, * p<.1

Results

Dependent var: Conscientiousness (dummy) - OLS etimates

	(1)		(2)		(3)		(4)	
Male	-0.043		-0.048		-0.050		-0.051	
	(0.044)		(0.043)		(0.043)		(0.043)	
Age	0.011		0.011		0.010		0.010	
	(0.009)		(0.009)		(0.009)		(0.009)	
Parent_male	-0.048	**	-0.046	*	-0.043	*	-0.043	*
	(0.023)		(0.024)		(0.024)		(0.024)	
Allowance	0.127	***	0.124	***	0.121	***	0.120	***
	(0.041)		(0.040)		(0.040)		(0.040)	
SES	0.056	***	0.051	***	0.051	***	0.051	***
	(0.019)		(0.018)		(0.018)		(0.018)	
Parent_Conscientiousness			0.117	***	0.116	***	0.125	***
			(0.038)		(0.038)		(0.045)	
Parent_Sharing					0.023		0.047	
					(0.038)		(0.068)	
Parent_Conscientiousness*Sharing							-0.041	
							(0.077)	
Intercept	0.602	***	0.555	***	0.558	***	0.556	***
	(0.162)		(0.162)		(0.162)		(0.162)	
Number of observations	576		576		576		576	
Adjusted R-squared	0.05		0.07		0.07		0.07	

Test (P-value):								
Parent_Sharing+ Parent_Conscientiousness* Sharing=0							0.8789	

Note: Robust standard errors clustered at household level in parentheses.*** p<.01, ** p<.05, * p<.1

Heterogeneity by age

	(2) under 18		(2) over 18		(4) under 18		(4) over 18	
Child's patience								
Parent_Patience	0.375	***	0.368	***	0.306	***	0.387	***
	(0.059)		(0.079)		(0.064)		(0.091)	
Parent_Sharing					-0.136	**	-0.000	
					(0.060)		(0.061)	
Parent_Patience*Sharing					**0.329**	***	**-0.080**	
					(0.117)		**(0.136)**	
Test (P-value): Parent_Sharing+ Parent_Patience*Sharing=0					0.0674	*	0.5844	
Child's propensity to save								
Parent_Propensity to save	0.135	***	0.208	***	0.150	***	0.146	**
	(0.035)		(0.060)		(0.041)		(0.057)	
Parent_Sharing					-0.085	***	0.005	
					(0.027)		(0.080)	
Parent_Propensity to save*Sharing					-0.033		0.142	
					(0.065)		(0.126)	
Test (P-value): Parent_Sharing+ Parent_Propensity to save*Sharing=0					0.0694	*	0.1435	
Child's conscientiousness								
Parent_Conscientiousness	0.100	**	0.146	**	0.093	*	0.189	**
	(0.044)		(0.063)		(0.052)		(0.075)	
Present					0.010		0.114	
					(0.089)		(0.102)	
Parent_Conscientiousness*Present					0.033		-0.151	
					(0.101)		(0.119)	
Test (P-value): Parent_Sharing+ Parent_Conscientiousness*Sharing=0					0.3532		0.6390	
Number of observations	365		211		365		211	

Heterogeneity by SES

	(2) SESbelow		(2) SESabove		(4) SESbelow		(4) SESabove	
Child's patience								
Parent_Patience	0.393	***	0.369	***	0.389	***	0.278	***
	(0.065)		(0.065)		(0.069)		(0.072)	
Parent_Sharing					**-0.016**		**-0.196**	***
					(0.052)		(0.065)	
Parent_Patience*Sharing					0.020		0.383	***
					(0.174)		(0.112)	
Test (P-value): Parent_Sharing+ Parent_Patience*Sharing=0					0.9821		0.0604	*
Child's propensity to save								
Parent_Propensity to save	0.194	***	0.130	***	0.194	***	0.127	**
	(0.038)		(0.047)		(0.041)		(0.057)	
Parent_Sharing					-0.002		-0.125	***
					(0.046)		(0.045)	
Parent_Propensity to save*Sharing					-0.002		0.090	
					(0.090)		(0.093)	
Test (P-value): Parent_Sharing+ Parent_Propensity to save*Sharing=0					0.9604		0.6937	
Child's Conscientiousness								
Parent_Conscientiousness	0.083		0.160	***	0.096		0.163	***
	(0.053)		(0.052)		(0.063)		(0.060)	
Parent_Sharing					0.015		0.090	
					(0.092)		(0.093)	
Parent_Conscientiousness *Sharing					-0.053		-0.035	
					(0.109)		(0.099)	
Test (P-value): Parent_Sharing+ Parent_ Conscientiousness *Sharing =0					0.5871		0.1991	
Number of observations	319		257		319		257	

Heterogeneity by child's gender

	(2) Daughters		(2) Sons		(4) Daughters		(4) Sons	
Child's patience								
Parent_Patience	0.355	***	0.406	***	0.313	***	0.373	***
	(0.063)		(0.062)		(0.068)		(0.072)	
Parent_Sharing					-0.128	**	-0.047	
					(0.056)		(0.057)	
Parent_Patience*Sharing					0.227	*	0.135	
					(0.130)		(0.119)	
Test (P-value):								
Parent_Sharing+								
Parent_Patience*Sharing=0					0.4469		0.4292	
Child's propensity to save								
Parent_Propensity to save	0.146	***	0.174	***	0.154	***	0.160	***
	(0.041)		(0.045)		(0.045)		(0.051)	
Parent_Sharing					-0.027		-0.047	
					(0.031)		(0.042)	
Parent_Propensity to save*Sharing					-0.010		0.061	
					(0.079)		(0.098)	
Test (P-value):								
Parent_Sharing+								
Parent_Propensity to save*Sharing=0					0.6332		0.8779	
Child's Conscientiousness								
Parent_Conscientiousness	0.068		0.152	***	0.047		0.190	***
	(0.058)		(0.049)		(0.066)		(0.062)	
Parent_Sharing					-0.102		0.131	
					(0.113)		(0.087)	
Parent_Conscientiousness *Sharing					0.130		-0.140	
					(0.126)		(0.098)	
Test (P-value):								
Parent_Sharing+ Parent_ Conscientiousness *Sharing=0					0.6713		0.8727	
Number of observations	244		332		244		332	

SURE

Specification 2		
	Child_Patience	Child_Propensity to save
Child_Patience	1	
Child_Propensity to save	0.1431	1
Child_Conscientiousness	0.0292	0.0731
Breush-Pagan test (P-value)	0.0015***	

Specification 4		
Child_Patience	1	
Child_Propensity to save	0.1350	
Child_Conscientiousness	0.0288	0.0738
Breush-Pagan test (P-value)	0.0028***	

Note: *** p<.01, ** p<.05, * p<.1

Conclusions

- ▶ Strong evidence suggests a significant correlation in preferences between parents and children, indicating a likely intergenerational transmission of these traits.

- ▶ Sharing financial information enhances the transmission of patience, especially among children under 18, households with higher socioeconomic status (SES), and when the child is female.

- ▶ Notably, when parents are impatient, sharing increases the likelihood of impatience. The same happens for the propensity to save.

Conclusions

- ▶ Sharing doesn't seem to influence the transmission of propensity to save or conscientiousness, suggesting these traits may be transmitted through other means or the sample size might limit detection.

- ▶ All in all, there's a weak correlation among the analyzed preferences at the individual level.

- ▶ In a country like Italy with strong family ties, parent-child relations appear to be influenced by a permissive parenting style focused on sharing-oriented education, impacting preference transmission.

Conclusions

- Both positive and negative preferences are transmitted through sharing, as seen in the results regarding patience and propensity to save.

- Interventions should educate both children and parents about economic preferences, accompanied by efforts to encourage the most effective parenting style to strengthen the transmission of good preferences from parents to children.

- Tailored interventions are necessary for each preference due to the nuanced relationships and diverse effects of sharing behavior on their transmission.