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The long-lasting effects of family background: A European cross-country comparison☆

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ABSTRACT

This paper investigates how and to what extent the association between family socio-economic status (SES) during childhood and old age health, income and cognition varies across 11 European countries. It uses the Survey on Health, Aging and Retirement in Europe (SHARE) and SHARELIFE, which collects retrospective information on respondents' family backgrounds during their childhood. We also analyze which factors lead to intergenerational persistence of human capital by accounting for childhood health and school performance, education and labor market outcomes. The results show a strong relationship between family SES during childhood and old age outcomes and a large cross-country heterogeneity. Education appears as the main channel for this gradient and explains most of the estimated cross-country heterogeneity. Moreover, we show evidence of a strong correlation between income inequality and our estimates of intergenerational persistence of human capital.

1. Introduction

The extent to which parental socio-economic status (SES) affects human capital accumulation for children, and therefore their adult socio-economic outcomes, has always been of particular interest to social science for both equity and efficiency reasons. From an equity point of view a strong of intergenerational persistence of SES is not desirable in modern societies, especially when it comes from inequality in initial opportunities (Roemer, 1998). Efficiency reasons arise in particular in the case of credit constraints where poor parents cannot borrow to optimally invest in their children's human capital accumulation (Becker & Tomes, 1986). If educational opportunities are allocated on some basis other than ability such as differences in SES, resources will be inefficiently allocated. Therefore, social interventions directed toward less advantaged children are desirable because they are equivalent to an improvement in the efficiency of capital markets and increase the correlation between ability and human capital accumulation.

A growing literature has analyzed empirically the association between parental SES and that of their children once adults. While sociologists have focused on the

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intergenerational mobility between different class positions (Erikson & Goldthorpe, 2002), economists typically have examined the intergenerational transmission of income or wealth (Solon, 1999). More recently, researchers are examining whether intergenerational transmission of earnings varies among countries. These comparisons are mainly based on the intergenerational earnings elasticity by applying least squares to the regression of the logarithm of fathers' earnings on the logarithm of sons' earnings in national cohort studies.. Estimates of the effect of fathers' earnings on sons' earnings cannot be considered causal because of the presence of unobserved third factors correlated with both fathers and sons' earnings—such as unobserved initial endowment passed from parents to children as in the Becker and Tomes model (1986). However, they are still interesting because they provide a simple measure of intergenerational mobility that can be compared across countries. Cross-country differences imply that intergenerational transmission of human capital is not solely a process of genetic inheritance. Therefore, cross-country comparisons may be valuable because they can improve our understanding of how and why socio-economic status is transmitted across generations by examining the effects of different institutional and cultural environments. What emerges from this literature is that the United States and the United Kingdom seem to be less mobile societies than are Canada, Finland and Sweden (Jäntti et al., 2006). There is little evidence concerning the other European countries where cohort studies have been implemented only recently. Similar results arise from another strongly connected strand of literature, namely that on equality of "opportunity" defined in Roemer's (1998) landmark work. Romer distinguishes between inequality in outcomes that is driven by circumstances beyond individuals' control (such as family's SES), from inequality deriving from different levels of individual effort. This distinction is important from a policy perspective, since economic and social policies should only promote equality of opportunity. Among these studies, Lefranc, Pistolesi, and Trannoy (2008) show that the US and Italy are the most unequal countries both in terms of opportunity and in terms of outcome, while Scandinavian countries are at the opposite extreme.

The results from both strands of literature mentioned so far are consistent with the Solon model (2004) that predicts a strong correlation between inequality and intergenerational persistence. In particular, this model predicts higher intergenerational persistence of human capital in countries with higher return to human capital investment (i.e. more inequality) and lower progressive public investment in children's human capital. However, different assumptions about the functioning of the credit market might also lead to different conclusions about the relationship between inequality and mobility. For instance, comparing inequality and mobility in the US and in Italy, Checchi, Ichino, and Rustichini (1999) argue that higher levels of inequality might increase incentives for intergenerational mobility and lead to greater equality of opportunity.

More generally, the cross-country comparisons used in the literature might be strongly biased because they are based on different datasets and different time periods (see Corak, 2006; Solon, 1999 for a review). The only exception is studies that compare students' achievements in various countries using the PISA test (e.g. Martins & Veiga, 2010). However, since they only investigate early stages of life it is not possible to observe the evolution of the SES gradient over time but only its origin. In addition, they focus only on one main economic outcome (usually income or wealth) leaving out other important dimensions of human capital like health and cognition. Furthermore, the lack of any analysis of the channels through which parental SES affects children's long term outcomes do not sharpen our understanding of the mechanisms behind intergenerational persistence of socio-economic status and, consequently, it does not help the determination of the optimal policy intervention. Finally, few studies analyze the long-lasting effects of the parental socio-economic gradient on old age status. Nevertheless, for our aging society it is crucial to identify the main determinants of the human capital maintenance and depreciation at older ages. To this end, the parental socio-economic gradient should be particularly large at older ages "*when the sum of influences over the entire life-course express itself*" (Börsch-Supan & Schröder, 2011).

This paper tries to overcome most of the limitations seen in the literature so far by analyzing the relationship between family SES during childhood and their old age income, health and cognition across 11 European countries. We take advantage of the Survey of Health, Aging, and Retirement in Europe (SHARE), a large household panel which contains data on individual life circumstances of individuals aged 50+ in several European countries. The paper explores the richness of retrospective information on respondents' family backgrounds during their childhood provided in the third wave of SHARE, called SHARELIFE. Retrospective information is a way to possibly overcome the stringent data requirements and statistical problems that usually affect the measurement of intergenerational mobility using longitudinal cohort data. However, SHARELIFE does not contain direct information on the income or wealth of respondents' parents. Therefore, we use several types of retrospective information on respondents' socio-economic background when they were children (i.e. household characteristics, number of books at home and main breadwinner's occupation) to proxy for their parental SES.

Two main issues are examined. First, we analyze how and to what extent disparities in family SES during childhood are associated with differences in old age health, income and cognition and which mediating factors lead to intergenerational persistence of human capital. Second, we show how and to what extent the role of parental SES during the childhood varies across European countries. The results confirm the crucial role of family background during childhood in determining old age health, cognitive and economic outcomes. Moreover, controlling for self-reported childhood health and school performance, education and labor market outcomes we are able to account for roughly 60% of the initial gradient in income and more than 70% in the case of health and cognitive abilities.