### Inequalities in Socio-emotional Skills Development in Peru

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Inequalities in skills appear very early in life and may perpetuate intergenerational differences in income. Economists have previously focused on cognitive skills, but recently began to recognise that socio-emotional skills are also important in determining life outcomes. There are few studies on how socio-emotional skills develop in low- and middle-income countries, especially studies that span from childhood into adulthood. Our research deepens understanding of how inequality perpetuates across generations through this important aspect of human capital.

Using Young Lives Peru data from 2002–2016, we analyse how socio-emotional skills develop across childhood and adolescence (ages 8–19) into adulthood (ages 19–22), evaluating the role of:

- family investments, including time use and financial resources;
- parental background, measured by levels of parental education;
- cognitive skills at all ages;
- socio-emotional skills at earlier ages.

This allows us to examine what drives the development of skills, the degree to which they are self-perpetuating ('skills beget skills'), and whether there are complementarities between cognitive and socio-emotional skills ('cross-productivities'). Socio-emotional (and cognitive) skills cannot be measured perfectly. Instead, we have used several 'noisy' measures in our data at each age, allowing for the unobservable nature of skills by constructing different indexes of skills across different ages.

### What are socio-emotional skills?

These are variously known as social skills, soft skills, non-cognitive skills, psychosocial skills, or simply personality traits. They generally refer to a broad grouping of skills that are not related to language, computational or mathematical ability. This includes the ability to organise oneself, self-esteem, self-confidence, self-efficacy and locus of control – whether or not an individual feels they have control over their life. It also includes how people interact with others, including extroversion or introversion, leadership, and cooperation. Because there is no perfect measure of a single 'socio-emotional skill', it is difficult to fully understand how they develop. Consequently, there are diverse findings on their importance, with studies using a variety of different measures.

# What drives the development of skills between ages 8–19?

Our findings show that early life circumstances matter for the development of socio-emotional skills, mainly through their relationship with cognitive skills, which are strongly influenced by early family investments – including through wealth and parental education. As a result, by age 19 those from less educated and/or poorer families have significantly lower levels of socio-emotional skills.

Between the ages of 8 and 19, cognitive skills are by far the most important input of skills development: cognition is not only highly, and increasingly, self-productive, it is also highly influential in socio-emotional skill accumulation. Children with higher cognitive skills at age 8, had even higher cognitive skills at age 12, the difference widening from that point until age 19. In addition, because cognitive skills also drive socio-emotional development, socio-emotional skills followed the same trajectory among

high-cognition children. Conversely, we find that socioemotional skills do not affect cognitive development at any stage between the ages of 8 and 19.

Between the ages of 8 and 12, socio-emotional skills can be increased by family investments, measured by expenditure on things like school uniforms and books, as well as time spent studying and doing homework. Interestingly, we find evidence that returns to family investments tend to differ depending on children's skills: investments are most successful in improving socio-emotional skills for children with low levels of cognitive skills. Similarly, we find that cognition also responds to family investments at all ages, and that their impact also depends on children's level of cognitive skills.

These results underline the key role of cognition in skills development.

# What about socio-emotional skills development in early adulthood?

Due to limited data, between the ages of 8 and 19 we bundled socio-emotional skills into one component, which is common practice. Between the ages of 19 and 22, however, we applied an innovative methodology, dividing a rich set of measures of socio-emotional skills into two components:

- 1. *social skills:* how well the individual works as part of a team, leads others and relates to their peers;
- task effectiveness skills: individuals' self-evaluation of their ability to organise, control and influence their life circumstances.

These two components (factors) are conceptually and empirically distinct, and our findings suggest that each develops quite differently between the ages of 19 and 22. Task effectiveness skills are positively related to cognitive achievement at age 19, whereas those with lower cognitive achievement tend to build greater social skills, suggesting a possible compensation (or 'substitution' in economic terminology) between cognitive and social skills.

At age 22, those with higher task effectiveness are less likely to get involved in so-called risky behaviours (drinking, smoking, drugs, gang membership), which are predictors of worse outcomes in later life (e.g. lower paid jobs, unemployment, divorce).

### Conclusion

We find that early inequalities in cognitive skills and family circumstances drive the emergence and widening of inequalities in socio-emotional skills across childhood. These skills are important in determining future social and economic outcomes, impacting how disadvantage is perpetuated across generations.

Our future research will seek to understand differences in socio-emotional skills across genders and how these skills contribute to differences in socio-economic outcomes across all four Young Lives study countries, including further analysis of returns to skills in the labour market.

Published by Young Lives

Young Lives is an innovative longitudinal study following the lives of 12,000 young people in Ethiopia, India (in the states of Andhra Pradesh and Telangana), Peru and Vietnam since 2001. The study is divided into two age groups: 4,000 young people born in 1994 (the Older Cohort, now aged 26) and 8,000 born in 2001 (the Younger Cohort, now aged 19).

The Young Lives COVID-19 phone survey, funded by the Foreign, Commonwealth & Development Office (FCDO) as part of the Young Lives at Work programme, consisted of three phone calls with each of our respondents in all four study countries between June to December 2020, to better understand the impact of the pandemic on their lives and help to inform COVID-19 recovery plans.

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