

CHAPTER III
HUMAN CAPACITIES FORMATION
AND SOCIAL SECURITY PROGRAMS

CHAPTER III

HUMAN CAPACITIES FORMATION AND SOCIAL SECURITY PROGRAMS

III.1 Introduction

In this chapter we present recent developments in the theory of human capacity formation and contrast those findings with how social security programs work in relation to children. In doing so, we identify areas of opportunity to enhance the well-being of children by implementing public policies on at State level in general, and social security agencies in particular.

Not only do children have rights, but States and communities face the imperative of becoming proactive to guarantee that such rights are respected. Still, it is just recently that theoretical and empirical literature in the social and natural sciences (economics, genetics, health, and neurosciences are the most active ones) started providing evidence on the formation of child capacities that determine and affect many aspects of social and economic life. This new information will have a significant impact on how governments design public programs if a higher level of well-being is to be achieved. Social security institutions can not ignore this movement if they want to remain leaders in serving society through better programs and agencies redesigned according to current trends. Yes, they still will protect children against the "traditional" risks of disability or death of their parents, and poverty, but as new evidence shows,

child capacities have critical and sensitive periods and require genetic, parental and environmental inputs adequate to foster formation; programs must evolve accordingly. This goes beyond traditional social insurance design and benefits, and requires a new approach. Social security will remain as the preeminent institution in channeling funding from national sources to the social needs of families, and has a duty to incorporate this new information.

III.2 On the New Ideas Regarding Human Development

In this section we summarize the new literature and we will highlight, when applicable, the role of social security institutions and how their programs and management can be adapted to the new realities.

The general idea of this approach is that genetics, environment, and investment interact in such a way that influences the formation of capacities—cognitive abilities, non-cognitive abilities, and health—of children, and that in turn all types of capacities determine significant economic and social outcomes. This new approach rejects an old debate on competition between inheritance and investment in skills. According to that paradigm, sometimes referred to as "nature vs. nurture", individuals are born

with a natural skill—intelligence—which is measurable via IQ tests, and then receive skills through their family, school, and other environments, and that mix determines their capacity to earn income, engage in advanced studies, and, in general, interact favorably with society. A main reference supporting that approach is the book by Herrnstein and Murray (1994), *The Bell Curve*, which was debated intensively during the nineties.

Throughout the debate, scientists from several fields chipped in with the best of the available research, and produced new evidence on the topic. The book edited by Devlin, Fienberg, Resnick, and Roeder (1997) contained many of these arguments against the "nature vs. nurture" debate, and some important conclusions began to emerge. Among the more important is that there is not one single variable that defines the probability of living a socially productive life, and that no one single element determined by birth explains social results and interaction. On one hand, all elements, genetics, environments, and investments, are important and complement each other to determine capacities. On the other hand, success in life is defined socially, and skills are multi-dimensional. The same person can be considered handicapped in one environment, while in the other his or her skills can be highly productive. Even IQ is subject to significant social impacts.

A more detailed model of how skills are acquired has also been emerging, and that is where we begin to see the potential role of social insurance. During an individual's life cycle, capacities produced during one year influence future learning: there is a higher base to acquire skills in the future (an effect termed "self-productivity"); and also, capacities produced in one year raise the productivity of investment in subsequent years (an effect termed "dynamic complementarity"). Thus, self-productivity and dynamic complementarity result in a multiplier effect.

Moreover, the production of capacities may depend on the stage at which investments are made. Stages during which it is more effective to produce certain capacities are called "sensitive periods" (for example it has been proven that it is easier for a child under 10 to learn a foreign language or mathematics than for an older child), and if only one stage is effective in producing a capacity it is called a "critical period" (such as mother behavior during pregnancy for birth-weight). Finally, in this approach, investment decisions are made by the parents (or guardians) and children themselves, and decisions also depend on the capacities of parents and children; i.e., persons with higher cognitive and non-cognitive skills make better decisions that influence future capacities of children.

The importance of these finding is that programs to finance critical skills at an early age can be very successful at closing the gaps inherited due to genetics and parental socioeconomic conditions. Nevertheless, program efficiency can vary depending on the age of children and the previous environments in which they have lived. In some cases, the time window is very short, while in others it can span several years. Moreover, when parents cannot take or make the best investment decisions for their children, State agencies can influence decisions, respecting family laws and children's rights. For example, it has been proven that those with greater self-control and conscientiousness follow medical instructions; social security agencies cannot simply assume that all families will follow medical prescriptions and monitor sick children in the required ways, they must include in their programs circuit-breakers, preventive measures, and whatever is necessary to guarantee that a benefit is reaching the children. More generally, families should not be cash-constrained to develop critical investments.

The way social security organizes its programs is indelibly linked to the issue of guaranteeing children's rights. At a given point in time, a national society may agree that children must receive some form of health insurance. However, practical debates easily move to whether a family income test should be set to limit financing by social security agencies, to whether doctors and hospitals should receive lower payments when attending children compared to the care given other persons, and to many other practical considerations that sometimes set aside the original goal.

Heckman (2006) summarizes this new approach in nine aspects that should be considered when talking about human development:

1. *Ability matters.* Several studies have documented how ability is important in determining wages, school participation, and other economic and social outcomes.
2. *Abilities are multiple.* Cognitive abilities and non-cognitive abilities such as perseverance, motivation, time preference, risk aversion, self-esteem, self-control, preference for leisure, and resilience have proven to affect wages, schooling, teenage pregnancy, smoking, crime, and many other aspects of social and economic life, including health choices. Some non-cognitive abilities are known as emotional intelligence.
3. *The "nature vs. nurture" distinction is obsolete.* While behavior is ruled by environment, abilities are formed. Measured abilities have genetic components, but they are also the result of the effect of the environment.
4. *Ability gaps between individuals and across socioeconomic groups open up at early ages, for both cognitive and non-cognitive skills. So do gaps in health status.* There are gaps across levels of child cognitive and non-cognitive abilities depending on parental socioeconomic status.

5. *There is compelling evidence of the existence of critical and sensitive periods in development.* Some abilities are better attained at certain ages of childhood, which is why early remediation for adverse conditions is so important.

6. *Despite low returns to interventions targeted toward disadvantaged adolescents, the empirical literature shows high economic returns for remedial investments in young disadvantaged children.* Interventions during prenatal and early childhood stages can have long-term effects on cognitive and socio-emotional skills and health, resulting in high economic returns.

7. *If early investment in disadvantaged children is not followed up by later investment, the effect at later ages is lessened.* To be effective, investments must be made throughout all stages of life.

8. *The effects of credit constraints on a child's outcome as an adult depend on the age at which they bind the child's family.* Recent research demonstrates low family income during the child's early years has lasting, long-term effects on development of adult skills. An increase in family income when a child reaches college age does not compensate for low levels of investment during the child's first years of life.

9. *Socio-emotional (non-cognitive) skills foster cognitive skills and are an important product of successful families and successful interventions in disadvantaged families. They also promote healthy behaviors.* As an example, a person's temper, way of behaving, and his or her social environment explain, in part, their capacity to overcome various diseases.

III.3 Evidence for LAC

Although conclusions have been based on research performed for the United States and other developed countries, the findings are important for Latin America and the Caribbean (LAC) countries, especially because it is in these countries where more families live under poverty and face migration stress, and, in general, there is an increase in the number of single-parent families. The incipient literature for LAC suggests that early childhood is under stress, especially in poor families, and public interventions have not focused on supporting those periods of development when support is needed the most. In the following paragraphs we briefly revise some of the studies for LAC.

In LAC, there is a strong association between socioeconomic status and education of the parents and early childhood skills. Studies for Ecuador (Paxson and Schady 2005), Brazil (Halpern et al. 1996) and Mexico (Fernand et al. 2005, Gertler and Fernald 2004, and Arias et al. 2010), also reveal that this relationship is higher for older children, suggesting a cumulative effect on cognitive ability. Socioeconomic status encompasses many variables, and understanding which of them are most effective in influencing cognitive abilities is very relevant to focus public policies. Poverty in childhood leads to low educational outcomes that in turn result in poverty in adulthood and in the next generation (i.e. the intergenerational transmission of poverty is a vicious cycle). Nevertheless, research in developing countries has placed more emphasis on studying the association between child health and cognitive development (Paxson and Schady 2005), and less regarding the effect of other socioeconomic gradients on child skills. Among the few existing studies, Paxson and Schady (2005) find that parental quality—measured by parental responsiveness and punitiveness (yelling or hitting a child), time spent reading to the child, and the number of other children in the household—and hemoglobin levels are strongly associated with cognitive development in children aged 36 to 71 months.

Arias et al (2010) argue that for the case of Mexico, families are under stress due to poverty, increasing number of children living in single parent families, and more children in households with a partner absent due to migration. These conditions lead to less monetary resources spent on children and reduce the quality of parenting. Just to mention some examples, the studies of Parker and Gómez de León (2000) and Cortés and Rubalcava (1995) find that single parent families are mostly headed by older women, who have a higher rate of participation in the labor markets than women in male-headed households, work in more precarious employment situations, and work more hours and earn less money, than for example a male who heads a household, and consequently, children are also more likely to work. The effect of a single-parent household can be accentuated by teenage pregnancy, which is an important phenomenon in LAC as we will see in Chapter V. Arias et al (2010) also mention that migration is changing the composition of households and the resources available to children. Migrants leave behind children living in a single parent household or with other members of the family, like grandparents and aunts. While migration can increase the resources available to children to favor positive outcomes, the parenting time is reduced with net effects not fully established.

Arias et al (2010) stress the idea that current social spending is not well targeted, since it is focused on older children and not on younger children. Public expenditure on education per student in pre-primary levels is lower than primary, secondary, and tertiary, and the conditional cash transfer programs to poor families, that have grown in the region, focus on school-aged children. This may be one of the important factors that explains why Mexican children perform very low in international tests aimed at measuring cognitive abilities (PISA test for example) and why the *Oportunidades* program has provided weak results in improving cognitive development (see studies cited by the authors).

Labor legislation and social security have a long tradition in supporting children. Nevertheless, after the recent findings on children capacity formation, many questions arise. Three of the most important ones are: what is the role of social security programs in supporting young children? Are programs designed to promote their best capacities formation and thus well-being? How should programs be adjusted to attain this objective?

Social security is by design an excellent program for providing liquidity and other benefits to families in times of extreme stress. Pensions to orphans support children when one parent dies. Family allowances provide cash and other in-kind services to support families facing increasing spending needs due to the birth of children. Childcare subsidies help families deal with their dual responsibility as workers and parents. Maternity and healthcare benefits are designed to assure good, healthy pregnancies, safe deliveries, and healthy newborns. Moreover, labor legislation supports mothers through maternity leave periods to foster mothers' (and in some developed countries also fathers') care of newborns.

From this perspective, social security programs should be seen as a relevant vehicle to foster capacities in small children and thus their future well-being. Two issues though should be analyzed carefully. The first has to do with coverage, the second with the design of the programs.

As we know, social security coverage in several countries of the Americas is very low. There is a positive correlation between the per capita income of the country and the social security coverage, and a positive correlation between family earnings and the probability of being in the formal sector, which implies that the poorest families do not have social security (ECLAC 2006). Moreover, an important amount of evidence documents the high rotation of workers between the formal and the informal sector

in LAC countries (for examples of Argentina see Canavire and Lima 2007, and for Mexico see Calderon-Madrid 2008), which leads to a discontinuous delivery of social security benefits to children. Just to mention an extreme example, imagine a 6-month-old baby who attends one of the childcare centers of the Mexican Institute of Social Security (IMSS), but that at some point in time, the mother leaves her formal job and joins the informal sector. Suddenly her baby will have to leave their childcare center where he/she has developed an attachment to his/her caregiver. Although most of the babies have to pass through such an experience, we do not know yet what the effect of such an episode will have on the baby's capacities formation.

Many countries of the continent have recently implemented social programs for the uncovered population. Healthcare insurance is the most important one, but there are others. For example, in Mexico, the federal government implemented a program of childcare centers for the informal sector. Although these programs may help small children and their parents, they do not fix the situation presented in the previous paragraphs. Extension of coverage, by social security, or by welfare type programs is needed, but also social security and social protection for small children specifically. Moreover, programs should be articulated so benefits are not interrupted when parents change jobs.

The design of social security programs for children can be improved following the lines suggested by the literature of child capacities formation. It is a good thing that social security programs deliver benefits once children are born, but they can also be designed to provide differentiated benefits depending first, on the life-cycle stages of development, considering they have sensitive and critical periods, and second, each child's individual background.

An example illustrates these two areas of opportunity for social security programs. Survivors' benefits are granted to orphans of an insured worker who dies. If we ignore the discussion that benefits are low or high, the point is that under current design, programs provide a constant benefit throughout the time it is granted. The benefit is extended only if the beneficiary is a student or is disabled. A constant benefit ignores that preschool children may need more care, that stressful periods at an early age may compromise his performance in adolescence or adulthood, and that investments at early ages are more effective than investments at later ages. On the other hand, when a request for an orphan pension is received, social security agencies focus on verifying the qualifying conditions, and deliver the benefit. They do not go beyond to see the family environment in which children live, and do not question if the benefit reaches children or not. In most of the cases, the family will use the money to invest in children, but we cannot rule out that bad decisions are made for some children, who, as experience shows, usually belong to more disadvantaged families. The same example can be constructed for family allowances benefits, while the need to have a more active policy to support children in disadvantaged households applies in the case of healthcare and daycare benefits to children.

III.4 Conclusions

Social security benefits were implemented long before the recent literature of human capacity was developed, and to attain objectives mostly related to labor participation of beneficiaries. Nevertheless, the theory of human capital formation highlights the importance of the interplay of nature, environment, and investments in the development of good health, cognitive and non-cognitive abilities in children, and their importance for short and long-term outcomes. Social security institutions have a window of

opportunity in which to adapt their programs to make them more effective in promoting child well-being. According to this view, the redesign of social programs can follow the next recommendations:

1. *States should guarantee universal coverage in healthcare and financial protection for small children, especially those who live in disadvantaged environments, to isolate them from adverse conditions.*
2. *In general, States and, in particular, social security agencies, should be more involved in verifying children's environments, and implement preventive and corrective programs, while always respecting the right of families to make decisions within the privacy of their own household, to ensure that benefits reach children and their efficiency.*
3. *The portfolio of programs should be revisited to assess whether they are the most effective tools to contribute to child well-being.*
4. *Benefits should be flexible so that they can be adapted to respond when they are needed the most, especially in sensitive and critical periods.*

The recommendations implicitly call for an integrated approach, where all public agencies of different governmental levels work cooperatively to put children at the center of the policies. We urge governments to make a transition from a system of heterogeneous, disconnected, and low-efficiency programs to a system where each program is a piece of a coherent and comprehensive system of support to children, especially the disadvantaged ones. This is consistent with the way we suggest the administration of social security programs should work (CISS 2007). A unified database that longitudinally records children and household characteristics, benefits delivered, and children's performance should be the base of any decision.

A first step is to assess the programs provided in the countries, taking the literature of children capacities formation as the guide. With this assessment, programs can be adjusted step-by-step. Parents, families, communities, and public and international agencies should accompany children as they transition out of disadvantaged environments into a healthy adulthood. Social security institutions are in ideal positions to lead this change.