

Child Development and Economic Development:

Lessons and Future Challenges

Jo Boyden and Stefan Dercon





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About Young Lives

Young Lives is a longitudinal study of childhood poverty, following the lives of 12,000 children in 4 developing countries over 15 years. It is core-funded from 2001 to 2017 by UK aid from the Department for International Development (DFID), and co-funded by the Netherlands Ministry of Foreign Affairs from 2010 to 2014. Sub-studies are funded by the Bernard van Leer Foundation and the Oak Foundation.

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Summary

The final years of the twentieth century and first decade of the twenty-first century saw unparalleled global interest in the survival and development of children. This interest reflects commitments made under the terms of the UN Convention on the Rights of the Child to support and protect all young people below the age of 18, as well as efforts in line with the Millennium Development Goals to reduce child mortality, eradicate poverty and hunger, and attain universal primary education and gender equity. It responds also to growing disquiet about the fact that children and young people today seemingly confront unprecedented levels of insecurity and risk (UNICEF 2011). The improvement of children's life-chances is thus a legitimate goal of development in itself.

At the same time, there is increasing awareness that childhood experience is crucial to the adults that we become, and therefore it is increasingly recognised that enhancing the position of children is intrinsically connected with a broader process of developing economies and societies. Moreover, there is mounting global consensus that economic growth is essential, but not sufficient, for the realisation of this human potential. Thus, investing in children is not only the right thing to do for their survival and quality of life: it is also vital for creating and sustaining broad-based economic growth.

This review essay summarises current research into child development that investigates what promotes and what threatens children's growth and security. It examines how the well-being of children affects and is affected by wider societal (especially economic) development; whether and in what ways children have benefited from economic growth; and which policy directions can help to make economic growth deliver advantages for poor children in developing countries. It uses evidence from Young Lives and a wider literature across several disciplines to illustrate the core arguments. Thus, while much of the discussion focuses on the Young Lives study countries – Ethiopia, India (Andhra Pradesh), Peru, and Vietnam – our conclusions are applicable more broadly across many other contexts.



Introduction

The final years of the twentieth century and first decade of the twenty-first century saw unparalleled global interest in the survival and development of children. This interest reflects commitments made under the terms of the UN Convention on the Rights of the Child to support and protect all young people below the age of 18, as well as efforts towards the Millennium Development Goals to reduce child mortality, eradicate poverty and hunger, and attain universal primary education and gender equity. It responds also to growing disquiet about the fact that children and young people today seemingly confront unprecedented levels of insecurity and risk (UNICEF 2011). The improvement of children's life-chances and well-being is thus a legitimate goal of development in itself.

At the same time, there is increasing awareness that childhood experience is crucial to the adults that we become, and therefore it is increasingly recognised that enhancing the position of children is intrinsically connected with a broader process of developing economies and societies. Moreover, there is mounting global consensus that economic growth is essential, but not sufficient, for the realisation of this human potential. Thus, investing in children is not only the right thing to do for their survival and quality of life: it is also vital for creating and sustaining broad-based economic growth (Commission on Growth 2008).

International accords and advocacy to promote children's rights and development have galvanised government support for children and young people in many places. The first wave of measures, in health and nutrition, gained momentum from the Health for All commitments made in the 1978 Alma Ata Declaration, the International Drinking Water Supply and Sanitation Decade in the 1980s, and UNICEF's GOBI programme (to promote Growth monitoring, Oral rehydration, Breast-feeding and Immunisation). Together, these initiatives proved remarkably successful, dramatically reducing mortality and morbidity among infants and children under the age of 5 in most of the world.

The second wave, in education, gave rise to the Education For All declaration in 1990. Education For All commitments have led to notable advances in school

access and levels of literacy and numeracy and raised children's aspirations practically everywhere. But longer-term and more transformational benefits remain beyond the reach of many or most children. Urban populations still regularly receive the lion's share of funds, and, while the poor benefit from a good portion of government spending on primary education in many countries, they capture much less of secondary-level spending and almost nothing of tertiary-level expenditure. Since the higher levels are much more costly to provide, state education in these countries is decidedly pro-rich (Rolleston 2011). Similarly, efforts aligned with the Millennium Development Goals have been more successful in raising overall access to basic services than in addressing the intractable inequalities that are commonly hidden within these targets. Moreover, rapid growth in public education provision has in some cases (for example, Kenya and Malawi) been associated with declining quality, while perceptions of poor quality are also connected with a growth in low-cost private schooling (as in Nigeria, Kenya, and India).

The third wave of measures, in 'child protection', received its greatest impetus from the near-universal ratification of the UN Convention on the Rights of the Child, since many of the articles in this treaty focus on protecting children who are exposed to serious adversities, such as family separation, violence, and exploitation. Delivered largely through social-work practice and law enforcement and intended to support the most vulnerable children and families, this wave is floundering, due to a multitude of factors, among which a lack of appropriate methodologies, the difficulty of dealing with social and cultural complexity, and the reluctance of politicians to tackle the underlying structural causes are fundamental.

So, while a good deal has undoubtedly been achieved in recent years, much still remains to be done to improve children's life chances. Political imperatives are now underpinned more strongly than ever before by evidence from diverse global contexts of the detrimental outcomes for children of exposure to risks, whether due to deprivation or to distress (for a summary of this research, see Grantham-McGregor *et al.* 2007; Engle *et al.* 2007; 2011).

This review essay contends that understanding child development is crucial for assessing the impact on children of wider economic and social processes, and for formulating appropriate policies to improve outcomes during childhood and into adulthood. It summarises current research into child

development that investigates what promotes and what threatens children's growth and well-being. It examines how the well-being of children affects and is affected by societal (especially economic) development; whether and in what ways children have benefited from economic growth; and which policy directions can help to make economic growth deliver advantages for poor children in developing countries. It reasons that economic growth can be an important factor in child survival and development, and moreover that securing children's development is key to reducing poverty and sustaining growth in the long term. It uses evidence from Young Lives¹ and a wider literature across several disciplines to illustrate the core arguments. Thus, while much of the discussion focuses on the Young Lives study countries – Ethiopia, India (Andhra Pradesh), Peru, and Vietnam – our conclusions are applicable more broadly across many other contexts.

We find that economic growth in the Young Lives study countries has, in general, been good for children, although improvements have taken markedly longer for some groups than for others. Moreover, impressive advances in some areas distract attention from stagnation in others. It maintains that for economic growth to achieve its true potential for children, close attention needs to be paid to ensuring equitable access to jobs and social insurance, effective fiscal regimes, and, in particular, policies to support those children and families who have been consistently excluded to date. It is argued, in other words, that it is not economic growth *per se*, but rather the *quality* of growth that matters for children; by which we mean growth that eliminates absolute poverty and reduces risk and relative deprivation by offering greater opportunities for poor families.

"It is not economic growth per se, but rather the quality of growth that matters for children; by which we mean growth that eliminates absolute poverty and reduces risk and relative deprivation by offering greater opportunities for poor families."

1 Young Lives is a longitudinal cohort study of 12,000 children and their care givers in Ethiopia, India (Andhra Pradesh), Peru, and Vietnam. It uses quantitative and qualitative methods to study the causes and consequences of child poverty, and the role of public-policy responses in promoting children's development.



Section 1: What do we know about children's development?

1.1. Why are children particularly susceptible to external influences?

Human development is multidimensional in character and conventionally divided into distinct functional domains or pathways (physical-motor, cognitive, linguistic, emotional, social, and moral), each of which is composed of an array of states and competencies. Early research into child development tended to emphasise the universal biological factors, conceptualising it as the gradual unfolding of a series of developmental stages arranged sequentially, each stage building on and advancing competencies laid down in the previous one. While many aspects of Stage Theory remain profoundly influential today, contemporary thinking is noted for the diversity of its conceptualisations of human development.

There is broad agreement, however, that development involves a complex transaction between genotypic, biological, and maturational processes that are shaped by children's experiences, actions, and interactions, as well as by broader environmental influences, including the cultural values of their caregivers, which in turn are embedded in diverse contexts (Engle *et al.* 1996; 2007; Rogoff 2003; Sameroff 2009; Wachs and Rahman, forthcoming; Walker *et al.* 2007). As such, individual characteristics (for instance, personality) and biological forces (including genetics, epigenetics, and neurobiological factors) work together with family dynamics (for example, attachment to caregivers, family functioning), and broader historical, socio-cultural, and environmental factors (such as socio-economic status) in shaping children's growth and adaptation.

Some developmental pathways are determined largely by inherent processes that vary with age, while others are more susceptible to external influence. For example, while some sensory and motor functions are likely to remain relatively stable regardless of experience, others – for instance

social competencies – are far more easily disrupted by external forces (Schaffer 1996: 392). Thus, the quality of children's social, emotional, moral, and spiritual development, especially their feelings about identity, self-worth, and personal well-being, is highly dependent on how they understand their relative social position, relative competence, and potential to access opportunities for personal, social, and economic advancement. Moreover, these are not for the most part individualised processes, but are experienced as part of a family group, peer group, and community (Boyden and Crivello 2011; Ridge 2002; Woodhead 2004). So, for example, children who experience approval, acceptance, and opportunities for skill development are far more likely to be independent and resilient than those who have been subjected to discrimination, humiliation, rejection, or failure (Boyden and Mann 2005). Availability of both formal and informal mechanisms of support, such as the extended family, self-help groups, social protection programmes, health services, and education, directed at a child and/or at the child's caregivers, is understood as part of this complex environment of human development.

Different children, households, communities, and societies are subject to different levels of hazard and risk at various points in the human and family life cycle, and there are different types and amounts of material and psychosocial resources to support children's development, as well as different levels of knowledge and beliefs about how best to raise them. This fundamentally affects children's everyday lives, including the things that they are taught or encouraged to do, to whom they turn for guidance, and whether and where they feel safe or in danger—all of which produces great variety in the developmental challenges and opportunities that boys and girls experience (Rogoff 2003). For example, while some communities view moderate exposure to risk and danger (experienced for instance in endurance tests incorporated in rites of passage) as an important basis for developing resilience and coping skills, others believe that it is more beneficial to shelter children from adversity (Boyden and Mann 2005: 10). Such differences lead to significant differences in the specific skills that children develop and to variations in their developmental trajectories more generally.

The various domains or pathways of development exist in a synergistic relationship, so that functioning in one domain affects functioning in the others. This emphasises the way in which competencies in different

domains build on each other. Such knowledge is particularly relevant for understanding the child outcomes of risk exposure. It highlights the likelihood of adversity having compound effects (Behrman *et al.* 2010; Daniels and Adair 2004) and points to a *cumulative-risk perspective* whereby varying (moderating and mediating) influences at the individual, family, and social levels are seen to interact and intersect to influence child outcomes (Burchinal *et al.* 2008; Stevens 2006; Toth and Cicchetti 2010).²

The dynamic development of competencies, with synergies across different domains, and with abilities or vulnerabilities at one point in time influencing children's development in later periods, has been documented in several Young Lives papers. Outes-Leon *et al.* (2010), for example, found that a child's feeling of being respected at the age of 8 years was strongly predictive of higher test scores for mathematics and reading at the age of 12. Similarly, using Young Lives data on Peru from 2002 and 2006, Sanchez (2009) reports a strongly significant impact of early childhood nutrition on later cognitive outcomes; this is, of course, a well-established result in the literature from a variety of contexts. However, Young Lives research extends our knowledge of these processes, not only by confirming empirical findings of previous studies, but also by documenting them in entirely new contexts; while the link between child nutrition and later cognitive outcomes is now well established, recent work by Dercon and Sanchez (2011) also shows that a similar link exists between child nutrition and later psychosocial (non-cognitive) outcomes, such as self-efficacy, self-esteem, and educational aspirations. Similarly, Helmers and Patnam (2011), extending the work of James Heckman and co-authors to developing countries, using Young Lives data from India, show that there is significant evidence of skills acquired at one stage of development influencing later cognitive skills and non-cognitive skill formation.³

It is now widely understood that child developmental processes are time-sensitive, in that there are periods during which children's responses to

2 For example, Stevens (2006) reviews cross-sectional data on 2,068 children to analyse child vulnerability as a profile of multiple risks. This study demonstrates a dose-response relationship of higher-risk profiles with poorer health status and higher developmental risk.

3 Young Lives research continues to focus on the dynamic interplay of factors in child development over the course of childhood, for example in a large body of collaborative work studying the determinants and impacts of stunting and catch-up growth on child outcomes (e.g. Crookston *et al.* 2010).

environmental stimuli are heightened (Shonkoff *et al.* 2009; Shonkoff and Phillips 2000; Shonkoff and Levitt 2010). This leads to greater vulnerability to long-term harm arising from risk exposure in these periods, but also offers a window for focusing on policy interventions that will be most potent. The negative impact of deprivations in these critical periods can be very large. Early childhood is generally recognised as the most crucial life-phase in terms of developmental malleability, for this is when maturation processes are accelerated and genotypic milestones emerge (Shonkoff *et al.* 2012). Importantly, the time sensitivities of early childhood are also socially structured by influences that include the institutions of education, as early cultural learning selects and reinforces specific cognitive and psychosocial competencies. Unequal participation in early-childhood and primary education further determines long-term trajectories, in the sense that institutions, teachers, and assessment systems all tend to promote some children over others, depending on their perceptions of children's characteristics and potential (Streuli *et al.* 2011; Woodhead *et al.* 2009).

“Early childhood is generally recognised as the most important life-phase in terms of development, for this is when growth processes are accelerated and milestones emerge.”

Significantly, the child–environment influence operates in both directions, in that children do not simply absorb and react to external forces, but are instrumental in shaping their own environment by ‘selecting and even creating those settings that are compatible with their individual characteristics’ (Schaffer 1996: 394). This insight has led to the conceptualisation of children as social agents and the realisation that they are seldom the passive victims of overwhelming circumstances. Many studies have provided important evidence that even among boys and girls thought to be at heightened risk of poor outcomes there is considerable variation in individual capacity to achieve developmental tasks, and some children even thrive despite experiencing multiple developmental threats (Eisold 2005; Masten and Obradović 2006; Obradović and Boyce 2009; Rutter 1985; 2002). For example, Cortes and Buchanan (2007) found that Colombian child soldiers who did not exhibit

trauma-related symptoms after experiencing armed combat were the ones with a sense of agency, social intelligence, empathy, and affect regulation, a sense of future, hope, and growth, and an awareness of spirituality and morality. So, more recently, research has also begun to focus on identifying and examining the promotive,⁴ protective,⁵ and mediating processes that shield children from various forms of adversity, including the individual characteristics of affected children, their opportunities for mastery, and the strategies that they use for reducing risk or overcoming misfortune.

1.2 The impact of risk exposure on children

Research into the outcomes of children's interactions with the environment has enormous potential to inform policies and programmes promoting the development and well-being of children who are exposed to poverty and other risks. This research has yielded important evidence concerning the factors most likely to compromise children's development, as well as the severity and persistence of effects. There is now a vast literature from around the world which documents the long-term impact of shocks to development during early childhood in particular. For example, studies have revealed that malnutrition in the early years of children's lives may prevent them from developing the brain connections that are essential for learning throughout life, and malnutrition may thus adversely affect education and, eventually, earnings potential in adulthood (Bauer and Boyce 2004; Cicchetti and Garmezy 1993; Grantham-McGregor *et al.* 2007; Masten *et al.* 1990; Rutter 2005). Similarly, it has been conclusively shown that climatic shocks during pregnancy (*in utero*) or in early childhood can have severely damaging effects on adult heights and on lifetime earnings, and can lead to vulnerability to long-term ill-health (Almond 2006; Almond and Currie 2011; Black *et al.* 2007; Maccini and Yang 2009). Finally, there seems to be growing evidence that such harm early in life also contributes directly to the inter-generational transmission of poverty and social disadvantage (Bird 2007).

It is widely accepted that the care environment, generally constituted by a child's activities and relationships within the home-based family, is the most

4 Promotive factors are those influences linked to better outcomes for all children. These influences can act as mediating factors to reduce the risk of negative outcomes.

5 Protective factors refer to influences that relate to better outcomes in high-risk individuals, but not in a low-risk sample. Vulnerability factors refer to poor outcomes in a high-risk population (see Burchinal *et al.* 2008).

salient external influence in children's lives, especially during the earliest years of life. For example, among war-affected youths in northern Uganda, those who had high family connectedness and social support were more likely to have lower levels of emotional distress and exhibit better social functioning (Blattman and Annan 2010). Hence it is vital to understand how family and/or household dynamics and conditions affect children, and how children experience and negotiate these dynamics, in so far as they have agency to do so.

The illness and death of parents and other caregivers, in particular, have been shown by research to have long-term impacts on the welfare of children. Thus, in studies of orphans in AIDS-afflicted areas in Tanzania, maternal orphanhood was found to have permanent adverse impacts in the form of stunting, an indicator of long-term malnutrition, and educational attainment compared with similar children whose mothers survived until at least the children's fifteenth birthday (Beegle *et al.* 2009). One in five of the Young Lives children in Ethiopia have lost at least one parent. School enrolment was reduced significantly, by about 20 per cent, among Young Lives children aged 11 to 12 in 2007 whose mother had died between 2002 and 2007; and maternal death also had major negative impacts on children's ability to read and write a simple sentence (Himaz 2009). In Andhra Pradesh, children in households in the Young Lives survey that reported the death of a family member other than the primary caregiver (since the caregiver is usually the mother, this includes fathers, siblings, grandparents, aunts, uncles, etc.), when interviewed at age 11 to 12, were 70 per cent less likely than others to be in school three years later (Pells 2011a). In-depth interviews suggest that this is probably a result of children having to take over new responsibilities within the household.

Both the development-economics literature and the child-development literature emphasise that some households are significantly more vulnerable to adversity than others; typically the burden of risk is greatest for poor households; and poor households, by and large, are the ones least able to smooth income shocks (Dercon 2002). At the same time, poverty is a key indicator for multiple developmental risks in children, including, among others, malnutrition, environmental toxins, low maternal education level, and family conflict (Wachs and Rahman, forthcoming). Within poor households it is the least-advantaged children (for example those disadvantaged by

gender or birth order) who are likely to suffer most from shortfalls and incomplete protection, for limited resources are very often distributed unevenly. Thus risks are cumulative, with the greatest burdens falling on those who were disadvantaged to begin with, and the greatest threat being posed to developing young children. In Chile, for example, Ivanovic *et al.* (2000) found that low-birth-weight infants, as compared with infants of similar socioeconomic status who were born in the range of what is considered by most physicians as a healthy weight, had, at the age of 18 years, significantly lower intelligence quotient, scholastic achievement, head circumference, and physical brain development.

“Risks are cumulative, with the greatest burdens falling on those who were disadvantaged to begin with, and the greatest threat being posed to developing young children.”

Households are not, in most cases, powerless against shocks that might affect them, nor do they passively suffer their consequences: they actively attempt to reduce their vulnerability, for example by diversifying income sources and crops, and by ameliorating their impact, through informal group-based risk sharing, increasing their labour supply, and other means. Sometimes during crises children move (temporarily or permanently) into the home of relatives who are better off or short of labour, and this can be a source of either developmental risk or learning and social support (Boyden and Howard, forthcoming). Very often children share responsibility for household management, making significant contributions through unpaid work in a family enterprise, paid employment, the accomplishment of domestic chores, or the care of younger siblings or incapacitated adults (Boyden 2009; Bourdillon *et al.* 2010). For many boys and girls, playing an active part is vital to their social inclusion and hence an important source of identity, pride, and self-efficacy; it also enables them to gradually learn life skills appropriate to their gendered adult roles (Boyden *et al.* 1998; Woodhead 2004). Nevertheless, these risk-coping mechanisms can be damaging for the young: for example, Young Lives data show that in India children work more in response to droughts (Krutikova 2009), and in Ethiopia

some struggle to sustain schooling, given the demands of their work and social responsibilities (Boyden 2009).

Even when household and individual coping mechanisms provide a shield during crises, they do not always offer complete insurance against the effects of shocks or enduring hardships. This is perhaps most likely in the case of adversities that affect an entire community, since these tend to limit the ability of households to share risks. The poorest households may be rendered more vulnerable because they are frequently excluded from self-help groups on the grounds that they cannot reciprocate (Pells 2011a). While it is not apparent from Young Lives data whether group membership equates with receipt of tangible benefits, it does seem to make a difference to children's outcomes. Children in excluded households are 40 per cent less likely than others to have healthy weight-for-age in Andhra Pradesh and healthy height-for-age in Ethiopia and Peru, and such children rate themselves lower in terms of subjective well-being in Ethiopia and in terms of health in Andhra Pradesh. Previous studies have offered evidence that even within households risk sharing is not complete (Dercon and Krishnan 2000).

More often than not, high levels of risk exposure at the child, family, or household level reflect wider structural or systemic forces that operate against entire social groups, as in the case of distorted public-sector investments that prevent populations in certain locations or social groups from accessing high-quality services, or institutionalised labour-market discrimination affecting people of a particular religion or ethnicity. In all four Young Lives countries, the same households and children tend to be repeatedly disadvantaged; rural children, children of ethno-linguistic minority communities, and (in India) low-caste children, as well as those whose mothers have no/low education, experience discrimination, powerlessness, and social isolation and are at increased risk of doing less well across a wide range of indicators in education, health, and subjective well-being.

Thus, in Peru, the urban–rural gap has been widening, especially in the past few years, as expenditure has been growing more rapidly in urban than in rural areas (Cueto *et al.* 2011). The gap between children with better-educated mothers (who have completed further education) and those with mothers with low education (incomplete primary or less) is also wide.

So, for instance, at ages 8 and 15, children from non-poor households in urban areas with better-educated mothers whose maternal language is Spanish (rather than Quechua) have a much better chance of reaching the appropriate school grade for their age (Cueto *et al.* 2011). Similarly, in 2009 the prevalence of stunting was seven times higher among children aged 8 with mothers who did not complete primary school than among children of the same age whose mothers had completed further education (Cueto *et al.* 2011). Children from households in the bottom quintile of consumption were more than twice as likely to report having a ‘bad life’, compared with children from households in the top consumption quintile.

The experience of armed conflict emerges as another striking example of risk generated by macro-level structural forces, being potentially among the most damaging to households and children within them. Armed conflict, including civil wars and international wars, has affected a vast number of developing countries in the past: even in the Young Lives study areas, Ethiopia, Peru, and Vietnam have all suffered from significant periods of armed violence in the past half century, and parts of Andhra Pradesh in India remain beset by armed Maoist insurgency even today. Recent work has focused on the direct and indirect impacts of conflict on children’s outcomes. One study assessed the causal impacts of child soldiering and found that child soldiers abducted by the Lord’s Resistance Army in northern Uganda have lower education, lower earnings, and significantly higher symptoms of emotional distress;⁶ similarly, studies of the Rwandan genocide find evidence of stunting in children exposed to armed conflict, in this case a severe decline of up to 1.05 standard deviations in the height-for-age z-scores (Akresh *et al.* 2011), and an 18 per cent decline in the length of schooling attained (Akresh and de Walque 2008). Sanchez (2010) studied the consequences of armed conflict in Peru on child height in the context of the activities of the Sendero Luminoso, other armed groups, and paramilitary and army responses during the 1980s and 1990s. Using careful identification of the role of conflict, he found that in areas with highest conflict-intensity children lost more than 3 centimetres in height by the age of 5 (or 0.8 of a standard deviation of the z-score), compared with low-intensity areas.

⁶ The study also notes that their results point to a high degree of social and psychological resilience in ex-combatants, and that the magnitude of psychological problems found is lower than would be expected, given the scale and brutality of the violence in northern Uganda.

Causes of risk affecting specific groups of children may also be situational, as in the case of natural or technological catastrophes, such as drought or industrial accidents. Many rural households in developing countries are especially vulnerable to climatic shocks. A recent study focusing on the effects of early-life rainfall in Indonesia on adult outcomes found that women with 20 per cent more rainfall in their community in their birth year were 3.8 per cent less likely to report poor health, were significantly taller, and attained higher grades of schooling. Similarly, an analysis of the long-term effects of the 1984 Ethiopian famine finds that children who were under the age of 36 months at the peak of the crisis were shorter by up to 3 centimetres after 20 years, and that this may lead to income losses of between 3 and 8 per cent per year over their lifetime (Dercon and Porter 2010). Frequently, populations that are poor due to structural disadvantage, powerlessness, or discrimination are also prone to adverse situational processes that further exacerbate their poverty and heighten risk. This may be because they are forced to live in areas that are ill-suited to human habitation, or obliged to work in dangerous and/or unregulated economic sectors without insurance or social security.

“Frequently, populations that are poor due to structural disadvantage, powerlessness or discrimination are also prone to adverse situational processes that further exacerbate their poverty and heighten risk.”

This discussion of risks is not exhaustive: it is merely intended to illustrate that children, households, communities, and population groups may be prey to a multitude of risks, and that the inability to cope with them may have severe long-term impacts on children's outcomes, even late into adulthood. From this it can be seen that an understanding of wider risks faced by households, communities, and population groups is critical to understanding the possible threats to child development in poor countries.

1.3 What is the relationship between child development and economic development?

Theories of child development arising out of developmental science provide an essential scaffold for child-focused policies throughout the world today. There are many examples of this, notably the age-grade education systems found practically everywhere that are underpinned by a maturational or 'age and stage' model which evaluates children according to their 'readiness', 'progress', or 'failure'. This model has had a profound influence on the way in which organisations involved in policy formulation think about young people, as exemplified by the World Bank's 2007 *World Development Report*, which puts forward the idea that young people must pass through a series of universal staged transitions on their way to becoming productive, well-adjusted, and 'successful' adults. More recently, the World Bank's new 10-year education strategy (World Bank 2011a) draws on scientific evidence about the risks to children's developmental potential, now bolstered by the emergent findings from neuroscience which call for prioritising investment in pre-natal health and early-childhood development programmes as a means of securing brain development in early life, as well as for lifelong learning (Grantham-McGregor *et al.* 2007; Engle *et al.* 2011).

Economics has played an important role in 'enabling' these scientific ideas to become embedded in policies on childhood internationally through its deployment of the human-capital framework. This framework shapes much contemporary thinking and practice, especially with regard to children who are growing up in developing countries exposed to poverty and high levels of risk. One of the most important contributions of research on human capital is the explicit link that it makes between child development and wider economic and societal development. Thus, studies in this tradition have long focused on examining the effects of investments in education, health, and nutrition on child outcomes, as assessed in terms of incomes, and on national trends, as assessed in terms of the growth of economies.

More recently, the concept of so-called 'non-cognitive' skills (such as agency, pride, perseverance, emotional stability, self-efficacy, and a sense of inclusion), which have always been central to the research of developmental scientists, has also been incorporated within the human-capital framework, due mainly to the influential work of the economist James

Heckman and his colleagues (Cunha and Heckman 2008; Cunha *et al.* 2010; Heckman and Rubinstein 2001; Heckman *et al.* 2006). This body of research recognises that individuals are more likely to flourish if they have a positive sense of self and their place in the world, and that these competencies are an essential support to health and cognition; it also emphasises how the foundations for these different dimensions of human capital are laid down during childhood. Heckman and colleagues have taken their economic analyses a step further, by translating developmental-science assumptions about the impacts of intervention into powerful claims about the relative returns in terms of human capital on investments targeted at different developmental stages, with the earliest years showing the strongest gains. Hence, there is an increasingly powerful case to be made for securing the development of human capital through investments in the young; indeed, many would argue that not only is this an essential pre-condition for sustained macro-economic growth, but, at the same time, that economic growth is the best means for achieving the development of human capital (Commission on Growth 2008).

“Children are more likely to flourish if they have a positive sense of self and their place in the world, and that these competencies are an essential support to health and development.”



Section 2: Economic growth and improvements in children's well-being

Many countries across the developing world have experienced high growth in the past decade, despite the global economic crisis. This trend is extremely promising, providing a unique opportunity to enhance the condition and circumstances of children in poor countries. In this section we discuss the links between economic growth and child development. We provide evidence to show that economic growth can be an important engine for change and for human-capital formation, and that it can also make a significant difference to children's lives. But we also argue that growth alone is insufficient, and we identify some of the mechanisms that need to be in place and challenges that need to be addressed in order to ensure that recent investments in children's human development are sustained, that they benefit all children, and that they extend into adulthood.

2.1 How economic growth affects child well-being

Economic growth is linked with child welfare through several channels. The most obvious links are those directly related to increases in the financial resources of households and, through raised tax revenues, of the government. If we assume that children's well-being in poor households is constrained by the resources available to those households, and that economic growth leads to an easing of these financial constraints, then we would expect economic growth to be accompanied by concomitant improvements in the indicators of child well-being, even in the absence of any coordinated public action. Even if growth were not pro-poor, i.e. it had not increased incomes for the poor but only for the rich, it is possible that it could translate into better outcomes for children if governments used the additional tax revenue arising from growth to provide services that benefit the young (Glewwe 2012).

Depending on the pattern of growth, a further channel through which economic growth could affect children's well-being is by changes to the

returns on specific activities and therefore the investments that households make, including their investments in children. These effects could potentially be very different across different types of household (for example, across rural and urban populations, or across different ethnic/caste groups) and indeed in relation to different children (for example, boys or girls) in the household. The responses to these changes in the returns on activities could also be conditioned, for example, by the social structures and networks to which a household may have access. Thus, Munshi and Rosenzweig (2006) considered the gains from English and vernacular (Marathi) education in Bombay between 1980 and 2000, a period of economic growth and rising opportunities in that city. Returns on investment in English-medium schooling rose substantially, and lower-caste families responded to this trend more markedly than other castes by increasing the proportion of girls enrolled in these schools. This fact closed caste-related gaps for girls, but not for boys, possibly because lower-caste boys were involved in strong local networks that tied them to particular blue-collar jobs.⁷

A closely related possibility is that economic growth might also change the nature of risks to which households, and thereby children, are exposed. At one level, this could happen because of different activity and investment choices that households might make, prompted by wider economic transformation. For example, households may choose to change their cropping patterns, or their diversification across crops and livestock, or indeed move out of agriculture altogether,⁸ thereby transferring their risk exposure away from environmental and agro-climatic factors to more market-based factors, requiring alternative coping mechanisms, with potentially significant implications for the risk burdens of households and children. Economic growth may also be accompanied by an economy-wide change in susceptibility to various income and price shocks, which could affect children.⁹ Finally, there could be an indirect link between

7 See Foster and Rosenzweig (1996) for another influential study of how technical change in the economy, through the Green Revolution in Indian agriculture, changed the returns from education and therefore the investments that parents made in education. Pitt et al. (2010) show how changes in investments in Bangladeshi girls and boys in recent decades are consistent with changes in relative physical strength and cognitive skills.

8 Dercon (1996) and Dercon (1998) look at how risk affects crop choice and activity choice in rural Tanzania; Dercon and Christiaensen (2011) consider, in a dynamic setting, how risk associated with modern technologies in agriculture affects their adoption in Ethiopia.

9 See Dercon (2008) for a discussion of the effects of the sharp increase in food prices between 2006 and 2008, and Dornan (2010) for an attempt to understand the impact of the global financial crisis on children in developing countries.

economic growth and risk, if we think that at least some large social protection schemes, such as the Productive Safety Net Programme in Ethiopia or the National Rural Employment Guarantee Scheme in India, might not be seen to be sustainable for governments without the additional tax revenues that are derived from economic growth.

Overall, while we can argue intuitively that there are many routes by which growth could affect children's outcomes positively or reduce their risk burdens, it is difficult to make strong claims about the extent to which this holds true, given the limitations of current evidence. As Glewwe (2012) discusses, in Vietnam economic growth has been accompanied by a higher quality of life for poor households, as measured by education, health, and dwelling characteristics, but also that there is wide variation in those improvements.

2.2 Evidence from Young Lives countries

The economies of the four Young Lives countries have grown rapidly in the past decade: between 2001 and 2010, Gross National Income per capita has increased by between 57 per cent (Peru) and 88 per cent (Vietnam) (World Development Indicators 2011).¹⁰ Economic growth has been accompanied by a general increase in access to services, for example safe drinking water, in all four countries. Similarly, school enrolment is now near-universal in three of the countries in the study.¹¹ However, the patterns by which improvements have reached children in these countries have been very diverse, both across different socio-economic groups and across different outcomes. In Andhra Pradesh, for example, while access to drinking water has increased rapidly, improvements in access to sanitation have not been achieved nearly as fast. Similarly, while school enrolment is near-universal across three of the Young Lives countries, the quality of education received in public schools (as measured by basic tests of reading, writing, and arithmetic) has remained poor in many areas.¹² Bearing in mind the synergies between the various developmental pathways during

10 Source: World Development Indicators 2011, measured in constant US\$ (2000).

11 The only exception is Ethiopia, where enrolment rates in our sample were about 77 per cent in 2009 for children aged 8. But even there, the national figures in the same period show rapid increases in enrolment for primary-school children in recent years (Batura and Dercon forthcoming).

12 This is a broader pattern noted by several other studies as well. In India, for example, this has been documented across the entire country by successive editions of the Annual Survey of Education Reports compiled by Pratham since 2005.

childhood, such disparities in service access and quality have the potential to significantly undermine children's well-being, growth and skill formation.

More important still, there is very little evidence that growth by itself is addressing the relative disadvantage of some groups in comparison with others; and indeed in some cases, at least, it may well be exacerbating inequality, as in the well-being gaps between rural and urban children in Peru mentioned above. In many cases, such disparities widen during the course of life. The difference of 5 percentage points in school enrolment between poor children and the rest in the Young Lives sample in Vietnam more than tripled between ages 12 and 15 (Pells 2011a). Most children had left school at the transition from primary to secondary level, ethnic-majority Kinh children mainly dropping out because they had failed the tenth-grade entrance exam (Vu forthcoming). The reasons given by ethnic-minority children were far more diverse, however, reflecting the subtle and complex challenges that are associated with prejudice and social stigma. For example, Ho Mai dropped out because she was ashamed that she could not buy a bicycle to go to school, as other children in her class did. Y Thinh would often miss classes because he got into fights with classmates when they mocked his ethnicity. He began to fall far behind, so finally decided to leave. Y Mich was one of very few Cham H'roi children in his community to get into tenth grade, but he left after only two weeks because none of his friends had stayed on. He now has a job chopping sugarcane alongside his friends and uses his earnings to buy alcohol (Vu forthcoming).

Inequalities are evident not only between children in different social groups, but also between different children within households. In India, for example, we find evidence of a systematic bias against girls in education. This arises from lower educational aspirations of parents for their daughters at the age of 12, which is translated into the lower educational aspirations that girls have for themselves at the age of 15 and the lower scores that they achieve in both mathematics and verbal tests at that age (Dercon and Singh 2011). This does not, however, mean that bias is always exactly as might be expected. Even in settings where such biases have long been documented, as indeed gender-based discrimination in India has been, we find that the mechanisms by which this manifests itself have changed significantly in this period of high growth. In the mid-1990s in India the bias against girls in education manifested itself in lower enrolment rates as compared with boys, rather than in how much was spent on girls relative to boys once they

were enrolled (Kingdon 2005); but the pattern since then has been reversed: everyone is likely to be enrolled, but boys are more likely than girls to be enrolled in private schools and to have more money spent on their education (Pells 2011b).

Finally, the relative importance of different biases or gaps also seems to have changed over time. It is worth noting above, for example, that even in Andhra Pradesh, where our sample presents the most stark examples of gender disparities, the difference between access to private schooling for 8-year-old boys and girls in 2009 (9 per cent) is smaller than that between children in rural or urban areas (54 per cent) or the gap between the access of children from traditionally deprived caste and tribal groups and the other castes (44 per cent between Scheduled Castes and upper-caste groups), or between children with more-educated and less-educated mothers (41 per cent between children of mothers with at least 10 years of education and those without). Clearly, then, any studies of exclusion need to account for the structural processes which lead to multiple axes of deprivation and across many domains: it seems that gender is not necessarily the most important of these: not only are other gaps often larger, we see an absence of gender gaps in most outcomes in some contexts (Peru), or even a pro-girl bias in some outcomes (Vietnam) (Dercon and Singh 2011).

The persistence of, or worse still, rises in, inequality are a major cause for concern since, as Vandemoortele (2011) – one of the architects of the Millennium Development Goals – argues, not only is growth alone insufficient to relieve childhood poverty, but within country equality has a far more important positive influence on children's well-being. He cites research by Wilkinson and Pickett (2010) which finds that average life expectancy in rich countries does not reflect median per-capita income and health status is not determined by health expenditure or sophisticated medical services – inequality within a country being by far the most important predictor of health and well-being (Vandemoortele 2011: 16). Wilkinson and Pickett argue that this is not simply because equitable countries have fewer poor people, but because the rich also benefit from greater equality through higher levels of well-being (2010, quoted by Vandemoortele 2011: 17).

In summary, while economic growth does seem to have been good for children in the Young Lives study, the gains have been unevenly spread across developmental domains, dimensions of life, regions, communities,

and different children within households. Formulating policies that will be able to address these inter-community, inter-household, and intra-household disparities requires a careful understanding not just of where these biases lie but also of the mechanisms by which they are perpetuated, and the ways in which these mechanisms themselves may be changing over time. The collection of descriptive and evaluative evidence of these changes over time, not least in periods of vast economic transformation, continues to be required in order to identify entry points for effective policies.

"In summary, while economic growth does seem to have been good for children in the Young Lives study, the gains have been unevenly spread across domains of development, dimensions of life, regions, communities, and different children within households."

2.3. What are the challenges?

Economic growth and stronger political commitments to support child survival and development, as reflected for example in the Millennium Development Goals, have resulted in large investments and progress in children's life chances and well-being across many developing countries. Growth has offered the financial space for governments and families to invest more in their children, even though patterns of progress remain distorted by uneven provision and entrenched inequalities. However, this does not mean that there are no remaining challenges. We identify at least three.

The first challenge, highlighted by Vandemoortele (2011), is that growth alone has not been enough: for example, even though in the past decade two more Young Lives countries (Vietnam and India) have joined Peru on the official list of Middle Income Countries (MICs), they all still show serious challenges to child development in terms of many indicators. Their graduation in terms of GDP per capita has certainly not been enough to remove multiple deprivations, and it is vital that further efforts be made to ensure that growth becomes more inclusive. This presents two further issues that demand attention.

In the current global climate of financial and resource shortfalls and instability, the recent vast increases in human-development investments may not be sustainable. Aid resources are under pressure, while maintaining fiscal space in many developing countries is a challenge (World Bank 2011b). Growth forecasts may be too optimistic, further undermining the sustainability of human-development improvements. Sustaining current spending on human development may not be feasible, let alone raising it to address entrenched inequalities and improve particular aspects of children's lives. Building resilient systems to protect investments in children's welfare and to safeguard the young from the effects of hardship linked to economic downturns is an important, yet difficult, step.

"Building resilient systems to protect investments in children's welfare and to safeguard the young from the effects of hardship linked to economic downturns is an important, yet difficult, step."

Furthermore, even without considering the consequences of a possible downturn, current growth processes in most developing countries are not characterised by the economic structural transformation and job creation that are required to ensure equity and offer the children of today the job opportunities to which they aspire. Labour-intensive growth tends to be relatively equitable; yet many countries have experienced 'jobless growth', which is typically far less equitable. Labour-intensive growth may have been present in East Asia during its rapid rise since the 1980s, but the same process is not taking place in South Asia, let alone in sub-Saharan Africa. Even in countries, such as Vietnam, where the government is committed to reducing poverty, growth processes are slow to create higher-quality jobs with proper social protection and insurance, as is consistent with rising human-capital levels. The 2011 'Arab Spring' provides again an example of how growth that is not inclusive and does not offer opportunities to young people may contribute to the creation of disenfranchised generations.

The second challenge is how to ensure that economic growth facilitates a more complete formation of human capital, one which also encompasses children's

psychosocial well-being or non-cognitive competencies. While it is possible to see how growth can support nutrition, health, and cognitive development through effective service delivery in terms of water, sanitation, education, health care, and the like, facilitating the development of non-cognitive skills is far less straightforward and cannot be assumed to follow as a direct consequence of economic improvements. Children's sense of pride, perseverance, emotional stability, self-efficacy, and inclusion is not dependent solely on access to good-quality services; these competencies and states of mind are also a reflection of the degree of social trust that children experience, the quality of their relationships with others, their sense of self, and their sense of social identity. These factors are, in turn, influenced by the environment in which children live, as played out in their families and communities; the institutions to which they belong (including the schools they attend); the political, social, or religious organisations of which they are members; the enterprises they work in; as well as the wider political and societal structures and processes in which they engage. It follows that profound social inequalities and associated stigma, social exclusion, and conflict all threaten children's non-cognitive skills in highly differentiated and nuanced ways. On this basis, growth alone is not enough: if governments are to realise the full human potential of young people, they must act in order to ensure the *quality* of economic growth, or, in other words, to ensure that growth is inclusive of children and youth from all social and economic backgrounds, and that the outcomes of growth are therefore equitable (Drèze and Sen 1989; Vandemoortele 2011).

"Children's sense of pride, perseverance, emotional stability, self-efficacy, and inclusion is not dependent solely on access to good-quality services. These competencies are also a reflection of the degree of social trust that children experience, the quality of their relationships with others, their sense of self, and their sense of social identity."

Recognising that human-capital development occurs, at least in part, through highly contextualised life-course dynamics provides a link to the third challenge, which is to move beyond treating human development and human

capital as one and the same thing. The question of who gains or loses is not simply related to economic stratification and opportunities for social mobility within an idealised meritocratic model. Economic growth is not simply a rising tide that lifts all to the same extent and with the same speed. Economic growth – and economic downturns – affect human development in highly differentiated ways related to a myriad of factors, from ethnicity, geography, caste, and gender through to intra-household dynamics.

The problem with 'investing in children' as a means of realising economic growth is that children do not constitute a homogeneous group in terms of potential human capital. Children have differing skills and capacities and contribute to societies in differing ways, not always measurable in economic terms. Human-capital models offer a powerful, politically persuasive framework for policy development, but they must be understood as additional to, and not alternative to, more fundamental principles of social justice. Here it is important to uphold the foundation principle for investment in human development, which is *human rights for all*; this applies even if economic development depends more on some groups than others.



Section 3: Government action and child well-being

Concerns to promote human as well as economic development have secured for child-development initiatives a stronger place in government policies. As Drèze and Sen (2011) argue, what governments achieve in democracies across the world depends very much on political considerations: calamities such as famines are easy to politicise (and are thus quickly dealt with), but problems less spectacular and immediate, such as the recurring absence of public-health workers or teachers, are not. The policy responses in authoritarian regimes can be a lot faster, but often they are also more arbitrary and perhaps as likely to be unfavourable to children and young people as they are to be advantageous. In the formulation of effective policies a great deal depends on which issues are prioritised on government agendas, a fact which indicates that strong leadership in setting these agendas is absolutely key.

3.1. Designing effective policies for child development

We have argued that the momentum around children's rights and human capital formation has brought children's well-being and development to the fore internationally, producing many tangible benefits for children. Nevertheless, there is much more to be done. When it comes to setting priorities for investing in children, it is important to examine carefully what is most effective. Clearly, adequate infrastructure and funding and good technical design are vital for effective child-focused public policies. But, consideration also needs to be given to governance and to the wider social and political-economic contexts in which services are implemented. Also, for interventions to work in the long term, they need to be sustained. This is about ensuring their effectiveness so that policymakers and politicians continue to support them, but it is also about financial sustainability and, importantly, public acceptance. We focus on these issues below.

Situating child-focused policies within wider change efforts

Children should not be treated in isolation, for their condition and circumstances generally reflect broader structural processes. In order to

ensure that the poorest and most marginalised children gain from wider societal changes, policies need to concentrate not simply on removing gaps and investing in disadvantaged groups, but also on broader socio-economic development. Thus, improving infrastructure can improve livelihoods, thereby supporting pro-poor development (see OECD 2009) and providing a context in which more focused social policies – in basic education, health care, and social protection, for example – can serve those who are hardest to reach, including communities in rural areas.

Social-protection schemes have in recent decades become the cornerstone of social policy in many countries and appear particularly promising as a means of reducing susceptibility to risk and reaching the poorest and most disadvantaged groups. By addressing isolation, vulnerability, and disadvantage explicitly, social protection lays greater emphasis than broader social services on issues of equity and social justice. Such measures also have the potential to improve the inclusivity of growth, by both reducing poverty and enhancing the effectiveness of basic services. During periods of economic crisis, they offer a counter-cyclical mechanism to maintain domestic demand in poorer communities. Examples of direct benefits for children include improved schooling outcomes through components of the Productive Safety-Net Programme in Ethiopia and increasing children's capacity to attend school and the attendance and performance of their teachers through conditional cash transfers in Peru (Porter and Dornan 2011).

Well-designed social protection has a major role to play in improving children's life chances. The challenges, however, include the knitting together of diverse and not always progressive policies into systems and widening coverage to reach poorer populations effectively. And there remain certain key questions concerning the formulation of social-protection measures: how can they be designed to affect children positively, how they can be made sustainable, and how can they work to achieve more fundamental structural reform? Finally, policymakers need to consider how complementary economic and social policies are able to foster graduation beyond social protection (Dornan 2011).

Governance of services

Increasingly, it seems that infrastructure is no longer the binding constraint on public delivery of services in child-focused sectors like health and education. Boosting resources appears to have been the easier part; translating this into better provision and thereby better outcomes for children remains a key challenge. Some aspects of public-service delivery, such as infrastructure, may be easier to tackle than thornier issues of clientism, corruption, or the motivation and quality of public-service workers: however, gains from the former are unlikely to be large, and perhaps ineffective at best, if complementary investments are not made in governance and human resources. In other words, attention to the binding constraints very often means addressing governance in public institutions, as well as service quality. However quality is not solely a matter of medicines and school books, but, increasingly, it is determined by the professional skills, motivation, and agency of those entrusted to act for the benefit of children.

“Boosting resources appears to have been the easier part; translating this into better services and thereby better outcomes for children remains a key challenge.”

For example, there is now a significant body of evidence, across diverse settings such as India, Peru, and Uganda, documenting the extent of absenteeism of public-health workers and teachers: on average across six countries, about 19 per cent of teachers and 35 per cent of health workers were absent during spot-checks (Chaudhury *et al.* 2006; Kremer *et al.* 2005). At least for India, there are policy interventions that have the potential to address this challenge (Duflo *et al.* 2010; Muralidharan and Sundararaman 2011a): interventions which have been shown to deliver significant benefits, and which may be acceptable to rank-and-file public workers (Muralidharan and Sundararaman 2011b). Their scalability and effectiveness outside the specific contexts studied remain questionable, however (Banerjee *et al.* 2007). At the same time, emerging evidence, also from India, indicates that the social identity of policymakers affects the provision of good-quality services. Rigorous studies of the reservation of seats in the state

legislature for women and representatives of traditionally lower castes find that the presence of women village leaders and Scheduled Caste leaders is associated with a higher incidence of policies preferred by or directed towards that group (Chattopadhyay and Duflo 2004; Pande 2003).

Addressing the motivation and incentives of civil servants remains a key challenge. While governments may wish to improve services through reforms aimed at enhancing the capacity of civil servants in relevant sectors, this is hard to achieve in practice. Measures that favour one group of staff over others, whether through raised salaries or other incentives, are likely to be resisted on the grounds that they are inequitable. On the other hand, improving the performance of service providers in sectors that benefit children directly, such as health and education, by subjecting them to greater scrutiny risks making them a scapegoat for systemic weaknesses and devaluing them in the eyes of service users and others.

Sustaining interventions

Financial sustainability is connected with the fiscal space available to policymakers, which in turn is linked to economic growth. For many countries, it is also dependent on aid. The continuing fall-out from the financial crisis of 2008 and the recent Eurozone crisis means that aid resources will inevitably be under pressure in future. While economic growth in low-income countries has, up to now, been remarkably resilient, domestic resources cannot yet easily compensate for lower levels of aid, not least as the fiscal space of low-income countries is still under pressure (World Bank 2011b). Using public-expenditure plans for 2010/11 for lower- and middle-income countries, UNICEF (2011) has identified expectations of declining social spending in many countries, arresting a previous expansionary trend (Ortiz *et al.* 2010).

Sustaining programmes is, however, not only a matter of finances; it is also influenced by the degree to which they receive domestic acceptance, so that political leaders are inclined to continue them. Social protection programmes increasingly impose conditions on the beneficiaries, such as participation in complementary child-health or education programmes: conditions that are consistent with suspicions of wilful ignorance and child neglect by the poor. More in general, anti-poverty programmes tend to favour targeting over universality, thereby inevitably creating included and excluded groups.

Where a policy is narrowly focused on a group that experiences pre-existing stigma, it may not be easy to sustain good services. Research from Young Lives in Peru has drawn attention to the fact that groups excluded from the social protection programme, Juntos, considered allocation decisions within the programme to be unfair (Streuli forthcoming). This is a matter of particular concern if the distinction between those who benefit and those who are excluded corresponds to ethnic divisions, thus exacerbating existing tensions and generating possible conflict. All this highlights a political dimension to the sustaining of services, suggesting an important balance between maintaining fiscal constraint and ensuring that a sufficiently wide group of citizens benefits from provision, in order to retain public support.

The social context of services

In order to meet priorities effectively public services need not only to be available and of high quality: they also need to be appropriate – this implies attention to demand, and not just to supply. Here, we wish to emphasise one of the most striking findings across all the Young Lives sites, this being the extremely dynamic contexts in which many children in developing countries are growing up today. This can be attributed to many factors, including opportunities arising from (uneven) economic growth and associated infrastructural development and changes in the labour market, the expansion of communications technologies such as the internet and mobile phones, and massive increases in access to education. These transformations are clearly reflected in heightened aspirations for a better future for children –expressed in all Young Lives sites by children and adults alike – a growing demand for quality education and health services and concern about service shortfalls and failure. Increasingly, accessing better services is the single most important motive behind migration, whether by families or by children who move alone (Crivello 2009). Never before have policymakers and service providers been under so much pressure to provide good quality services, and if in the coming decades they fail to do so there is a very real risk of disaffection, as in Andhra Pradesh where even some of the poorest families are taking their children out of government schools in favour of a private education.

Thus, well-intentioned services and programmes can falter simply because they are not valued or relevant, or because they have unintended adverse

consequences. This is often because they have not taken into account the daily reality of children's lives and the decisions that they and their families make, frequently in the light of extremely limited options. Policies that aim to serve children's well-being and development need to consider what works for children and their families, what motivates them to respond to policy, and what the full impacts and outcomes of measures are likely to be – including those that have not been planned for. This means understanding the roles, responsibilities, preferences, and aspirations of boys and girls as they evolve during childhood and beyond, as well as the values, concerns and priorities of their families and communities.

"Policies that aim to serve children's well-being and development need to consider what works for children and their families, what motivates them to access services, and what the full impacts and outcomes of measures are likely to be – including those that were not planned for."

To emphasise the importance of ensuring that policies reflect parental priorities, we cite two examples of interventions that failed to achieve their aims. Programmes to improve educational quality in Zambia and India involved offering school authorities control over a small budget. These funds were to be used for the purchase of school materials to the benefit of children, and they were spent on notebooks, pens, and other basic school materials. However, the intervention was found to have no impact on children's school performance, as their apparently cash-strapped parents reduced their own spending on these school materials; in other words, public spending was fully crowded out by private spending (Das *et al.* 2011). Similarly, abolishing primary-school fees in Kenya in 2003 did not increase state-school enrolment, but largely led to an outflow of better-off pupils to private schools: private-school enrolment and fees more than doubled. Enrolment among poorer households moderately improved in state schools, and their quality did not decline, thanks to increased public resources, but universal primary education was not achieved (Bold *et al.* 2011).

On the other hand, 'smart' policies that stimulate parents and public-service providers to respond in ways that are beneficial for children can lead to large gains: for example, a randomised controlled trial in India which provided a modest incentive to parents for a full round of immunisation of their children raised immunisation coverage six-fold (Banerjee *et al.* 2010). As indicated, social protection schemes, such as India's National Rural Employment Guarantee Scheme (NREGS), can do more than simply offer work and income to parents. They can also cushion children against economic shocks more directly: analysis using Young Lives data showed that households affected by drought were significantly more prone to take up work under the scheme, and that this significantly reduced the likelihood of child work in response to drought (Porter and Dornan 2011).

The evidence from child development research provides a number of pointers regarding the most effective means for ensuring that policies, programmes and services are contextually appropriate, meet the expectations and needs of children and their families and support those children who are most marginalised or at most risk. For example, in order to ensure that children who work or live in rural communities can access school, flexible provision may be necessary – whether in the form of shift systems, mobile facilities, or distance learning. Similarly, in contexts where schooling is unlikely to transform employment opportunities, parents and children may be concerned about its relevance and the opportunity costs of attending, in which case combining the formal curriculum with life-skills and technical training may help school retention.

Perhaps the greatest challenge is to find appropriate means for supporting the children who are hardest to reach or at the greatest risk. Many of the policies in this area fall under the umbrella of child protection and confront major obstacles in terms of identifying the most serious risks to children, and developing solutions that make a genuine difference to their lives. Unlike health and education, protecting children who are at high risk has, in general, not been about the provision of specialised services so much as advocacy, law enforcement, and direct intervention in family and community life. Far too often, the models adopted have been derived from industrialised countries and are ill-suited to developing country contexts, especially insofar as they have tended to be punitive rather than facilitative or enabling, and ignore children's views and daily reality, including the economic constraints

that they and their families confront.¹³ As a consequence of fundamental design flaws, child protection initiatives commonly have unintended adverse consequences for those they aim to assist. For example, where children's economic contribution is essential to household income, prohibiting child work can cause considerable material hardship for both children and their families (Boyden *et al.* 1998; Bourdillon *et al.* 2010). More effective options include regulation of working conditions to prevent exploitation and hazard and ensuring that child work does not impinge on schooling.

We have highlighted above the importance of critical phases during childhood when investments may be most effective. So, while all children need to be well nourished throughout childhood, the developmental consequences of malnutrition for infants are far more profound than they are for older children, indicating that infants and/or pregnant or lactating mothers should be given the top priority in nutrition interventions. But even though the growth of hundreds of millions of children is stunted, as a result of missing that crucial window of opportunity, this does not mean that nutrition or educational interventions in later life yield no benefits. For example, education offers advantages in both economic and social terms, and active policies are required to ensure basic educational achievements even for these deprived children. For all children, there are other crucial transitions and phases, often interacting with social norms and contexts, which require carefully designed and appropriate policies. For example, despite improvements in gender equality in recent years, drop-out in early adolescence for marriage reasons or other local norms remains a problem for girls in secondary education.

Finally, improving the child's home environment and understanding how children and adolescents can be encouraged to perform in school or later at work can yield significant dividends as well. A child's self-efficacy and aspirations are influential in determining their options in education and work (Bandura *et al.* 2001). Young Lives work has shown that growing up in poverty strongly correlates with low efficacy and aspirations of children (Dercon and Krishnan 2009). These factors have long-lasting impacts

¹³ See, for example, the forthcoming special issue of *Development in Practice* on child protection, which provides evidence from research in diverse developing countries of the considerable problems associated with conventional child protection policies and practice (volume 22.4, June 2012).

in later life (Cunha and Heckman 2008), even in the next generation. In Ethiopia we found that parental aspirations and the caregivers' self-efficacy contributed to explaining the limited achievement in reading, writing, and mathematics of 12-year-olds (Batura and Dercon forthcoming). Still, investing in these psychosocial competencies is possible (Cohen *et al.* 2009). Krishnan and Krutikova (2010) report on an NGO intervention focused on raising efficacy and aspirations in the slums of Bombay, and they identify higher psychosocial competencies in early adulthood attributable to the NGO's activities, as well as signs of better labour market experiences. Beaman *et al.* (2012) show that a natural experiment in India which resulted in the appointment of female leaders in local authorities resulted in higher efficacy and aspirations for girls, and also led to higher educational achievement, which they attribute to the girls' raised aspirations.



Conclusion

Developmental science has provided compelling evidence to show that diverse environmental factors strongly affect young people's survival, development, and well-being throughout infancy, childhood, and beyond. Many children in developing countries grow up in contexts of poverty and accumulated risk, a fact which poses a significant threat to the current generation of young people, as well as to their future as adults. So there is a strong case for focusing investments on children, not simply as a means of securing better conditions for them, but also as a pathway for reducing poverty and sustaining economic growth in the long term. Children deserve to be the focus of policy attention, both because they stand to benefit immensely from appropriate and effective intervention and also because investing in children lays the foundation for the future of a country; without these investments, economic growth cannot be sustained. In the modern world, policies and programmes are a crucial opportunity for governments, communities, and individuals to make a significant difference to all children and to society.

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At the same time, economic growth could be an important force in improving child outcomes, although the speed and equity with which growth translates into improvements in child well-being is heavily dependent on the structural context of the economy and on the particular policy choices made by governments. Again, research in both developmental science and development economics highlights what is most needed here. It tells us that the efficacy of investments will depend greatly on the account they take of the contexts in which children live and the point in a child's life at which

they are applied, the evidence pointing to investments in early childhood as the most valuable. It also shows that the different aspects of child well-being relate to each other, implying that policy must aim for a more complete conceptualisation of human capital, one which encompasses cognitive and non-cognitive competencies, because neglect of the powerlessness and discrimination that undermine emotional and social well-being may reduce the impact of intervention.

That said, a focus in future on human capital, and on the potential of investments in children to contribute to economic growth, should not be at the expense of key human rights and principles of social justice that ensure sufficient and appropriate provision for all. Research necessarily focuses our attention on those groups of children who may be most at risk because of entrenched structural disadvantage, or inadequate support, especially during critical periods. Any policy framework, therefore, which is motivated by the necessity of investing in children must also combat inequality and insure the young against the impact of risks, both community and household-level, especially during the critical periods of child development. This includes adequate nutritious food and health care in early childhood.

To understand which public investments will lead to the greatest benefits for children requires a careful analysis of the efficacy of these investments. This is not solely a matter of being aware of which children require what forms of support, and the effect of intervention across multiple dimensions at different points in children's lives. It is a matter of understanding how to make interventions and policies more effective and sustainable. In this process, it is very important that the policy community should be aware of, and deal with, the institutional obstacles in public organisations. Often the obstacles relate to difficult issues of governance and the political acceptability of policies focused on poor children, including dealing with prejudice and discrimination, and the tensions between universality and targeting for cost-effectiveness.

Above all, policymakers need to treat children as social agents rather than solely as beneficiaries, and as members of families and communities, not as individuals in isolation. This implies awareness of children's needs, roles, and relationships in context, and recognition that children and adults have valid aspirations and perspectives and that they make (what are often very

difficult) choices. Failure to take these crucial factors into account risks, at best, wasting public resources and, at worst, creating unintentional adverse outcomes for the young and for society more broadly.

“Above all, policymakers need to treat children as social agents rather than solely as users of services, and as members of families and communities, not as individuals in isolation.”



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In recent years there has been unparalleled global interest in the survival and development of children, reflected in the Millennium Development Goals commitment, which builds on UN Convention on the Rights of the Child commitment to the best interests of the child.

This essay reviews current research into child development. It examines how the well-being of children is affected by rapid social and economic change; whether and in what ways children have benefited from economic growth; and how policy can use economic growth as a tool to promote the best interests of the child. It uses evidence from the Young Lives study of child poverty and draws on literature across several disciplines. Its conclusions, in summary, argue that it is not economic growth per se, but rather the quality of that growth that matters for children. Policymakers concerned to improve children's well-being need to consider how to convert economic growth into social change that benefits poor children and their families.



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