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Risk and Childhood Poverty: Notes from Theory and Research



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Abstract

Chronic childhood poverty is often considered synonymous with the risk of adverse outcomes. In this paper, we consider the ways in which notions of risk, poverty and childhood are constructed and supported through empirical research. We find that poverty and childhood are often implicitly assumed to be conditions that place young human beings at greater risk. We review the differences between how poverty has been defined and conceptualised, and how it is experienced as a lived reality. We discuss how risk is constituted and approached as a subject of empirical research. Finally, we turn our attention to the discourses, debates and theories concerning universal childhoods and therefore, universal risks to children. We then reflect on contributions from human development research that inform notions of risk to children. In conclusion, we argue that any evaluation of risk in contexts of chronic childhood poverty must include both the structural implications and complexities of poverty in a given context, as well as the multidimensional nature of growth and development among poor children.

1. Introduction

Chronic poverty is often considered synonymous with 'risk', especially chronic poverty experienced during childhood. This paper offers some theoretical considerations concerning the relationship between childhood poverty and the risk of adverse outcomes. We provide an analytical review of the current literature concerning risk and childhood poverty. This review is not exhaustive. Our aim is to consider the dominant discourses concerning risk and poverty, and the empirical research that both challenges and informs them. Our hope is to provide a useful foundation for intellectual dialogue and research regarding risk and childhood poverty in developing countries.

To do this, the paper is organised as follows. We first consider how poverty has been measured and conceptualised, as well as how it can be experienced as an everyday reality. We consider some of the assumptions made about chronically poor children and risk. We then review some of the empirical evidence concerning the relationship between risk and childhood poverty, before moving into a discussion of how risk is constituted and researched. Finally, we engage with the debate over representations of childhood, and consider how evidence from human developmental research can challenge and inform notions of universal childhood experience and, in particular, risk faced by children living in chronic poverty.

2. Childhood poverty

Poverty manifests itself in different forms, which have different implications for children in different contexts, and thus, for the risks to which they may be subject. This section sets out the different ways in which poverty is conceptualised and examines research which has demonstrated that growing up poor predisposes children to a number of risks to health, development and emotional well-being.

Poverty has been conceptualised and defined in a number of ways. It is often measured through indices of monetary deficiency. The 'poverty line' has become a common monetary

indicator of poverty throughout the world. Yet even in the USA, where this has been an established and policy-oriented practice, cash income alone is no longer considered an adequate reflection of discretionary resources available to households (Blank 2007). It is, therefore, an inadequate indicator on its own. Poverty definitions have been expanded to a range of potential and realised 'capitals' that include cultural, social and political assets (see Moore 2001; Uphoff 1999; Sorensen and Torfing 2003). The experience of poverty has as much to do with forms of social and political inequality and deprivation as it does with monetary lack (Hart 2008a). Without consideration of the social and political realities that infuse poor people's experience, poverty is represented as a tangible entity or state that is external to the people who are 'trapped' in or escape from it (Harriss 2007).

Young Lives takes a multidimensional approach to poverty. Poverty, Boyden (2006: 1) writes, is:

a complex, dynamic phenomenon that is subject to both contextual specificity and multiple, interacting causes. It highlights the contributory role of risk and uncertainty, power imbalances and abuses, rights violations and insufficiency of assets. Thus, poverty is manifested primarily by diverse material deficiencies, susceptibility to risk, uncertainty and infringement, and constraint on choice. Household poverty therefore means having insufficient assets or resources, experiencing insufficient security and having access to insufficient options to ensure the safety, integration and well-being of all members.

This definition draws our attention beyond the quantification of monetary assets to lived experiences. Young Lives' study of four countries and different settings within them illustrates this point very clearly. Crivello and Boyden (2011) observe different implications of poverty depending on whether people live in rural or urban locations in Peru. Urban families experienced more inter-personal shocks such as crime and family problems such as separation or death, while families in the rural areas experienced more environmental disasters and economic shocks. Further, shame and humiliation may be just as significant in children's experiences of poverty as poor nutrition or financial lack (Boyden et al. 2003). This illustrates how poverty is both multidimensional and structural.

Research has demonstrated that growing up poor predisposes children to a number of risks. Below we outline the consequences of poverty for children's health, development and emotional well-being, as well as how it can expose children to extreme situations such as violence and abuse.

There is a general consensus that chronic health problems are more prevalent among impoverished children (Huttly et al. 1997; Bruce et al. 2000; Ezzati et al. 2002). Malnutrition is perhaps one of the most visible consequences of childhood poverty. Children with low birth weight are more likely to be born to mothers who are themselves undernourished (Chopra and Sanders 2005). Stunting (low height-for-age) and thinness (low BMI-for-height) are indicators of poor nutrition and are common among impoverished populations (WHO 1995, 2011). On the other hand, research in some developing countries has shown that obesity can also pose a health threat to poor people. Changing lifestyles and diets in some developing countries, particularly in urban areas, have brought about new child nutrition problems (Popkin 2001; Popkin and Gordon-Larsen 2004; Shetty 2002). The prevalence of overweight in children is increasing. With these, other health problems are likely to follow.

As human development is a multidimensional, interdependent process, the biological consequences of childhood poverty have a direct effect on brain development and thus, cognitive development and achievement (Black 2003; Feinstein 2003; Mendez and Adair

1999). Malnutrition and stunting in the first five years of life have been consistently associated with lower cognitive ability around the world (Grantham-McGregor et al. 2007; Scrimshaw 1998). Ivanovic et al. (2000) provide an illustrative example. In a small, comparative and longitudinal study of infant nutrition in Chile, these authors link malnutrition in the first year of life to lower intelligence quotient and school achievement, smaller head circumference, and lesser physical brain development at the age of 18. The control group, who were of the same socio-economic status, outperformed their malnourished counterparts.

Poor cognitive ability can lead to a downward spiral of risks to well-being. Poor educational performance is often a consequence. Research from the USA draws a clear association between low educational levels and income and high risk of cardiovascular, metabolic and inflammatory problems and complications (Seeman et al. 2008).

Chronic poverty has also been linked to stress (Evans and Kim 2007; Chen et al. 2003). McEwen (2000) observes that chronic stress suppresses immune functioning. He also finds that chronic stress produces structural and functional changes in the brain. Dendrites in the hippocampus are remodelled to accommodate chronic stress. In extreme situations, these changes can become permanent, and result in cognitive impairment and clinical emotional problems. The emotional consequences of poverty-related stress are clearly related to the risk of physical problems later in life.

HIV/AIDS is highly prevalent in impoverished populations (Aral et al. 2008; Krishnan et al. 2008). Though numbers of sufferers are declining, children remain at high risk for HIV infection (UNAIDS 2008). Research in South Africa suggests that children who are orphaned by HIV/AIDS are at particular risk of symptoms of depression, peer relational problems, post-traumatic stress, delinquency and conduct problems (Cluver et al. 2007). Himaz (2009) has observed a significant drop in educational performance among Ethiopian children orphaned in middle childhood.

These physical, social and emotional consequences are embedded in broader circumstantial realities. In developing countries and in the USA, poor sanitation and inadequate access to safe drinking water compromise poor people's health (Calderon et al. 1993). Furthermore significant expenditure of time and effort are necessary to access essential resources such as safe water, latrines and waste disposal facilities among the poor in developing countries (Bartlett et al. 1999). In essence, lack of material wealth does more than merely debilitate the spending capacity of poor households. Poor people tend to live in places in which goods, resources and services are inaccessible, or limited, placing children at higher risk of a host of negative health outcomes.

Poverty and associated socio-political and economic contexts may expose children to extreme forms of risk, including military recruitment, separation from their families, child labour and child prostitution (Basu and Pham 1998; ILO 2005; Wessells and Kostelny 2002). These situations place children at increased risk also of sexually transmitted infections, sexually transmitted diseases, violence and abuse.

We have touched the very tip of the iceberg. This abbreviated overview is designed to show that poverty is considered a threat to virtually every aspect of a person's life – particularly if that person is young. However, while such research can indicate trends, we would like to highlight several notes of caution.

2.1 Condition as cause?

It is frequently assumed that there is something inherent in the *condition* of being a child, and the *condition* of impoverishment that predisposes poor children to a host of risks.

First, children are considered at particular risk of negative outcomes because they are not fully developed. This assumption is quite often correct, but requires at least some qualification. It is important to abstain from a false dichotomy that is often present in discussions of childhood vulnerability; that is, that in situations where children are vulnerable to negative outcomes, adults are not. This is mistaken logic, and it is incongruent with lived experiences of poverty. Varying degrees of functioning and competence associated with age and experience mean that risks will vary in type and extent of severity for adults and children. Malnutrition has negative implications for adults and children alike. However, the sensitivity of young brains means that the consequences can be more numerous and more severe for children.

All the same, being smaller in size, less socially aware or less cognitively developed does not necessarily mean being more vulnerable to *all* risks. There are many circumstances in which young children's less developed minds and bodies equip them to adapt, adjust and even thrive in situations where older children, adolescents and adults are significantly affected. In Ethiopia, being orphaned in middle childhood significantly increases the risk of lower educational performance (Boyden 2009; Himaz 2009). This is a difficulty not seen among younger children in the same sample. We see this in children's physical growth as well. Mortality rates and unfavourable recovery following traumatic brain injuries increase sharply as children get older (Hukkelhoven et al. 2003). The brain is simply more plastic and capable of adjusting during the early years of life.

Secondly, although there is an understandable preoccupation with the negative outcomes of growing up in poverty, determinism should not be assumed. Deprivation is not a monolithic force for harm. Deprivation and difficulty can also produce what Rutter and Silberg (2002) refer to as 'steeling effects', in which coping with challenges produces strength and resilience.

Thirdly, a great deal of research concerning the implications of childhood poverty is generated in the West, particularly the USA. If empirical research from developing countries can contribute to knowledge about risk and poverty in the USA (see Pollitt 1994), the inverse is likely to be true: lessons from Western research may be somewhat transferable to contexts of poverty in the developing world. However, context and diversity among and between population samples and sociocultural structures must always be considered and accounted for. For example, Evans et al. (2007) offer clear evidence that childhood poverty is accompanied by stress, which is directly connected to inhibited physical functioning in later life. Their sample is taken from rural young people in upstate New York. The reasons for the stress experienced by these young people were not clear to the authors. It would be impulsive to assume that the same relationship between poverty, stress and poor health would be valid for rural children in other contexts, particularly in the developing world. Therefore, while we must not discount what research in the West has concluded, it is important not to jump to deterministic conclusions about impoverishment in developing contexts.

In short, we argue that there are a number of assumptions that have crept into the construction of the relationships between poverty, children and risk. In the remainder of this paper, we discuss how risk is constructed, how children's growth and development are understood, and how these then inform understandings of risks to children's well-being.

3. Risk

We begin this section with a discussion of the concept of risk. The way we speak about risk in relation to people reflects at least two different uses of the term. We talk about children or others deemed 'vulnerable' as *at risk*. By virtue of being young, disabled or elderly, some people are considered to be in a persistent condition of risk. On the other hand, we often speak of adolescents as *taking risks*. They engage in what we call 'risk-taking' or 'risky' behaviours. Whether it is smoking, consuming drugs and alcohol, or engaging in unprotected sex, they are *doing* something that will in all likelihood, lead to negative consequences.

The end result – one or more negative outcomes – may be the most useful starting point to a discussion of risk. Whether it is a product of condition or behaviour, risk is understood as increasing the chances of one or more unpleasant results. What is also inherent in conceptions of risk is uncertainty. When we are certain of an outcome we do not speak of risk. Risk is discussed when the chances of negative outcomes are increased but the end result remains unknown.

Thus, risk itself cannot be absolutely measured, but is instead estimated. It is not surprising then that much of the research about risk has been concerned with variables that increase or decrease the chances of negative outcomes. The study of risk to people has its roots in epidemiology and medicine (Garmezy 1994). Much of the early research concerning long-term outcomes of risk to children's well-being emerged in the field of developmental psychology (see Grossman et al. 1992; Rutter 1987; Werner and Smith 1982). Garmezy (1994: 9) summarises the study of risk as 'concerned with the identification of factors that accentuate or inhibit disease and deficiency states, and the processes that underlie them'. In child protection literature, the term 'risk' generally refers to variables that increase children's likelihood of psychopathology or their susceptibility to negative developmental outcomes (Goyos 1997; Boyden and Mann 2005; Boyden and Cooper 2007). Risk in this literature is often understood through quantitative indicators that provide either an odds ratio, or in the case of an on-going risk, as some variant of regression weight (Compas 2004).

3.1 Risk and protective factors

Thus, there is a large body of literature around risk and protective factors. This dichotomy is common in theory and research concerning vulnerability and resilience (Masten and Reed 2002; Rutter 2004; Schoon 2006; Ungar 2005). Variables that tend to increase the effect of stressors are known as 'vulnerability' or 'risk' factors; those that tend to reduce or inhibit the effect of stressors are considered 'protective' factors (Rutter 1994). The Kauai Longitudinal Study is an early example of empirical research that explores the protective characteristics, processes and circumstances that promoted positive outcomes among children who were considered vulnerable to an abundance of risk factors in Hawaii (Werner and Smith 1982; Werner 1993, 1996). These risk factors included severe perinatal stress, family discord, divorce, parental alcoholism and parental mental illness. The study made careful observation of the protective factors that appeared to facilitate and enable positive outcomes despite the tremendous disadvantages these children experienced. These included relational variables such as supportive relationships with caregivers, extended family members and others in the community. This study and many like it have sought to tease out the most significant phenomena that endanger or promote the well-being of children.

In broad terms, risk and protective factors have each been divided into internal and external factors. Common internal risk factors to mental and physical health include genetics, age, gender and temperament (Rutter 1983, 2004). Internal protective factors appear in the literature as characteristics such as strong personality, autonomy, self-esteem, positive social orientation (Garmezy 1985), good cognitive abilities and positive temperament (Chase-Lansdale et al. 1995; Luthar 1999). In Mexico City, Lever et al. (2005) observed that the relationship between poverty and well-being was mediated by a number of psychosocial variables such as ability to cope with stress, locus of control, self-esteem and depression. External risk factors can include anything outside of the individual that might pose a threat to his or her well-being and development. External protective factors may include family and social support (Chase-Lansdale et al. 1995), family cohesion, warmth, the absence of discord, as well as the presence of a broader community support system that encourages and reinforces a child's own coping efforts (Garmezy 1985; Bynner 2001).

If risks outweigh protective factors, the outcome is likely to be negative. If there are enough protective factors in place, the outcome appears more optimal. The risk and protection model strongly resembles stress models devised to explain the process and outcome of stressful experiences.¹ For example Patterson's (2002) demands vs. capabilities model examines adversity in terms of demands, perception and resources. The stressor is mediated and moderated by perception, capabilities and available resources. Patterson's model incorporates the image of a scale, in which the demands of stress are placed on one side, and capabilities and resources on the other. The outcome depends on which side weighs more. Ideas about risk and protective factors offer a similar conceptual orientation. Such models are useful, particularly when there is one clear and specific stress event, or one identifiable and clear risk factor under investigation. It is much easier to identify the demands, resources and outcomes in the case of a traumatic car accident, family break-up or a known genetic tendency within a family line.

An analysis of risk and chronic childhood poverty appears more challenging and less straightforward when the complexity of risks in everyday life are taken into account. Such analyses combine a slew of potential risk and protective factors that rapidly become cumbersome to quantify and difficult to disentangle – especially when children are in a constant state of growth and change, and therefore their fortitude and susceptibility are constantly undergoing alteration.

The risk and protective factors model may also come with a methodological bias. The organisation of variables lends itself to quantitative analysis. Identified factors can be statistically measured alongside one another to determine the most significant relationship with a given outcome. The numbers may be neat, but their descriptive capacity cannot encompass the web of interdependent phenomena that shape childhood experiences of poverty.

The risk and protective factors model has contributed a significant amount of literature to social science research concerning risk. What may be evident by this point is that there is no theory of risk and protection underpinning this model. What constitutes risk or protection is left to the scholar. In other words, it does not describe or explain connections between variables and outcomes. It merely creates an equation from which to ascertain a result.

1 See for example, Hill's (1949) ABC-X model, or McCubbin and Patterson's (1982) double ABC-X model.

3.2 Some conclusions about risk

How are we to consider risk in diverse contexts during childhood? We do not propose to fully answer this difficult question. We have, however, come to several conclusions that provide a foundation for further theoretical and empirical pursuit.

First, as we will discuss in this sub-section, we have conceived of poverty as experienced and manifested in multiple, interacting ways that often culminate in 'bundles' of deprivation. Social inequality is often experienced as a cluster of conditions such as geographical marginalisation, and economic and political exclusion. Each of these are interdependent with one another and work together to accumulate and compound one another. We must consider risks in a similar fashion. Diverse contexts that engender particular values and beliefs, socio-economic opportunities or physical environments must be accounted for in combination with each other. Risk will always be as complex, multidimensional and dynamic as the people and systems in which it exists.

Second, for the purposes of this paper, we must be careful with the directional relationship between poverty and risk. It is very clear that impoverishment predisposes all people, including children, to forms of risk associated with particular experiences of deprivation. Yet poverty is never a freestanding circumstance. Social structures underpinning inequalities are as important for considerations of risk (and protection) as the identification of risk itself. Boyden and Mann (2005) offer an illustrative example. They observe (p. 11),

Caste is one structural configuration that permanently disadvantages some people, for the status, classification, and indeed, much of the fate of over 100 million dalits ('untouchables') in India is determined at conception and cannot be changed... . As a child grows up, this structural vulnerability is then compounded if the child happens to be a girl, (and thereby suffers intrahousehold inequities), lives in a rural area (with limited or no access to land and basic services), and has a disability (attracting social stigma).

Similarly, Harriss (2007) implores scholars of chronic poverty not to underestimate the vital influence of political economy within an individual's or collective's environment. Mitchell (2006) traces the historical origin of the huge inequality of Bacolod City. She links the impoverishment of 'Purok Dagat' to the economic policy of mono-cropping of the British, American and Filipino governments, which left the local economies vulnerable to fluctuations in the world price of sugar. She explains how the neoliberal economic policies of attracting private and corporate investors failed to reduce the inequalities. Rather these policies exacerbated the sufferings of poor people through privatisation and the deregulation of oil and electricity, water and health services. Social status in particular contexts – local and global – places large numbers of people at risk of all kinds of discrimination, unequal access to opportunity, and a host of other inequalities that often result in impoverishment. Risk is structural.

Third, we must also consider the ways in which environments, and people's experience within particular environments, change over the course of time. Young Lives research confirms that children's experiences of poverty are undergoing rapid change as a result of broader, systemic changes in their countries (Crivello 2009; Le Thuc 2009; Woodhead 2009). We must consider the interaction between the changing child and their environment as key to risk. Specific children (and specific groups and categories of children), at specific periods of growth and change, in particular environments must be carefully considered in terms of multiple, interacting and interdependent components that may be subject to different risks, at particular times. In other words, risk is a product of the interaction between the individual and

the environment. To consider the relationship between childhood poverty and risk is to attempt an analysis of 'motion within motion' (Vigh 2009). Risk is variable and specific to time, place and person.

Fourth, and perhaps most importantly, risk is a construction. As Dean (1999) points out, risk is a category of our understanding. What constitutes risk is as variable as the people who ascribe meaning to the uncertainty they wish to calculate. For instance, in many cultures child work – both domestic and paid work – is part of a child's social trajectory as well as a contribution to family well-being. Therefore, child work should not be automatically equated with risk. The type of work, its intensity and the working environment – social and physical – must be understood to determine whether children's work is placing them at risk. Not all risks are universal. Many risks are at least to some extent subjective.

It is our hope that these points provide a basis for a substantial engagement with the concept of risk, and that they might provide some direction to an empirical study of the uncertainties that exist in the realm of possibilities connected with childhood poverty.

4. Child development in the developing world

In the last section we talked about how poverty has been presented in the literature as a condition that places children at risk. Likewise, by virtue of being children, children are often considered to be at greater risk. In this section, we attempt to disentangle some of the issues arising in the debates surrounding childhood in developing countries. Then, we turn to some of the empirical research that underpins conclusions drawn about poor children being at particular risk of negative outcomes. In so doing, our aim is to address how and to what extent we construct our ideas about children's development and thus, their vulnerability to various risks.

4.1 Discourse, debate and theory

Of particular relevance to our discussion of risk and poverty is the debate over conceptions and representation of childhood. Many academics, such as those cited in section 2, tend to focus their attention on the individual child and assess the effects of poverty on them. Critics have contested such representations as dismissive and misguided, particularly when results are generalised to contexts outside those researched. They argue that children are social agents who show competence and capability to support adults through income earning, child rearing, and household labour (Boyden and Levison 2000; Boyden et al. 1998; Mann 2001; Finch and Mason 1993; Schildkrout 1981, Rogoff et al. 1975). In short, they are not passive receptacles but engaged participants in the events and circumstances that shape much of their lives.

A number of scholars have expressed heated criticism about the notion that children are particularly susceptible to risks. At the base of their arguments lies a common view: what constitutes childhood and conceptions of child development in the West has been misapplied to children in the developing world. A number of cases have been brought forward to make this argument.

One strand of the literature has been focused on the historical shift in the meaning of childhood in the West. A number of authors (see Cunningham 2005; Cunningham 2006; Hendrick (1998); Zelizer 1985) have traced the historical constructions of childhood in the West. They point to the economic and social changes in the 19th and 20th centuries as significant to the construction of the child as innocent. Children are emotionally priceless though economically useless (Zelizer 1985). These scholars draw attention to industrialisation and the rise of the middle class as essential to the change in the social and economic valuation of children. The construction of Western childhood has undergone enormous alteration over the last two centuries, and these shifts in its meaning are connected to shifts in the social structure and political economy of a particular region over the course of time. The current conception of the child as innocent and relatively helpless is specific to Western contexts and Western construction.

Another strand of argument has taken issue with Western theories of child development. 'Stage' theories have come under particular scrutiny from scholars who research childhood experiences in non-Western contexts. Piaget's stages of cognitive development (1952), Kohlberg's (1981, 1984) stages of moral development, and Erikson's (1963) stages of psychosocial development are among those often criticised. The notion that children develop over time through a universal and hierarchical progression of sequential stages has been contested by academics who observe socially and culturally diverse childhood experiences that appear qualitatively different from those of Western psychological construction (Hart 2006; Hart 2008b; Punch 2001; Edwards 1995 cited in Woodhead 2006).

There are at least two noteworthy contentions made by such critics. First, scholars contend that 'stages' in which particular thresholds of maturity correspond to specific ages or age-ranges, were developed in Western contexts. Therefore, Western ideals governed the relational, material and institutional contributions to children's growth and development (Woodhead 2006). Thus, they conclude that it is careless to assume that such theories will maintain coherence if taken from their Western origins. For instance, Erikson's (1963) theory of psychosocial development is a noteworthy example of individualised, Western ideals assigned to characteristics of social and emotional progression throughout the lifespan. It explains children's psychosocial development as a process of individuation and autonomy. Asserting independence is not a universal developmental goal (Greenfield and Cocking 1994; Kagitcibasi 1996). Edwards (1995 cited in Woodhead 2006) argues that drive for autonomy (included in Erikson's stage of 'initiative versus guilt') is an unhelpful indicator of maturity in her study of Mexican toddlers. Her observations indicate that toddlers in Mexico are often inclined to be watchful and imitative in their behaviour, rather than self-assertive, obstinate or resistant. The assertion of independence, which pervades Western human development theory, is specific to life satisfaction in individualist rather than collectivist societies (Diener and Diener 1995; Suh 2000).

Further, stage development is criticised as relying upon misguided indicators of chronological age. Defining youth by chronological age is contested as producing 'static and compartmentalised' (Vigh 2006) representations of children who merely 'age-out' or 'emerge' into adulthood (Christiansen et al. 2006). Thus, childhood is understood as a purely biologically and individually driven phase of life, with no regard for social processes. Hart (2008b) contends that conceptions of human development grounded in age-graded changes 'infantilise' young people, reducing them to incompetent and incapable agents solely on the basis of their chronological age and dependency on adults.

Critics who reject the age/stage approach often favour the theoretical work of Vygotsky, who gave particular attention to social environments as critical for the development of thought and

behaviour (see Boyden and Levison 2000, Hart 2008b, Clark 2006). For instance, Hart (2008b: 281) argues that attention to socialisation in everyday life ‘encourages us to explore the development of cognitive competence as an inter-subjective process without making hasty assumptions regarding disposition or ability’. It thus allows for a more contextualised understanding of children’s choices and decisions, based on their particular social environments.

In summary, Western conceptions of child development are criticised on the basis of their universal representation of individual developmental trajectories. When these ideas are applied to non-Western contexts, scholars contend that they are overgeneralisations that result in victimising children, and in portraying them as dependent on adults, without regard for their agency (Boyden and Levison 2000). These points of debate have clear implications for risk. By constructing childhood and child development in particular ways, we also set the parameters for what constitutes risk for children.

There are important qualifications to the contentions made about Piagetian and stage theorists in the debate over childhood – in terms of limitations and utility. Many cognitive psychologists have moved away from a stage-based approach to human development (Bjorklund 1997; Feldman 2004). What makes Piaget’s stage theory distinct is the manner in which development occurs in sequence. Development from one stage to another occurs in a self-organising fashion of spontaneous transitions at particular ages in life (Molenaar and van der Maas 2004). Most scholars of human development now agree that there is much more to human development. Though particular competencies tend to emerge at certain ages, the explanatory power of stage transitions is not considered robust enough to account for the progression of human cognitive development (see Bjorklund 1997; Molenaar and van der Maas 2004).

Despite the criticisms his work has received, several of Piaget’s theories about cognitive development remain consistent with current research. Though he often over-estimated the amount of time a particular competency might require to emerge, his observation of cognitive developmental sequences was often accurate (Feldman 2004). For example, Keating (2004) discusses a number of biological developments in the prefrontal cortex that have particular implications for cognitive abilities that emerge during adolescence. Through brain imaging and autopsy studies it is now possible to see which neurological developments occur during adolescence, enabling the cognitive competencies Piaget theorised about.

Scholars are certainly correct in their observations that Piaget emphasised the individual child’s engagement with the world, while Vygotsky’s work prominently featured the social environment within which the child functioned. These representations are reflective of the theorists’ own sociocultural contexts. Piaget’s culture in Western Europe had a much stronger emphasis on the individual child than Vygotsky’s communist context in the Soviet Union. Despite these differences of perspective on the autonomous child, careful review of their bodies of work has led scholars to a consensus that they were in more agreement with each other than not (Glassman 1994; Keating 2004; Shayer 2003). They both argued that children constructed knowledge through action. They both described stages of intellectual development. Their observations of the timing of the emergence of language and intellectual development bore striking similarities.

Therefore, what may be more helpful to criticise is not the theoretical work of Piaget or Erikson, but rather the extrapolation of social values from the West to international policies aimed at the ‘universal child’. The conception and representation of childhood and of the development of children has important political implications. Notions of what constitutes risk

to children have been translated into significant policies that have enormous implications for young people around the world – not least among these is the 1989 United Nations Convention on the Rights of the Child. Academics are accurate in their view that, in some cases, Western value systems have been inappropriately exported to the developing world. However, their preoccupation with stage theorists may be somewhat misplaced. While Piaget, Kohlberg and Vygotsky were representing human development in culturally constructed ways, their theories were reflective of more systemic notions about childhood. The historical work on shifts in the perceived value of children provides much more straightforward evidence for the changes in discourse as it is embedded within structures and subject to change over time.

4.2 Sequence, time sensitivity and environmental input

What these contestations have highlighted are the diverse understandings about children. What the arguments have not addressed is the development of children's physical bodies and other associated aspects of their growth and development. As we have seen, risks associated with childhood poverty are often risks to children's physical growth, development and well-being. These physical implications are closely tied to other negative outcomes. Are there some universal aspects of children's development? Below, we discuss contributions from human development research that highlight some universal trends in children's growth and development, as well as the essential openness to specific environmental input that is vital to the process of development over time.

One point that has become increasingly clear is that domains of development are interdependent and at least somewhat sequential. Physical, cognitive and psychosocial (e.g. social and emotional) domains of human growth and development advance in a transactional progression of interdependent exchanges. Many of these advances occur in sequence.

Theory of mind provides an illustrative example. Theory of mind is the ability to differentiate one's thoughts from those of someone else. It is a cognitive capability that emerges in children usually between the ages of three and five, though there is some variation across cultures (Wellman et al. 2006). Theory of mind precedes the capacity to engage in complex levels of hypothetical reasoning. It also precedes the capacity to empathise. Without theory of mind, children are unable to think their way into another person's experience and to feel emotions that correspond to an experience they are not personally having. Advancement in one domain of development makes way for progress in others, and many of these progressions happen in sequences. The implications for risk are clear. If development in one domain is halted or hindered, there are likely to be negative implications in other domains as well.

This progression of sequences in development leads us to the important topic of timing in development, a topic that has implications for how we understand risk to children's growth and development. The existence of critical and sensitive periods in development has been the subject of much investigation and debate. Critical periods are generally understood as windows of opportunity in a human being's developmental trajectory. If a particular milestone is not attained while the opportunity is available, development is expected to halt or go awry. Sensitive periods follow the same logic. They are referred to as periods in which a given aspect of development is optimal. If that part of development is not achieved within the sensitive period, it is thought to become far more difficult to develop in later life. The implications for risk should be self-evident. If human development is time-sensitive enough to be stopped or thwarted by the failure to achieve certain chronological benchmarks, the ability to estimate the chances of negative outcomes would be greatly enhanced.

The work of Greenough et al. (1987) provides some useful insight on this subject. These authors proposed that there are some aspects of human development that are 'experience-expectant', and many others that are 'experience-dependent'. For example, humans are born with a genetic expectation for hearing language. Which language a child comes to learn is dependent on their environment. This distinction helps to inform the debate over universal development and sociocultural observations of diverse competencies. It demonstrates that there are some universal development tendencies in all children. Yet much of the diversity we observe, particularly in social behaviour and learning style (Nelson 2000; Greenough et al. 1987), is due to experience-dependent development.

The principles on which this proposition is built also inform assumptions made about children's vulnerability. The general proposition made by Greenough and colleagues was constructed on the assumption that there are periods of time in human development during which the brain expects to receive important environmental input. During these 'sensitive' periods of expectation, there is an abundance of neurons and an 'over-production' of synapses in the brain (Nelson 2000). These are generated to absorb and store sensory information taken from experience. When this happens, the utility of the synapses is confirmed, and they are kept. This is how the developing brain organises, retains and uses sensory information.

If the environment fails to produce the expected experiences, these neurons and synapses go unused and are eventually discarded. In other words, there are sensitive periods in which it is important for the environment to offer sensory input that confirms the utility of synaptic contacts. Otherwise, the development of a particular function may progress at a slower rate, with reduced proficiency, or possibly not at all.²

One of the clearest examples of time sensitivity concerns the development of a first language. Early scholars of language development argued that there was a definitive cut-off point after which no language could be achieved. Lenneberg (1967) concluded that if language was not learned by the onset of puberty, full mastery could not be achieved. In their review of the empirical evidence, Singleton and Ryan (2004) conclude that a great deal of uncertainty remains regarding the rigidity of critical periods, and that neither the neurological research nor the work with exceptional cases like Genie (see Fromkin et al 1974; Curtis 1977) can adequately address it. However, the work on synaptogenesis provides clear evidence that there are more optimal, sensitive periods in which development is more proficient and efficient.

This leads us to a third and final point which we have already made reference to, and that is the role of the environment as critical to the development of universal and socially specific competences. Environments are critical for the expression of our individual and biological qualities – including our genes (Rutter and Silberg, 2002; Rutter, 2004). Perry (2002: 88) explains:

If the child speaks Japanese as opposed to English, for example, or if this child will live in the plains of Africa or the tundra of the Yukon, different genes can be expressed, different neural networks can be organised from that child's potential to best fit that family, culture and environment.

² This is an admittedly brief and simple overview of synaptogenesis and neural development. For further elaboration, see Greenough and Black (1992), Black et al. (1998), and Perry (2002).

We have much to learn about environmental cues, genetic expression and human development. What is understood at present is that genes are not merely inherited or passed down, but also elicited or inhibited within specific contexts (Rutter 2004). Far from confirming the individualism criticised in Western notions of child development, the empirical research in genetics affirms the centrality of environment even for these most individual qualities.

Further, certain environmental experiences are vital to healthy development. Spitz's (1945, 1946) landmark studies have offered sobering evidence that infants who are deprived of tactile stimulation may literally die for lack of touch. A plethora of studies with institutionalised Romanian children show that lack of attentive care-giving in the formative years has clear implications for cognitive, social, emotional and physical development (see McLean 2003). Evidence suggests that the longer Romanian children remained in deprived institutional environments, the more maladaptive their functioning (see Benoit et al. 1996; Ames 1997). These studies offer support to the argument that some neural systems 'remain open only so long to environmental input, and if such input fails to occur, or if the input is abnormal, the "window of opportunity" closes and development goes awry' (Nelson 2000: 117).

A common conclusion drawn from these empirical studies is that deprivation during sensitive periods, many of which occur before the age of five, determines reduced functioning in the human being. Without any form of intervention, this might be the case. However, studies as early as the 1970s reveal that language can be developed long after neural pruning has transpired (see Fromkin et al. 1974; Curtis 1977).

What does all this mean for the study of risk in circumstances of chronic childhood poverty? In broad terms, we can conclude that children's development is, in many respects, a universal process. Yet, one of the most essential dimensions of the developmental process is openness to specific environmental input, which shapes much of the diversity we observe in young children around the world. Therefore, there are some risks to children's development and well-being that can be generally expected across contexts. The concern over malnutrition in the first five years of life seems relatively justified by the research on later life outcomes. Lack of adequate nutrition during prenatal development and through the first five years has been consistently linked to failure to thrive, reduced motor skills, and poor cognitive and psychosocial outcomes (Tanner and Finn-Stevenson 2002). Some risks are fairly universal, because children grow and develop in relatively universal ways.

Nonetheless, children's growth and development is a complex, multifaceted and time-sensitive process, encompassing interdependent dimensions. Deterministic assumptions about the link between deprivation and detrimental outcomes cannot be monolithically applied to *all* children living in impoverished circumstances.

5. Conclusion

Research regarding experiences of chronic childhood poverty is often implicitly if not overtly concerned with risk. There is, as Luthar et al. (2006: 108) conclude, 'no question that children living in chronic poverty face significant risks to their well-being'. What we have aimed to do in this paper is to unpack notions of risk, poverty and childhood, and to understand the ways in which the relationship between childhood and poverty can entail various forms of risk. We have considered how risk is understood. We have discussed how poverty is defined and experienced. We have engaged with the discourse concerning how children and childhood

are represented, and reflected on how human developmental research can inform conceptions of risk to children.

There is a general assumption that poverty is a condition that places children at risk of a host of negative outcomes. Likewise, childhood is often thought of as a condition that places young human beings at risk of the negative consequences of poverty. Without further scrutiny it would seem that chronic poverty experienced in childhood will certainly and unequivocally produce unpleasant results. We have sought to achieve a greater level of complexity, arguing that poverty is much more than economic deprivation, but instead a dynamic, structural phenomenon that is experienced in different ways. Poverty, like risk, is constructed in particular fashions and these diverse conceptions have direct implications for notions of risk to children.

Such conceptions about the dimensions of poverty were followed by similar conclusions about risk. We observed that risk is complex, multidimensional and dynamic, as are the people experiencing it and systems in which it exists. Risk is structural. It is variable and specific to time, place and person. Finally, it is subjectively constructed.

In the remainder of the paper we looked at representations of childhood in the discourse regarding universal childhoods, and considered evidence that might inform notions of 'the universal child'. There has been notable criticism concerning the influence of Western notions of childhood on conceptions of risk to children in the developing world. We sought to challenge and illuminate these arguments through a closer look at the evidence harnessed to achieve the deconstruction of problematic ideas about childhood, including highlighting shifts in the social value placed on children.

Finally, we looked at three aspects of child development that could inform the universality and specificity of children's growth and development. We discussed how the sequencing and interdependence of developmental domains, time-sensitivity and environmental input can inform our understanding of risk. We concluded that, in large part, there are likely to be some universal risks to children, as children's development is, in many ways, standard across cultures and societies. However, the process of this universal experience incorporates a great deal of openness to environmental input. Thus, children's relationship with poverty may vary enormously from one context to the next. Any evaluation of risk in contexts of chronic childhood poverty must include both the structural implications and complexities of poverty in a given context, as well as the multidimensional nature of growth and development among poor children.

References

- Ames, E.W. (1997) *The Development of Romanian Orphanage Children Adopted in Canada. Final Report*, Burnaby: Simon Fraser University
- Aral, Sevgi O., Adaora A. Adimora and Kevin A. Fenton (2008) 'Understanding and Responding to Disparities in HIV and Other Sexually Transmitted Infections in African Americans', *The Lancet* 372: 337–40
- Bartlett, Sheridan, Roger Hart, David Satterthwaite, Ximena de la Barra and Alfredo Missair (1999) *Cities for Children: Children's Rights, Poverty and Urban Management*, London: Earthscan
- Basu, Kaushik and Pham Hoang Van (1998) 'The Economics of Child Labour', *The American Economic Review* 88: 412–27
- Benoit, T.C., L.J. Jocelyn, D.M. Moddemann and J.E. Emree (1996) 'Romanian Adoption: The Manitoba Experience', *Archives of Pediatric and Adolescent Medicine* 150: 1278–82
- Bjorklund, David F. (1997) 'In Search of a Metatheory for Cognitive Development (Or, Piaget Is Dead and I Don't Feel So Good Myself)', *Child Development* 68.1: 144–8
- Black, Robert E. (2003) 'Zinc Deficiency, Infectious Disease and Mortality in the Developing World', *Journal of Nutrition* 133: 1485–9
- Black, T.E., T.A. Jones, C.A. Nelson and W. T. Greenough (1998) 'Neuronal Plasticity in the Developing Brain' in N. E. Alessi, J.T. Coyle, S.I. Harrison and S. Eth (eds.) *Handbook of Child and Adolescent Psychiatry, Vol. 6, Basic Psychiatric Science and Treatment*, New York: Wiley
- Blank, Rebecca M. (2007) 'How to Improve Poverty Measurement in the United States', paper prepared as the Presidential Address to the Association for Public Policy Analysis and Management, 8–10 November 2007
- Boyden, Jo (2006) 'Young Lives Project: Conceptual Framework', Young Lives internal paper, September 2006
- Boyden, Jo (2009) 'Risk and Capability in the Context of Adversity: Children's Contributions to Household Livelihoods in Ethiopia', *Children, Youth and Environments* 19.2: 111–37
- Boyden, Jo and Elizabeth Cooper (2007) *Questioning the Power of Resilience: Are Children up to the Task of Disrupting the Transmission of Poverty?* CPRC Working Paper 73, Manchester: Chronic Poverty Research Centre
- Boyden, J., C. Eyeber, T. Feeny and C. Scott (2003) *Children and Poverty: Experiences and Perceptions from Belarus, Bolivia, India, Kenya and Sierra Leone*, Children and Poverty Series, Richmond, VA: Christian Children's Fund
- Boyden, Jo and Deborah Levison (2000) *Children as Economic and Social Actors in the Development Process*, Expert Group on Development Issues Working Paper 2000: 1, Stockholm: Ministry for Foreign Affairs, Sweden
- Boyden, J., B. Ling and W. Myers (eds) (1998) *What Works for Working Children*, Florence: Radda Barnen and UNICEF International Child Development Centre

- Boyden, J. and G. Mann (2005) 'Children's Risk, Resilience and Coping in Extreme Situations' in M. Ungar (ed.) *Handbook for Working with Children and Youth: Pathways to Resilience Across Cultures and Contexts*, Thousand Oaks, CA: Sage Publications
- Bruce, N., R. Perez-Padilla and R. Alabalak (2000) 'Indoor Air Pollution in Developing Countries: A Major Environmental and Public Health Challenge', *Bulletin of the World Health Organization* 78: 1078–92
- Bynner, J. (2001) 'Childhood Risks and Protective Factors in Social Exclusion', *Children and Society* 15: 285–301
- Calderon, R., C. Johnson, G. Craun, A. Dufour, R. Karlin, T. Sinks and J. Valentine (1993) 'Health Risks from Contaminated Water: Do Class and Race Matter?' *Toxicology and Industrial Health* 9: 879–900
- Chase-Lansdale, P.L., L.S. Wakschlag and J. Brooks-Gunn (1995) 'A Psychological Perspective on the Development of Caring in Children and Youth: The Role of the Family', *Journal of Adolescence* 18: 515–56
- Chopra, M. and D. Sanders (2005) *Child Health and Poverty*, CHIP Report 10, Childhood Poverty Research and Policy Centre, <http://www.childhoodpoverty.org/index.php?action=publications> (accessed 31 July 2011)
- Christiansen, Catrine, Mats Utas and Henrik E. Vigh (2006) 'Introduction', in C. Christiansen, M. Utas and H.E. Vigh (eds) *Navigating Youth, Generating Adulthood: Social Becoming in an African Context*, Uppsala: Nordiska Afrikainstitutet
- Clark, Christina R. (2006) 'Beyond Borders: Political Marginalisation and Lived Experiences of Congolese Young People in Uganda', thesis submitted in partial fulfilment of the requirements for the Degree of Doctor of Philosophy, Oxford University, Oxford
- Cluver, Lucie, Frances Gardner and Don Operario (2007) 'Psychological Distress Amongst AIDS-Orphaned Children in Urban South Africa', *Journal of Child Psychology and Psychiatry* 48.8: 755–63
- Chen, Edith, Edwin B. Fisher, Leonard B. Bacharier and Robert C. Strunk (2003) 'Socioeconomic Status, Stress, and Immune Markers in Adolescents with Asthma', *Psychosomatic Medicine* 65: 984–92
- Compas, Bruce E. (2004) 'Process of Risk and Resilience During Adolescence: Linking Contexts and Individuals' in R. M. Lerner and L. Steinberg (eds.) *Handbook of Adolescent Psychology*, Hoboken, NJ: Wiley
- Crivello, Gina (2009) *'Becoming Somebody': Youth Transitions Through Education and Migration – Evidence from Youth Lives, Peru*, Working Paper 43, Oxford: Young Lives
- Crivello, Gina and Jo Boyden (2011) *Situating Risk in Young People's Social and Moral Relationships: Young Lives Research in Peru*, Working Paper 66, Oxford: Young Lives
- Cunningham, Hugh (2005) *Children and Childhood in Western Society Since 1500*, London: Pearson
- Cunningham, Hugh (2006) *The Invention of Childhood*, London: BBC Books
- Curtis, S. (1977) *Genie: A Psycholinguistic Study of a Modern-Day 'Wild Child'*, New York: Academic Press

- Dean, Mitchell (1999) 'Risk, Calculable and Incalculable' in D. Lupton (ed.) *Risk and Sociocultural Theory: New Directions and Perspectives*, Cambridge: Cambridge University Press
- Diener, E. and C. Diener (1995) 'The Wealth of Nations Revisited: Income and Quality of Life', *Social Indicators Research* 36: 275–86
- Erikson, E. H. (1963) *Childhood and Society*, 2nd edition, New York: Norton
- Evans, Gary W. and Pilyoung Kim (2007) Childhood Poverty and Health: Cumulative Risk and Stress Dysregulation, *Psychological Science* 18.11: 953–57
- Ezzati, M., A. Lopez and A. Rodgers (2002) 'Selected Major Risk Factors and Global and Regional Burden of Disease', *The Lancet* 360: 1–14
- Feinstein, L. (2003) 'Inequality in the Early Cognitive Development of British Children in the 1970 Cohort', *Economica* 70: 7,397
- Feldman, D.H. (2004) 'Piaget's Stages: The Unfinished Symphony of Cognitive Development', *New Ideas in Psychology*, 22: 175–231
- Finch, J. and J. Mason (1993) *Negotiating Family Responsibilities*, London: Routledge
- Fromkin, Victoria, Stephen Krashen, Susan Curtiss, David Rigler and Marilyn Rigler (1974) The Development of Language in Genie: A Case of Language Acquisition Beyond the 'Critical Period', *Brain and Language* 1: 81–107
- Garnezy, Norman (1985) 'Risk and Protective Factors in the Development of Psycho Pathology' in J.E. Stevenson. (ed.) *Recent Research in Developmental Psychopathology*, Cambridge: Cambridge University Press
- Garnezy, Norman (1994) 'Reflections and Commentary on Risk, Resilience, and Development' in R. J. Haggerty, L.R. Sherrod, N. Garnezy and M. Rutter (eds.) *Stress, Risk, and Resilience in Children and Adolescents: Processes, Mechanisms, and Interventions*, Cambridge: Cambridge University Press
- Glassman, Michael (1994) 'All Things Being Equal: The Two Roads or Piaget and Vygotsky', *Developmental Review* 14: 186–214
- Goyos, J.M. (1997) 'Identifying Resiliency Factors in Adult 'Pedro Pan' Children: A Retrospective Study', doctoral dissertation, Barry University, Miami, FL
- Grantham-McGregor, S., Y.B. Cheung, S. Cueto, P. Glewwe, L. Richter and B. Strupp (2007) 'Child Development in Developing Countries: Development Potential in the First 5 Years for Children in Developing Countries', *The Lancet* 369: 60–70
- Greenfield, P. and R. Cocking (eds) (1994) *Cross-Cultural Roots of Minority Child Development*, Hillsdale, NJ: Lawrence Erlbaum Associates
- Greenough, William T., James E. Black (1992) 'Induction of Brain Structure by Experience: Substrates for Cognitive Development' in M.R. Gunnar and C.A. Nelson (eds) *Developmental Behavioral Neuroscience*, Mahwa, NJ: Lawrence Erlbaum Associates
- Greenough, William T., James E. Black, and Christopher S. Wallace (1987) 'Experience and Brain Development', *Child Development* 58.3: 539–59
- Grossman, F.K., J. Beinashowitz, L. Anderson, M. Sakurai, L. Finnin and M. Flaherty (1992) 'Risk and Resilience in Young Adolescents', *Journal of Youth and Adolescence* 21.5: 529–50

- Harriss, John (2007) *Bringing Politics Back in to Poverty Analysis: Why Understanding of Social Relations Matters More for Policy on Chronic Poverty than Measurement*, Working Paper 77, Manchester: Chronic Poverty Research Centre
- Hart, Jason (2006) 'Saving Children: What Role for Anthropology?' *Anthropology Today* 22.1: 5–8
- Hart, Jason (2008a) *Business as Usual: The Global Political Economy of Childhood Poverty*, Technical Note 13, Oxford: Young Lives
- Hart, Jason (2008b) 'Displaced Children's Participation in Political Violence: Towards Greater Understanding of Mobilisation', *Conflict, Security, and Development* 8.3: 277–93
- Hendrick, H. (1998) [1990] 'Constructions and Reconstructions of British Childhood: An Interpretive Survey, 1800 to the Present' in A. James and A. Prout (eds) *Constructing and Reconstructing Childhood*, revised edition, London: Falmer Press
- Hill, R. (1949) *Families Under Stress: Adjustment to the Crises of War Separation and Reunion*, New York: Harper and Brothers
- Himaz, Rosana (2009) *The Impact of Parental Death on Schooling and Subjective Well-being: Evidence from Ethiopia using Longitudinal Data*, Working Paper 44, Oxford: Young Lives
- Hukkelhoven, Chantel W.P.M., Ewout W. Steyerberg, A.J.J. Rampen, E. Farace, J. Dik F. Habbema, L.F. Marshall, G.D. Murray and A.I.R. Maas (2003) 'Patient Age and Outcome Following Severe Traumatic Brain Injury: An Analysis of 5600 Patients', *Journal of Neurosurgery*, 99: 666–73
- Huttley, S.R., S.S. Morris and V. Pisani (1997) 'Prevention of Diarrhea in Young Children in Developing Countries', *Bulletin of the World Health Organization* 75: 163–74
- ILO (2005) 'Facts on Child Labour', factsheet, Geneva: International Labour Organization
- Ivanovic, D.M., B.P. Lieva, H.T. Perez, N.B. Inzunza, A.F. Almagia, T.D. Toro, M.S.C. Urrutia, J.O. Cervilla and E.O. Bosch (2000) 'Long Term Effects of Severe Under-nutrition During the First Year of Life on Brain Development and Learning in Chilean High-School Graduates', *Nutrition* 16: 1056–63
- Kagitcibasi, C. (1996) *Family and Human Development Across Cultures: A View from the Other Side*, Mahwah, NJ: Lawrence Erlbaum Associates
- Keating, Daniel P. (2004) 'Cognitive and Brain Development', in R.M. Lerner and L. Steinberg (eds.) *Handbook of Adolescent Psychology*, Hoboken, NJ: Wiley
- Kohlberg, L. (1981) *Essays on Moral Development: Vol. 1, The Philosophy of Moral Development*, San Francisco: Harper & Row
- Kohlberg, Laurence (1984) *Essays on Moral Development: Vol. 2, The Psychology of Moral Development*, San Francisco: Harper & Row
- Krishnan, Suneeta, Megan S. Dunbar, Alexandra M. Minnis, Carol A. Medlin, Caitlin E. Gerds and Nancy S. Padian (2008) 'Poverty, Gender Inequities, and Women's Risk of Human Immunodeficiency Virus/ AIDS', *Annals of the New York Academy of Science* 1136: 101–10
- Le Thuc, Duc (2009) *The Effect of Early Age Stunting on Cognitive Achievement Among Children in Vietnam*, Working Paper 45, Oxford: Young Lives

- Lenneberg, E. (1967) *Biological Foundations of Language*, New York: Wiley
- Lever, J.P., N.L. Pinol and J.H. Uralde (2005) 'Poverty, Psychological Resources and Subjective Well-Being', *Social Indicators Research* 73: 375–408
- Luthar, Suniya S. (1999) *Poverty and Children's Adjustment*, New York: Sage Publications
- Luthar, Suniya S., Jeannette A. Sawyer and Pamela J. Brown (2006) 'Conceptual Issues in Studies of Resilience Past, Present, and Future Research', *Annals of New York Academy of Science* 1094: 105–15
- MacLean, K. (2003) 'The Impact of Institutionalization on Child Development', *Development and Psychopathology* 15: 853–84
- Mann, Gillian (2001) *Networks of Support: A Literature Review of Care Issues for Separated Children*, Sweden: Save the Children
- Masten, Ann S., J.J. Cutuli, Janette E. Herbers and Marie-Gabrielle J. Reed (2002) 'Resilience in Development' in C.R. Snyder and S.J. Lopez (eds) *Handbook of Positive Psychology*, Oxford: Oxford University Press
- McCubbin, H.I., A.E. Cauble and J. M. Patterson (1982) *Family Stress, Coping, and Social Support*, Springfield, IL: Charles C Thomas
- McEwen, B.S. (2000) 'The Neurobiology of Stress: From Serendipity to Clinical Relevance', *Brain Research* 886: 172–89
- Mendez, M.A. and L.S. Adair (1999) 'Severity and Timing of Stunting in the First Two Years of Life Affect Performance on Cognitive Tests in Late Childhood', *Journal of Nutrition* 129: 1555–62
- Mitchell, L.M. (2006) 'Body and Illness: Considering Visayan Filipino Children's Perspectives Within Local and Global Relationships of Inequality', *Medical Anthropology* 25.4: 331–73
- Molenaar, Peter C.M. and Han L.J. van der Maas (2004) 'Commentary on "Piaget's Stages: the Unfinished Symphony of Cognitive Development" by D.H. Feldman', *New Ideas in Psychology*, 22: 249–53
- Moore, Karen (2001) *Frameworks for Understanding the Intergenerational Transmission of Poverty and Well-Being in Developing Countries*, Working Paper 8, The University of Birmingham: CPRC
- Nelson, Charles A. (2000) 'Neural Plasticity and Human Development: The Role of Early Experience in Sculpting Memory Systems', *Developmental Science* 3.2: 115–36
- Patterson, Joan M. (2002) 'Integrating Family Resilience and Family Stress Theory', *Journal of Marriage and Family* 64.2: 349–60
- Perry, Bruce D. (2002) 'Childhood Experience and the Expression of Genetic Potential: What Childhood Neglect Tells Us About Nature and Nurture', *Brain and Mind* 3: 79–100
- Piaget, J. (1952) *The Origins of Intelligence in Children*, New York: International Universities Press
- Pollitt, E. (1994) 'Poverty and Child Development: Relevance of Research in Developing Countries to the United States', *Child Development* 65: 283–95
- Popkin, Barry M. (2001) 'The Nutrition Transition and Obesity in the Developing World', *Journal of Nutrition* 131: 871–3

- Popkin, Barry M. and P. Gordon-Larsen (2004) 'The Nutrition Transition: Worldwide Obesity Dynamics and Their Determinants', *International Journal of Obesity* 28: 2–9
- Punch, S. (2001) 'Negotiating Autonomy: Childhoods in Rural Bolivia' in L. Alanen and B. Mayall (eds) *Conceptualizing Child–Adult Relationships*, London: Routledge
- Rogoff, B., M.J. Sellers, S. Pirotta, N. Fox and S.H. White (1975) 'Age of Assignment of Roles and Responsibilities to Children. A Cross-Cultural Survey', *Human Development* 18.5: 353-69
- Rutter, Michael (1983) 'Stress, Coping, And Development: Some Issues and Some Questions' in N. Garnezy and M. Rutter (eds) *Stress, Coping and Development in Children*, New York: McGraw-Hill
- Rutter, Michael (1987) 'Psychosocial Resilience and Protective Mechanisms', *American Journal of Orthopsychiatry* 57: 316–31
- Rutter, Michael (1994) 'Stress Research: Accomplishments and Tasks Ahead', in R.J. Haggerty, L.R. Sherrod, N. Garnezy and M. Rutter (eds.) *Stress, Risk, and Resilience in Children and Adolescents: Processes, Mechanisms and Interventions*, Cambridge: Cambridge University Press
- Rutter, Michael (2004) 'Intergenerational Continuities and Discontinuities in Psychological Problems' in P.L. Chase-Lansdale, K. Kiernan and R.J. Friedman (eds) *Human Development Across Lives and Generations: The Potential for Change*, Cambridge: Cambridge University Press
- Rutter, Michael and J. Silberg (2002) 'Gene-Environment Interplay in Relation to Emotional and Behavioral Disturbance', *Journal of Child Psychology and Psychiatry* 40: 19–55
- Schildkrout, E. (1981) 'The Employment of Children in Kano (Nigeria)' in G. Rodgers and G. Standing (eds) *Child Work, Poverty and Underdevelopment*, Geneva: International Labour Organization
- Schoon, I. (2006) *Risk and Resilience: Adaptations in Changing Times*, Cambridge: Cambridge University Press
- Scrimshaw, N.S. (1998) 'Malnutrition, Brain Development, Learning, and Behavior', *Nutrition Research* 18.2: 351–79
- Seeman, Teresa, Sharon S. Merkin, Eileen Crimmins, Brandon Koretz, Susan Charette and Arun Karlamangla(2008) 'Education, Income and Ethnic Differences in Cumulative Biological Risk Profiles in a National Sample of US Adults: NHANES III (1988–1994)', *Social Science Medicine* 66.1: 72–87
- Shayer, Michael (2003) 'Not Just Piaget; Not Just Vygotsky, And Certainly Not Vygotsky As Alternative to Piaget', *Learning and Instruction* 13: 465–485
- Shetty, Prakash S. (2002) 'Nutrition Transition in India', *Public Health Nutrition* 5: 175–82
- Singleton, David and Lisa Ryan (2004) *Language Acquisition: The Age Factor*, Toronto: Multilingual Matters Ltd
- Sorensen, E. and J. Torfing (2003) 'Network Politics, Political Capital and Democracy', *International Journal of Public Administration* 26: 609–34
- Spitz, R.A. (1945) 'Hospitalism: An Inquiry into the Genesis of Psychiatric Conditions in Early Childhood', *Psychoanalytic Study of the Child* 1: 53–74

- Spitz, R.A. (1946) 'Hospitalism: A Follow-Up Report on Investigation Described in Volume I, 1945', *Psychoanalytic Study of the Child* 2: 113–17
- Suh, E.M. (2000) 'Self: The Hyphen Between Culture and Subjective Well-Being' in E. Diener and E.M. Suh (eds) *Culture and Subjective Well-Being*, Cambridge, MA: MIT Press
- Tanner, E. M., and M. Finn-Stevenson (2002) 'Nutrition and Brain Development: Social Policy Implications', *American Journal of Orthopsychiatry* 72.2: 182–93
- UNAIDS (2008) 'UNAIDS Report on the Global AIDS Epidemic 2008', http://www.unaids.org/en/KnowledgeCentre/HIVData/GlobalReport/2008/2008_Global_report.asp (accessed 15 January 2010)
- Ungar, M. (ed.) (2005) *Working with Children and Youth: Pathways to Resilience Across Cultures and Contexts*, Thousand Oaks, CA: Sage Publications
- Uphoff, Norman (1999) 'Understanding Social Capital: Learning from the Analysis and Experiences of Participation' in P. Dasgupta and I. Seregeldin (eds) *Social Capital: A Multifaceted Perspective*, Washington DC: World Bank
- Vigh, Henrik E. (2006) 'Social Death and Violent Life Chances' in C. Christiansen, M. Utas and H.E. Vigh (eds) *Navigating Youth, Generating Adulthood: Social Becoming in an African Context*, Uppsala: Nordiska Afrikainstitutet
- Vigh, H. (2009) 'Motion Squared: A Second Look at the Concept of Social Navigation', *Anthropological Theory* 9.4: 419–39
- Werner, E.E. and R.S. Smith (1982) *Vulnerable but Invincible: A Study of Resilient Children*, New York: McGraw-Hill
- Wellman, H. M., F. Fang, D. Liu, L. Zhu and G. Liu (2006) 'Scaling of Theory-of-Mind Understandings in Chinese Children', *Psychological Science* 17: 1,075–81
- Werner, E.E. (1993) 'Protective Factors and Individual Resilience' in S.J. Meisels and J.P. Shonkoff (eds) *Handbook of Early Childhood Intervention*, New York: Cambridge University Press
- Werner, E.E. (1996) 'Vulnerable but Invincible: High Risk Children from Birth to Adulthood', *European Child and Adolescent Psychiatry* 5: 47–51
- Wessells, M. and K. Kostenly (2002) 'After the Taliban: A Child-Focused Assessment in the Northern Afghan Provinces of Kunduz, Takhar, and Badakshan', Richmond, VA: CCF International/Child Fund Afghanistan
- Woodhead, Martin (2006) 'Changing Perspectives on Early Childhood: Theory, Research and Policy', *International Journal of Equity and Innovation in Early Childhood* 4.2: 1–43
- Woodhead, Martin. (2009) *Pathways through Early Childhood Education in Ethiopia, India and Peru: Rights, Equity and Diversity*, Working Paper 54, Oxford: Young Lives
- WHO (1995) *Physical Status: The Use and Interpretation of Anthropometry. Report of a WHO Expert Committee*, Technical Report 854, Geneva: World Health Organization
- WHO (2011) 'WHO Statistical Information System (WHOSIS)', <http://www.who.int/whosis/indicators/2007StuntedUnderweightOverweightChild/en/index.html> (accessed 27 October 2011)
- Zeilizer, Viviana A. (1985) *Pricing the Priceless Child: The Changing Social Value of Children*, Princeton, NJ: Princeton University Press

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