

A CRITIQUE OF EARLY CHILDHOOD DEVELOPMENT RESEARCH AND PRACTICE IN AFRICA

Seth Oppong

African University College of Communications

Accra, Ghana

email: oppon.seth@gmail.com

ABSTRACT

The issue of the influence of poverty on early childhood development has received considerable research attention. Poverty has usually been conceptualised and measured in absolute terms, using a national and an international poverty line. Similarly, the outcome variables (such as cognitive ability, academic performance, personality, and behavioural patterns) have also been measured as if Western childhood developmental trajectories and ideals are universal. It is argued that when poverty is defined by biased attitudes and measures, children are improperly classified and judged and interventions are designed with the wrong goals in mind. It is against this background that this article provides a critical review of the existing literature. In particular, this article explores some definitional issues in the measurement of poverty and the presence or otherwise of Western biases in the conceptualisation and measurement of relevant outcomes in childhood. It is expected that there will be an appreciable improvement in knowledge production in respect of the influence of poverty on the African child when the issues explored in this article are addressed.

Keywords: child development, poverty, social exclusion, developmental psychology, psychological assessment, physical measures

UNISA 
university
of south africa

Africanus
Journal of Development Studies
Volume 45 | Number 1 | 2015
pp. 23–41

Print ISSN 0304-615X
© Unisa Press

INTRODUCTION

There is high optimism that Africa will grow its economy and become a viable continent capable of taking care of its citizens (Broadberry and Gardner 2013). Indeed, Africa is on the rise. For instance, Mahajan (2009) argues that if Africa were a single country, it would be the tenth largest economy in the world, after Canada and ahead of India and Brazil. Again, Chissano, Martin, Cissé and de Donnea (2007), in a report for the African Development Bank, expressed similar enthusiasm. However, it has been variously reported that certain preconditions must exist before Africa can attain this glorious future. Chissano et al. (2007) have indicated, among other things, that Africa will need to invest in skills, build capable states, and promote the private sector. The World Bank (2000) suggested, among other factors, that Africa will need to concentrate on investing in skills in order for the continent to disentangle itself from its developmental challenges. The implication of these views is that Africa must invest in human capital development in order for the continent to realise its economic growth prospects.

However, to make its gains sustainable, Africa ought to look beyond the current challenges and prepare its future human resources for socioeconomic transformation. There is no gainsaying that the future of Africa lies squarely in how its human resources are developed. Based on these ambitions, a critical ingredient to Africa's achievement of this glorious future lies in how childhood development is facilitated. Quite simply, stable and resilient child development is critical to the realisation of the economic prosperity of Africa.

Unfortunately, Africa is saddled with high levels of poverty. For instance, Kwakye (2011) has reported that Africa is one of the continents with the lowest per capita income, life expectancy, under-five mortality and adult literacy rates in the world. The World Bank (2000), Chissano et al. (2007), and Broadberry and Gardner (2013) have also reported similar indicators. Broadberry and Gardner (2013) have even questioned the raised hopes of observers that Africa is finally on the path to economic prosperity; they argue history suggests that such optimism could be misplaced as growth reversals are possible. As indicated earlier, realisation of the optimistic economic progress of Africa requires investment in its current and future human resources, which implies ensuring the development of children.

Again, the United Nations International Children's Emergency Fund (UNICEF 2011) has strongly suggested that economic conditions matter for children because they shape the environment in which children and their families live, and their well-being. Clearly, then, studies that investigate the impact of poverty on childhood development are key to understanding and unlocking the potential of the African continent. Poverty shapes the environment in which the child lives, and in turn affects the future of Africa.

Studies that investigate the impact of poverty on childhood development abound (see Barnett 1995; Leseman 2002; Aber, Bennett, Conley, and Li 1997;

Brooks-Gunn and Duncan 1997; Mayer 2002). These studies have documented the debilitating effects of poverty on the physical health of the child, infant mortality, school achievement, cognitive abilities, emotional and behavioural outcomes (such as aggression, acting out, and a host of others), and future economic status. With these negative effects in mind, research is needed to determine appropriate ways of minimising the impact of poverty on childhood development.

However, the studies that have been carried out are not without their flaws. It is against this background that this article seeks to review the literature on poverty and childhood development with particular reference to Africa. In the following paragraphs, some definitional, conceptual, and methodological issues are explored, after which some recommendations are made for future poverty research and intervention.

POVERTY: DEFINITIONAL AND MEASUREMENT ISSUES

What is poverty? How is it measured? It is worth noting that how we operationally define a variable accounts for how we also measure it in our studies. This state of affairs equally applies to poverty research. It is against this background that it is necessary to define poverty. At the Copenhagen World Summit on Development (United Nations [UN] 1995, 19), poverty was defined as:

A condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education, and information. It depends not only on income but also on access to services.

This definition assumes that ‘there are minimum basic needs for all people in all societies’ (Haralambos, Holborn and Heald 2004, 238). However, the basic needs for survival may vary from one society to another. For instance, the basic needs of persons living the Kalahari Desert will differ significantly from the basic needs of persons living in Accra or Durban. Thus, such an absolute definition of poverty largely represents the imposition of the values of researchers on a given society. Indeed, Haralambos et al. (2004) have argued that such an ‘absolute standard of cultural needs is based in part on the values of the researcher, which, in turn reflect their particular cultures’. Consequently, a useful definition of poverty is one that takes into account the needs of the members of the given society. Despite the preference for a culturally relative definition, the definition and measurement of poverty still continues to be absolute. For instance, the World Bank has continued to use an absolute definition of poverty, in which a fixed figure of US \$1.00/day or US \$2.00/day is used to draw the poverty line (Maxwell 1999).

Whether a relative or an absolute definition is used, the current approach to the measurement of poverty is unidimensional, based only on income. This view has led

to the concept of social exclusion. According to Bailey, Spratt, Pickering, Goodlad and Shucksmith (2004, 3–4), social exclusion deals with:

the ability of individuals to participate in the life of their community. Where deprivation research has emphasised lack of financial or material resources, however, social exclusion emphasises a wider range of factors – social, cultural and political as well as economic – which may lead to individuals or groups being marginalised in society.

Similarly, the European Commission (1993) offers a comprehensive definition of social exclusion. Social exclusion refers to:

the multiple and changing factors resulting in people being excluded from the normal exchanges, practices and rights of modern society. Poverty is one of the most obvious factors, but social exclusion also refers to inadequate rights in housing, education, health and access to services. It affects individuals and groups, particularly in urban and rural areas, who are in some way subject to discrimination or segregation; and it emphasises the weaknesses in the social infrastructure and the risk of allowing a two-tier society to become established by default (Commission of the European Communities 1993, 1).

A number of studies have been cast within the social exclusion framework. For instance, since 1999, the UK Department of Work and Pensions (DWP) has surveyed poverty levels in the UK using the social exclusion concept (Haralambos et al. 2004). The DWP annual reports (Haralambos et al. 2004) cover issues such as: (1) lack of resources/income, (2) lack of opportunities to work, (3) lack of opportunities to learn, (4) suffering health inequalities, (5) lack of decent housing, (6) disruption of family life, and (7) living in a disadvantaged neighbourhood. Similarly, the Scottish Index of Multiple Deprivation (SIMD), which is also based on the concept of social exclusion (Bailey et al. 2004) covers the following five domains: (1) income, (2) employment, (3) health, (4) education, skills and training, and (5) geographical access to services.

Interestingly, studies that investigate the impact of poverty on childhood development have also applied the unidimensional, income-based measure of poverty. In some studies, parental income (eg. Mayer 2002) is used, while in others family income (e.g. Aber, Bennett, Conley and Li, 1997; Brooks-Gunn and Duncan, 1997) is employed. Whichever terminology is used, all researchers refer to the total income available to the family. Mayer (2002, 20) also indicated that other studies have used ‘a measure of economic status that is not based on income’.

Mayer (2002) further intimated that social scientists (particularly psychologists and sociologists) have defined and measured poverty in terms of ‘economic strain’, a measure of the subjective experience of low income. For instance, common measures of economic strain include a count of how many of the following five conditions apply to the family: having difficulty affording food, clothing, medical care, and furniture and having difficulty paying bills (Mayer 2002). However, she argues that such a measure is not a proxy for income but only a mediator of the effects of income

on children's outcomes. Similarly, Gregg, Propper, and Washbrook (2008) found evidence in support of the hypothesis that the relationship between family income and child development is mediated by home environment (family characteristics and parental psychological functioning, health, and home learning environment). This view, indeed, represents the general approach to research that investigates the impact of poverty on children, which adopts a unidimensional, income-based, static measure of poverty.

Inferring from Mayer's (2002) arguments and empirical evidence by Gregg, Propper and Washbrook (2008), it can be deduced that the subjective experience of low income (economic strain) has rather direct impact on the child, while income per se has an indirect effect on a child's development. Thus, in the greater scheme of things, it is economic strain that has greater impact on a child's development. In fact, Asiedu, Nunoo, Ofori-Danson, Sarpong and Sumaila (2013) have argued that, though it is assumed that the higher the income the higher the consumption and wellbeing, this assumption does not hold true in all situations. Thus, this provides further support to the view that the non-monetary measure is a better indicator of poverty than an income-based definition and measure.

Owing to the ongoing debate, it is reasonable to acknowledge the existence of both objective (income-based) indicators of poverty and subjective (multidimensional) measures of poverty. It is also important to appreciate that poverty creates a certain environment for childhood development. The concept of environment requires further clarification. Anastasi (1955, 335) has provided a psychological definition of environment:

Psychologically, environment is to be regarded as the sum total of the stimulation which the individual receives from conception until death. The mere presence of objects does not constitute environment unless the objects serve as stimuli in the experience of the individual.

Anastasi's (1955) conceptualisation of the environment and Mayer's (2002) description of economic strain coincide with Apusigah's (2012) contention that there exists both technical and street evidence of poverty reduction efforts in Ghana. According to Apusigah (2012), the technical evidence consists of indicators such as gross domestic product, inflation and exchange rates, interest rate, public expenditure in infrastructure, and export earnings, whereas street evidence 'captures personal experiences and context-specific, lived realities of individual farmers, traders, workers, parents, and indeed all types of citizens' (Apusigah 2012, 388). There are three domains by which lived realities or street evidence can be assessed: (1) costs of social services with focus on ability to access the services, (2) sustaining livelihood with reference to sustainable income-generating activities or employment, and (3) purchasing power with reference to worth of their income (Apusigah 2012).

Similarly, Aryeetey, Jehu-Appiah, and Kotoh (2013), in their study on community concepts of poverty in Ghana, reported the following as key indicators of poverty: (1) employment, (2) educational attainment of children, (3) food

availability, (4) physical appearance, (5) housing conditions, (6) asset ownership, (7) health-seeking behaviour, and (8) social exclusion and marginalisation. In addition, Asiedu et al. (2013) also used non-monetary indicators of poverty in their study of poverty in selected fishing communities in Ghana. In their study, the non-monetary indicators of poverty included (1) access to medical facilities, (2) access to clean water, (3) access to sanitation facilities, (4) access to communication facilities, (5) accessible roads, (6) access to bank and microcredit facilities, (7) schools, (8) access to markets, (9) local administration centres, and (10) formalised social structures. In fact, Asiedu et al. (2013) used both income-based indicators (household income and expenditure) and the non-monetary indicators mentioned above in their study. In their study, Asiedu et al. (2013) distinguished between persons with high income in the fishing communities but who had no access to some social services such clean water, accessible roads, access to banks, to mention but a few factors and those with high income and access to these social services. This shows that high income may not necessarily lead to consumption. This suggests an assessment of poverty or economic strain in Ghana and other parts of Africa, for instance, is likely to benefit greatly from the use of a combination of the above-mentioned indicators.

The root of the inadequacy of income as an indicator of poverty lies in the fact that it does not tell us everything about what experiences a child is exposed to at home. It is particularly important to measure economic strain or to use non-monetary indicators as it is the home environment that has proximal and direct impact on the child's development rather than the parental or family income, which is used as a proxy for home environment. Indeed, there are rich and stingy parents and there are income-poor but generous parents. Thus, low family income is no guarantee that the child lives in a resource-poor environment. Insofar as income is neither a sufficient measure of poverty nor of the state of the home environment, it is reasonable to suggest that future studies should consider income as just one of the indicators of home environment within a multidimensional measure of poverty. One way to redirect studies is by shifting their focus from poverty to social exclusion.

EUROCENTRIC CHILDHOOD DEVELOPMENTAL IDEALS

In addition to the limitations associated with an income-based measure of poverty, there are other methodological and conceptual issues when the findings from extant literature in this domain is applied to the African child. Most studies are based on a normative Eurocentric perspective on child development. In addition, Eurocentric biases are evident in some of the measures used in assessing the child's development. These issues greatly reduce the ability to generalise findings to an African child. For instance, developmental psychological research often explores the child's development in terms of physical, socioemotional, and cognitive development (see

Santrock 1995). Psychological and medical research in these domains has produced 'universal' normative or expected developmental patterns. Yet stage theories based on these 'universals' only reflect the view of human nature held by the researcher (Nsamenang 2006; Pence and Nsamenang 2008; Serpell and Nsamenang 2014). Poverty research on childhood development has often conceptualised the deviations from those norms as the debilitating effects of poverty.

In fact, those Eurocentric theories often serve to judge the cultural development or thought of non-Westerners as deficient or inferior to Europeans. Matsumoto and Juang (2004, 172) have intimated that:

it is probably more than coincidence that stage theories produced by Westerners judge people from other cultures (and minorities within their own countries) in terms of how closely they resemble Westerners, thereby placing themselves at a relatively superior level of development. The popularity of stage theories in the 19th century, for example, coincided with the colonial European imperialism of the period.

Thus, these stage theories provided intellectual justification for imposing European rule over others due to the presumed superiority of European civilisation. As a result, they cannot be properly viewed apart from concurrent colonisation, subjugation and slavery activities of the time. Though African deviations from the norms in the Eurocentric stage theories are interpreted as deficiencies due to poverty, the supposed deficiencies are the result of this implicit bias and an attempt to compel others to become like them. This then obliges us to critically consider the developmental ideals inherent in the Eurocentric stage theories.

Moreover, the developmental ideas embedded in these theories may not even be African ideals, as well. For instance, in developmental psychological studies of attachment (which is the bond between infants and their primary caregivers), secure attachment has been presented as a universal ideal. Likewise, within Piagetian theory, scientific reasoning has been viewed as the ultimate developmental goal in cognitive development (Matsumoto and Juang 2004). However, cross-cultural variations documented and reviewed by Matsumoto and Juang (2004) have suggested that although attachment is a universal, the specific attachment behaviours exhibited vary. Thus, Crittendon (2000) has argued that viewing attachment in the form of an adaptive and maladaptive framework may be more useful than doing so in terms of 'secure' and 'insecure'. Similarly, Matsumoto and Juang (2004, 169) have argued that, though there is some evidence that Piaget's stages may occur in the same order in different cultures, there are surprising cultural variations in terms of the ages associated with each stage and 'in the order in which children acquire specific skills within Piaget's stages'.

An illustration suffices. Matsumoto and Juang (2004) reported a comparative study involving Inuit of Canada, Baoul of Central African Republic, and Aranda of Australia. The Inuit children solved a spatial task at age seven; the Aranda children at age nine, while the Baoul children solved it at age 12. However, when tested on

conservation of liquids, the Baoul children solved it at age eight, Inuit children at age nine, and Aranda children at age 12. These results do not in any way suggest that one group of children has superior cognitive ability to the others. Rather, their cognitive skills reflect the demands placed on members of their society in their given environment. The Inuit and Aranda are nomadic societies in which children develop spatial skills at a younger age due to being part of ever-moving families, while the Baoul children live in a settled society where travel is minimal. But the Baoul children are required to fetch water and store grains, which develops their liquid-conservation skills. The skills required to meet the demands of the adult life within a given society are emphasised more than others as part of the child's socialisation process.

Indeed, Oppong Asante (2011) has presented a critique of the conceptualisation of successful development inherent to the traditional models of developmental challenges (Erickson's theory of psychosocial stages and Freud's theory of psychosexual stages of development). In both traditional models, the proponents identified some form of developmental challenge which, they believe, children encounter and need to overcome. They also all assumed that successful development involved gains from meeting the developmental challenges, which tend to be culture-specific and reflect the cultural background of the proponents (Oppong Asante 2011). This lends support to the fact that the traditional models of childhood development are culture-specific and that the developmental challenges these theories propose should, therefore, not be assumed to be universal.

In the place of the traditional theories, Oppong Asante (2011) discussed Baltes' (1987) theory of lifespan development as an alternative model for understanding childhood development. Unlike the simple linear movement toward efficiency proposed by the traditional theories, successful development is defined as the relative maximisation of gains and minimisation of losses (Baltes 1997). 'What is considered a gain or loss could change with age, cultural and historical context as well as adaptivity' (Oppong Asante 2011, 133). Baltes' (1987, 1997) theory assumes that there is no single childhood but a variety of 'childhoods'. This suggests that researchers should identify the developmental challenges faced by the individuals within their cultural settings, and therefore provides a useful meta-developmental model for research in the African setting.

If developmental stages are more culturally relative and less linear, then educational curricula developed to match the ages that Piagetian theory assigns to the stages must be examined critically, particularly as it applies to children from non-European societies. Thus, there is an urgent need to conduct research in Ghana and throughout Africa to determine the sequences of childhood cognitive development and the actual ages associated with each stage. Doing so will lead to more meaningful and effective educational curricula for children in Ghana and Africa.

Moreover, one could argue that using Piagetian norms to assess African children is tantamount to what Teo (2008, 2010) calls epistemological violence (EV). It is a neologism that refers ‘not to the misuse of research in general but to a hermeneutic process (interpretative speculations of data) in psychological research that has negative consequences for the ‘Other’” (Teo 2008, 57). In this context, EV can be said to have been committed when interpretations of test scores (compared against Western norms) insinuate that those who are different from the Western norms are inferior. To this degree, it is not far-fetched to argue that many childhood developmental studies in Africa, knowingly or unknowingly, have been avenues for committing EV against African adults and children.

Similarly, Serpell and Nsamenang (2014, 1) have argued that:

Some international agencies tend to construe [Early Childhood Care and Education] ECCE as a compensatory intervention for children disadvantaged by poverty, primarily to prepare them for formal schooling. They also tend to exaggerate the degree of scientific consensus about the optimal conditions for children’s cognitive and social-emotional development. The validity of much research to date has been constrained by reliance on a narrow database, a narrow range of authorship and a narrow range of culturally Western audiences.

In this regard, it has been argued that there is a need to accept the existence of different childhood development patterns and respect this ‘differentness’ in order to empower most children of the world (Nsamenang 2006; Pence and Nsamenang 2008; Serpell and Nsamenang 2014). Thus, African psychologists are being called upon to develop eco-cultural theories that outline the childhood developmental trajectories. This view is consistent with the call for indigenising psychology throughout the continent of Africa (Nsamenang 2007; Oppong 2013; Oppong Asante and Oppong 2012; Oppong, Oppong Asante and Kumako 2014; Mate-Kole 2013).

There are two lines of scholarship: (1) those who advocate the use of oral literature to develop overarching theories, and (2) those who wish to expand the existing Eurocentric theories to accommodate indigenous formulations (Serpell and Nsamenang 2014). The first camp advocates the examination of indigenous formulations of values of childhood development and socialisation which are embedded in African maxims, proverbs, and oral traditions. Theories being developed within the indigenisation camp are exemplified in Nsamenang’s (1992) theoretical elaboration of an indigenous West African social ontogeny.

On the other hand, Marfo (2011) has questioned the possibility of developing such indigenous theories which will allow cross-cultural comparison. His concern seems to be about the global nature of such eco-cultural theories. One response to his concern is Nsamenang’s (1992) theory. Similarly, Sam (2014) has argued that both cultural and cross-cultural psychological studies which are based on relativist and universalistic orientations respectively can contribute to the mainstream psychological knowledge base. He demonstrated this by drawing on two studies conducted in Ghana. Again, the contention by Yankah (2012) that globalisation

involves nothing more than projecting one local culture to the world stage is another appropriate response to Marfo (2011). Thus, the existing 'universal' theories are local theories successfully promoted to the world stage through Eurocentric formal education, research and dissemination. Again, the imperialistic history of Western social science has led African scholars to question their own wisdom and to believe that only what is disseminated through Western languages and their academic cultures is useful (Yankah 2012).

Furthermore, Eurocentric stage theories widely in use are products of colonial imperialism which may have to be buried together with the end of formal colonialism in a subaltern decolonised scholarship. Thus, Marfo's (2011) concern can be partly understood as a consequence of the imperialistic nature of Western social science, which invariably leads to others adopting a forced Westernisation (Ake 2012). Consequently, Marfo's (2011) concern is largely misplaced and shows a naïve acceptance of the universality of Eurocentric theories when in fact they are as idiosyncratic as the eco-cultural theories being developed by African psychologists.

CULTURAL INSENSITIVITY IN ASSESSMENT OF DEVELOPMENTAL OUTCOMES

The other methodological issue relates to the measurement of personality, emotional development and cognitive abilities. In the domain of psychological testing, there is an ongoing debate about the existence of Eurocentric biases in test construction and use (Austin 1999; Jirsa 1983; Kwate 2001; Kaplan 1985; Cabrera and Cabrera 2008; Malda et al. 2008; Opoku 2012; Stenberg 2004 and 2005). Indeed, there is increasing evidence that there exists ethnocentric error in the development, administration, and interpretation of tests (Austin 1999). Cognitive ability tests have invariably been found to reflect the cultural conceptualisation and measurement standards of test developers. The items from these assessment tools are a sample of the developers' familiar cultural artefacts. Thus, conventional tests of cognitive abilities are in fact biased measures of cognitive abilities of persons in non-Western societies. Similar arguments can be advanced as well in the childhood development research with regards to the cognitive ability and other psychological tests used may contain some cultural biases.

Recognising this bias, Sternberg (1995) has defined intelligence as the ability to perform in culturally valued ways and produce culturally valued products. Following from studies conducted with this framework, Sternberg (2004) has shown that persons who perform well on conventional intelligence tests are those whose cultures are closer to the culture of the test developers. Similarly, Malda et al. (2008) have advocated for the adaptation of Western cognitive ability tests in light of cultural differences. In their study in India using the Kaufman Assessment Battery for Children, second edition (KABC-II), Malda et al. (2008) extensively adapted

the test instructions, item content of both verbal and non-verbal tests, and even the item sequence in order to conduct any meaningful assessment. For instance, they translated the test items into the mother-tongue of the participants and validated the translation through back-translation and piloting. This is instructive as the KABC-II is reported to have been normed on 3,025 American children from 39 states and the District of Columbia, randomly selected from a larger pool, to match 2001 US Census Bureau statistics (AGS Publishing 2004).

In ECCE research in Africa, a call has been made for researchers to re-examine the ways by which African children are assessed. In this instance, Serpell and Nsamenang (2014,14) have argued that ‘much of the systematic research on early childhood development in Africa has been hampered by the use of imported measures inadequately adapted to the local context’. They have also suggested that ‘research has shown that it is possible to assess the cognitive development of African children in ways that take account of the learning opportunities afforded by their home and play environments’ (Serpell and Nsamenang, 2014, 14). This is to say that some of the observed lower performance in cognitive abilities tests among African children may be due more to the inherent cultural biases in the tests used than to the effect of poverty.

As a result of the use of such culturally insensitive measures, Nsamenang (2009, 119) has called for the training of ‘culture-informed and context-tuned “experts” especially with the *nerve and adroitness* to dare step out of the Euro-Western box to articulate their own or creatively gain from donor-positing guidelines and indicators’. To accomplish this goal, psychological training globally should introduce graduate psychologists to critical theory and sensitise them to recognise the theoretical and conceptual frames imported from Western societies and their potential prejudicial impact on psychological work.

In exemplary work in Zambia, Kathuria and Serpell (1998) have developed *Panga Munthu Test* (literally ‘Make a Person’ Test) (PMT) which presents the child with clay but no model to copy; PMT is similar to the American Draw-a-Person Test. PMT is used to assess the general cognitive ability of a child relative to his or her peers. More such projects by African psychologists who dare to work ‘outside of the-box’ are needed.

Apart from their cultural limitations, many tests lack face validity and constitute low-stake tests, both of which factors influence the test-taking motivation level of the testees. The poor face validity stems from the fact that the test items appear irrelevant for what the test is measuring. This situation often creates low motivation, which has the potential to affect the performance of the children in tests, especially cognitive ability tests. Several studies have, indeed, documented the detrimental effect of tests with low face validity on test-takers’ performance in cognitive ability tests (Chan, Schmitt, Sacco and DeShon 1998; Grand, Ryan, Schmitt and Hmurovic 2011; Silm, Must and Täht 2013) and distortions in personality tests (Smith 1997). However,

Chan et al. (1998) reported that beliefs about tests do not relate to performance on personality tests. Eklöf (2008) reported no significant relationship between Swedish mathematics performance in Trends in International Mathematics and Science Study (TIMSS) 2003 and students' motivation level. Indeed, this finding may apply more to the Swedish sample.

The testing conditions are always low-stake, owing to the fact that African children have no reason to excel, as the test outcomes appear to the children to have no significant impact on their lives. Thus, the relevance of the test to the child should be examined and communicated to the child. For instance, answering the following questions will be essential: 'What will be done with the results? Will that matter to the child?' In each case, the unique aspects of motivation for children suffering from poverty and children in Africa should be considered by those who create and administer tests.

Further, Eklöf (2008) intimated that very little is known about the test-taking motivation of other students who participate in TIMSS in other countries. Eklöf (2010) also indicated that even though test performance reflects both knowledge (skill) and test-taking motivation (will), there is always little acknowledgement of the 'will' part as the test scores are mostly interpreted as a pure measure of student knowledge. Given that the purpose of the objective of testing (low-stake versus high-stake) and their face validity affect the motivation of test-takers, assessment of cognitive abilities in early childhood development studies in Africa should ensure that children understand the purpose of the study and that items (as indicated earlier) are familiar objects. This is especially important for an environment where testing is not an everyday experience and most testing situations are high-stake (teacher-made tests for assessment of educational attainment).

Not only are the norms used in psychological assessment biased towards the cultural group from which a standardisation group is drawn for validation studies, but the concept of 'normal range' used in physical measures is equally problematic. The establishment of normal ranges in respect of physical attributes involves a similar statistical technique (Montgomery and Connolly 1987; Springer, Marin, Cyhan, Roberts and Gill 2007; Papaioannou et al. 2010; Smits-Engelsman, Klerks and Kirby 2010; Sibley, Straus, Inness, Salbach and Jaglal 2013; Lindemann 2014). This statistical approach employed in physical sciences also leads to a situation where the normal ranges identified are as biased as those developed in psychological science.

Montgomery and Connolly (1987, 1874), for instance, described the use of norm-referenced tests in paediatrics and their associated problems and the need for 'more criterion-referenced tests to evaluate the sensory and motor abilities of children and adults'. In another paediatric study, Smits-Engelsman et al. (2010) also validated the Beighton Score as a measure of hypermobility (the ability of a joint to move beyond its normal range of motion) in Dutch children aged between 6 and 12

years. It is important to note that the normal range of motion against which children are compared happens to be the confidence interval estimate for other children within their own society. Similarly, Jones and Rikli (2002) reported norm ranges for the seven subscales of the Senior Fitness Test; the test items are physical activities that are carried out by the examinees. In another study, Springer et al. (2007) sought to generate normative values (typical performance) to which clinicians can compare individuals on the unipedal stance test (UPST) with eyes opened and eyes closed across age groups and gender. El-Sobkey (2011) has also created normative values for the Arabian population.

These examples (Montgomery and Connolly 1987; Jones and Rikli 2002; Springer et al. 2007, Smits-Engelsman et al. 2010; El-Sobkey 2011) serve to illustrate that there are still cultural biases in physical tests as well. Thus, in instances where the normal ranges for birth weight using babies in the US are developed, they will be more idiosyncratic to the sample and the US than to other countries. Using such norms, it is possible to over-diagnose low birth weight among African babies when in fact such weight may be typical. Given that norms for physical measures can be as biased as norms associated with psychological measures, when considering the development of norms for physical measures in assessing African children, indigenous samples must be used so that the norms are more appropriate to the population that is assessed.

RECOMMENDATIONS

On the basis of the review, a number of recommendations for both research and practice are proposed. Poverty research is of necessity applied research. Therefore, although intervention research was not part of the literature review, inferences have been and can be made with respect to impact of research on interventions in the field.

The review showed that the income-based approach is commonly used to define poverty, even though such a unidimensional measure is inadequate. It is against this backdrop that a multi-dimensional approach that employs income as one of several factors is advocated. The mere presence or absence of money in a child's family provides little information about the child's environment. Thus, poverty should be measured using a multi-dimensional approach, which includes both quantitative and qualitative measures of the child's experience. In order not to commit the same mistake inherent to the use of absolute definitions of poverty, the domains to be assessed should be relative to the particular cultural setting, particularly when this cultural setting is non-Western.

It is also recommended that assessment of poverty include social exclusion measures in terms of costs of social services (accessibility), sustainable livelihood, and purchasing power. A multi-dimensional, culturally-relative assessment of poverty may make global data comparison difficult, which is a concern to Marfo

(2011). The advantages of a more comprehensive measure, however, far outweigh these concerns. The primary focus should be to get an accurate assessment of the child and the child's environment in order to develop intervention tools that are appropriate to the child. Global data comparison is meaningless if the tools used are idiosyncratic and biased.

In response to the conceptual challenges associated with Western normative childhood developmental patterns, it is recommended that African researchers challenge themselves to create African-centred theories that incorporate indigenous concepts, notions of family systems and child development. In this respect, African psychologists are encouraged to engage in theoretical formulations based on proverbs, maxims, and oral literature. Nsamenang (1992) has provided an illustrative theory of childhood development which should inspire others to generate other useful conceptual frameworks. Similarly, Baltes' (1987, 1997) theory offers a useful framework for childhood research in Africa. Even though Marfo (2011) has expressed concern over such an approach, it is worth noting that all existing psychological theories are idiosyncratic in nature. The primary difference between an eco-cultural African psychological theory and such Western-centric theories is that the latter have been promoted and disseminated widely.

The assessment performed as part of childhood development studies in Africa should only employ culturally sensitive measures. Given that the focus of many such studies is on school achievement, the measures used relate more to educational success. A whole set of skills and ways of demonstrating cognitive skills is overlooked by the focus on school achievement. Thus, indigenous assessment tools should be developed and conventional assessment tools should be standardised on African children to support culturally appropriate interpretations of test scores.

Following from the criticisms of Western normative childhood developmental trajectories and the absence of many useful African theoretical frameworks, it is important to promote interventions that aim to minimise the impact of social exclusion on African children and interventions which enhance understanding what constitutes 'normal' childhood within the community. Such an approach will improve the ecological relevance and sustainability of the project as well. It is also worth noting that interventions based on wrong assumptions often fail and create problems.

The inclusion criteria used for selecting target groups for poverty reduction interventions should be multi-dimensional rather than just income-based. This will ensure that economic strain is used to screened beneficiaries. Doing so will help to target those children who may benefit most from interventions. Similarly, the cognitive and health status and other physical measures should equally be standardised for use.

CONCLUSION

This paper explored some of the definitional, conceptual and other methodological issues in research on childhood development in Africa. In particular, it was noted that an income-based definition of poverty is inadequate as the similar levels of parental income can lead to varied experiences for different children. As a result, economic strain, which is cast within the multi-dimensional, social exclusion measure of poverty, is advocated. Again, it was noted that conceptually, the use of Western normative developmental trajectories is inappropriate as such theories are idiosyncratic and local to Western societies. Thus, African-inspired theoretical frameworks ought to be developed for African childhood development research. Similarly, it was also found that assessment tools used in such research are biased towards the African child both in terms of the items and norms used. In this regard, a call is made to African research to validate Western psychological tests and construct culturally sensitive standardised tests for use. It is expected that when such issues are addressed, there will be an appreciable improvement in the knowledge base for African childhood development projects.

REFERENCES

- Aber, J. L., N. G. Bennett, D. C. Conley and J. Li. 1997. The Effects of Poverty on Child Health and Development. *Annual Review of Public Health* 18: 463–483.
- AGS Publishing. 2004. *Kaufman Assessment Battery for Children, Second Edition (KABC-II)*. Circle Pines, MN.
- Ake, C. 2012. Social Science as Imperialism. In *Reclaiming the Human Sciences and Humanities through African Perspectives*, ed. H. Lauer and K. Anyidoho, 1–30. Accra: Sub-Saharan Publishers.
- Anastasi, A. 1955. The Nature of Individual Differences. In *Fields of Psychology: Basic and Applied*. 2nd edition, ed. J. P. Guilford, 331–373. Princeton, NJ: D. Van Nostrand Co.
- Apusigah, A. A. 2012. On Ghanaian Development: Technical versus Stress Evidence. In *Reclaiming the Human Sciences and Humanities through African Perspectives*, ed. H. Lauer and K. Anyidoho, 388–400. Accra: Sub-Saharan Publishers.
- Aryeetey, G. C. C. Jehu-Appiah, and A. M. Kotoh. 2013. Community concepts of poverty: an application to premium exemptions in Ghana's National Health Insurance Scheme. *Globalization and Health* 9(12). DOI: 10.1186/1744-8603-9-12.
- Asiedu, B., F. K. E. Nunoo, P. K. Ofori-Danson, D. B. Sarpong and U. R. Sumaila. 2013. Poverty Measurements in Small-scale Fisheries of Ghana: A Step towards Poverty Eradication. *Current Research Journal of Social Sciences* 5(3): 75–90.
- Austin, J. T. 1999. Culturally Sensitive Career Assessment: A Quandary. *ERIC DIGEST*, NO. 210: 1–2.
- Bailey, N., J. Spratt, J. Pickering, R. Goodlad and M. Shucksmith. 2004. *Deprivation and social exclusion in Argyll and Bute: Report to the Community Planning Partnership*. Glasgow, Scotland: Scottish Centre for Research on Social Justice.

- Baltes, P.B. 1987. Theoretical propositions of lifespan developmental psychology: On the dynamics between growth and decline. *Developmental Psychology* 23: 611–626.
- Baltes, P.B. 1997. On the incomplete architecture of human ontogenesis: selection, optimization and compensation as foundations of developmental theory. *American Psychologist* 52: 366–381.
- Barnett, W. S. 1997. Long-Term Effects of Early Childhood Programs on Cognitive and School Outcomes. *The Future of Children* 7(2): 25–50.
- Broadberry, S. and L. Gardner. 2013. *Africa's Growth Prospects in a European Mirror: A Historical Perspective*. CAGE-Chatham House Series, No. 5.
- Brooks-Gunn, J. and Duncan, G. J. 1997. The Effects of Poverty on Children. *The Future of Children* 7(2): 55–71.
- Cabrera, N. L. and G. A. Cabrera. 2008. Counterbalance Assessment: The Chorizo Test. *Phi Delta Kappan* 89(9): 677–678.
- Chan, D., Schmitt, N., Sacco, J. M. and DeShon, R. P. 1998. Understanding Pretest and Posttest Reactions to Cognitive Ability and Personality Tests. *Journal of Applied Psychology* 83(3): 471–485.
- Chissano, J., P. Martin, S. Cissé and F.-X. de Donnea. 2007. *Investing in Africa's Future: The ADB in the 21st century*. <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/27842402-EN-HLP-REPORT-INVESTING-IN-AFRICAS-FUTURE.PDF> (accessed 15 March 2014)
- Commission of the European Communities. 1993. *Background Report: Social Exclusion Poverty and Other Social Problems in the European Community*, ISEC/B11/93. Luxemburg: Office for Official Publications of the European Communities.
- Crittenden, P. M. 2000. A dynamic-maturational exploration of the meaning of security and adaptation. In *The organization of attachment relationships: Maturation, culture and context*, ed. P. M. Crittenden and A. H. Claussen, 358–383. Cambridge: Cambridge University Press.
- Eklöf, H. 2008. Test-taking motivation on low-stakes tests: A Swedish TIMSS 2003 example. In *IERI Monograph Series: Issues and Methodologies in Large-Scale Assessments* (Vol. 1), ed. M. von Davier and D. Hastedt, 9–21. Hamburg: International Association for the Evaluation of Educational Achievement and Educational Testing Service.
- Eklöf, H. 2010. Skill and will: test-taking motivation and assessment quality. *Assessment in Education: Principles, Policy and Practice* 17(4): 345–356. DOI: 10.1080/0969594X.2010.516569.
- El-Sobkey, S. B. 2011. Normative Values for One-Leg Stance Balance Test in Population Based Sample of Community-Dwelling Older People. *Middle-East Journal of Scientific Research* 7(4): 497–503.
- Grand, J. A., A. M. Ryan, N. Schmitt and J. Hmurovic. 2010. How Far Does Stereotype Threat Reach? The Potential Detriment of Face Validity in Cognitive Ability Testing. *Human Performance* 24(1): 1–28. DOI.org/10.1080/08959285.2010.518184.
- Gregg, P., C. Propper and E. Washbrook. 2008. *Understanding the Relationship between Parental Income and Multiple Child Outcomes: a decomposition analysis*. CMPO Working Paper No. 08/193. Centre for Market and Public Organisation, Bristol Institute of Public Affairs, University of Bristol, UK.

- Haralambos, M., M. Holborn and R. Heald. 2004. *Sociology: Themes and Perspectives*. 6th edition. London: HyperCollins Publishers Limited.
- Jirsa, J. E. 1983. The SOMPA: A Brief Examination of Technical Considerations, Philosophical Rationale and Implications for Practice. *Journal of School Psychology* 21: 13–21.
- Jones, C. J. and R. E. Rikli. 2002. Measuring Functional Fitness of Older Persons. *The Journal on Active Aging* 1: 24–30.
- Kaplan, R.M. 1985. The controversy related to the use of psychological tests. In *Handbook of Intelligence: Theories, Measurements, and Applications*, ed. B.J. Wolman, 465–504. New York: Wiley Interscience.
- Kathuria, R. and Serpell, R. 1998. Standardization of the Panga Munthu Test – a nonverbal cognitive test developed in Zambia. *Journal of Negro Education* 67: 228–241.
- Kwakyee, J. K. 2011. *Africa's Long Road to Development: It is not just economic, but also history, geography, politics, and leadership*. Accra: Frontiers Printing and Publishing Limited.
- Kwate, N. O. A. 2001. Intelligence or Misorientation? Eurocentrism in the WISC-III. *Journal of Black Psychology* 27(2): 221–238. DOI: 10.1177/0095798401027002005.
- Leseman, P.P.M. 2002. Early childhood education and care for children from low-income or minority backgrounds, OECD.
- Mahajan, V. 2009. *Africa Rising: How 900 million African consumers offer more than you think*. Upper Saddle River, NJ: Wharton School Publishing/Pearson Education, Inc.
- Malda, M., F. J. R. Van De Vijver, K. Srinivasan, C. Transler, P. Sukumar and K. Rao. 2008. Adapting a cognitive test for a different culture: An illustration of qualitative procedures. *Psychology Science Quarterly* 50: 451–468.
- Marfo, K. 2011. Envisioning an African child development field. *Child Development Perspectives* 5: 140–147.
- Mate-Kole, C. C. 2013. Psychology in Ghana Revisited. *Journal of Black Psychology* 39(3):316–320.
- Matsumoto, D. and Juang, L. 2004. *Culture and Psychology*. 3rd edition. Belmont, CA: Wadsworth/Thomson Learning.
- Maxwell, S. 1999. *The Meaning and Measurement of Poverty*. ODI Poverty Briefing, 3. London: Overseas Development Institute.
- Mayer, S. E. 2002. *The Influence of Parental Income on Children's Outcomes*. Wellington, New Zealand: Knowledge Management Group, Ministry of Social Development.
- Montgomery, P. C. and Connolly, B. H. 1987. Norm-Referenced and Criterion-Referenced Tests: Use in Pediatrics and Application to Task Analysis of Motor Skill. *Physical Therapy* 6: 1873–1876.
- Nsamenang, A. B. 1992. *Human development in cultural context*. New York: Russell Sage Foundation.
- Nsamenang, A. B. 2006. *Cultures in Early Childhood Care and Education*. Background paper prepared for the Education for All Global Monitoring Report 2007 Strong Foundations: Early Childhood Care and Education, 2007/ED/EFA/MRT/PI/3. UNESCO.
- Nsamenang, A. B. 2007. Origins and development of scientific psychology in Afrique Noire. In D. Wedding and M. J. Stevens (Eds.). Psychology: IUPsyS. *International Journal of Psychology* 42 (Suppl. 1).

- Nsamenang, A. B. 2009. Conceptualizing developmental assessment within Africa's cultural settings. In *Multicultural psychoeducational assessment*, ed. E.L. Grigorenko, 95–131. New York: Springer.
- Opoku, J. Y. 2012. Some Theoretical and Practical Problems Associated with Using Western Instruments to Measure Cognitive Abilities on the African Continent. In *Reclaiming the Human Sciences and Humanities through African Perspectives*, ed. H. Lauer and K. Anyidoho, 537–559. Accra: Sub-Saharan Publishers.
- Oppong K. A. 2011. What is Successful Development: An Overview of Old and New Theoretical Perspectives. *Journal of Arts, Science & Commerce* 2(3): 131–134.
- Oppong, K. A. and Oppong, S. 2012. Psychology in Ghana. *Journal for Psychology in Africa* 22(3): 473–478.
- Oppong, S. 2013. Indigenizing Knowledge for Development: Epistemological and Pedagogical Approaches. *Africanus: Journal of Development Studies* 4(2): 34–50.
- Oppong, S., K. Oppong Asante and S.K. Kumaku, 2014. History, Development and Current Status of Psychology in Ghana. In *Contemporary Psychology: Readings from Ghana*, ed. C. S. Akotia and C.C. Mate-Kole, 1–17. Accra: Digibooks Ghana Ltd.
- Papaioannou, G.I., A. Syngelaki, L. C. Y. Poon, J.A. Ross and K. H. Nicolaides. 2010. Normal Ranges of Embryonic Length, Embryonic Heart Rate, Gestational Sac Diameter and Yolk Sac Diameter at 6–10 Weeks. *Fetal Diagnosis and Therapy* 28: 207–219.
- Pence, A. and B. Nsamenang. 2008. *A case for early childhood development in sub-Saharan Africa*. Working Paper No. 51. The Hague: Bernard van Leer Foundation.
- Sam, D. L. 2014. Relationship between Culture and Behaviour. In *Contemporary Psychology: Readings from Ghana*, ed. C. S. Akotia and C.C. Mate-Kole, 231–247). Accra: Digibooks Ghana Ltd.
- Santrock, J. W. 1995. *Life-Span Development*. 5th edition. Dupuque, IA: Wm. C. Brown Communications, Inc.
- Serpell, R. and , A. B. Nsamenang. 2014. *Locally relevant and quality ECCE programmes: Implications of research on indigenous African child development and socialization*. Early Childhood Care and Education Working Papers Series, 3. United Nations Educational, Scientific and Cultural Organization (UNESCO).
- Sibley, K. M., S. E. Straus, E. L. Inness, N. M. Salbach, N. M. and S.B. Jaglal 2013. Clinical balance assessment: perceptions of commonly-used standardized measures and current practices among physiotherapists in Ontario, Canada. *Implementation Science* 8(33). DOI:10.1186/17485908-8-33.
- Silm, G., O. Must and K. Täht. 2013. Test-Taking Effort as a Predictor of Performance in Low Stakes Tests. *TRAMES: A Journal of the Humanities and Social Sciences* 17 (4): 433–448.
- Smith, J. A. 1997. An Examination of Test-Taking Attitudes and Response Distortion on a Personality Test. PhD diss, Virginia Polytechnic Institute and State University.
- Smits-Engelsman, B., M. Klerks and A. Kirby. 2010. Beighton Score: A Valid Measure for Generalized Hypermobility in Children. *The Journal of Pediatrics* 158(1):119–123. DOI: 10.1016/j.jpeds.2010.07.021.
- Springer, B. A., R. Marin., T. Cyhan, H. Roberts and N.W. Gill. 2007. Normative Values for the Unipedal Stance Test with Eyes Open and Closed. *Journal of Geriatric Physical Therapy* 30 (1): 8–15.

- Sternberg, R. 2004. Culture and Intelligence. *American Psychologist* 59(5): 325–338.
- Sternberg, R. 2005. The Theory of Successful Intelligence. *Interamerican Journal of Psychology* 39(2): 189–202.
- Sternberg, R. J. 1995. *For whom does the bell curve toll? It tolls for you. A Paper Presented at the EdPress Conference*, Washington, DC.
- Teo, T. 2008. From Speculation to Epistemological Violence in Psychology: A Critical Hermeneutic Reconstruction. *Theory and Psychology* 18(1): 47–67. DOI: 10.1177/0959354307086922.
- Teo, T. 2010. What is epistemological violence in the empirical social sciences? *Social and Personality Psychology Compass*, 4(5): 295–303. DOI: 10.1111/j.1751-9004.2010.00265.x.
- Lindemann, U., W. Zijlstra, K. Aminian, S. F. M. Chastin, E. D. de Bruin, J. L. Helbostad and J. B. J. Bussmann. 2014. Recommendations for Standardizing Validation Procedures Assessing Physical Activity of Older Persons by Monitoring Body Postures and Movements. *Sensors* 14: 1267–1277. DOI:10.3390/s140101267.
- United Nations International Children’s Emergency Fund. 2011. Child Outlook: A policy briefing on global trends and their implications for children. http://www.unicef.org/socialpolicy/files/Child_Outlook_29_July_2011_1.pdf (accessed 15 March 2014).
- United Nations. 1995. *Programme of Action of the World Summit for Social Development*. New York: United Nations.
- World Bank. 2000. *Can Africa Claim the 21st Century?* Washington, DC: World Bank.
- Yankah, K. 2012. Globalisation and the African Scholar. In *Reclaiming the Human Sciences and Humanities through African Perspectives*, ed. H. Lauer and K. Anyidoho, 51–64. Accra: Sub-Saharan Publishers.