

COMMENTARY

CONTEXT AND THE ADVANCEMENT OF A GLOBAL SCIENCE OF HUMAN DEVELOPMENT: A COMMENTARY

Kofi Marfo, Ph.D.

This article is part of the issue “Gender in Low- and Middle-Income Countries,” Bornstein, Putnick, Lansford, Deater-Deckard, and Bradley (Issue Authors). For a full listing of articles in this issue, see: <http://onlinelibrary.wiley.com/doi/10.1111/mono.v81.1/issuetoc>.

United Nations agencies mandated to address the needs of children around the developing (Majority) world, routinely create large global data sets mostly for purposes of surveillance and strategic planning of development aid. UNICEF’s Multiple Indicator Cluster Surveys (MICS) have produced one of the largest sources of internationally comparable data on women and children. This monograph creatively and elegantly harnesses MICS data on 41 low- and middle-income countries to shed light on risk and protective factors associated with growing up a boy or girl in the developing world. In this commentary, I assess the monograph’s contribution to the progress that our field must make toward greater geo-ecological and cultural inclusiveness of its knowledge base. I do so in the context of scholarship that is increasingly and justifiably questioning the relevance of mainstream developmental science outside the Euro-American world. I conclude that notwithstanding the limitations inherent in the data set, Bornstein, Putnick, Lansford, Deater-Deckard, and Bradley have done our field a great service by moving us further on a trajectory toward a more global science.

Corresponding author: Kofi Marfo, Professor and Founding Director, Institute for Human Development, Aga Khan University, P. O. Box 30270, Nairobi, Kenya;
email: kofi.marfo@aku.edu

DOI: 10.1111/mono.12232

© 2015 The Society for Research in Child Development, Inc.

Significant contributions toward understandings of human development in cultural contexts have been made at the intersection of fields such as anthropology, developmental psychology, cross-cultural psychology, cultural psychology, and indigenous psychology (Bronfenbrenner, 1979; Cole, 1996; Kağıtçıbaşı, 2007; Levine et al., 1994; Nsamenang, 1992; Rogoff, 2003; Shweder, 1991; Super & Harkness, 1986; Valsiner, 2000). Nevertheless, the core of so-called mainstream developmental psychology is increasingly seen as very much remaining a science built around studies of limited samples within rather small segments of the world's population (Arnett, 2008; Henrich, Heine, & Noreyanzepam, 2010). With the field drawing its study samples preponderantly from the rich and industrialized Euro-American world—and from restricted demographic populations even within that world—the field's knowledge base, critics argue, is not global enough to be broadly relevant in, and/or applicable to, populations and contexts outside the Euro-American world (Arnett, 2008).

Implicit in past and contemporary cultural critiques of our field is a call for a more global science of human development. In sharp contrast to the trend toward globalization of the Euro-American status quo, I define a global science of human development as a science with broader global content and relevance. Such a science would draw not only from multiple disciplines and methodologies as we now know them, but also from multiple conceptions and constructions of developmental phenomena as grounded in worldviews and idea systems across the world's diverse cultures. From this standpoint, our field has a long way to go on a trajectory toward an authentically global science with broader global content and relevance. The work presented in this monograph offers a piece of the bridge to that global science.

FRAMING REQUIREMENTS FOR ADVANCING A GLOBAL SCIENCE

In this section, I place my commentary in the context of three conditions for progress toward that *global science* of human development with broader content and relevance across geographic and cultural contexts. The first condition is representativeness of samples *within investigations* aiming for broader generalizability across populations. The second is shared representation of measured constructs and their underlying cultural meanings *across the sampled populations*. The third is representativeness of worldviews and idea systems *within the disciplinary knowledge base*. The first condition is much more easily attained. Large-scale international nomothetic studies generally aspire to meet this condition through careful selection and inclusion of diverse representative samples from different clearly delineated contexts. For at least two reasons, attaining the second condition is relatively more challenging. First, much of our science privileges the search for developmental universals

over considerations of context-specific mechanisms and outcomes (Arnett, 2008; Pence, 2011; Pence & Nsamenang, 2008; Serpell & Marfo, 2014). Second, it is practically easier and expedient to adopt existing measures than to develop and validate new ones for particular populations. For these reasons, cross-context comparative research tends to overlook contextual biases.

The third condition, perhaps, the farthest away from where our field needs to be to warrant claims of a global knowledge base, is premised on the proposition that there is significant diversity in the world views, idea systems, and ethno-theories that shape conceptions, representations, and meanings of developmental phenomena across cultures (Henrich et al., 2010; Marfo, 2011; Shweder, 1991). Consequently, the field's knowledge base must be inclusive of multiple worldviews and traditions across societies. Such openness to other worldviews would ensure that diverse paradigmatic perspectives and value systems drive the complex enterprise of advancing knowledge with complementary considerations of (1) the culturally situated nature of human functioning and (2) the biological and cultural universals that account for behavioral similarities across cultures (Marfo, 2011; Wiredu, 1996). Context-analytic inquiry yielding knowledge on alternative and complementary conceptions of developmental constructs across cultures is necessary if comparative research is to appropriately meet the standard of shared representation of measured constructs (condition 2) (e.g., Nsamenang, 1992, 2006; Serpell, 1996, 2011).

In framing the three conditions presented here, my intention is not to score this monograph on each of the conditions. Rather, I use them to guide a broader discussion of the monograph's contributions to the field and to highlight some of the challenges that our field faces if attainment of global cultural/contextual inclusiveness within our knowledge base is an aspirational goal.

OVERVIEW OF THE STUDIES

Countering the near-neglect of Majority World populations in large-scale child development research, Bornstein, Putnick, Lansford, Deater-Deckard, and Bradley draw from existing population-level data to shed insights on aspects of child development in parts of the world and cultural contexts that are poorly represented in our developmental knowledge base. The data for the analyses reported in the monograph are drawn from UNICEF's Multiple Indicator Cluster Surveys (in this case MICS3), which, since the mid-1990s, have produced, perhaps, one of the largest sources of internationally comparable data on women and children (<http://mics.unicef.org/about>). Four studies are reported, each benefitting from a large nationally

representative probability sample and each addressing two primary questions: (1) inter-country differences on indicators of child growth/development or caregiving/socialization and (2) and relationships between measures of the latter and two country-level variables: gender policy and socio-economic development. The substantive areas under study were early growth and mortality/survival (Chapter III), parental caregiving (Chapter IV), methods of discipline used by adults (Chapter V), and children's work within and outside home and family (Chapter VI).

The monograph authors have described the MICS3 data set as "a unique resource that could not be built even by a large research team on its own" (p. 103). This is a fitting observation, but what the researchers have undertaken here is a rather bold adventure that is not without risk. Even as they do their very best to acknowledge and address the limitations that the nature of the data imposes on conceptualization, analysis, and interpretation, there are simply no remedies for inherently incurable shortcomings in a database established for a different purpose and made available for independent analyses by scholars far removed from both the intended use of the data and the design and implementation of the originating surveys.

As consolation prize, however, the authors have the benefit of the opportunity to demonstrate how population-based data intended mainly for global surveillance of health, education, and well-being can, within reasonable limits, be harnessed for developmental science insights. They have accomplished this elegantly, and in so doing, they have pointed the way for developmental and behavioral scientists—and the professional bodies to which they belong—to cultivate collaborative partnerships that position developmental researchers to embed context-rich investigations into the gathering of surveillance and policy-driven data by international multilateral agencies like UNICEF and WHO.

A focus on such a large number of Majority World societies in any one study is rare in the human development literature. It is these large samples—and the questions and survey administration—that have made it possible for the authors to bring such highly sophisticated statistical tools to the analysis. It is important to note, however, that although certainly necessary, methodologically sound sampling across a diverse range of populations and physical contexts alone would not guarantee that the resulting knowledge would have global appeal in terms of content and relevance. It is possible to have broad sample or population representativeness and still leave other threats to generalizability unaddressed (Ceci, Kahan, & Braman, 2010). For example, unless there is shared meaning around the constructs being measured, items might represent different things to different respondents and, hence, the data generated would be difficult to interpret, if not altogether invalid. This is the predicament that psychological and other behavioral sciences face in an era of proliferating interest in international studies of developmental

interventions. Bornstein's (1995) conceptual analysis of the relationship between activity (form) and meaning (function) in cultural comparisons sheds illuminating insights on this challenge.

As alluded to earlier, the conceptual lenses by which developmental phenomena are experienced and expressed at both the individual and social levels are shaped by worldviews, ethno-theories, and knowledge traditions with deep cultural underpinnings. What may be salient, important, or meaningful in one cultural context may not be so in another setting (Marfo, 1999; Zimba, 2002). Valued developmental milestones and outcomes—and the socialization processes that prime them—could also vary to differing degrees across cultures. In effect, comparing nationally or culturally representative samples on constructs and measures with no comparable meaning or relevance is problematic.

What implications do the issues raised above have for assessment of the evidence reported in this monograph? The MICS3 surveys employed standard questions and administration protocols. However, the data analyzed in the monograph are not derived from standardized normative measures generated and validated in one cultural setting and applied to all others. For this reason, threats to validity at the superficial survey item level might be rather innocuous. Potentially problematic, however, are (1) the decontextualized nature of the data and (2) the appearance of culture-blindness with regard, in particular, to the caregiving and children's work data. It is to these two issues that I turn next.

CONTEXT MATTERS: TWO ILLUSTRATIVE EXAMPLES

In discussing findings throughout the monograph, the authors have been consistent and forthright in acknowledging limitations stemming from the decontextualized nature of the MICS3 data. In the remainder of my commentary, I speak to these limitations with particular reference to the caregiving and "child labor" data.

Implicit Cultural Models of Caregiving

Across cultures, parents have primary responsibility for caregiving. However, in societies outside the Euro-American world, this responsibility may be shared widely across the extended family, and hence, beyond mothers and fathers. This *distributed system of socialization* (Marfo, 2011; Weisner, 1987, 2014) is likely the dominant model of caregiving in the 39 countries providing the dataset for the analysis of parental caregiving. Very young children have the benefit of receiving culturally normative developmental caregiving from older siblings and significant other members of the extended family, such as

grandparents, living in the same household (Harkness & Super, 1992; Marfo, 2011; Weisner, 1984, 1987). Indeed, in cultures with distributed systems of socialization, social responsibility (Serpell, 2011) as expressed through care for younger siblings may be seen as a dimension of intelligence.

The manner of data collection on the six MICS3 caregiving activities, on the other hand, projects a dyadic, parent-centered model of socialization. Respondents were asked about what parents did with their children in the three days preceding the survey: taking the child outside; playing with the child; singing to the child; engaging in naming, counting and drawing with the child; telling stories to the child; and reading with the child. It strikes me that what is (and should be) important in the analysis of the six caregiving activities is not just who provides the exposure to these activities but also, and perhaps even more important, the degree to which the child is exposed to these activities. In many family contexts within the 39 nations in the analyses, older siblings under age 15 are perhaps as likely (if not more so) to engage the target child in each of the six activities than adults. The activity entailing the least “involvement” of parents was reading with the child—22% of mothers and 9% of fathers. This is also the activity most likely to require parents to be school-educated, and with close to one-third of the parents in the study described as having no more than pre-school education, it is not surprising that if children under 5 are read to, it would likely be by others, including older siblings.

By limiting caregiving activities to those provided by parents (biological or surrogate), the MICS3 survey may have underestimated the amount and depth of socio-emotional and cognitive caregiving available to children in the participating cultures. For this reason, in interpreting the percentages of mothers or fathers who engage their children in any of the six activities, value judgments conveying inferences about levels of deprivation, whether within the LMIC samples or between the LMIC populations in this monograph and any other population, must be made with extreme caution. One ramification of this problem is the potential to undercut the validity and meaningfulness of any future analyses exploring relational or predictive associations involving the caregiving measures. As a hypothetical illustration, in future analyses exploring long-term impacts of early caregiving, a finding of an absence of a predictive relationship between any aspect of parental caregiving and later school performance would be spurious simply because the measures of caregiving would not have sufficiently sampled the actual range of children’s caregiving experiences.

Conceptions of Child Labor

In the chapter on children’s work as well, the authors make a commendable effort to provide nuanced interpretations of their findings. But here too, there is

a lot to be learned about how methods, tools, and measures are at best reflections of the cultural values, beliefs, and theoretical understandings researchers bring to the framing of human behavior in eco-cultural contexts. In this case, the authors of this monograph had no control over the choice of methods and measures. One inherent challenge with the measurement and/or analysis of child labor in this monograph is the possible conflation of children's eco-culturally relevant and "valid" work with child labor. Within the international community, there is increasing realization of the need to distinguish between children's work and child labor on the grounds, in part, that "it cannot be assumed that all children's work is incompatible with child welfare and development" (ILO/IPEC SIMPOC, 2007, p. 5). The MICS3 household questionnaire appears to reflect the need for this distinction, and the data coding in this monograph further separates children's work outside the home (ostensibly paid or unpaid economic activity) from children's work occurring within the confines of family. The coding further distinguishes between family work (e.g., farm or business activity) and household chores. However, there is nothing in the data set to help place in context the amount of time children spent engaging in the various forms of work.

Globally, the stakes are so high on this subject that analysis of data that is devoid of information on the circumstances and likely determinants of children's work is at best problematic. In the rather terse exploration of the literature on why children engage in work outside the home, the authors cite some of the reasons that children from a number of developing countries (including Nigeria, Bangladesh, and Nicaragua) give for their involvement in paid work outside the family. The responses converged around the need to earn money to support family, pay for school, or learn a trade.

A central concern about children's work, especially work undertaken outside the realm of the family, is that it threatens access to educational opportunities. There is nothing in the study reported in this monograph to validate or dispute this central concern. To underscore the complexity of the linkage between children's work and the pursuit of educational opportunities, consider the following responses extracted from a study of 14- to 17-year-old children working at an artisanal gold mine in Ghana (Okyere, 2012, pp. 85–86):

CHILD A: *"My father and I used to work on people's farms at first but one day he decided it will be good if I attended school instead. He cannot always afford to give me school money so I come here to earn some money which I save for school."*

CHILD B: *"I want to be a nurse when I grow up because I can earn enough to take care of myself and my family. I know if I don't go to school, I can never become a nurse . . . Things are difficult but if I stop school, I will only stay in the village doing nothing and waste my life so I will keep working."*

CHILD C: *"If I did not have to work, I will have finished school a long time ago . . . I have had to quit school sometimes for a couple of months so I can save money and go back to continue. By that time, all my mates will have completed that level and I have to start again with a new batch of students."*

These responses illustrate some of the nuances often lost in statements linking children's work to lost educational opportunities or other life benefits emanating from education. Child C's response affirms the traditional view that outside work can have disruptive effects on schooling, but it does, on the other hand, also underscore two themes that cut across all three responses, namely (1) that the desire to pursue educational opportunities could indeed, be one reason for children's work outside the home, and (2) when children engage in paid work outside the home, it may not necessarily be the case that parents put them to that work; many children choose to work out of a sense of social responsibility to take care of self and, sometimes, family. This second insight is particularly important because it balances the picture one gets from sections of the chapter on child labor that much of the labor might be driven by parental desire or need to supplement family resources.

Finally, let me place this discussion in the contemporary context of the United Nations Convention on the Rights of Children and the growing recognition of the imperative for societies all over the world to protect those rights with explicit governmental policies. It can be argued that for many of the millions of preadolescent children whose educational opportunities are routinely jeopardized by resource constraints within their families, the ability to engage in outside or family work for remuneration might, quite paradoxically be a necessary condition for realization of their rights to education and self-advancement (Okyere, 2012)—the very rights that global and national child labor laws are intended to protect.

There is no justification for children's work that places a child's life, education, and well-being in jeopardy. However, in low- and middle-income societies, scholars and lay persons alike consider children's work in their part of the world as a poorly understood phenomenon in the Euro-American world. The global discourse on this subject suggests that there is danger in lumping all forms of children's work into an amorphous, undifferentiated indicator of "child labor." This is because it muddies the waters on a complicated and controversial subject, and it has the potential to undermine necessary and legitimate interventions to eliminate the worst forms of out-of-home child labor. For this and other reasons, scholars pursuing research on this topic need to approach their work with clear awareness of the implications of their work for public discourse that is, at this point, still in need of evidence and clear delineation of what does and does not constitute child labor with potential deleterious consequences.

The authors may not have produced explanatory data on the various forms of children's work, but they have been prudent in ensuring that their analysis of the composite index was preceded by separate analyses of the three individual work categories making up the composite index. In so doing, they have offset potentially ambiguous interpretations of their data. Their cautious and nuanced discussion of the findings is wise.

CONCLUSION

In the last few years, the Society for Research in Child Development has invested in the advancement of interdisciplinary, international, and cultural understandings of developmental phenomena through collaborative intellectual activities undertaken by its members with modest funding support provided in furtherance of the society's strategic goals. The society has also been forging formal collaborative partnerships with international multilateral agencies with defined missions and mandates around the well-being of children around the world. These linkages are exceedingly important for at least three reasons. First, they have the potential to increase the contributions of developmental scientists to population-level data gathering activities undertaken under the auspices of these international agencies. Second, they facilitate, where possible and meaningful, the post hoc harnessing of developmental knowledge from the resulting databases. Third, and flowing from the preceding benefit, they have the potential to advance cultural and other contextual understandings in a field that acknowledges cultural contributions to human development but remains largely entrapped in Euro-American conceptions of development.

Bornstein et al. have demonstrated in this monograph that notwithstanding their limitations, such databases do have scientific value and could become a gateway through which our field can begin to cultivate greater representation of Majority World data in our existing developmental knowledge base. As I have argued, however, increasing the representation of Majority World samples is only the first step. Measures on which comparisons are made must have shared meaning across samples or else there is no common metric for comparative analyses. This, in turn, requires increased openness to, and deliberate advancement of, context-analytic research exploring variations and similarities in developmental constructs across cultures. These directions could have the effect of extending existing conceptions of norms, variability, and comparability within our field. When they do, they will signal that our field has made additional strides on a trajectory toward a more global science of human development. Bornstein, Putnick, Lansford, Deater-Deckard, and Bradley have provided in this monograph a piece of the bridging edifice.

REFERENCES

- Arnett, J. J. (2008). The neglected 95%: Why American psychology needs to become less American. *American Psychologist*, **63**, 602–614.
- Bornstein, M. H. (1995). Form and function: Implications for studies of culture and human development. *Culture & Psychology*, **1**, 123–137.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Cambridge University Press.
- Ceci, S. J., Kahan, D. M., & Braman, D. (2010). The WEIRD are even weirder than you think: Diversifying contexts is as important as diversifying samples. *Behavior and Brain Sciences*, **33**, 87–88.
- Cole, M. (1996). *Cultural psychology: A once and future discipline*. Cambridge, MA: Belknap Press of Harvard University Press.
- Harkness, S., & Super, C. M. (1992). Shared child care in East Africa: Socio-cultural origins and developmental consequences. In M. E. Lamb, K. J. Sternberg, C. P. Hwang, & A. G. Broberg (Eds.), *Child care in context: Socio-cultural perspectives* (pp. 441–459). Hillsdale, NJ: Erlbaum.
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world. *Behavioral and Brain Sciences*, **33**, 61–135.
- Kağitçibaşı, C. (2007). *Family, self, and human development across cultures: Theory and applications* (2nd ed.). (Mahwah, NJ: Erlbaum.
- ILO/IPEC SIMPOC. (2007). *Towards an internationally accepted statistical definition of child labor: Children's activities and their definitions*. Geneva: International Labor Organization/International Program on the Elimination of Child Labor's Statistical Information and Monitoring Program on Child Labor. Retrieved from: <http://www.ilo.org>
- LeVine, R. A., Dixon, S., LeVine, S., Richman, A., Leiderman, P. H., Keefer, C. H. et al. (1994). *Child care and culture: Lessons from Africa*. Cambridge, UK: Cambridge University Press.
- Marfo, K. (1999). Disability research in cultural contexts: Beyond methods and techniques. In B. Holzer, A. Vreede, & G. Weigt (Eds.), *Disability in different cultures: Reflections on local concepts* (pp. 314–322). Bielefeld, Germany: Transcript Verlag.
- Marfo, K. (2011). Envisioning an African child development field. *Child Development Perspectives*, **5**, 140–147.
- Nsamenang, A. B. (1992). *Human development in cultural context: A third world perspective*. Newbury Park, CA: SAGE.
- Nsamenang, A. B. (2006). Human ontogenesis: An indigenous African view on development and intelligence. *International Journal of Psychology*, **41**, 293–297.
- Okyere, S. (2012). Are working children's rights and child labor abolition complementary of opposing realms? *International Social Work*, **56**, 80–91.
- Pence, A. (2011). Early childhood care and development research in Africa: Historical, conceptual, and structural challenges. *Child Development Perspectives*, **5**, 112–118.
- Pence, A., & Nsamenang, B. (2008) *A case for early childhood development in sub-Saharan Africa*. Working Paper No. 51. The Hague, The Netherlands: Bernard van Leer Foundation.
- Rogoff, B. (2003). *The cultural nature of human development*. New York, NY: Oxford University Press.
- Serpell, R. (1996). Cultural models of childhood in indigenous socialization and formal schooling in Zambia. In C. P. Hwang, M. E. Lamb, & I. E. Siegel (Eds.), *Images of childhood* (pp. 129–143). New York, NY: Psychology Press.

- Serpell, R. (2000). Intelligence and culture. In R. J. Sternberg (Ed.), *Handbook of Intelligence* (pp. 549–579). Cambridge: Cambridge University Press.
- Serpell, R. (2011). Social responsibility as a dimension of intelligence, and as an educational goal: Insights from programmatic research in an African society. *Child Development Perspectives*, **5**, 126–133.
- Serpell, R., & Marfo, K. (2014). Some long-standing and emerging research lines in Africa. In R. Serpell & K. Marfo (Eds.), *Child development in Africa: Views from inside. New directions for child and adolescent development*. Vol. **146**, pp. 1–22.
- Shweder, R. A. (1991). *Thinking through cultures: Expeditions in cultural psychology*. Cambridge, MA: Harvard University Press.
- Super, C. M. & Harkness, S. (1986). The developmental niche: A conceptualization at the interface of child and culture. *International Journal of Behavioral Development*, **9**, 545–569.
- Valsiner, J. (2000). *Culture and human development: An introduction*. Thousand Oaks, CA: SAGE.
- Weisner, T. S. (1984). A cross-cultural perspective: Ecocultural niches of middle childhood. In A. Collins (Ed.), *The elementary school years: Understanding development during middle childhood* (pp. 335–369). Washington, DC: National Academy Press.
- Weisner, T. S. (1987). Socialization for parenthood in sibling caretaking societies. In J. B. Lancaster, J. Altman, A. S. Rossi, & L. R. Sherrod (Eds.), *Parenting across the lifespan: Biosocial dimensions* (pp. 237–270). Hawthorne, NY: Aldine de Gruyter.
- Weisner, T. S. (2014). The socialization of trust: Plural caregiving and diverse pathways in human development. In H. Otto & H. Keller (Eds.), *Different faces of attachment: Cultural variations on a universal human need* (pp. 263–277). Cambridge, UK: Cambridge University Press.
- Wiredu, K. (1996). *Cultural universals and particulars: An African perspective*. Bloomington: Indiana University Press.
- Zimba, R. F. (2002). Indigenous conceptions of childhood development and social realities in southern Africa. In H. Keller, Y. P. Poortinga, & A. Scholmerish (Eds.), *Between cultures and biology: Perspectives on ontogenetic development* (pp. 89–115). Cambridge, UK: Cambridge University Press.