Bringing the Real World into Developmental Science: A Commentary

on Weber, Fernald, & Diop (2017)

Gilda Morelli

Boston College, U.S.

Kim Bard

University of Portsmouth, U.K.

Nandita Chaudhary

University of Delhi, India

Alma Gottlieb

University of Illinois at Urbana-Champaign, U.S.

Heidi Keller

Universität Osnabrück, Germany

Marjorie Murray

Pontifícia Universidad Católica de Chile, Chile

Naomi Quinn

Duke University, U.S

Mariano Rosabal-Coto

Universidad de Costa Rica, Costa Rica

Gabriel Scheidecker

Freie Universität Berlin, Germany

Akira Takada

Kyoto University, Japan

Marga Vicedo

University of Toronto, Canada

Author Note

 Following Morelli, author names are listed in alphabetical order.

Correspondence concerning this manuscript should be sent to Gilda Morelli, Department of

Applied and Educational Psychology, Boston College, Chestnut Hill, MA, 02451. Contact:

morellig@bc.edu

Abstract

This paper examines the parent intervention program evaluated by Weber, Fernald and Diop (2017), and argues that there are scientific and ethical problems with such intervention efforts in applied developmental science. Scientifically, these programs: rely on data from a small and narrow sample of the world's population; assume the existence of fixed developmental pathways; and pit scientific knowledge against indigenous knowledge. We question the critical role of talk as solely providing the rich cognitive stimulation important to school success, and the critical role of primary caregivers as teachers of children's verbal competency. Ethically, these programs do not sufficiently explore how an intervention in one aspect of childcare will affect the community's culturally organized patterns of child care.

Bringing the Real World into Developmental Science: A Commentary

on Weber, Fernald, & Diop (2017)

The reliance on parent intervention programs - such as the one described by Weber et al. (2017) - to improve parenting practices and thus children's developmental achievements is a growing trend in applied developmental science. We find this trend alarming for both scientific and ethical reasons. These parenting programs rarely pay attention to the conceptual and methodological assumptions underlying the research and the translation of research findings on which they are based. The same can be said of the way these programs are evaluated. The assumptions that guide these endeavors reflect values and practices of a small percentage of the world's people: those who live predominantly in service-based economies and who share socio-demographic characteristics such as high levels of education, nuclear family structure with few children, and financial security (that is, people living a Western lifestyle, commonly referred to as Western or Westernized societies) (Arnett, 2008; Henrich, Heine, & Norenzayan, 2010). This comes as no surprise. Psychological research is dominated by scholars in U.S. academic institutions and in English-speaking countries; is focused on select populations in the U.S. and in Europe (Nielsen, Haun, Kärtner, & Legare, 2017); and exaggerates the extent of scientific consensus about favorable conditions for and features of children's psychological development (Serpell & Nsamenang, 2014). Calls to change the status quo span decades (e.g., LeVine & Norman, 2001) with more recent appeals pointedly demonstrating the potential harm of this bias (Arnett, 2008; Henrich et al., 2010; Nielsen et al., 2017).

The beliefs and practices of people who are not like the disproportionately studied populations oftentimes are either opaque to Western-trained researchers and practitioners or marginalized by them because of the (assumed) risk that these beliefs and practices have on

children's healthy and successful developmental trajectories. These researchers' well-intentioned efforts to improve the health and wellbeing of children and families globally at best disregard and often interfere with communities' 'ways of living with others' that are ecologically and culturally grounded (Keller & Kärtner, 2013); and they neglect the real-world consequences of their recommendations. We view the intervention program evaluated by Weber and colleagues (2017) as exemplifying these problems.

The intervention program – Reinforcement of Parental Practice (RPP) - is one of a suite of programs developed and implemented by the Senegal-based NGO Tostan, with the stated aim to "empower African communities to bring about sustainable development and positive social transformation" (Tostan, nd). The RPP program is designed to promote children's school success by teaching parents to use Western, middle-class styles of parental talk to young children based on the premise that frequent verbal exchange provides rich cognitive stimulation that is critical for brain development. Additionally, the program advocates to change "traditional" care practices that get in the way of verbal exchanges and consequently achievement in school. The program is in use in 200 communities in five regions of Senegal.

Weber and colleagues (2017) were recruited to evaluate the RPP program. They did this by selecting for study Wolof-speaking people living in rural, subsistence-economy villages in the Kaolack region of Senegal. Although they played no role in designing the intervention, their evaluation was planned to verify the applicability of the program in these settings ("proof of concept" p. 3). The researchers' support of the program is clear. They write: "…this evaluation study also confirmed a finding that has been robustly demonstrated in studies with families in the United States – that caregivers' verbal engagements with young children can nurture their early language skills – extending this important result to children growing up in rural African villages"

(p. 12). In their closing remarks, Weber et al. identify challenges of continuing the RPP program as currently designed, but, even so, their position amounts to an implicit recommendation to provide RPP training to all caregivers.

Community Practices: Do We Need to Change Them for the "Better"?

The intervention and evaluation of the RPP program are based on long standing assumptions regarding "universal" characteristics of good care and healthy child development that are implicit in developmental science and based on Western cultural views (see, for example, Morelli et al., in press; Rosabal-Coto et al., in press). For this reason, we use the Weber et al. study as the basis from which to launch our critique of assumptions that are problematic and emblematic of many intervention and evaluation studies applied to communities that are not characterized by Western lifestyles. We consider how such assumptions may lead to faulty reasoning about the ways of life of people un- or under-represented in research and, as a result, may lead to decisions that do not provide the anticipated benefit to, or that unsuspectingly adversely affect, the children and families whose lives governments, NGOs, and researchers want to improve.

Our contention is that, under normal circumstances, children are cared for in culturally defined and ecologically responsive manners. Children's lives are patterned to provide them with opportunities to learn what it means to be an acceptable, good, and moral person in a given community as well as how to organize, interpret, and make sense of their experiences of the world in ways that are consistent with that community's beliefs and practices (Shweder et al., 2000). Moreover, we are now learning more about the cultural situatedness of psychological processes from recent epigenetic research (Lester, Conradt, & Marsit, 2016). Jablonka (2016) makes several points about this research that we find of value. The first is that the intersection of

epigenetic variation and developmental change is dynamic, an idea that is consistent with current psychological models of human development (García Coll, Bearer, & Lerner, 2004; Zelazo, 2013). The second is that processes underlying developmental pathways are flexibly responsive to eco-social, cultural influences, so that different developmental pathways may lead to similar outcomes, and similar developmental pathways may lead to different outcomes (Cicchetti & Rogosch, 1996).

Diversity in Developmental Pathways

The design, implementation, and evaluation of the RPP program appear to rest on the view that developmental paths are fixed and narrowly defined, i.e., that developmental outcomes (e.g., school success) are linked tightly to particular early experiences (e.g., children engaging in verbal interactions) and corresponding brain development. This point of view implies that specific developments in brain structure have singular outcomes and that developmental achievements can be predicted by the same variable irrespective of cultural environment. Current scientific research in the expanding field of cultural neuroscience challenges both assumptions (Chiao, 2009; Han et al., 2013). For example, oxytocin, a peptide that functions as hormone and neurotransmitter, increases a person's sensitivity to culturally-relevant social information. Thus, oxytocin does not have only one effect, rather it appears to make people more acutely aware of their culturally shared beliefs and expectations. This finding and previous evidence from gene-culture interaction studies (for a summary see e.g. Kim & Sasaki, 2014) show that culture plays a crucial role in shaping human psychology and behavior. From basic visual perception to conceptions of fairness, cultures differ (Henrich et al., 2010). What is especially important for intervention studies is that even when individuals are exposed to the same stimulus, they interpret it through the lens of their cultural experiences, with their brains

activating differently (Ambady & Bharucha, 2009). As a result, individuals' psychological and

biological reactions to the same stimulus may differ.

This relates to a second point about cultural bias in the prediction of behavior – the

assumption that what improves children's achievements in one culture will also improve

achievements in all other cultures (Nielsen et al., 2017). Scientists should not generalize results

from one culture to another culture without evidence. For example, Schröder, Kärtner, Keller,

and Chaudhary (2012) conducted a comparative study of interactions between middle-class

mothers and their 19-month-old children in Berlin, Germany and Delhi, India. They found that

the culturally normative behavior of Berlin mothers in play situations (e.g., following the

children's lead) predicted children's conversational participation and language production in the

Berlin children at age three. However, the same was not the case in the Delhi children. In the

Delhi sample, the 19-month-olds who followed their mothers' lead had higher conversational

participation and language production at age three. Berlin and Delhi children did not differ in

their language behavior overall, but children following the normative pattern of their culture

achieved the best outcomes: the Western cultural norms of child-led interactions (in Berlin) were

a violation of the culturally normative pattern of adult-led interactions in the Delhi culture, and

vice versa (for a discussion see Keller & Kärtner, 2013). This example speaks to underlying

assumptions about causal links between parental behavior and child language outcomes.

Whereas applying links found in one setting may be valid for other similar settings, it is incorrect

to extrapolate results to other, different, settings.   The assumption of a link between greater

verbal input and better cognitive abilities in children is questionable since these findings rely on

a very narrow data base, and do not include research studies in cultures with different social and

communicative patterns. Since we don't have evidence of such connections worldwide, it is too

early to assert the universality of these linkages and associated outcomes. However, evidence is accumulating from communities that do not live Western lifestyles that such connections may not be universal. We consider this evidence in the next two sections.

Socially Distributed Systems of Socialization

Two of the ways that Weber et al. evaluated the program were to examine: 1) the amount of speech a child's primary caregiver used during a play session in which the caregiver was asked to interact with the child and simple toys were provided; and 2) the amount of speech that adult females directed to the child during the day. Primary caregivers were identified based on reports about who spent most of the daytime in a position of responsibility for the child. The stated assumption was that this person, mainly the mother, would be the single most important relationship for children's verbal development ("the primary caregiver…had the greatest opportunity to influence the child's language development", p. 4); the implicit assumption was that children best learn to talk when taught by adults. Both assumptions reflect the view that caregiving implies physical presence as well as responsibility for physical and psychological care. This is a fitting characterization of families living Western lifestyles but not of families with different lifestyles in many parts of the world, as demonstrated below.

We know from the anthropological record that in a variety of communities with non-Western lifestyles, children's care networks typically are extensive as child care and other responsibilities are distributed among adults and children, kin and kith (Gottlieb & DeLoache, 2017; Keller & Chaudhary, in press; Konner, 2010). What this means often is that the person who spends the most time caring for a child spends less time than the combined collective of other people. Moreover, the care that people provide children may vary considerably for many reasons including commonsense beliefs and practices of the community (e.g., Barlow, 2013;

Gaskins, 1999; Morelli et al., in press). For example, in rural Madagascar, role expectations of mothers are largely confined to caring for their children's physical needs. It is the children who provide each other with cognitively stimulating activities (Scheidecker, 2017). Role expectations also constrain mother-child play in many communities. Lancy (2007) concluded, based on a comprehensive review of the literature, that "...we find very little evidence to suggest that mother-infant play is universal or even very common."(p. 275).

We also know that children learn to talk from many of the people who care for them and from those who interact with them in other capacities. What children learn and from whom, however, varies. In communities with lifestyles different from Western lifestyles, adults tend to use talk judiciously, and a lot of talk between adults and children takes place in the service of carrying out an activity in which the child is currently involved (Morelli, Rogoff, & Angelillo, 2003; Scheidecker, 2017). Many times, adults use talk with care to not disrupt the child's activity or undermine the child's active observation (Paradise & Rogoff, 2009).

Children's talk with one another tells a different story in these communities. Children usually have wide access to other children of different ages and these mixed-age groups spend a lot of time together - playing, working, relaxing, and just plain talking (e.g., Rogoff, Morelli, & Chavajay, 2010). In fact, in some places, children spend more time talking with each other than with adults (LeVine & LeVine, 2016; Paradise & Rogoff, 2009). Morelli and colleagues, for example, observed that two- to five-year old children from two "traditional" communities (Mayan agriculturalists, San Pedro Guatemala; Efe hunter-gathers of the Democratic Republic of Congo) spent more of their conversation-time talking only with children than did children from two middle-class U.S. communities (~67% vs ~30% of all conversation that was not in the service of an activity). This may be true, as well, of rural-living Malagasy communities where

child-child talk abounds (Scheidecker, 2017). Talk among children likely figures importantly in children's linguistic competence (Blum-Kulka & Snow, 2004). Rabain-Jamin (2001) found that in a Wolof speaking community child-child speech differed from adult-child speech in several ways and, thus, broadened the opportunities for language learning beyond those provided by the mother and other adults. For example, older children offered opportunities to younger children (two-year-olds) to play an active role in verbal communication. Furthermore, most of their language use occurred in multi-party, peer-group contexts in which children learn to assume appropriate roles in the ongoing communication.

Children experience rich and varied speech in other ways. They are often integrated into the day-to-day lives of their community and this provides them with ample opportunity to listen to the casual talk surrounding them as people go about their daily routines. Other times, children witness or take part in culturally organized linguistic activities such as storytelling, singing, and dramatizations that may promote a range of language skills and, in some communities, literacy skills (Heath, 1983; Paradise & Rogoff, 2009).

These accounts provide ample evidence that it would be a mistake to assume that children's linguistic experiences in communities that do not live Western lifestyles fall short of providing them with the type of stimulating cognitive experiences associated with rich and varied speech and optimal brain development. Furthermore, there are other ways to communicate that place high cognitive demands on children and are greatly valued in many non-Western lifestyle communities. To illustrate this point, we will now consider non-verbal forms of communication.

Communicative Competence

Parents living Western lifestyles typically care a great deal about their child's ability to talk and they typically hope that their child talks as early as possible (LeVine & LeVine, 2016). Accordingly, they design child-focused activities to engage children from an early age in 'conversation' in face-to-face, dyadic routines. Often, parents talk with children about things that are removed from the here and now, for example, a parent may tell a child how something works that is not part of the immediate context (i.e., decontextualized talk); and often, parents talk with children in ways that resemble the teaching methods of Western-style schools (Chaudhary, 2004). These conversational practices reflect deeply held views that talk is the best way to communicate, that it must be taught by adults, and that it will help to prepare children for success in school. But these practices do more than this. Through these and other associated practices, children learn to experience themselves as separate and distinct from others, with needs and desires of their own. They learn to define and negotiate relationships from their own point of view. This is the ethos that underlies the intervention evaluated by Weber and colleagues.

Many people who do not live Western lifestyles hold a different view about talk with and by children. This is not to say that talk lacks importance as a way to communicate or to children's learning. But other ways to communicate are more common for many of these people and may provide children with alternative opportunities for high levels of cognitive involvement consistent with other cultural values and goals (Paradise & Rogoff, 2009). Gaze, gestures, facial expressions, posture, and timing of actions are examples of well-regarded and commonly practiced ways to communicate in some places. In those communities, people may be particularly attentive to these non-verbal forms and may get more information from them than do

people who, by tradition, rely on talk (Rogoff, 2003). Using gestures (and so on) to

communicate makes it possible for children to engage socially with more than one person at the

same time (multiparty interactions), and to do so without disrupting or interrupting the flow of

events (Morelli, Verhoef, & Anderson, 1996). In this way, children learn to share social space

with others (rather than dominate it) and to relate with others in ways (e.g., calm, respectful,

obedient) that intensify and maintain social connections and meet socially constituted obligations

and responsibilities.

        Communities that value these non-verbal ways of communicating and of relating with

others often expect children to take responsibility for their learning by observing (and pitching in

on) the everyday activities of family and community (Paradise & Rogoff, 2009). People may

provide explicit guidance verbally (in the service of the activity), but more often non-verbally.

Hewlett and Roulette (2016) found that Aka caregivers were more likely to help young children

with an activity by pointing, guiding them physically, and so on. Rarely did they use talk to do

this.

        Children must be actively engaged socially and cognitively in ongoing activities to learn

how to take part in culturally organized multiparty interactions that rely heavily on non-verbal

communication and, at the same time, to learn other culturally relevant skills and abilities.

Paradise and Rogoff (2009) offer one view on some of what is needed for children to do all of

this. They posit that these children's attention to visual and other perceptual information must be

intense, focused, and divided smoothly across ongoing events. These attentional processes are

culturally mediated, which have implications for other biological and psychological control

processes. Calkins and Marcovitch (2010) argue that attentional processes may underlie the

development and integration of emotional and executive regulatory processes important to

adaptive functioning. For example, delay of gratification was better in Cameroonian Nso farmer children (i.e., they waited longer for the second treat in the Marshmallow test) compared to German middle class children, and the groups relied on different strategies to control their behavior (Lamm et al., 2017).

The RPP program's focus on talk ignores completely the contribution of non-verbal forms of communication to the development of biological and psychological processes important to children's learning. It misses, as well, the intricacies of the complex relation among non-verbal communication, learning by observing, psychological competencies, and ways to relate with others that are fundamental to many children's care and development. Efforts to shift the balance between verbal and non-verbal ways of communicating are likely to disrupt other aspects of a child's life and even a community's functioning. This is because, as we shall see next, children's experiences with talk can only be understood as part of a larger pattern - a cultural logic (i.e., people using the same assumptions to intepret each other's actions, see Enfield, 2000) - of child rearing (Harkness & Super, 1996; Keller, 2007).

Culturally Organized Patterns of Child Care

Lareau (2011) characterizes the general American middle-class cultural approach to child rearing as "concerted cultivation." This kind of child rearing involves various efforts on the parents' part. Early competence at talking—encouraged by reasoning with children when they behave badly or making sure to discuss the day's events around the dinner table—is just one such effort at concerted cultivation. Optimizing school readiness by teaching linguistic preschoolers the alphabet and other discrete linguistic skills is another. Intervening in their children's academic lives is another. Still another is filling their children's days with extracurricular activities thought to be "enriching," such as soccer camp or music lessons. Thus,

promoting precocious child speakers (LeVine & LeVine, 2016) can only be understood as one piece of a larger nexus of practices. Stripped out of this larger cultural view of child rearing, and taught all by itself, it is unlikely to have the desired positive effect on school performance or future success, in part, because the actual behavior of talking is decontextualized of all other supporting activities.

Lareau (2011) also notes that concerted cultivation is a relatively new middle-class American cultural view of child rearing, although one already well-established in the professional advice literature (see also Hays, 1996). Just a few decades old, this newer logic replaced a prior way of rearing children that stressed bottle- rather than breast-feeding, sternness rather than warmth and empathy, and physical punishment rather than reasoning or "time-outs." Lareau speculates that the shift to this new kind of child rearing likely reflects the anxieties of middle-class parents worried about how their children will fare in a shrinking economy (see also Newman, 1993). The Senegalese adults participating in the RPP program may not share these American middle-class concerns about the future, nor are these concerns necessarily realistic ones in the social and economic contexts in which their children live.

Weber et al. (2017) appear to be unaware of the ethnocentricity of the NGO's (and their own) notion that adults talking more with children is necessarily universally good. Their assumption about talk leading to success in life is taken out of context, plucked from their own middle-class American cultural approach to child rearing. In addition, they seem unfamiliar with the cultural system of child rearing they propose to change. They do not appear to take account of the benefits of this model of child rearing—for example, that children brought up in this way are likely to have an array of communicative and learning abilities consistent with their environment, will be able to better delay gratification, and develop closer relationships with

family and extended kin. In short, there is little self-reflection on the part of Weber et al.'s evaluation process about either their own assumptions about child rearing or what might be the approach to it by these Wolof speaking communities.

Positioning NGOs and Researchers in Cultural Communities

Even though the term non-governmental organizations (NGOs) was popularized by the United Nations Charter at the end of World War II, their advocacy and activism in the areas of health, education and welfare are rooted in traditions of religious groups, missionaries, and others (Davies, 2013). The political and humanitarian footprint of NGOs is quite large. For example, NGOs pressed for and succeeded in the establishment of the United Nations Commission on Human Rights (UNCHR) and in including human rights provisions in the UN Charter; and they are able to negotiate directly with governments in many countries. While NGOs are not politically powerful in and of themselves, they wield considerable influence on matters of policy and implementation, especially when they come together to form advocacy networks. Their agendas often reflect the interests of different stakeholders, for example, funding agencies that are linked with world-wide economic and financial organizations. The interests of these agencies can be at odds with, or ignore the needs of, local people (Arellano-López & Petras, 1994; Smith, 1990). For reasons such as these, scholars, scientists, and practitioners who participate in intervention programs, without understanding the history and current global positioning of NGOs, risk becoming accomplices in a form of imposed acculturation. In many cases, including Weber et al., this may have meant taking the NGO's position as undisputed; that is, optimal development as envisaged applies to children in all societies despite profoundly different ecological and cultural circumstances.

The presumption that there are two kinds of ideologies, scientific (Western views of best

practice) and indigenous (magical beliefs in knives and evil eyes) becomes very constricting to a reasonable dialogue about community practice and child rearing. An example from Weber et al. illustrates this point. In 2011, Tostan interviewed caregivers in remote Senegalese villages who reported that adults might be called "crazy" if they talk to a baby, because "nobody is there." (p. 2). But childcare practices do not exist in isolation of a shared reality. Therefore, they cannot be examined for their "scientific" quality on their own. Such an approach overestimates the role of science in caregiving practiced in communities living Western lifestyles and undervalues the local beliefs and folk wisdom of any group constructed as the 'other' (Serpell & Nsamenang, 2014). Burman (1996) argues further that documents like the United Nations Convention on the Rights of the Child (UNCRC) are predicated upon the notion of the individual as separate from society and human development as separate from culture. This presents a globalized view of childhood as a universalistic theme, without acknowledging that it is conceptualized only in Euro-American ideology. In contrast to Burman's call to keep a "critical vigilance" (p. 45) on policy and programs for their conceptual content and practical application, international NGOs like UNICEF may have uncritically adopted this type of universalistic stance of psychological discourse, thereby undermining local cultural capacities and eliminating contributions from local researchers (Pence, 2011).

Education as "Cultural" Intervention

The desire to 'improve' the lives of others has ancient roots. As early as the 17th century, missionary schools were established to assist in the 'modernizing' of local populations in different parts of the world. Missionary schools were religiously motivated and religious conversion was an important objective. These schools thrived during colonial periods in part because colonizing nations had similar goals. Given this history, interventions to enhance school

performance need to tread lightly when deciding whether and how to encourage changing culturally established practices.

The pathway to a successful life, according to many policy makers, educators and welfare agencies, appears to be a narrow and well-defined one that culminates in the singular model of an *urban, educated, English-speaking, office-going individual as a success story.* This reflects the concerns of Serpell and Nsamenang (2014) who argued that early childhood education in sub-Saharan Africa is largely aimed at correcting the course of development and learning of young children to fit into formal schooling. For most of the children growing up in diverse ecologies, this model is not applicable. We need to sustain multiplicity in ways of living if we are to thrive as individuals, communities, and even as a species.

It is time to understand, respect, and support community efforts to educate children (in schools) in ways that reflect the complex intersection of 'local' and 'global' matters of significance. Children need basic skills to engage with the world in ever evolving economies. Children's learning of this assortment of basic skills should be culturally situated and responsive to eco-social conditions, both affordances and constraints. In this way, we move closer to *fitting schools into children's lives out of respect for them as individuals and members of cultural communities* in what should be the true spirit of the UNCRC, and not as an application of an alien version of childhood that is unfamiliar to most of the world's children.

Ethics and Interventions at a Crossroad

We advocate the view that developmental pathways are diverse and this diversity is the universal model of development. This implies that one cannot take the assumptions and practices of one cultural model and apply them to another culture without considering how models fit across cultures. Doing so would ignore the cultural situatedness of behaviors and

beliefs. We see the Weber et al. study as evaluating Western (scientifically grounded) ideas of predictors for educational success in an environment that holds different cultural views, without knowing about the different cultural models, and without knowing the wider impact and consequences of the intervention for the child, the family and the community. Moreover, the finding that there is a positive effect of increasing language production in young children should not be taken as sufficient evidence to endorse the intervention, which was designed to improve children's school performance. Interventions that target changing primary caregiver talk to children may be inappropriate in this cultural setting. In cases of best practice, NGOs work together with stakeholders to design interventions that address the topics that are of primary concern to the people being helped. We wonder what interventions might be proposed by these Wolof-speaking communities to optimize their children's success.

We have another set of concerns raised by Weber et al.'s type of applied developmental science that relate to perceptions and attitudes. We are not critical of people's desire to help others, even when the helpers are WEIRD (Western, educated, industrial, rich & democratic; Henrich et al., 2010) people. We do have concerns, however, that in building a scientific rationale for a study, harmful impressions may be created. In Weber et al.'s article, for example, the scientific argument is that there are causal links between verbal exchanges, on the one hand, and cognitive stimulation, brain development, and school success, on the other (based on evidence from children living in Western lifestyles). Thus, when planning an intervention to enhance school success in children from another style of living, the argument is made that verbal exchanges can be targeted for intervention, which will lead to improvements in all these outcomes. This argument creates the impression that, absent such interventions, children living in these Wolof-speaking communities suffer from serious deficits in their verbal engagements

and also lack appropriate levels of cognitive stimulation, which could lead to problems with

brain development and subsequently poor school performance. Yet there is no evidence that

these impressions reflect reality in this case.

This impression is further solidified by Weber et al.'s endorsement of the intervention

("we were able to provide evidence of the effectiveness of this innovative Senegalese

intervention", p. 12), even though they only evaluated whether the "primary caregiver's" verbal

engagement changed children's verbal output one year later, and found that it did so albeit only

in a 5- minute play session with this caregiver. They did not establish that there were any

deficiencies in children's language that required intervention. They did not determine that the

intervention led to positive change in any of the crucial outcomes, especially school success.

Most importantly, they did not establish that, for the Wolof-speaking peoples they studied, there

was a causal link between early verbal exchanges and later outcomes related to cognition, brain

development, and school success. We understand that the remit of Weber et al. was only to

evaluate whether the RPP program changed primary caregivers' verbal interactions with children

and whether children's language performance changed as a result. But, in our opinion, there is

little ecological validity in the one observed child outcome that changed as a result of the

intervention because in many communities primary caregivers (e.g., mothers) do not typically

assume the role of playmate (e.g., Gaskins et al., in press; Lancy, 2007). Therefore, we find that

their endorsement of the entire RPP intervention program was outside their remit and was not

based on their evaluative evidence.

Part of the RPP intervention was stated to encourage parents to reflect on the potentially

harmful aspects of "traditional" caregiving (as well as the beneficial aspects, to be fair).

However, these discussions do not appear to be based on any scientific assessment of the

caregiving practices of the Wolof-speaking communities, or the consequences of current caregiving practices in the Wolof-speaking communities studied by Weber et al. The readers of this article might well assume erroneously that there is evidence that (at least some) "traditional" caregiving practices do harm to developing children.

The protection of research participants through IRB and ethic committees of Western universities seems to be insufficient to prevent the type of imposition illustrated by the RPP program, in part, because there is often a lack of consideration of local practices and standards and how the intervention will impact them. This is why a council of San hunters and gatherers, a group that is heavily studied by Western researchers, has formulated their own ethics codex that is a condition for research in their communities (South African San Institute, 2017). We think that it should be part of research ethics to take the cultural orientation of research participants seriously. This does not ignore that there is high demand for improving the lives of children and families in many parts of the world, but there is not one strategy that is best for all.

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