

Talk the talk and walk the walk: Diversity and culture impact all of development – A commentary on Kidd and Garcia (2022)

First Language

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Abstract

Research on early language abilities, much like psychology more broadly, has focused almost exclusively on infants from English and Indo-European languages, thereby limiting understanding of the role of varying linguistic experience that supports language abilities. We underscore Kidd and Garcia's call to expand, diversify, and globalize language research. Using examples from motor development in which universality has long been assumed, we argue that embracing a cross-cultural perspective enriches theories of development more broadly. We conclude with suggestions for future directions.

Keywords

Motor development, cross-cultural differences, childrearing practices, infant development, developmental cascades

In their target article, Kidd and Garcia (2022) find child language research lacks diversity, a trend that has been established about the broader discipline of psychology (Arnett, 2008; Bornstein, 1980; Henrich et al., 2010). The authors remind us that to have a comprehensive theory of language requires a representative knowledge base, drawn from sampling languages and cultures around the world. They caution us that languages are becoming extinct, leaving language theory languishing. By analyzing studies across four premier language journals for participants sampled, language and topics covered, and

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country of researchers' affiliation, the authors concluded that only 1.5% of world languages have been cataloged, typically monolingual participants studied, and research was highly skewed toward English. The authors' discovery of lack of diversity in language development research stands in sharp contrast to decades of cross-linguistic scholarship, which has documented languages around the world and the linguistic environment in which children are socialized into language. Cross-cultural studies of children's language, particularly the lesser studied languages, are necessary for understanding the necessary conditions for language acquisition.

We agree with the authors' call to expand, diversify, and globalize language research specifically and developmental science broadly. Sampling widely and focusing on rich descriptions of contextualized behavior challenge assumptions of universality similar to other domains, namely, motor development. Research on motor development, much like language research, is fraught with arguments about human universals and genetically determined structures. Yet, those conclusions are almost always grounded in analyses with little information about rearing environments or parental practices. Cross-cultural research, similar to cross-linguistic work the authors review, illustrates the enormous variability in early experiences and the range of infants' skills. Cross-cultural comparisons reveal the effects of experience on development and highlight diversity in developmental pathways.

Motor development research is historically guilty of ignoring social and cultural influences on skill acquisition and thus is laden with long-standing assumptions about the universality of motor skill acquisition. Such historical baggage gives rise to overused and ill-informed concepts such as developmental milestones (Karasik & Robinson, 2022; Super & Harkness, 2015), which distract us from understanding the true pathways of developmental change. Children grow up in physical and social environments that vary across cultures and families. Cultural expectations guide childrearing practices, informing how caregivers handle, position, and carry their infants. Cultural practices subsequently facilitate or constrain opportunities for infant movement, thereby affecting which skills are acquired and when (Adolph & Hoch, 2019; Adolph & Robinson, 2015; Karasik, 2018). However, much of what we know about motor development comes from studies with limited samples, typically with infants reared in Western traditions in which freedom to move is revered and body restriction is uncommon.

So, the general assumption has been that freedom to move is necessary for motor development. Indeed, in Western cultures, infants' movement and exploration are encouraged and babies' limbs and bodies are rarely restricted. For example, caregivers who report positioning infants prone during play (commonly referred to as 'tummy-time') are thereby encouraging prone skills like pulling up and crawling (Dudek-Shriber & Zelazy, 2007). But, empirically how much or how little Western infants are restricted is an assumption. Cross-cultural studies illustrate the vast differences in childrearing practices around encouragement to move or restrain. Researchers have documented caregivers deliberately exercising and practicing skills like sitting and walking as part of typical daily routines (for a review, see Adolph & Hoch, 2019). Caregivers of African and Caribbean descent hold young infants by the arm, ankle, or head as part of stretching and exercise to ensure healthy development. Before infants can sit independently, caregivers prop them in a sitting posture to encourage the practice of postural control (Super, 1976).

Months before independent walking, caregivers position newborns upright to practice stepping movements to train walking (Hopkins & Westra, 1990).

Whether Western caregivers purposely practice skills is uncertain. We know parents eagerly await and track infants' progress with baby books and calendars, and report to pediatricians during every well-visit. Anecdotally, when infants begin to pull up and take supported steps, caregivers 'walk' their infants while hunched over, holding their hands for support. The nature of supported walking experience has not been documented. Recently, researchers are finding that mother-supported walking is sporadic, but child-supported walking ('cruising' or walking while holding onto something for support) is quite common (Karasik et al., 2022). Perhaps Western caregivers view their role as providing a supportive environment and allowing their infants to generate their own experiences with movement and exploration.

Cross-cultural research has documented ways in which caregivers contain their infants, inadvertently restricting movement and exploration. Caregivers in various communities in Africa, and Central and South America use swaddling cloth, cradleboards, 'manta pouches', and the like, with use limited to the first few months of life and to times of day when infants are asleep (for a review, see Adolph et al., 2010; Karasik, 2018). In Tajikistan and other parts of Central Asia, the Middle East, and North Africa (Bloch, 1966; Epstein, 1981), caregivers have used a traditional 'gahvora' cradle for generations. The gahvora tradition shares many characteristics with other restrictive childrearing practices, but its use is not limited to only the first few months after birth and to times of day when infants are asleep. Children aged 12 to 24 months can spend 15 hours or more in the gahvora, through sleep and waking, without leaving the cradle (Karasik et al., 2018).

Insights from motor development raise important points about the role of diversity in science. Here, we concur with the authors' calls for diversity in child language research, but also urge scholars to expand their toolkits in line with diversifying their samples. Like in the field of motor development, inclusion of diverse samples in language development might expand models of early learning that were likewise developed on a small sliver of the globe's population. Diversifying samples, however, requires diversifying our methodological practices. Foray into languages across cultures forces scholars to take their research outside the laboratory, a common context for the study of language processing, and into children's everyday environments that are inseparable from language learning. This is not to say that experimental work should be abandoned. After all, elegant lab studies have demonstrated incredible ways in which young children process and learn language (Saffran et al., 2001). The generalizability of findings, however, will require adapted methods to investigate language in a much broader range of contexts than are available in the controlled setting of a laboratory. Like other researchers, we embrace descriptive approaches to contextualize theory testing with standard tasks and experimental assessments (West et al., 2022). Moreover, we champion collaborations across disciplines and cultures (e.g. Bergelson et al., 2022). For instance, to investigate the effects of restriction on motor development, researchers borrowed methods from lab and field studies using semi-structured interviews and video-records of infants and caregivers in standard tasks and naturalistic observations, incorporating qualitative and quantitative accounts of behavior (for a review, see Singh et al., 2022). Local informants

helped with developing tools to capture practices and interpret findings. Such diversity of methods has enabled scholars to expand their knowledge base, providing a testing ground for theory refinement.

The target article persuasively demonstrates the perils of testing theories of language specifically, and psychological theories more generally, on limited samples derived mostly from Western and English-speaking populations. Knowledge based on these limited samples and the limited demographic of researchers who tackle these topics is inadequate and may be misleading. Widening the knowledge base and participants of the scientific community is important for establishing general principles in language acquisition and developmental science and for challenging long-standing assumptions. Children do acquire language without exposure to ‘motherese’ or much of child-directed speech (Ochs & Schieffelin, 1984). And, children do acquire independent locomotion despite being frequently contained and restricted in movement. Discovering and documenting these phenomena have led us to realize that the role of early experience is more nuanced and non-linear than we previously imagined, leading us to ask further questions about the effects of early experience within and across cultures. These lessons can only be learned with further descriptive, cross-cultural work, providing the means for testing hypotheses previously unanticipated.

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