How WEIRD is that? A comparative study of language input and outcomes in Ghana

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The pervasiveness of WEIRD populations in psychological research has called into question how generalizable our theories of human development are across cultural settings (Henrich, Heine, & Norenzayan 2010). One area that has received increased attention since this call-to-arms is language input studies (Kidd & Garcia, 2022), which have repeatedly found that exposure to child-directed speech predicts individual differences in language development (Wang et al., 2020; Anderson et al., 2021). We contribute to a growing body of cross-cultural research in this field with a comparison of language input and outcome measures in Ghana and datasets drawn from other studies in the U.S. and in other African countries. We examine children whose parents had taken part in a randomized controlled trial beginning in 2008 examining the effects of secondary education access (Duflo et al., 2021; 2023). To measure the effects of this intervention on the participants' children, we developed a Twi-language vocabulary checklist for children aged 14 to 25 months (n=849) based on the American English CDI (Fenson et al., 2000). For a subset of our participants, we were also able to sample child-directed speech using LENA recording devices left with families throughout the day (n=425). We found that children in Ghana were exposed to speech less than children in the U.S. (Gilkerson et al., 2017), but more often than in other rural African settings (Katus et al., under review). Despite this, we found children's vocabulary growth to be comparable to age-matched children in the U.S., although our sample reported larger vocabularies than other African samples. Contrary to prior research, did not find a significant relationship between any of our LENA input measures and vocabulary. We believe these findings represent an important step in characterizing input and vocabulary norms across cultural settings and using and interpreting automatic recording methods like LENA.