

## **A longitudinal cross-cultural investigation of effects of maternal infant directed speech on infant language development in UK and Uganda**

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Infant-directed speech (IDS) is typically slower-paced, higher-pitched, of higher emotional affect, greater pitch range and vowel space than adult-directed speech (ADS). Such acoustic differences draw infants' attention (Senju & Csibra, 2008), potentially facilitating infant language learning (Kuhl, 2004). IDS quantity and vowel hyperarticulation may positively predict language outcomes (Dilley et al., 2020; Hart & Risley, 1995). However, longitudinal evidence investigating cultural variation of IDS acoustic qualities, quantity and their impact on infant language development remains sparse. Most studies use small sample sizes (Masek et al., 2021) in WEIRD societies (Nielsen et al., 2017). We examine cultural variation in acoustic features of IDS and ADS (mean pitch/pitch-modulation/vowel hyperarticulation/emotional affect) and IDS quantity at 3-10 months in UK (N=129) and Ugandan (N=96) mothers. Second, we test if IDS acoustic features or quantity at 3-10 months predict infant expressive and receptive language at 15-18 months (N=115 UK;85 Ugandan). For IDS quantity, we measured proportion of time mothers produced IDS in play. For IDS/ADS acoustic features we asked mothers to talk to their infants and a local adult experimenter and to name objects eliciting corner vowels /a/, /i/ and /u/. Emotional affect content was measured using average listener-ratings of filtered speech clips. Expressive/receptive language outcomes were measured using 100 word CDIs. Oxford CDI (UK) and translations of the Kenyan Kiswahili CDI (Alcock et al., 2015) into Alur, Kiswahili and Lugbara (Uganda). Ongoing data analysis (GLMMs) shows IDS was significantly higher in mean pitch and pitch-modulation than ADS in Uganda and the UK, but this was significantly more pronounced in the UK. IDS was significantly slower than ADS in both societies, but significantly more so in Uganda. We found no group-level vowel-hyperarticulation in either society. Full results including IDS quantity, affect and prediction of CDI scores will be presented and implications for language development discussed.