Tracking the English sound development of Somali heritage children in East London

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Multilingual children, who speak their heritage language at home, display developmental shifts in speech processing and production during early childhood. Their L2 speech patterns often reflect their heritage language (L1) at first, and later demonstrate changes in the direction of the wider community with increased exposure to the societal language (L2) (Kirkham & McCarthy, 2021; Lee & Iverson, 2011; McCarthy et al., 2014). Individual children also follow different developmental trajectories depending on language exposure and their social environment (Quay & Montanari, 2016). We employ a longitudinal design to track the developing English speech system (perception and production) of Somali heritage children in East London primary schools. Specifically, the project aims 1) to investigate the structural influences of the Somali language on the speech production and perception of children at different stages in their English development; 2) to explore the influence of language environment and communicative network on children's individual developmental trajectories.

Thirty-two children aged 4-8 years from Somali-speaking families in East London are completing tasks at three time points over a year. Time 1 data has already been collected (Spring 2025) and we are currently collecting Time 2 data (Autumn 2025). To test perception of English stop and fricative contrasts, we use an age-appropriate sound discrimination task. For production, we use two tasks, 1) a picture-naming task to explore phonemic acquisition and phonetic realisation, and 2) a naturalistic spot-the-difference game (Diapix task, Baker & Hazan, 2011) with Somali-speaking peers. We are also collecting information about each child's unique language environment and communicative network using an interview-based questionnaire with caregivers.

At Time 1, older children and those with increased English experience perceived contrasts with higher accuracy in the sound discrimination task. Younger children scored lower on this task, particularly for fricatives, which they appear to acquire later than stops. Differences may be explained by the absence of voiced fricatives in Somali and the lack of familiarity that children from Somali-dominant environments may have with these sounds. In the picture-naming task, younger children produced target sounds that showed more influence from Somali (stops with shorter VOT/prevoicing and devoiced /v/ and /z/). In the speech of older children, some Somali-influenced features (devoiced /v/ and /z/) were considerably reduced, while others (prevoiced stops) appeared to have been retained. In the Diapix task, children produced a combination of features present in Somali-accented English and other forms of London English. Production patterns suggest the possible development of an in-group way of speaking influenced by peers and specific to children acquiring language in multilingual East London. Time 2 data will allow us to observe in real time how each child's English speech is developing and to explore how differences in home language environment may be influencing their trajectories.

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