Talker familiarity effects on toddler word recognition in linguistically-diverse settings

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Familiar-talker advantages in word recognition and language processing are well-documented (e.g. Holmes et al., 2018; Barker & Newman, 2004), supporting exemplar models of speech processing. Yet despite greater lifetime exposure to their own caregivers' speech, toddlers recognize words more readily in the dominant linguistic variety of their community, and not the variety spoken by caregivers (Floccia et al., 2012). If voice familiarity advantages do not extend to non-locally-dominant varieties, their role in theories of speech processing bears revisiting. In this study, we investigate the effect of voice familiarity when talkers speak the same locally-dominant variety (Exp. 1) and when the familiar talker has a different accent (Exp. 2). In an eyetracking task, monolingual 16-month-olds hear targets named ("Look! Where's the banana? Can you find it?") in the voices of their own pre-recorded caregiver and an unfamiliar speaker of the locally-dominant variety. Here we report results from Exp. 1 (n=24), as Exp. 2 is ongoing (n=4). Growth curve analyses indicate an effect of Voice Familiarity on target looking (β=0.058, SE=0.017, z=3.46, p<0.001); participants fixated the target more when named in their caregiver's voice. In this condition, target looking both increased more sharply (Voice x linear time term: β=0.65, SE=0.21, z=3.13, p<0.01), indicative of faster processing, and exhibited shallower response curvature (Voice x quadratic term: β=-1.46, SE=0.21, z=-6.93, p<0.001) in which target fixations remained high longer compared to the unfamiliar voice condition (see Fig. 1). In the context of this evident familiar-voice advantage in Exp. 1., Exp. 2 will provide an interesting comparison. Here, a familiar voice advantage would be an important counterpoint to accent processing accounts proposing consistent advantages for prestige/locally-dominant varieties. Alternatively, if the familiar talker advantage depends on the variety the talker speaks, this would call into question its ubiquity and the evidentiary support it provides for exemplar-based models.