Do infants encode the tone of voice associated with novel word forms?

Melissa Paquette-Smith[1] & Elizabeth K. Johnson[2]

[1]University of California; [2]University of Toronto

When exposed to a novel word form to what extent do infants encode and remember the tone of voice (TOV) that accompanied that word? Some models suggest that paralinguistic information is encoded in infants' early representations of words whereas other models predict that infants might only retain linguistically-relevant (or phonological) information. In Experiment 1, we tested 18- and 22-month-old infants (N=52) in a preferential looking paradigm. In the exposure phase, infants listened to two nonsense words (blinko and doegap) produced by three different speakers. One word was spoken in a positive TOV, and the other was spoken in a negative TOV. At test, they were presented with stylized cartoon images of a positively and negatively affected face on opposite sides of the screen and were cued in a neutral affect to either "Look blinko" or "Look doegap". Infants looked significantly longer to the target (M=.58) in the 1-second window after word onset, t(51)=2.89, p=.006. In Experiment 2, we set out to replicate our findings with a new group of 18- and 22-month-olds (N=64). In this version of the task, infants did not look significantly longer to the target at test (M=.53), t(63)=1.13, p =.263, however, they showed a numerical tendency to look longer at the happy face when it was the target compared to when it was the distractor. Following the eyetracking portion of Experiment 2, we carried out an object selection task. Infants were re-exposed to the same positively and negatively affected words accompanied by images of novel objects. When infants were prompted to select between the objects, they showed no preference. Taken together, our results do not provide convincing evidence that infants store TOV information along with novel word forms. Possible changes that could be employed in future studies to make our measure more sensitive will be discussed.