



Derek Houston – Ohio State University

Presentation: Qualities of parent-child interactions with pediatric hearing loss and the potential impact on word learning

Deaf and hard-of-hearing (D/HH) children gain access to sound when they receive hearing aids and/or cochlear implants. However, their ability to acquire spoken language may depend to a significant extent on the quality of interactions they have with their caregivers. Some findings suggest that some deaf and hard-of-hearing children experience fewer and/or less-rich interactions with caregivers than do their typically hearing peers (e.g., Bortfeld & Oghalai, 2018; Cejas et al., 2014; Dirks & Rieffe, 2019; Tasker et al., 2010). Variability in parent-child interactions may account for variability in language outcomes among D/HH children, particularly in their ability to learn novel words and acquire a vocabulary (Houston et al., 2012). To address this possibility, my colleagues and I have recently begun investigating specific aspects of parent-child interactions important for word learning.

In this talk, I will present findings on: (1) Effects of parents' object-related utterances on children's attention to objects; (2) synchrony of parents' object labeling and children's attention to objects; and (3) use of gaze and hand following for coordinated attention to objects. In each of these studies, dyads of hearing parents and D/HH children were compared to dyads of hearing parents and normal-hearing children matched by age or matched by amount of hearing experience. Details of parent-child interactions were obtained during free-play interactions in which both the caregiver and child were fit with head-mounted cameras and eye trackers so that first-person details of gaze and manual activities could be obtained.

Our early findings raise the possibility that D/HH children's difficulties learning novel words may be due in part to variability in synchrony between parent object labeling and children's attention to objects. The final part of my talk will focus on current plans to investigate the underlying mechanisms that may affect labeling synchrony and, in turn, D/HH children's vocabulary development.

Biography

Derek M. Houston, PhD, joined the Department of Otolaryngology-Head and Neck Surgery at The Ohio State University College of Medicine July 2015. He received his doctorate in psychology from Johns Hopkins University in 2000. His graduate training research focused on how normal hearing, typically developing infants segment words from fluent speech and recognize words across different talkers. After graduating, he moved to Indiana University School of Medicine and constructed the world's first laboratory to investigate the speech perception and language skills of deaf infants who receive cochlear implants. Since then, his work has investigated the effects of early auditory deprivation and subsequent cochlear implantation on speech discrimination, attention to speech, sensitivity to language-specific properties of speech, word learning, and general cognitive skills in deaf infants and toddlers. His research in Columbus, OH represents a collaborative effort between OSU and Nationwide Children's Hospital. His work is currently funded by the National Institute on Deafness and Other Communication Disorders.