

Developing prosody in typical and atypical language acquisition

Sónia Frota

School of Arts and Humanities and Center of Linguistics, University of Lisbon

Infants' early sensitivity to the prosodic properties of speech is well documented, and has supported the view that infants are equipped with an input processing mechanism initially tuned to prosodic information. In addition, prosody has been suggested to bootstrap the learning of language. Although the precocious sensitivity to prosody and its potential to facilitate language acquisition seem quite general, recent research has suggested that the early development of prosody appears to be crucially shaped by language experience. Moreover, if infants' perception of prosody is guided by language experience, it is fundamental to determine which and how prosodic patterns/cues are attended to early on in development, and may thus provide useful information to scaffold language learning. Typically and atypically developing infants may vary in their language experience, and it is largely unknown whether the early development of prosody differs in these populations. Crucially, the potential of prosody to facilitate language learning in atypical development is still to be determined.

Infants may utilize the prosodic property of stress to begin developing the ability to segment the speech signal into words and phrases, and for word categorization. Intonation patterns, in turn, usually convey phrase level meanings, while also contributing to speech chunking by signaling prosodic boundaries. I will present findings from a series of speech perception and word segmentation experiments using eye gaze paradigms, focusing on the perception of stress and pitch patterns. The speech perception and word segmentation abilities of monolingual European Portuguese-learning infants with no known risk for language impairments (the typically developing group, TD) are examined and compared to those of infants and toddlers at-risk for language impairments (namely, preterm birth and familial risk for autism or language disorder, the AR group), as well as to infants and toddlers with Down Syndrome (the DS group). The results suggest different developmental paths for early word segmentation across groups. The relation between the perception of stress and pitch patterns, and emerging word segmentation abilities is explored to further our understanding of the role of prosody in typical and atypical language acquisition, with clinical implications for remediation and intervention strategies.