

Exploring the relationship between early speech perception and language and social-communicative development in infants at risk for Autism Spectrum Disorder

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Evolutionary and epigenetically-based biases for language include a preference for speech, infant-directed speech (IDS), and the ability to process rhythmical patterns in speech. We argue that these preferences help to support social-communication and linguistic development. Indeed it has been found that children diagnosed with Autism Spectrum Disorder (ASD) process speech differently than non-speech sounds, don't show a preference for IDS, and individuals with autism often display disordered use of rhythmical information. In this talk, I will present results from our longitudinal study exploring whether infants at risk for ASD (because they have an older sibling with ASD (SIBS-A)) demonstrate differential early preferences for speech, IDS, and native language rhythm compared to infant siblings of typically developing children (SIBS-TD). I will also discuss the extent to which these preferences relate to language and social-communicative development. So far we have found that infants at heightened risk of ASD are not on par with their typically developing peers in their preferences for speech and rhythm, and this may underlie deficits in later language and social development. Thus, differential speech processing may have cascading consequences for social and linguistic development and lead to a divergent developmental trajectory in children at risk of developing ASD.