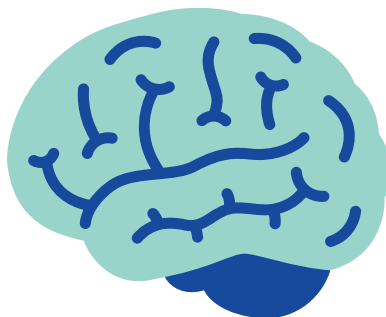
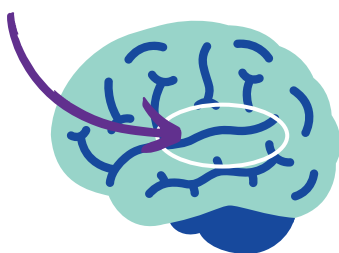


# Brain Anatomy and Early Language



## Adult Speech

Another study showed that infants who experienced more adult words at home had greater surface area of the left perisylvian cortex, an area of the brain associated with language production and comprehension.<sup>3</sup>

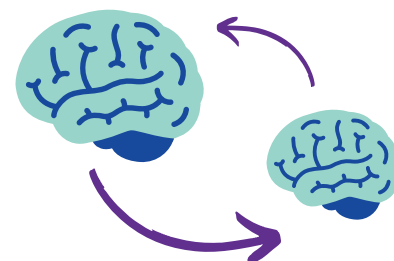


## Conversational Turns

Studies show that Infants that have more back-and-forths with their parents when talking and playing tend to have more white matter connecting two areas in the brain that are key for learning language.<sup>1</sup>

## Brain Waves During Playtime

Parents' and infants' brain waves synchronize during playtime. When infants engaged in this joint play, both infant and parent neural activity were influenced by each other, and this influence results in longer sustained attention for the infant which helps in developing more language and social communication.<sup>2</sup>



1. LENA Team. (2018, August 13). First paper published linking conversational turns with brain structure. LENA. Retrieved June 9, 2022, from <https://www.lena.org/conversational-turns-and-brain-structure/>

2. Whitehorn, M. (2019, September 17). Infant and parent brainwaves synchronize during playtime. LENA. Retrieved June 9, 2022, from <https://www.lena.org/conversational-turns-and-brain-structure/>

3. LENA Team. (2019, September 10). New research strengthens link between adult-child conversation and brain structure, reading skills. LENA. Retrieved June 9, 2022, from <https://www.lena.org/conversational-turns-brain-structure-reading-skills/>