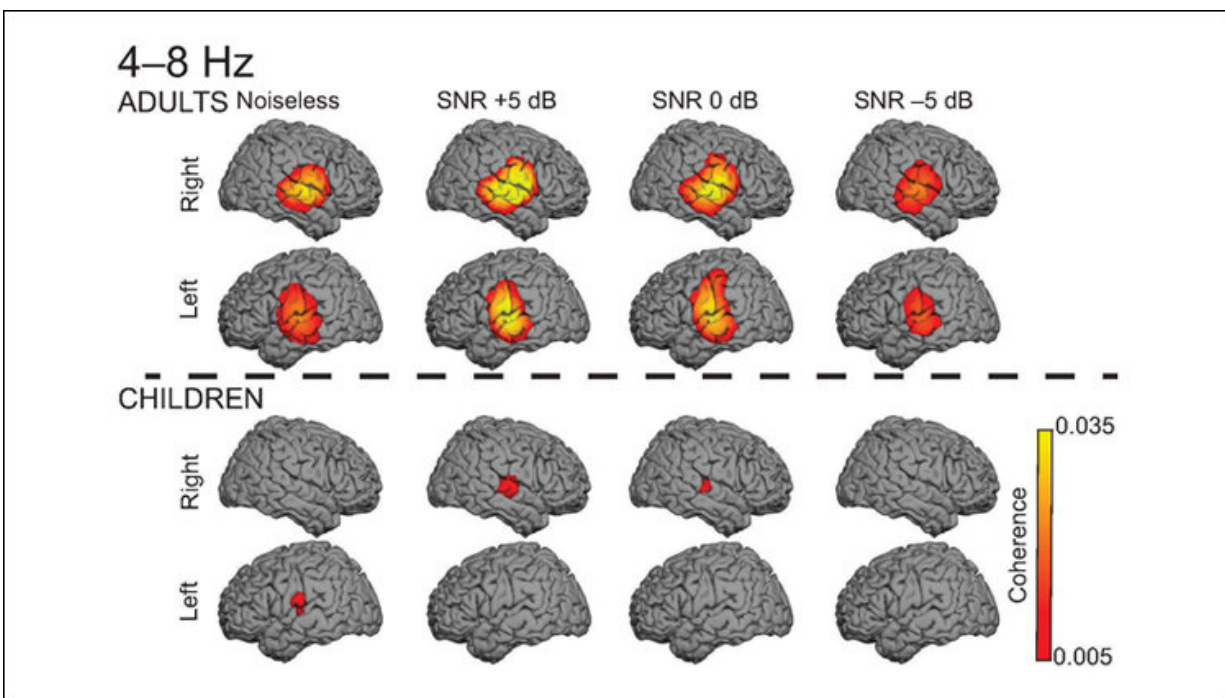


Why children struggle with the 'cocktail party effect'

February 11 2019



Cortical tracking of the attended speech 4-8 Hz. One source distribution is displayed for each possible combination of age group (adults, top panel; children, bottom panel) and SNR condition (from left to right, Noiseless, +5 dB, 0 dB, and -5 dB). Credit: Ghinst et al., *JNeurosci* (2019)

Researchers have clarified the development of the ability to attend to a speaker in a noisy environment—a phenomenon known as the "cocktail party effect." Published in *JNeurosci*, the study could have implications

for helping children navigate the often-noisy surroundings in which they grow and learn.

Marc Vander Ghinst and colleagues used magnetoencephalography to measure six- to nine-year-old [children](#) and adults' brain activity while listening to a recorded storyteller mixed with background conversations. The researchers found that, compared to adults, children's brains struggled to focus on the intended speaker's voice with increasing background noise levels. Children's brains also had trouble following the syllable rate regardless of the amount of background noise.

The results imply that these abilities are still developing in late childhood and may not fully mature until the [teenage years](#). They also help to explain why children have difficulty understanding speech in noisy backgrounds.

More information: Cortical tracking of speech-in-noise develops from childhood to adulthood, *JNeurosci* (2019). [DOI: 10.1523/JNEUROSCI.1732-18.2019](#)

Provided by Society for Neuroscience

Citation: Why children struggle with the 'cocktail party effect' (2019, February 11) retrieved 29 April 2024 from <https://medicalxpress.com/news/2019-02-children-struggle-cocktail-party-effect.html>

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