Auditory processing in noise in children: relationship with reading and hearing abilities

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Perceiving speech in noise (SIN) is a complex task that requires listeners to focus on the relevant signal and ignore the interfering noise. Recent studies suggest that a normal audiogram does not guarantee robust processing of speech in noise. This is particularly true in children, whose abilities to perceive speech in noisy backgrounds develops over the years. Some clinical population are even at higher risk of experiencing SIN perception difficulties. In this talk, I will first summarize the results of my PhD regarding the respective contribution of peripheral and central factors to SIN perception abilities in dyslexic children. Then, I will present an electrophysiological study aimed at investigating the role of central masking release on subcortical encoding of complex sounds in noisy backgrounds in healthy adults. Last, I will introduce my current research project regarding the mechanisms underlying speech perception in noise and language development in children with mild to moderate hearing impairment. Comments are welcome as this project is still at an early stage!