

Demystifying adaptation to hearing aids

Age-related hearing loss develops gradually, and the brain adapts to it over time. When we eventually decide to wear hearing aids (HAs), we must adjust to significant sound changes. Besides being a source of great joy in life, memories play a crucial role in perception: when a situation is similar to one we have experienced before, memory can help us predict what may happen next. This predictive mechanism ensures safety, allowing us to quickly assess whether a sound implies danger. However, this predictive mechanism can present a problem for new HA wearers, since HAs change the environmental sounds. When predictions do not fit anymore, this creates feelings of surprise and an urge to resolve the 'prediction error'. A HA wearer's ability to cope with prediction errors, known as 'predictive flexibility,' is likely a key indicator of HA acceptance. Here, we discuss the results from a recent collaboration where a method for measuring predictive flexibility was developed. The implications for understanding the role of predictive flexibility in performance with and acceptance of hearing aids, will be discussed.