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**Object-related negativity indexes perception of sounds beyond the
echo threshold**

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The ability to isolate a single sound source among concurrent sources and reverberant energy is crucial for understanding the auditory world. The precedence effect describes an experimental finding that when listeners are presented with identical sounds from two locations with a short onset asynchrony, they report hearing a single source with a location dominated by the lead sound. We recently showed that event-related potentials (ERPs) elicited by click pairs differ for trials on which listeners do and do not report hearing the lag sound as a separate source. Specifically, when participants report hearing two sounds, we observe a negativity between 100 and 250 ms, previously termed the object-related negativity (ORN). These results indicate that the precedence effect reflects top-down cognitive influence over early neurosensory processing. Additionally, the study provides support for the claim that the ORN, initially reported for sounds perceived as two concurrent pitches, indexes auditory object perception. The effects on the ORN of repeating identical click pairs, a condition that has previously been shown to increase echo thresholds, will also be discussed in the context of listeners forming complex models of room acoustics based on what they hear in a specific setting.