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What If We Could Predict Language Abilities in Children?

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The brain's electrical response to sound can be captured as a waveform called an auditory evoked potential (AEP). Much like language development, this waveform matures as we age. A new index, called *AEP-Age*, has shown success in predicting "auditory brain age" of school-age children. Children are asked to sit silently for 5 minutes and listen to multiple short beeps, during which time their brain's electrical response to sound (i.e., AEPs) is being recorded. AEP-Age is assigned by comparing one child's waveform to the averaged waveform of different age-groups. It was recently discovered that AEP-Age can predict language skills in school-age children. The first three years of life are a particularly intense period of language development; therefore, I plan to examine this relationship in children 1-4 years old. We hope to determine whether AEP-Age could predict risk of atypical language development when (or even before) children are late to talk.