

## Discriminating native sounds: language-specific brain responses in infants

Most adults find it difficult to hear the differences among sounds that do not occur in their own language. How do children learn to perceive the sounds of their native language more easily than the sounds of a foreign one? A study by Marie Cheour and colleagues (on page 351) reports the first neural correlate of this learning in infants. The authors examined mismatch negativity (measured by scalp electrodes, see photo), which is an electrical signal produced in response to an unexpected auditory stimulus in a series of repeating stimuli (in this case, the vowel /e/). Six-month-old Finnish infants had a slightly smaller mismatch negativity response to the Finnish vowel /*Ö*/ (which also occurs in Estonian) than to the uniquely Estonian vowel /*Õ*/. By one year, the same Finnish infants responded much more strongly to the vowel from their native language, whereas Estonian children of the same age perceived both sounds equally well. This study shows that language-specific memory traces in the human brain emerge between six months and one year of age.



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