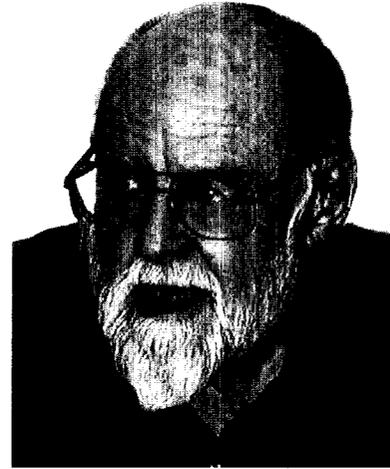


Editorial

Dichotic Listening



In the four decades since the pioneering work of Brenda Milner and Doreen Kimura at the Montreal Neurological Institute, the dichotic listening paradigm has become a valuable tool in a variety of clinical applications. But there has been a persistent question: What is the best way to evaluate the scores from the two ears if you want to differentiate normal from abnormal function, especially in children? Some have suggested that the difference between scores for the two ears is the important factor, whereas others have factored into the equation the scores from both ears.

In this issue of *JAAA*, authors Deborah Moncrieff and Frank Musiek of the University of Connecticut present data suggesting that, at least among digits, consonant-vowel syllables, and words, the best choice may be neither of the above but simply the absolute performance on the left ear. They compared results of three commercially available dichotic measures, the Dichotic Digits test, the Dichotic Consonant-Vowel test, and the Competing Words subtest of the SCAN, on two groups of 11-year-old children, 10 dyslexic children and 10 age-matched controls. On the assumption that an auditory processing disorder may be present in at least some dyslexic children, they asked what method of scoring best separated the two groups. Moncrieff and Musiek found that the dyslexic group was best differentiated by focusing solely on

left-ear performance. In their words, “When performance was evaluated under the recommended standard scoring conditions that combine performance in the two ears, important information about the left ear’s reduced performance relative to the performance in the right ear was lost....”

On the Competing Words subtest of the SCAN, for example, a criterion of a standard score less than 7 identified two dyslexics as abnormal and misidentified one control child as abnormal. But a criterion of a left-ear score less than 76 percent identified seven dyslexics as abnormal without misidentifying any of the control children. A measure closely related to the absolute left-ear score is, of course, the difference between scores for the two ears. Using a criterion of a right-left difference greater than 10 percent identified the same seven dyslexics (because of poorer left-ear performance) but misidentified one control child.

There is a rich literature on the dichotic listening paradigm, including arguments for a wide variety of scoring methods, but most of these methods are based on typically developing young adults. The study of children, and especially children with a variety of disorders, may yield different answers.

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