

Deficits in auditory temporal and spectral resolution in language-impaired children

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"Between 3 and 6 percent of children who are otherwise unimpaired have extreme difficulties producing and understanding spoken language. This disorder is typically labeled specific language impairment. Children diagnosed with specific language impairment often have accompanying reading difficulties (dyslexia), but not all children with reading difficulties have specific language impairment.

Some researchers claim that language impairment arises from failures specific to language or cognitive processing. Others hold that language impairment results from a more elemental problem that makes affected children unable to hear the acoustic distinctions among successive brief sounds in speech.

Here we report the results of psycho-physical tests employing simple tones and noises showing that children with specific language impairment have severe auditory perceptual deficits for brief but not long tones in particular sound contexts. Our data support the view that language difficulties result from problems in auditory perception, and provide further information about the nature of these perceptual problems that should contribute to improving the diagnosis and treatment of language impairment and related disorders."