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Cross-spectral integration of speech patterns by normal and impaired listeners

Eric Healy

University of South Carolina, Speech Psychoacoustics Laboratory, Department of Communication Sciences and Disorders, William Brice Bldg., 1621 Greene St., Columbia, SC 29208, USA

According to the current session description, "Recent evidence suggests that speech recognition depends importantly on the ability to integrate information across the frequency spectrum, which is not accounted for by the sensitivity (information content) of the respective spectral regions." Indeed, temporal speech patterns that yield near zero intelligibility when presented individually can provide intelligibility in excess of 80% when presented in pairs. These and other recent data involving the integration of speech patterns across the spectrum by the normal auditory system will be described. In addition, "speech-recognition data supporting the existence of a cross-spectral integration deficit in hearing-impaired patients" will be discussed and contrasted against similar experiments involving non-speech stimuli.