"Phonetic Coherence in Children’s Speech Perception"

Abstract: The term phonetic coherence refers to the phenomenon in which the separate spectral elements of acoustic speech signals coalesce so strongly in perception that judgments about their auditory qualities cannot be rendered. This sort of coherence is known to be stronger and less susceptible to disruption in children's speech perception than in the perception of adults. In this presentation, research exploring potential explanations for this age-related difference is reviewed. It will be demonstrated that explanations based strictly on auditory processes – those largely fitting under the rubric of auditory scene analysis – are able to be dismissed. Rather, children appear to implement this obligatory spectral coherence only when the signal is recognized as arising from a human speaker. Finally, the possibility is presented and supported that developmental deficits in abilities to perceptually organize speech signals in this way might contribute to some childhood language problems, including dyslexia.