ACOUSTICS2008/1137
Maintainance vs. 'loss' of the perceptual bias favoring Natural Reference Vowels

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Previous infant vowel discrimination studies (Polka & Bohn, 2003) have shown that babies are perceptually biased to favor vowels with more extreme articulations such that a change from a more peripheral vowel ("Natural Reference Vowel" - NRV) to a vowel located more centrally in the vowel space is less discriminable than a change presented in the reverse direction. Recent studies of adult vowel perception suggest that the universal bias favoring NRVs is maintained in the absence of specific language experience and but "lost" if native or nonnative language experience causes a reset of the perceptual default favoring NRVs. This presentation reports on vowel discrimination experiments which examined whether absence or presence of specific vowel experience is related to maintenance or loss of this perceptual bias in Danish infants (age 6-12 months). For two Danish vowel contrasts, asymmetries were observed for younger infants, but not for infants older than 10 months. For an English vowel contrast that does not exist in Danish, the asymmetry was maintained in infants up to 12 months and in adult Danish listeners. Results confirm the assumption that the perceptual bias favoring NRVs is maintained throughout the lifespan unless specific vowel experience causes on override. [Work supported by the Danish Research Council for the Humanities.]