

ACOUSTICS2008/2397
Discrimination of Mandarin tone 1 vs. tone 4 in disyllables by
adult speakers of English

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Previous research on cross-language perception of lexical tone has mainly used monosyllabic stimuli; however disyllables may be more difficult for non-natives to discriminate due to coarticulation and context effects (Berkowitz & Strange, 2007). Preliminary work suggests that there is an effect of context on discrimination of tone 1 vs. 4, despite the fact that this is usually considered an easy contrast when tested with monosyllabic stimuli. Disyllabic Mandarin nonsense words served as stimuli in a categorial same/different task. Pairings of tone 1 and tone 4 in initial and final position were tested in the context of all four tones. American English listeners with no background in tone languages completed the experiment without feedback. Data was scored with A' and was analyzed for effect of tone, initial vs. final position in the disyllable, and height and contour of the fundamental frequency. The results of this paradigm will be used to design a study of tone perception in preschool groups who speak Mandarin as their L1, English as their L1, and internationally adopted children who were previously exposed to Mandarin.