

Tone discrimination in Cantonese-speaking children
using a cochlear implant.

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Abstract

Most tone perception tests for Cantonese-speaking cochlear implant users have been based on tone identification tasks which require significant cognitive development to be successfully completed. Results from such tests suggest that cochlear implant child users are performing at about chance level and may not be receiving much information about pitch using the implant. This paper reports on the ability of cochlear implant child users to discriminate pitch variations in Cantonese by using an experimental procedure based on play audiometry. As part of the study, the usefulness of higher rates of electrode stimulation for aiding tone discrimination is also examined. Cochlear implant users are shown to derive sufficient information about pitch to discriminate most tone contrasts relatively successfully, with performance being most variable for contrasts involving tones clustered in the lower register of the speaker's fundamental frequency range. Contrary to hypothesis, higher electrode stimulation rates are not found to offer significant benefits for aiding pitch discrimination.