

DIFFERENTIATION IN TONE PRODUCTION IN CANTONESE-SPEAKING HEARING-IMPAIRED CHILDREN

Johanna Barry, Peter Blamey,

CRC, The University of Melbourne

and

Kathy Lee, Dilys Cheung,

Prince of Wales Hospital Shatin, Hong Kong

Division of Otorhinolaryngology, Department of Surgery,

Chinese University of Hong Kong, Prince of Wales Hospital,

Shatin, Hong Kong

Abstract

This paper reports on a pilot study investigating the process of tone differentiation and development in hearing-impaired children who have received a 22-electrode cochlear implant. The hypothesis to be tested is that subsequent to receiving an implant, children will begin to acquire a tonal inventory and will acquire a full tonal inventory more rapidly than they acquire a full vowel inventory. Through an acoustic analysis of tone productions high level T1, high rising T2, and low falling T4 for three Cantonese-speaking children, it is shown that tones are primarily differentiated on the basis of pitch level. The two children who acquire specific tones in the time frame of the study acquire them in the order, level tone (T1) before high-rising tone (T2). None of the children acquired low falling T4 in the time frame of the study. Overall the rate of acquisition of the tonal inventory is slower than would be expected for normal hearing children and also slower than the rate of development of the vowel inventory.