

ACOUSTICS2008/1355
Speech segmentation in monolingual and bilingual infant learners
of Canadian English and Canadian French

Linda Polka^a, Jennifer Proulx^a and Megha Sundara^b

^aMcGill University, School of Communication Sciences and Disorders, Beatty Hall, 1266 Pine Avenue West,
Montreal, QC, Canada H3G 1A8

^bUCLA Department of Linguistics, 3125 Campbell Hall, Los Angeles, CA 90095-1543, USA

Speech segmentation skills emerging in infancy are influenced by the infant's native language. English infants favor a stress-based strategy (Jusczyk et al., 1999) whereas French infants favor a syllable-based strategy (Nazzi et al., 2006). Cross-linguistic findings from our lab, based on between group comparisons, show that monolingual 8-month-olds learning either Canadian English or Canadian French segment bisyllabic words in their native language but not in a rhythmically-different non-native language. Canadian French infants fail to segment Canadian English; Canadian English infants fail to segment Canadian French. Bilingual infants (exposed to both languages) were tested in each language on separate days. Although they appear to segment in both languages, attrition has high in the second test session. To assess cross-language segmentation more directly we tested monolingual and bilingual 8-month-olds using a task designed to assess segmentation in both languages in the same infant within a single test session. Findings confirm that monolingual 8-month-olds fail to segment bisyllabic words in a rhythmically-different non-native language. Preliminary data show that bilingual 8-month-olds segment only in the language that is favored in their language input. Thus, in early stages of speech processing all infants appear to develop speech segmentation strategies that are optimal for one language.