ACOUSTICS2008/1104 Differences in the development of speech segmentation abilities in two French dialects

Thierry Nazzi^a, Karima Mersad^a, Galina Iakimova^a, Megha Sundara^b and Linda Polka^c ^aCNRS - Université Paris Descartes, 45 rue des Saints-Pères, 75006 Paris, France ^bUCLA Department of Linguistics, 3125 Campbell Hall, Los Angeles, CA 90095-1543, USA ^cMcGill University, School of Communication Sciences and Disorders, Beatty Hall, 1266 Pine Avenue West, Montreal, QC, Canada H3G 1A8

Speech segmentation skills develop in infancy and are influenced by many phonological properties of the native language and, in particular, the prosodic structure of the infant's native language. Studies using the HPP task show that American English infants appear to favor a stress-based procedure (Jusczyk et al., 1999) whereas Parisian French infants favor a syllable-based procedure (Nazzi et al., 2006), in line with a prosodic-based bootstrapping account of segmentation abilities (Nazzi et al., 1998). However, in a study using different stimuli, Polka and Sundara (2003) found results that might suggest a developmental trajectory for Canadian French infants that does not rely on syllable-based segmentation. Given that the stimuli used in both studies on French were different, both research teams tested their infant populations (at 8, 12 and 16 months of age) with the stimuli originally used by the other team The results suggest a complex interaction between specific stimuli and infants' native dialect, thus providing for the first time data suggesting that word segmentation is dialect specific. We will discuss how these findings, together with acoustic analyses, show that early word segmentation is influenced by linguistic (rhythmic/syllabic, dialectal) prosodic cues, extra-linguistic (speech style) prosodic cues, and distributional cues.