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**Cognitive control skills and speech perception after short-term
second language experience during infancy**

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Previous research has linked increasing cognitive abilities to reductions in sensitivity to nonnative phonemes toward the end of the first year, but found no association between cognitive skills and native speech perception (Conboy et al., 2006; Lalonde & Werker, 1995). The present study examined cognitive abilities and brain activity to second-language (L2) phoneme contrasts in infants who had short-term experience with the L2: we predicted better cognitive skills in infants with better discrimination of the L2 contrast. Seventeen infants from monolingual English homes completed event-related potential (ERP) speech perception testing and nonlinguistic tasks requiring attentional flexibility, memory, and inhibitory control at 11 months, after twelve Spanish play sessions from 9.5 - 10.5 months. An ERP oddball paradigm assessed discrimination of English and Spanish contrasts (English: voiced /da/ vs. voiceless-aspirated [tha]; Spanish: prevoiced /da/ vs. voiceless-unaspirated /ta/). Infants showed broad mismatch negativity (MMN) discriminatory responses to both contrasts. Larger Spanish MMN amplitudes were linked to better performance on cognitive tasks (detour-reaching object-retrieval and the A not B task) (Fisher's exact test, $p=.01$), suggesting a role for specific cognitive abilities in the early stages of phonetic learning. There was no association between English MMN amplitudes and cognitive skills.