Abstract:
Perception of speech-in-noise for L2 learners and heritage speakers in both L1 and L2

This study asks whether speech recognition by bilingual listeners in each of their two languages follow complementary or supplementary patterns. Previous studies showed that early bilinguals are disproportionately affected by adverse listening conditions in L2 (Mayo et al., 1997; Shi et al, 2010; Bradlow & Alexander, 2007), but did not measure performance in L1. The current study extends these results using bilingual performance under adverse listening conditions in both languages to determine whether reduced use of the dominant language by relatively well-balanced bilinguals affects performance in L1 as well as L2. We examine two groups of English-Spanish bilinguals: Spanish learners (SL) and Spanish heritage speakers (SHS). Although both English dominant, crucial differences between these groups are L1 (SL=English, SHS=Spanish) and L1-L2 balance (SL=large imbalance, SHS=relatively balanced). Both groups were presented with sentences in English and Spanish in which final keywords varied on three factors: speech style (clear versus plain/conversational), contextual predictability (high versus low), and signal-to-noise ratio (easier versus harder). Results show SHS do not pattern like monolinguals in either language, yet average performance across both languages is higher than SL. This result suggests the overall system SHS maintain is “larger” than SL, but may be more susceptible to noise.