**Effect of withholding acoustic cues to English-Spanish codeswitching in Wh-questions**

The state of activation of each language of a bilingual person will change depending on the other part of the communication, and this change of behavior can affect both language production and language perception (Grosjean, 2013; Beardsmore, 1986). Code-switching is the linguistic phenomenon when more than one language is used in one utterance, which can serve as a scope to look into language mode. Studies showed that there can be an additional cognitive cost for bilinguals in a code-switching context (Grainger & Beauvillain, 1987; Soares & Grosjean, 1984; Olson ,2017). Shen et al. (2020) showed that in English-Chinese (an intonational-tonal language pair) code-switching tonal cues can help mitigate switch cost. The present study will be in line with Shen et al. (2020) study, examining the role of acoustic cues in auditory recognition of English-Spanish CS utterances, expanding the results from a study is an intonational-tonal pair (Shen et al., 2020) to an intonational-intonational pair (English-Spanish). The present study also added one more step in the experiment to furtherly discuss whether acoustic cues help mitigate the higher cognitive cost in code-switching context by providing anticipatory information. Also we created more conditions of spliced stimuli, including spliced stimuli with manipulated F0 contour, which separate the suprasegmental properties (intonation) from the rest of the acoustic cues, therefore we are able to also look into how do segmental and suprasegmental levels of acoustics work in Code-switching context.

This study is currently at the stage of data collection. The results from preliminary and pilot data showed that, participants who achieved a higher proficiency level showed a shorter reaction time. Among the three CS conditions­, the participants showed the shortest RT in naturally produced stimuli, followed by the controlled F0 condition as the intonational information is preserved in the sentences, and the longest RT was the simply spliced one, for its lack of any acoustic cue. These results were in line with the results reported in former studies (Piccinini & Garellek, 2014; Shen et al., 2020), that both segmental and suprasegmental properties of the matrix language provide the listeners with cues to switch language, and the two levels of properties work in a collaborative manner.

I wish my submission to be considered for both categories of presentation as a paper or a poster.

**Keywords**: Code-switching, Language mode, Bilingualism, Intonation, Suprasegmental

**Examples and visualization of the two types of splicing**

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**References**

Beardsmore, H.B. (1986). *Bilingualism: Basic principles* (Vol.1), England: Multilingual Matters.

Gertken, L. M., Amengual, M., & Birdsong, D. (2014). Assessing language dominance with the bilingual language profile. *Measuring L2 proficiency: Perspectives from SLA*, *208*, 225.

Grainger, J., & Beauvillain, C. (1987). Language blocking and lexical access in bilinguals. *The Quarterly Journal of Experimental Psychology Section A, 39*(2), 295-319.

Olson, D. J. (2017). Bilingual language switching costs in auditory comprehension. *Language, Cognition and Neuroscience, 32*(4), 494-513.

Piccinini, P. E., & Garellek, M. (2014). Prosodic cues to monolingual versus code-switching sentences in English and Spanish. In *Proceedings of the 7th Speech Prosody Conference* (pp. 885-889).

Shen, A., Gahl, S., & Johnson, K. (2020). Didn't hear that coming: Effects of withholding phonetic cues to code-switching. *Bilingualism: Language and Cognition*, *23*(5), 1020-1031.

Soares, C., & Grosjean, F. (1984). Bilinguals in a monolingual and a bilingual speech mode: The effect on lexical access. *Memory & cognition, 12*(4), 380-386.