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VOT Analysis of L1 and L2 Speakers of Itza'

This study (carried out for an MA Thesis paper, to be submitted this summer) explores Voice Onset Time of ejectives as a potential environment for variation between native speakers and long-time learners (2+ years) of Itza' Mayan. The research question to be answered is whether L1 and L2 speakers of Itza' have measurably different pronunciations of ejective sounds, seeing as the language is endangered and the subject of recent revitalization efforts, which has created a sizeable number of L2 learners.

Itza' is a member of the Yucatecan branch of the Mayan family spoken in the Petén, Guatemala. The language is severely endangered, with 2019 census data reporting just 410 speakers, although more recent estimates suggest as low as 50 (P. Mateo Pedro 2023, pers. comm., January 24, 2023). Due to the language's critical status, efforts at revitalization have ramped up in recent years, culminating in the launch of a program this Fall to establish and support two language schools in the town of San José. Early reports show significant interest in these schools, and Dr. Pedro Mateo Pedro (University of Toronto) is currently working to develop a pedagogical grammar of the language to use as part of the developing curriculum.

A large influx of new learners can provide us with insights into the language learning process, and a particular point of interest is the language's ejective sounds. Insights from other languages such as SENĆOŦEN (Bird 2020) and Q'eqchi' (Wagner & Baker-Smemoe 2013) suggest that L2 pronunciation of ejectives being subject to influence from a given speaker's L1 is plausible, specifically with regards to VOT.

Research shows that learning a language from a small speaker sample is more difficult due to a lack of varied input (Lev-Ahri 2018), a fact that is surely relevant for a language for which the speaker count could be as low as double digits. New speakers are generally Spanish L1s, and therefore, they are coming from a language without the ejective class of sounds. Ejectives are also often seen as a mark of identity for speakers of languages who have them (Bird 2020), which can influence pronunciation.

The instrument developed to conduct this research includes a selection of Itza' words with initial ejectives taken from Charles A. Hofling and Felix Fernando Tesucún's Itza'-Spanish-English dictionary. For each initial ejective (p', t', k', ts', tʃ'), a handful of words were selected with two following vowel heights (low and high), to account for possible effects of following vowel height on VOT. Nouns and adjectives were selected for ease of elicitation. Participants will be recruited from 2 groups; native Itza' speakers and L2 learners who have been learning for at least 2 years. Analysis and extraction will be done with Praat.

The results of this research represent one small part of a larger question surrounding the nature of Itza' L2 acquisition in this context of ongoing revitalization programs. Predictions from similar studies on SENĆOŦEN and Q'eqchi' would suggest that if Itza' traditionally has 'weak' ejectives with shorter VOT, learners are more likely to have higher VOT (a characteristic of the more perceptually salient 'strong' ejectives) than native speakers, while if the ejectives are already 'strong', the differences will be minimized. Comparing VOT of L1 and L2 speakers will give us insights into one way that the two groups may differ. Whether the L1 and L2 speakers differ significantly in ejective VOT or not, this information will support Itza' language educators and provide them with information on the production ability of newer speakers.