

# The prosodic realization of Spanish loanwords in Yucatec Maya

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This study investigates the prosody of Spanish loanwords in Yucatec Maya arguing in favor of the equivalency of phonologically rooted adaptation processes and perceptually motivated adaptation processes.

Yucatec Maya (YM) is generally considered to be a tone language with two lexical tones (high and low, Gussenhoven and Teeuw 2008). The language has four generally acknowledged syllable types: short, long low, long high, glottalized (cf. Gussenhoven and Teeuw 2008; Pfeiler 1997). According to Gussenhoven and Teeuw (2008: 50), “there are no reliable statements of word stress in the language”. Concerning post-lexical intonation, Verhoeven and Skopeteas (2015) argue that YM is a so-called edge language in which the left edge of the Intonation Phrase (IP) is generally marked by means of a high tone. As concerns YM sentence prosody, this analysis is descriptively in line with Gussenhoven and Teeuw (2008) who argue that (i) IP-initial syllables may be high in YM and (ii) non-initial lexical high tones are regularly downstepped in one and the same downstep domain.

In YM, Spanish loans may be pronounced with their Spanish stress pattern (oxytone, paroxytone or proparoxytone depending on the lexical entry), but they may also be subject to stress shift to the left (Kidder 2013). Frazier (2012) shows (i) that Spanish stress tends to be replaced by low tone in YM, and (ii) that a high tone tends to occur two syllables before the low tone which replaces the lexically stressed syllable in the loanword. However, neither Frazier (2012) nor Kidder (2013) takes into account any possible influence of YM sentence prosody at the IP-level.

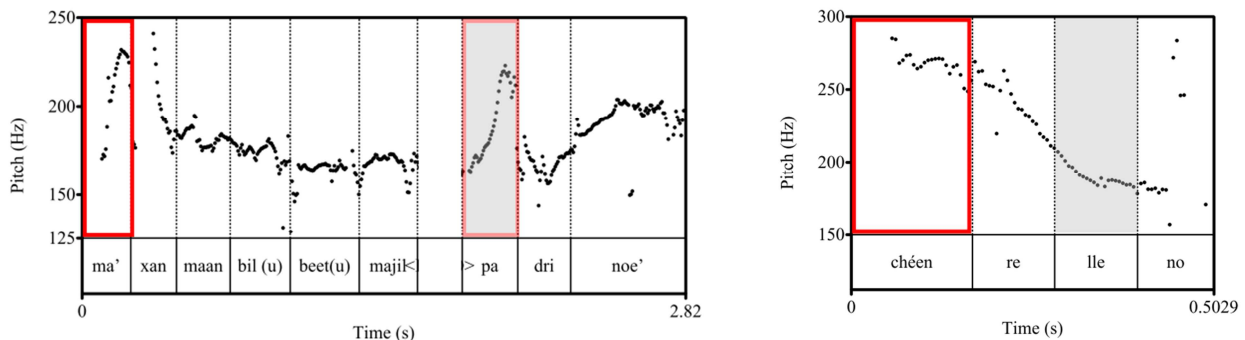
Our prosodic analysis of 100 2-4-syllabic oxytone and paroxytone Spanish loanwords from a spontaneous speech corpus (cf. Table 1) suggests that the IP-level is crucial for the exact prosodic realization of these lexical items. Most importantly, the comparison of IP-initial loanwords with loanwords in non-initial IP-position reveals that 17/20 (85%) of the IP-initial Spanish loans are realized with word-initial prosodic prominence (e.g. YM ['pa:.dri.no.e] < span. [pa.'dri.no]), accompanied by a left high tone (Figure 1a.). By contrast, among the loanwords which are placed in IP-medial or -final position, the number of stress shifts/word-initial prosodic prominences reduces to 37/80 (46%). The IP-medial/final loanwords mostly display the Spanish stress pattern (e.g. [re'jeno]), and in this position, the lexically stressed syllable is indeed often aligned with a low tone and preceded by an (IP-initial) left high tone, corresponding to Frazier's (2012) generalization (Figure 1b.).

At first sight, the data seems to provide unequivocal evidence in favour of the phonological view on loanword adaptation, since the idiosyncratic stress shifts seem to be due to prosodic restrictions which are determined by the grammar of YM. However, if we part from the assumption that the perception process itself is generally influenced by phonological restrictions, as argued for by e.g. Hamann & Li (2016) or Boersma & Hamann (2009), the particular patterns of stress assignment to Spanish loanwords might just as well be due to the (phonologically rooted) perceptual pre-conditions of the corresponding (recipient) language, i.e. YM in our case.

Stress pattern	Example	Number of tokens		Number of occurrences of stress shifts	
		IP-initial	Non-initial	IP-initial	Non-initial
2syllabic oxytone	per-DÓN	5	26	5/5 (100%)	11/26 (42%)
3syllabic paroxytone	tran-QUI-lo	8	41	5/8 (63%)	23/41 (56%)
3syllabic oxytone	a-vi-SAR	0	3	0 (0%)	0/3 (0%)
4syllabic paroxytone	vein-ti-CIN-co	4	8	4/4 (100%)	3/8 (38%)

4syllabic oxytone	au-to-ri-DAD	3	2	3/3 (100%)	0/2 (0%)
<b>Total</b>		<b>20</b>	<b>80</b>	<b>17/20 (85%)</b>	<b>37/80 (46%)</b>

**Table 1:** Stress patterns and number of stress shifts of Spanish loanwords in our corpus sample



(a.) [IP *ma' xan man-bil u beet-m-aj-il*] [IP *padrino-e*]  
'... what he didn't do was buying it, (my) godfather' (08fdv)

(b.) [IP *Chéen relleño*]  
'Only relleño' (11fc)

**Figure 1:** F0 contour and orthographic transcription of two YM utterances with Spanish loanwords: *padrino* in IP-initial position (a) and *relleño* in non-initial position (b)<sup>1</sup>

## References

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<sup>1</sup> In Figure 1, grey shading indicates prosodic prominence comparable to lexical stress, whereas red edging indicates left high tones.