VOWEL HARMONY IN SANTIAGO TZ'UTUJIL (MAYAN)

SUMMARY: We document a novel pattern of regressive vowel (V) height assimilation in Santiago Tz'utujil (ST; K'ichean Mayan) triggered by high Vs. The process is unique among other Mayan languages and dialects of Tz'utujil. We argue that its emergence was facilitated by an earlier diphthongization of long mid Vs in ST and subsequent triggering of V assimilation by diphthongs (*mid V: > diphthong; diphthong harmony trigger > generalized [+high] harmony trigger).

BACKGROUND: ST is a dialect of Tz'utujil spoken in Santiago Atitlán, Guatemala. Although grammars of other Tz'utujil dialects exist [1]-[2], ST phonology is not well-described. [1: 27-28] briefly observes that ST is unique among other Tz'utujil dialects in the diachronic development of diphthongs from some cases of long mid Vs (*e: > ie; *o: > uo). Other K'ichean languages have also innovated diphthongs [3] (Santa María Kaqchikel, San Luis Jilotepeque Poqomam and Santa Cruz Alta Verapaz Poqomchii'). Little is known about the synchronic status of these diphthongs, however. [1: 47-48] observes that they trigger V height assimilation on Vs in the preceding root:

(1) *V height assimilation triggered by diphthongs in ST*
/e/ → [i] / _ C [ie] /o/ → [u] / _ C [uo]

This V assimilation differs from other types described in Mayan [4-7] where no height assimilation is attested. Further, in most cases of V (dis-)assimilation in Mayan, these processes are limited to a handful of lexical items, while the V assimilation in ST is not reported to be similarly restricted.

NOVEL DATA: We report data collected between 2017-2020 with four ST consultants. We replicate (1) (as 2d and 3d below). Crucially, we document that high monophthongs also trigger a parallel regressive mid-to-high V change (2c and 3c), a novel process that is not described in [1]:

(2) *(Non-)participation in V height assimilation of mid front V*

no assimilation (no high V trigger)		*height assimilation (high V trigger)*	
a. /ʃ-Ø-ɢ**e**t-Vn-a/	b. /ʃ-Ø-ɢ**e**t-Vʃ-a/	c. /r-ɢ**e**t-ik/	d. /ʃ-Ø-Ø-ɢ**e**t-ieχ/
[ʃ-Ø-ɢ**e**t-en-a]	[ʃ-Ø-ɢ**e**t-eʃ-a]	[r-ɢ**i**t-ik]	[ʃ-Ø-Ø-ɢ**i**t-ieχ]
COM-A3S-hug-AP-SS	COM-A3S-hug-PASS-SS	E3S-hug-NMLZ	COM-A3S-E3S-hug-TR
'It hugged.'	'It was hugged.'	'its hugging'	'She hugged it.'

(3) *(Non-)participation in V height assimilation of mid back V*

a. /ʃ-Ø-p**o**r-Vn-a/	b. /ʃ-Ø-p**o**r-Vʃ-a/	c. /r-p**o**r-ik/	d. /ʃ-Ø-Ø-p**o**r-uoχ/
[ʃ-Ø-p**o**r-on-a]	[ʃ-Ø-p**o**r-oʃ-a]	[r-p**u**r-ik]	[ʃ-Ø-Ø-p**u**r-uoχ]
COM-A3S-burn-AP-SS	COM-A3S-burn-PASS-SS	E3S-burn-NMLZ	COM-A3S-E3S-burn-TR
'It burned.'	'It was burned.'	'its burning'	'She burned it.'

We argue that the assimilation in 2c-d and 3c-d is triggered by the same feature [+high] in both high diphthongs and high monophthongs. The assimilation is (i) regressive, (ii) targets mid Vs (never low Vs) and (iii) is blocked by uvular stops (data not shown here). Our documentation and analysis bring us closer to understanding the phonology of ST, as well as the nature of diphthongs across Mayan and the type of phonological innovations they might trigger.

REFERENCES: [1] Dayley, J. 1985. *Tzutujil grammar*. U. of California Press. **[2] García Ixmatá, A. P.** 1997. *Rukeemiik ja Tz'utujiil chii', Gramática Tz'utujiil.* Guatemala: Cholsamaj. [**3] England, N.** 2001. *Introducción a la gramática de los idiomas mayas*. Guatemala: Cholsamaj. **[4] Butler, L**. 2004. *Exceptional blocking of Yucatec Maya vowel harmony*. Proceedings of WIGL 3. **[5] England, N**. 1983. *A grammar of Mam, a Mayan language*. U of Texas Press. **[6] Polian, G.** 2013. *Gramática del Tseltal de Oxchuc*. Mexico, D.F.: Centro de Investigaciones y Estudios Superiores en Antropología Social. **[7] Edmonson, B.** 1988. *A descriptive grammar of Huastec (Potosino dialect)*. Tulane U. dissertation.