On the Metrical Structure of Spanish Language Games Félix Fonseca-Quesada Stony Brook University

Language games are common across different languages. In Spanish, some of these language games¹, like *Vesre*², involve reordering³ the syllables of a word. Some studies have accounted for a general description of their phonology (e.g., Conde, 2014; Sorbet, 2016), but to the best of my knowledge, no studies have investigated their stress patterns. I intend to account for the metrical structure of the playful words⁴ within Optimality Theory (Kager, 1999). The data from these Spanish language games provide evidence of the productive stress assignment patterns in Spanish which involve quantity-sensitive right-aligned trochees.

With bi-syllabic words, only one reordered form is possible: $[\sigma_1, \sigma_2] \gg [\sigma_2, \sigma_1]$; however, the position of the stressed syllable can change. If the word is composed of two light syllables ((1a)-(1b)), stress is assigned to the penultimate syllable regardless of the original stress pattern.

(1)	a.	'L.L	▶ 'L . L	Example:	['pe.ro]	▶ ['ro.pe]	'dog'
	b.	L.'L	→ 'L . L	Example:	[ka.'fe]	→ ['fe.ka]	'coffee'

When it comes to trisyllabic words, it becomes more complex as the number of possible reordered forms increases (2).

(2) $\begin{aligned}
d. [\sigma_1, \sigma_3, \sigma_2] \\
c. [\sigma_2, \sigma_1, \sigma_3] \\
[\sigma_1, \sigma_2, \sigma_3] = e. [\sigma_2, \sigma_3, \sigma_1] \\
b. [\sigma_3, \sigma_1, \sigma_2] \\
a. [\sigma_3, \sigma_2, \sigma_1]
\end{aligned}$

I have not been able to determine a principle that determines the new order of syllables, so for now we will say it is random. However, regarding the stress assignment, if all 3 syllables are L, the playful form of the word will assign stress to the penultimate syllable, regardless of the original stress location in the Spanish word.

(3)	'L . L . L	→ L . 'L . L	Example:	[ˈmu.si.ko]	\rightarrow	[ko.ˈsi.mu]	'musician'
	L.'L.L	→ L.'L.L	Example:	[ba.ˈra.to]	\rightarrow	[to.ˈra.βa]	'cheap'
	L.L.'L	→ L.'L.L	Example:	[bo.go.ˈta]		[ta.'β0.γ0]	'Bogota'

The data in (1) and (3) suggests a right-aligned trochaic pattern. We can account for this within the framework of Optimality Theory by using the familiar constraints Ft=Trochee and Align(PW,R,Ft,R).

(4)	[ka.'fe]	Ft=Trochee	Align	(5)	[bo.go.'ta]	Ft=Trochee	Align
	[(fe.'ka)]	*!			[('ta.βo).γo]		*!
	[('fe.ka)]				[ta.(βo.'γo)]	*!	
					[ta.('βο.vo)]		

¹ My data base includes a total of 200 examples from Argentina, Colombia, Costa Rica, Chile, Panama and Peru.

² A Spanish language game in Argentina. Vesre corresponds to the majority of my data (149 words).

³ Although I have words that incorporate other phonological processes (sound deletion, epenthesis, etc), I have only looked at those where an actual syllable re-ordering is happening.

⁴ Data obtained from (Borhn 2015; Conde, O. 2014; Sorbet 2014, 2016, 2017, 2019, 2020), as well as native speaker informants.

Tableaux (4) and (5) show that the playful word will violate any faithfulness constraint that enforces a match to the stress position of the original Spanish word. Even though final, penultimate, and antepenultimate stress are present in Spanish (e.g. Harris, J. (1983)), the resulting playful form is a paroxytone.

What happens when the words have a heavy syllable? In both bi- and trisyllabic words, the pattern is very consistent. If there is a H syllable in either final or penultimate syllable in the playful form, the H syllable will attract the stress, as shown in (6).

(6)	a.	'H.L	—→ L.'H	Example:	['om.bre]	→ [bre.'on]	'man'
	b.	L.'H	→ 'H.L	Example:	[pa.ˈtɾon]	→ [ˈtrom.pa]	'boss'
	c.	H .'L . L	→ L.L.'H	Example:	[san.ˈko.t∫o]	—→ [ko.t∫o.'san]	'stew'
	d.	H.'L.L	→ L.'H.L	Example:	[es. ki.na]	— [na. 'es.ki]	'corner'

If the H syllable ends up in antepenultimate position, the stress will be located on a L penultimate syllable ([ka.pi.'tan] >> [tan.('pi.ka)] 'captain'); five words in my data follow such pattern.

The majority of the bi-syllabic words show this pattern (93.22% -110 words- of my data); however, there are 8 exceptions: for example, ['fies.ta] >> ['ta.fies]⁵ 'party'. Interestingly, 5 of the 8 exceptions correspond to the Costa Rican variation. For the trisyllabic words in my database, the pattern is much more regular (98.6% -74 words- of my data), with only one exception: [ben.'gan.sa] becomes [sa.'ya.βen] 'revenge'. This exception is also peculiar as it deletes one coda from the original word, and it as well comes from the Costa Rican data.

These data suggest that the right-aligned trochee in Spanish is quantity sensitive. In order to account for these patterns, we need an additional constraint: the Weight-to-Stress Principle (WSP) says that heavy syllables are stressed, and it is violated by an unstressed heavy syllable (Kager, 1999). Tableau (7) shows the role of WSP in the reordered form of [san. ko.t[o] 'stew': stress is assigned to the consonant-final syllable, which happens to be in final position; stress is not assigned to the penult. Harris (1983) affirms that paroxytonic stress in consonant-final words is severely restricted, which supports the stress pattern of this playful word.

(7)	[san.ˈko.t∫o]	WSP	Ft=Trochee	Align
	[ko.(ˈtʃo. san)]	*!		
	[ko.t∫o.(ˈsan)]™			
	[('ko.tʃo).san]	*!		*

These patterns provide a novel probe into the metrical structure of Spanish illustrating The Emergence of The Unmarked (TETU) in metrical structure, whereby the unmarked stress pattern is a quantity-sensitive trochee.

References

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⁵ This exception comes from the Costa Rican data. One reviewer indicated that for them [ta. 'fies] is preferred, which would actually support the pattern.