

Andalusian Vowel Harmony: Weak Triggers and Perceptibility

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Eastern Andalusian Vowel Harmony (EAVH) takes place in words ending in *s*, when *-s* is the plural marker or a person verbal marker. In this variety, final *s* weakens as [h] or deletes completely. Both processes generally induce opening of the final vowels *e* and *o*, and further fronting of *a*, which become [ɛ], [ɔ] and [æ], respectively (high vowels behave alike although they do not often occur in final position). In addition to that, the [RTR] feature of the final vowels of words ending in *s* spreads leftward, and either all vowels become lax or the spreading takes over up to the stressed syllable (cf. (1)). (Cf. Alonso *et al.* 1950, Zubizarreta 1979, Zamora Vicente 1985, Sanders 1998.) In this work we offer an OT account of EAVH, focusing on the following three issues: (i) the trigger of EAVH, (ii) the target of the spreading, and (iii) the scope of the spreading.

(i) *The trigger of EAVH.* In many patterns of harmony, the relevant features spread from strong positions to weak positions (e.g. from the stressed syllable to the unstressed ones, from the root to the affixes; cf. Beckman 1998, Baković 2003). However, in EAVH the harmonizing features spread from an element that appears in a weak position, both prosodically (i.e. the unstressed syllable) and morphologically (i.e. the affix). Hence, the structure of the phenomenon seems to contradict the analysis of harmony based on the perceptual prominence of certain positions, and support instead the analysis based on the requirement that features have to be licensed by elements that appear in strong positions (cf. Walker 2005). According to the latter, in EAVH the features of the final (weak) vowel associate to the stressed (strong) position in order to become more perceptible. In this paper we discuss the role of the [RTR] feature as the expression of a morpheme for the analysis of EAVH.

(ii) *The target of the spreading.* Among the target vowels for harmony, in EAVH the two mid vowels (*e*, *o*) open and act as transparent elements for the spreading; high vowels (*i*, *u*) can open to a lesser degree and do not usually act as opaque elements for the spreading. However, the low vowel (*a*) can either harmonize (with or without fronting) or not, and sometimes acts as a blocker for the spreading (e.g. *claves* [kla'βeɛ]). In this work we derive this behavior from phonetically grounded restrictions on vowel feature co-occurrence.

(iii) *The scope of the spreading.* In previous analyses of EAVH, the extent of the spreading up to the stressed syllable is explained through the percolation of features within the foot, while the spreading of features to previous syllables is viewed as a secondary effect (cf. Zubizarreta 1979). In our view, the fact that the spreading runs up to the most prominent positions of the word (i.e. stressed *and* initial syllables) as well as the fact that the minimal scope of the domain is a subset of the maximal set, along with the reiteration of this pattern in other cases (cf. the vowel harmony of Veneto discussed in Walker 2005), favor the view that both domains are different spans to obtain the same effects. The spreading of features towards the stressed *and/or* initial syllables further affecting the intermediate vowels (e.g. *monótonos* [mɔ'notɔnɔ]) also gives support to the well-known insight put forward by autosegmental phonology according to which the domains (or spans) must be homogeneous (cf., among others, Cole&Kisseberth 1995, McCarthy 2004).

Examples

(1)	<i>Singular</i>		<i>Plural</i>	
‘milk’	leche	[ˈleʃe]	leches	[ˈleʃe]~[ˈleʃe ^h]
‘deaf’	sordo	[ˈsorðo]	sordos	[ˈsɔrðɔ]~[ˈsɔrðɔ ^h]
‘weight’	peso	[ˈpeso]	pesos	[ˈpesɔ]~[ˈpesɔ ^h]
‘moment’	momento	[moˈmento]	momentos	[moˈmento]~[moˈmento ^h] [moˈmento]~[moˈmento ^h]
‘handle’	asa	[ˈasa]	asas	[ˈasæ]~[ˈasæ ^h]
‘mouth’	boca	[ˈboka]	bocas	[ˈbɔkæ]~[ˈbɔkæ ^h]
‘carnation’	clavel	[klaˈβe]	claveles	[klaˈβeɪe]~[klaˈβeɪe ^h]
‘monotonous’	monótono	[moˈnotono]	monótonos	[moˈnotɔnɔ]~[moˈnotɔnɔ ^h] [moˈnotɔnɔ]~[moˈnotɔnɔ ^h]

(Zamora Vicente 1985: 290-292)

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