

Maintaining a tone universal

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According to a well known universal there are no tone languages in which high vowels are accompanied by phonological high tones, whereas non-high vowels are accompanied by phonological non-high tones (Hombert 1976, among many others). There seems to be one exception. The most important rule that gave birth to phonological tone in the Limburgian dialects was a rule whereby high long vowels received Accent2 (basically a level high tone on the stressed syllable), whereas mid and low long vowels received Accent1 (a falling tone on the stressed syllable). This rule operated in the 9th century, approximately, but its traces are still clearly visible in the modern dialect. The following data are from the dialect of Roermond; Kats 1939).

(1) high vowels		mid/low vowels	
[wi:2t]	‘far’	[bre:1f]	‘letter’
[vi:2vər]	‘pond’	[e:1dər]	‘everybody’
[tu:2n]	‘fence’	[ho:1t]	‘hat’
[bu:2tə]	‘outside’	[ro:1mə]	‘Rome’
		[drə:1t]	‘thread, SG’
		[nə:1bər]	‘neighbor’

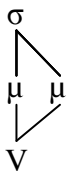
We propose an analysis that maintains the universal. We suggest an explanation in terms of the interaction between a vowel’s sonority degree and its syllabification. Consider the schematic structure of a bimoraic syllable:

(2) A bimoraic syllable

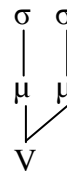


The first mora is the syllable’s head, whereas the second mora is the syllable’s dependent. In Limburgian, at least at the time of the tonogenesis, the second mora, being a dependent, could not house a highly sonorous vowel, that is, the second half of a long mid or low vowel; only (the second half of) a high vowel could be located in that position. That being the case, a long mid or low vowel had to be syllabified as a sequence of two syllables, whereas a long high vowel could simply be syllabified as one syllable only. There were therefore two ways to syllabify long vowels, depending on the quality of the vowel:

(3) long high vowels

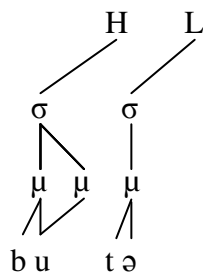


long mid/low vowels

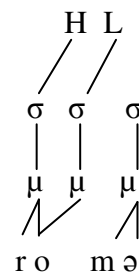


These two syllabifications had an impact on the way the intonational melodies were mapped (and are still mapped) on the string. One syllable can house one element of the intonational melody. Monosyllabic long vowels could (and still can) therefore only function as an anchor for one intonational element, whereas bisyllabic long vowels could (and still can) house two intonational elements. This is illustrated with the words [bu:2tə] ‘outside’ and [ro:1mə] ‘Rome’.

(4) Accent2



Accent1



Accent1 is a tonal drop within the domain of one ‘phonetic’ syllable, because at the phonological level this syllable really is two syllables. Accent2, on the other hand, is a tonal drop at the beginning of the second ‘phonetic’ syllable.

This analysis allows us to maintain the universal. We will motivate this approach on independent grounds, with the synchronic stress system of the dialects and with a historical process of vowel loss. Phonologically, then, Accent1 is two syllables, and Accent2 is one syllable.