The hybrid pitch accent-tone-stress system of Latvian

Standard Latvian has a three-way pitch accent contrast, distinguishing between level, falling and broken accent (1). The latter is comparable to Danish and Lithuanian stød (e.g., Basbøll 2005, Kiparsky 2015, respectively).

(1) Contrastive pitch accents (Mathiassen 1997:39; ˜/Ø = level, ^ = broken, ` = falling)

a.	zāle	[zã:lɛ]	‘grass’	b.	loks	[luoks]	‘garlic’
a’.	zāle	[zâ:lɛ]	‘hall’	b’.	logs	[luôks]	‘window’
				b’’.	loks	[lùoks]	‘bow’

While stress is almost always on the first syllable, lexical tones are found on heavy syllables, i.e., syllables containing a long vowel, diphthong or a sonorant coda, anywhere in the word (Steinbergs 1977, see 2).

(2) Non-initial tones (Steinbergs 1977:189)

priêcã:jâs	‘rejoice (3.past)’
tàutiẽte	‘countrywoman’
pazàudêt	‘to lose’

There are three typologically exceptional aspects to this system. First, pitch accent systems usually distinguish two accents (e.g., Scandinavian, Serbo-Croatian, Slovenian, Japanese), not three. Second, accents are usually tied to stress, either realized on the stressed syllable itself or in its immediate vicinity, as in Scandinavian or Serbo-Croatian, respectively. (See Ito & Mester 2015 for an analysis of Japanese pitch accent as stress-aligned.) Third, syllable weight usually doesn’t play a role in the assignment of pitch accent.

In this paper I give an analysis of the Latvian pitch accent and stress system couched within Optimality Theory that establishes the link between stress, tone and weight in Latvian by assuming that all heavy syllables are heads of secondary stress feet and that stressed syllables carry a default H* tone, which is added to the lexical H or L, if the syllable has a lexical tone. It is placed on the leftmost mora, which results in a level high or double peaked tone if the unit is lexically specified as H, a falling contour if there is no other tone and an extreme fall if there is an L (the broken tone or stød). If a stressed syllable is mono-moraic there is no room for a second, lexical tone and if a non-initial vowel is short on the surface it is not stressed and thus can’t carry any (lexical) tone. Non-initial tonal syllables are either heavy because they have a tone or they have a (falling) tone and secondary stress because they are heavy. Lexical tones/pitch accents are only found on heavy syllables, because tones are restricted to stressed syllables and heavy syllables attract stress, stress is accompanied by assignment of a second tone, and every mora can only carry maximally one tone. This is summarized in the tableau on the next page.

The representational analysis of the three tones as *HH (level), *HL (broken) and *H (falling) on the surface (the *H for stress plus underlying H, L or Ø) is corroborated by dialectal variation. In some dialects, the falling and the broken tone merge to falling and in others to broken. In another group of dialects, the level and the falling tone merge as level in some and to falling in others. The level and the falling tone don’t merge. Falling and broken can merge by either losing L or adding L. Level and falling can merge by the loss or addition of H. A merger of level and broken would necessitate the deletion of one tone and addition of the other (H replacing L or L replacing H), which is a historical two-step development that has to lead through one of the attested mergers and which is therefore unlikely or even impossible. This shows that the broken tone (stød), despite its peculiar phonetics, is a pitch accent and that no specific feature such as [laryngeal] (Kariņš 1996) is necessary or even desirable to account for its presence.

The typologically unique features of Latvian fall out from general OT constraints as used in the analysis of pitch accent and stress placement (e.g. Zec' 2015 analysis of Serbian). The underlying system consists of a simple set of lexical H, L and underspecified peaks. The representational analysis accounts for the gaps in dialectal variation and shows that phonologically there is nothing special about stød.

Last but not least, Latvian provides a solid argument for the analysis of pitch accent systems by the same means used for stress and tone systems, respectively. Latvian is thus the missing link that shows that pitch accent languages are hybrids between these two language types (cf. Hyman 2006).

pazàudêt 'to lose' /pazaude^{L}t/ [pázáude^{ʔ}et]$^{H*,\ H*Ø,\ H*L}$	PEAKLEFT	COINCIDE {strs, H*}	*μ /TT	TONE-TO-STRESS	IDENTσ 1-(Vlength)	WEIGHTTOSTRESS	FAITH-T
a. pa˙za^{H*}u˛det	*!						*
b. ˙pazaude^{L}t		*!		*		**	
c. ˙pa^{H*}˛za^{H*}u˛de^{L}t		*!					
d. ˙pa^{H*}zaude^{L}t				*!			
e. ˙pa^{H*}˛za^{H*}u˛de^{H*L}t			*!				
f. ˙pa^{H*}zau˛det						*!	*
g. ☞ ˙pa^{H*}˛za^{H*}u˛de^{H*}e^{L}t							
h. ˙pa^{H*}zaudet							*!*
i. ˙pa^{H*}zau˛de^{H*L}t						*!	

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