

The Effects of Markedness, p. 1

based on exercises in Halle and Clements (1984) and in Roca and Johnson (1999). Language information from Ethnologue.

1. Like all varieties of German, Zürich German has a rule of Umlaut, which fronts back vowels under certain circumstances. (Originally, this was a purely phonological phenomenon; today, it is conditioned by morphology.) This rule can be stated as follows:

$$[-\text{cons}] \rightarrow [-\text{bk}] / \dots$$

The effects of Umlaut in Zürich German are:

u	→	ü	
u:	→	ü:	
o	→	ö	
o:	→	ö:	
ɔ	→	æ	(not ö!)
ɔ:	→	æ:	(not ö:!)

While the high and mid vowels undergo the rule straightforwardly, the low vowel loses its rounding when it umlauts. Why?

2. The underlying short vowels of Yawelmani are:

i	u
	o
	a

These can be described using the features $[\pm\text{high}]$ and $[\pm\text{round}]$, as follows:

	$[-\text{round}]$	$[\text{+round}]$
$[\text{+high}]$	i	u
$[-\text{high}]$	a	o

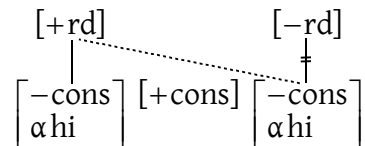
(There are also long vowels, which we will be ignoring. The long vowel system adds additional complications to the system.)

Observe the behavior of the following suffixes:

future passive	aorist passive	precative	gerundial	dubitative	
/nit/	/it/	/ʔas/	/al/		
xilnit	xilit	xilʔas	xilal		‘tangle’
hudnut	hudut	hudʔas	hudal		‘recognize’
gopnit	gopit	gopʔos	gopol		‘take care of’
maxnit	maxit	maxʔas	maxal		‘procure’

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There appears to be a rule assimilating the vowel of the suffix in rounding to the vowel of the stem, a rule of Vowel Harmony. The Vowel Harmony in Yawelmani is limited to vowels of the same height, so we can state it as follows:



The problem is that the results of this rule are not what we would expect:

input	expected output	actual output
i	i	u
a	o	o

Why?

Yawelmani is a now-extinct dialect of Yokuts, a Penutian language spoken (by 25 speakers as of 2000) in the San Joaquin Valley in California, USA.

Zürich German (Züritütsch) is a dialect of Swiss German (Schwyzerdütsch), an Alemannic variety of German, spoken in the canton of Zürich. Schwyzerdütsch has 4,640,000 speakers (as of 2000), 93.3% of German speakers in Switzerland.

