

## Umlaut is Phonological. Evidence from Ineffability. Ben Hermans and Marc van Oostendorp, May 23, 2008

### 0.1 The plural

#### Zero-suffix, umlaut

Singular		Plural
b[u]k	'billy goat'	b[y]k
st[u]p	'pavement'	st[y]p
v[u:]s	'fist'	v[y:]s
b[o:]k	'book'	b[ø]k
v[o:]t	'foot'	v[œ:]t
st[o:]l	'chair'	st[œ:]l
k[ɔ]p	'head'	k[œ]p
st[ɔ]p	'plug'	st[œ]p
m[ɑ]n	'man'	m[æ]n
b[ɔu]m	'tree'	b[œy]m
z[ɔu]m	'hem'	z[œy]m

#### Suffix, no umlaut

Singular		Plural
h[u:]s	'house'	h[u:]zer
r[u:]t	'pane'	r[u:]te
st[o:]f	'stove'	st[o:]ve
str[ɔ:]t	'street'	str[ɔ:]te

### 0.2 Diminutive

		Diminutive
v[u:]s	'fist'	v[y:]s-ke
st[u]p	'pavement'	st[y]p-ke
b[o:]k	'book'	b[ø:]k-ske
st[o:]l	'chair'	st[ø:]l-ke
k[ɔ]p	'head'	k[œ]p-ke
m[ɑ]n	'man'	m[æ]n-ke
b[ɔu]m	'tree'	b[œy]m-ke
h[u:]s	'house'	h[y:]s-ke
r[u:]t	'pane'	r[y:]t-je
st[o:]f	'stove'	st[ø:]f-ke
str[ɔ:]t	'street'	str[œ:]t-je

### 0.3 Other affixes do not have an umlaut effect

#### derivational suffix *-ing* [ɪŋ]

sl[u:]t	'to close'	sl[u:]ting	'closing'
r[o:]p	'to call'	r[o:]ping	'vocation'
h[ɔ:]j	'to hold'	h[ɔ:]jing	'attitude'
l[a:]j	'to load'	l[a:]jing	'load'

#### derivational suffix *elik* [əlɪk]

k[ɔ:]j	'cold, N'	k[ɔ:]jelik	'chilly'
verm[a:]k	'amusement'	verm[a:]kelik	'amusing'
z[a:]k	'business'	z[a:]kelik	'businesslike'
m[a:]gd	'virgin'	m[a:]gdelik	'virginal'

#### derivational suffix(es) *-lik* [lɪk]

m[o:]der	'mother'	m[o:]derlik	'motherly'
v[a:]der	'father'	v[a:]derlik	'fatherly'
bezw[ɔ:]r	'drawback'	bezw[ɔ:]rlik	'inconvenient'
[ɔ:]pe	'open'	[ɔ:]pelik	'public'
[ɑ]chter	'behind'	[ɑ]chterlik	'backward'

#### derivational suffix *-ig* [ɪχ]

br[u:]n	'brown'	br[u:]nig	'brownish'
v[u:]l	'dirty'	v[u:]lig	'dirty-ish'
z[ɔ:]t	'salty'	z[ɔ:]tig	'salty-ish'
bl[ɑ]w	'blue'	bl[ɑ]wig	'blue-ish'

#### derivational suffix *-ier* [iər]

l[u:]ster	'listen'	l[u:]sterier	'listener'
w[ɑ]wel	'waffle'	w[ɑ]welier	'waffling person'
w[ɑ]njel	'walk'	w[ɑ]njelier	'walker'
verz[a:]mel	'collect'	verz[a:]melier	'collector'
st[a:]mel	'stammer'	st[a:]melier	'stammering person'

#### Umlaut does not apply in underived items either

[kuli]	'coolie'
[kɔfi]	'coffee'
[fo:li]	'foil'
[ɔ:li]	'oil'
[ba:li]	'railing'

## 0.4 Further properties of umlaut in the diminutive

### Umlauting can skip a schwa

kl[uə]ster	'cloister'	kl[yə]ster-ke
compj[u:]ter	'computer'	compj[y:]ter-ke
sj[u:]ster	'shoemaker'	sj[y:]ster-ke
w[ʊ]njer	'miracle'	w[y]njer-ke
m[o:]der	'mother'	m[ø:]der-ke
[ɔ:]ventj	'evening'	[œ]vent(j)-je
v[a:]der	'father'	v[ɛ:]der-ke
st[a:]pel	'pile'	st[ɛ:]pel-ke
[ɑ]pel	'apple'	[æ]pel-ke
[ɑ]nker	'anchor'	[æ]nker-ke

### The umlauted vowel must be stressed

The alternations illustrated so far are all possible, because the umlauted vowel was also stressed.

A few more examples:

kant[uə]r	'office'	kant[yə]r-ke
kan[ɔ]n	'cannon'	kan[y]n-ke
CD-r[ɔ:]m	'CD rom'	CD-r[œ]m-ke
kan[a:]l	'channel'	kan[ɛ:]l-ke
kalleb[ɑ]s	'school bag'	kalleb[æ]s-ke
matr[ɑ]s	'mattress'	matr[æ]s-ke

Forms of the following type, however, are not possible. They have penult stress (not counting schwa)

j[u:]d[ɑ]s	'rotter'
p[u]m[a]	'puma'
h[o:]m[o]	'gay person'
[o:]m[a]	'grandma'
[o:]p[a]	'grandpa'
k[ɑ]s[a]	'check-out point'
[o:]per[a]	'opera'
c[a:]mer[a]	'camera'

Forms of this type cannot be diminutivized!

A	B	C	D
*j[u:]d[æ]s-ke	*j[y:]d[æ]s-ke	*j[y:]d[ɑ]s-ke	*j[u:]d[ɑ]s-ke
p[u]m[ε]-ke	*p[y]m[ε]-ke	*p[y]m[a]-ke	*p[u]m[a]-ke
h[o:]m[ø]-ke	*h[ø:]m[ø]-ke	*h[ø:]m[o]-ke	*h[o:]m[o]-ke
[o:]m[ε]-ke	*[ø:]m[ε]-ke	*[ø:]m[a]-ke	*[o:]m[a]-ke
[o:]p[ε]-ke	*[ø:]p[ε]-ke	*[ø:]p[a]-ke	*[o:]p[a]-ke
k[ɑ]s[ε]-ke	*k[æ]s[ε]-ke	*k[æ]s[a]-ke	*k[æ]s[a]-ke
[o:]per[ε]-ke	*[ø:]per[ε]-ke	*[ø:]per[a]-ke	*[o:]per[a]-ke
k[a:]mer[ε]-ke	*k[ε:]mer[ε]-ke	*k[ε:]mer[a]-ke	*k[a:]mer[a]-ke

These forms are wrong for the following reasons:

- In A the umlauted vowel is not stressed;
- In B one umlauted vowel is unstressed, and another is not adjacent to the suffix;
- In C the umlauted vowel is not adjacent to the suffix;
- In D there is no umlaut.

If the stressed vowel is underlyingly front, and is separated from the suffix by a back vowel, then diminutivization is not possible either.

z[e:]br[a]	'zebra'	*z[e:]br[ε]-ke	*z[e:]br[a]-ke
h[e:]m[a]	brand of shop	*h[e:]m[ε]-ke	*h[e:]m[a]-ke
sj[e:]m[a]	'outline'	*sj[e:]m[ε]-ke	*sj[e:]m[a]-ke
tr[e:]m[a]	'diaeresis'	*tr[e:]m[ε]-ke	*tr[e:]m[a]-ke
L[e:]n[a]	girl's name	*L[e:]n[ε]-ke	*L[e:]n[a]-ke
T[i:]n[a]	girl's name	*T[i:]n[ε]-ke	*T[i:]n[a]-ke
t[y]b[a]	'tuba'	*t[y]b[ε]-ke	*t[y]b[a]-ke
t[y]m[ɔ]r	'tumour'	*t[y]m[œ]r-ke	*t[y]m[ɔ]r-ke

Other vowel combinations block diminutivization as well:

- Front + front (+ suffix)
 

pos[i]s[i]	'position'	*pos[i]s[i]-ke
z[e:]n[y]w	'nerves'	*z[e:]n[y]w-ke
p[e:]n[ɪ]s	'penis'	*p[e:]n[ɪ]s-ke
- back + front (+suffix)
 

kan[a:]r[i]	kind of bird	*kan[ε:]r[i]-ke	*kan[a:]r[i]-ke
red[ɑ]ks[i]	'ed. board'	*red[æ]ks[i]-ke	*red[ɑ]ks[i]-ke
clit[o:]r[ɪ]s	'clitoris'	*clit[ø:]r[ɪ]s-ke	*clit[o:]r[ɪ]s-ke

There is only one way to solve the dilemma: to use another language! That means that the Dutch diminutive form is sometimes used:

j[u:]d[ɑ]s-je	z[e:]br[a]-tje	pos[i]s[i]-tje
p[u]m[a]-tje	h[e:]m[a]-tje	z[e:]n[y]w-tje
h[o:]m[o]-tje	sj[e:]m[a]-tje	p[e:]n[ɪ]s-je
[o:]m[a]-tje	tr[e:]m[a]-tje	
[o:]p[a]-tje	L[e:]n[a]-tje	kan[a:]r[i]-tje
k[ɑ]s[a]-tje	T[i:]n[a]-tje	red[ɑ]ks[i]-tje
[o:]per[a]-tje	t[y]b[a]-tje	clit[o:]r[ɪ]s-je
c[a:]mer[a]-tje	t[y]m[ɔ]r-tje	