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Phonological Domains in Luxembourgish

Phonological Typology of Syllable and Word Languages
in Theory and Practice
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Phonological domains

- Is there a one single core category which organizes phonology?
 - typological distinction between syllable languages and word languages (Donegan/Stampe 1983, Auer 2001, Szczepaniak 2007 ...)
 - specifically, a language ,favors' either the syllable or the phonological word in sound change or synchronic phonological rules/processes/alternations



Syllable languages	Word languages
processes optimize syllable structure	processes optimize word structure
simple syllable structure (preferably CV); sonority hierarchy respected	komplex syllable structure; sonority hierarchy partially not respected
only small differences between accented and unaccented syllables	differences between accented and unaccented syllables
vowel epenthesis to achieve CV structure	vowel deletion leading to complex clusters
Resyllbification across word boundaries („liaison")	Resyllbification only within a phonological word
no assimilation	Assimilation
Geminates possible	ambisyllabic consonants
weak word accent	strong word accent



- languages seem to organize along this continuum



Luxembourgish

- small westgermanic language (approx. 300.000 speakers)
 - central franconian dialect area
 - used to have tonal accents (Gilles 2002)
- mainly spoken
- strong language contact with French and German (mainly vocabulary)
- medium level of standardization
 - only little influence of written language on phonetics/phonology
 - regional variation



Aims of this presentation

- ‚advocatus diaboli‘: critical discussion of the phonological system
- concerns mainly synchronic system, but also sound changes
- assigning Luxembourgish a place on the σ -language – ω -language continuum
- no formal phonological account intended

Structure

- previous studies on Luxembourgish
 - Gilles (1999)
 - Szczepaniak (i.Dr.)
 - Bertram (2009, i.Dr.)
 - => traits of a syllable language *and* a word language
- 1. syllable language traits
- 2. word language traits
- 3. Discussion

Syllable language features

- Schwa-Epenthesis leading to CV-structure
 - Pällem ‚palm‘
 - Hëllef ‚help‘, hallef ‚half‘, zwielef ‚12‘, eelef ‚11‘, Wollef ‚wolf‘, Kallef ‚calf‘
 - Wollek ‚cloud‘, Flillek ‚wing‘, Kallek ‚lime‘, Vollek ‚people‘
- ban on certain coda consonant clusters (*lm, *lf, *lk)
- reason for this optimization
 - creation of more simple syllable structure
 - but former cluster do not violate the sonority hierarchy
- lexicalized: old, fossilized process
 - see Golf, Film, Alm ‚alp‘, Helm ‚helmet‘, Palm ‚palm‘, Aarm ‚arm‘

Syllable language features

- resisting syncope

maachen	[ma:xən]	*[ma:xŋ]
Fuedem	[fuədəm]	*[fuədŋ]
gesongen	[gəzoŋən]	*[gəzoŋŋ]
- optimizing syllable structure

Syllable language features

- Schwa in stressed syllables

fr. *télé* [te'le] > *Tëlee* ['təle:] ,TV'

fr. *vélo* [ve'lo] > *Vëlo* ['vəlo:] ,bike'

- no distinction between vowels in stressed and unstressed syllables (for French loans)

n-Deletion

- realization of final *-n* is depended on the onset of the following syllable

Preservation

den *Auto* ,the car'
den *Dëlpes* ,the idiot'
*Fritten**dëppen* ,chip pan'
*Zoppent**teller* ,soup plate'
en *Zuch* ,a train'
en *Haus* ,a house'

Deletion

de *Patron* ,the employer'
de *Bauer* ,the farmer'
Fritte *bud* ,snack bar'
Zoppe *läffel* ,soup spoon'
e *Land* ,a country'
e *Kaffi* ,a coffee'

- n* stays if the following syllable starts with either a vowel, *t*, *d*, *ts*, *h*
- n* is deleted elsewhere, i.e. before all heterorganic consonant
- phonological explanation (Gilles 2006)
 - n* is extrasyllabic
 - n* is retained when syllabification into following syllable is possible
 - following vowel or [h]: resyllabification (,liaison')
 - following homorganic consonant (t, d, ts): creation of an ambisyllabic, partial geminate
 - n* is deleted when syllabification is not possible

-n-Deletion

- domain of application

- right edge of syllable?
- right edge of phonological word?
 - recall that *-n* is extrasyllabic, hence associated with ω
 - evidence: no *-n*-deletion within ω

[[*Ben*] _{σ} *sin*] _{σ} ω *[[*Be*] _{σ} *sin*] _{σ} ω ,fuel'

- n*-deletion ...

- has to be described with reference to σ
- applies not within ω , but only across ω

Resyllabification

- resyllabification within words

Präis /præɪs/ +/er/ > *Präisser* [præɪ.sɐ] ,price (pl.)'
Owend /o:vənt/ +/er/ > *Owenter* [o:vən.tɐ] ,evening (pl.)'
op /op/ +/en/ > *oppen* [o.pən] ,open'

- resyllabification across word boundaries

ganz elleng /gants/ > [gan.dzəlɛŋ] ,all alone'
Rack un /rak/ > [ra.gun] ,skirt on'
war och een /ox/ > [va.ro.ʏe:n] ,was also one'
gëschter Owend /gəʃtɐ/ > [gəʃtə.ro:vənt] ,yesterday evening'

- final consonant moves into following syllable onset
 - consequence of missing ?
 - empty onsets are being filled
 - in case of /R/: vocalized coda-r [ɐ] turns into a ,real' [R]
 - word boundaries ignored

Voice assimilation

- resyllabification is always accompanied by voice assimilation (Goudallier 1987)
- voicing occurs *only* between phonological words

Zäi[t] a Raum	[tsæi d̥a ræum]	,time and space'
Wel[t]all	[væl d̥al]	,universe'

 - => explicit reference to the phonological word!
- voicing does *not* occur within words

Stroo[s]	Stroo[s]en	*[fTRO:zən]	,street(s)'
Be[t]	Be[t]er	*[bæd̥ə]	,bed(s)'
Fli[k]	Fli[k]en	*[fligən]	,policeman/-men'
- reanalysis: former voiced obstruents render voiceless in inflected forms

Owend < MHG âbend	Owenter	*[o:vənd̥ə]	,evening(s)'
kamoud < lat. commodus	kamouten	*[kamoudən]	,comfortable



Voice assimilation

- type of boundary matters

within ω		across ω	
ganzen	[gantsən]	> ganz elleng	[gan dzələn] ,all alone'
décken	[dekən]	> déck an dënn	[de gan dən] ,thick and thin'
Equipen	[ekipən]	> Equipe ass do	[eki bas do:] ,team is there'
Stroossen	[fTRO:sən]	> Strooss an Haus	[fTRO: zan hæus] ,street and house'
aachten	[a:xtən]	> aachtanachzeg	[a:γ danaxtsec] ,88'
- no voice assimilation within ω, takes only place at right boundaries of ωs
- different domains
 - resyllabification: σ language related
 - voice assimilation: ω language related
- similar patterns in Dutch, Limbourgish (Grijzenhout/Krämer 2000, Ernestus 2003, Mascaró/Wetzels 2008)



Word language features

- ambisyllabic consonants

Schëffer	,ships'
Kanner	,children'
mëllen	,mild'

 => render syllable boundaries unclear
- complex onset cluster due to proclitic article

d'Kricher	[tkric̥ə]	,the wars'
d'Pléi	[tplei]	,the ploughs'
d'Frau	[tfra:]	,the women'

 - violate syllable structure
 - no vowel insertion to ,heal' this violation
 => render left word boundary more prominent



Development of complex codas

- nouns on -s

Gekeim-s, Geseem-s, Gedäerm-s, Geträip-s
--
- Syncope leading to komplex coda clusters

leschten Enns, onversinn's

- Pseudosuffixes

an engem-s, schonn-s, obschonn-s, nodeem-s
--
- Superlative -st

schéinst	vs.	germ. schön-ste
breetst	vs.	germ. breit-es-te

 marked syllable structure due to extrasyllabic elements
- ,Morphonotactics' (Dressler/Dziubalska-Kolakcyk 2006): consonant clusters which serve specific morphological functions
- Luxembourgish seems to increase syllable complexity



Strong word accent

- influence of the strong word accent

vil ^l äicht	>	vläicht	,perhaps'
ze ^r éck	>	zréck	,backwards'
ze ^r éck	>	vrun	,ahead'
ze ^r éck	>	drun	,at it'
du ^r an	>	dran	,in that'
du ^r an	>	beemol	,at once'

 - loss of preceding unaccented syllable
 - creation of (mostly) allowed consonant clusters
 - but: former CV structure was more optimal
- integration of loans: imposing of trochee

fr. chauff ^r eur	>	^r Chauffer
fr. coif ^r eur	>	^r Coiffer

 - reduction of former full vowels in unstressed syllables

linking-s

- Nübling/Szczepaniak (2008): optimization of the phonological word
- more common in Luxembourgish than in German

Äerbier-s-kuch	,strawberry cake'
Fussball-s-terrain	,football ground'
- even allowed when the first word ends with an open syllable (banned in German)

Vodka-s-glas	,glas for vodka'
Büro-s-artikel	,office supplies'
Konto-s-stand	,account balance'
Auto-s-assurance	,car insurance'
Auto-s-steier	,car tax'

Word language features

- place assimilation very rare
 - rule of *n*-deletion has removed all nasals which could undergo assimilation
 germ. *ankommen* [aŋkɔmŋ] ~ lux. *ukommen* ,to arrive'
 germ. *dein Geld* [daiŋ gɛlt] ~ lux. *däi Geld* ,your money'
- prohibited across word boundaries

onméiglech	[onmeigleç]	not: *[om:eigleç]	,impossible'
onglécklech	[onglekleç]	not: *[ɔŋglekleç]	,unhappy'
- => ,place' behaves different than ,voice' (Lombardi 2001)

Loss of unstressed schwa

- variable, postlexical process (Conrad 2010)

Fenster-en	['fəns.tə.Rən]	> ['fəns.trən]	,windows'
Eemer-en	['e: mə.Rən]	> ['e: m.Rən]	,buckets'
dréchen-en	['dre.çə.nən]	> ['dreç.nən]	,dry (dat.)'
wichtig-en	['viç.tə.zən]	> ['viçt.zən]	,important (dat.)'
trëppel-en	['trə.pə.lən]	> ['trəp.lən]	,to trip'

 - optimal CV structure is reduced
 - tendency to keep the trochee
 - adjustments always within the stem, while suffix remains unaffected

Discussion

- Luxembourgish shows traits of a syllable language and a word language
 - word language aspects probably more strong
 - mixed type (Szczepaniak i.Pr.): makes this typologically sense?
 - how to decide the relevance of individual aspects?



Discussion

- *n*-deletion
 - intricate conspiracy of σ and ω
- resyllabification/voice assimilation
 - bleeding order
 - cannot be explained by sole reference to σ and ω
 - => both domains are needed
- OT
 - σ and ω distinction not relevant
 - implicitly expressed in constraint ranking



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