

**Monosyllabic lengthening and its
relation to the syllable vs. word
languages typology**

**Guido Seiler (Freiburg)
Kathrin Würth (Zürich/Luzern)**

1. Introduction: Syllable-type and Word-type Languages

German in a nutshell:

- Diachronically: Development from syllable language to word language (Szczepaniak 2007)
- Geographically: South (syllable language) vs. North (word language)

- Typology based on a number of parameters (Szczepaniak 2007, Nübling/Schrambke 2004, Auer 1993, 2001)
- Parameters studied by Szczepaniak (2007) show shift from syllable-type to word-type language (Szczepaniak 2007)

- Additional parameter: Monosyllabic Lengthening (MSL)
- Innovation from Middle High German (MHG) to New High German (NHG)
- Has not been given much thought so far
- How does it complement the typology?

2. MSL and Moraic Theory: Zurich German

- Moraic Theory (Hayes 1989, 1995)
 - Mora as a weight-bearing unit for both, vowels and consonants
 - Accounts for different behaviours of light vs. heavy elements (e.g. stress assignment, minimality constraints, ...)

- Moraic Theory:

Vowels	Short vowel	1 μ
	Long vowel	2 μ
Consonants	Singleton consonant	
	Geminate	1 μ

- Lengthening: Addition or reassociation of a Mora
- Structure preserving (compensatory lengthening, cf. Hayes 1989)
- Minimality requirements

- Zurich German (High Alemannic; Weber 1948, Keller 1961, Würth 2002)
- Contrastive vowel length
 - [ʒ̥arə] ‘dig’ – [ʒ̥a:rə] ‘crowds’
- Contrastive consonant length
 - [ʒ̥aɖə] ‘damage’ – [ʒ̥attə] ‘shadow’ (cf. Willi 1995, Würth 2002, Kraehenmann 2003, Seiler 2009).
 - ZG has a singleton-geminate contrast (no voicing, no aspiration)
 - In traditional dialectology termed ‘lenis’ and ‘fortis’

- Phonotactics

μ CVCV	[ʒattə] 'shadow'	μ CVCC	[hund] 'dog'
μ CVCV	[ʒadə] 'damage'	μ CVCC	[gumpp] 'jump'
μ CVVC	[hu:tt] 'skin'	μ CVC	[hɑss] 'hatred'
μ CVVC	[hu:z] 'house'	μ *CVC	[hɑz] 'hare'

Main observations

- Zurich German allows CV-syllables (no lengthening of open stressed syllables); similar to OHG and MHG, respectively
- ZG allows word-final geminates
- ZG prohibits words of the structure CVC
- Innovation:

MHG

[glas]

[tak]

[wɛk]

Zurich German

[g̊la:z̊]

[ta:g̊]

[væ:g̊]

‘glass’

‘day’

‘way’

- MSL: Length alternations in ZG

	Sg.	Pl.	Dim.	
/haz̥/	ha:z̥	haz̥ə	hæz̥li	‘hare’
/ʒlaŋ̊/	ʒla:ŋ̊	ʒle:ŋ̊	ʒleŋ̊li	‘stroke’
/hu:z̥/	hu:z̥	hy:z̥ər	hy:z̥li	‘house’

MSL

- Words that are underlyingly CVC lengthen their vowel
- Minimal (content) words in ZG consist of 2 Moras (on minimality restrictions in general cf. Hayes 1995: 47f.; 88)
- Lengthening applies if an underlying form does not meet the requirement

MSL

- No lengthening when the (monosyllabic) word is closed by a geminate (cf. /hass/ ,hatred‘) → predicted by Moraic Theory

MSL

- No lengthening when the word is closed by a consonant cluster (cf. /hund̩/ ,dogʻ)
- Word minimality requirement met by the parameters *weight-by-position* (WBP) and *final consonant extrasyllabicity*, respectively
 - WBP: Singleton consonants are assigned a mora in coda position
 - Final consonant extrasyllabicity: Rightmost segment of a domain is invisible to the syllabic parse; CVC=CV
 - Moraic consonants are always phonetically longer (Winteler 1876, Seiler&Würth 2008)

- Moraic theory forces us to analyse monosyllabic lengthening as a clearly word-oriented process. (= its domain is the phonological word)
- MSL applies also within phrases: although ZG disregards word boundaries with respect to syllabification, bimoraicity restrictions hold [d̥ə.hɑː.zəɾ.ȷ̥æ.nə] ,to recognise the hare‘

Interim summary

- OHG and MHG do not display MSL
- MSL is an innovation – an optimization of the phonological word → restrictions on the word level
- Processes whose domain is the phonological word are interpreted as diagnostics for word type languages (Auer 2001, Szczepaniak 2007).
- This is unexpected for Zurich German since High Alemannic is described as syllable-oriented in a very consistent way (Nübling&Schrambke 2004, Szczepaniak 2007)
- How widespread is MSL in the German-speaking area?
- In what sense does it relate to other word-oriented innovations?

3. More on monosyllabic lengthening

- In the NHG standard language, monosyllabic forms are lengthened, too:

• MHG	NHG	
[tak]	[t ^h a:k]	'day'
[glas]	[gla:s]	'glass'
[gəlit]	[gli:t]	'link, limb, element'
[tal]	[t ^h a:l]	'valley'
[wɛk]	[ve:k]	'way'

- Mainstream German historical linguistics explains these forms as the result of analogical levelling rather than as the result of a genuine phonological process such as MSL, cf. Paul 1884 (but Naiditsch & Kusmenko 1992, Auer 1989, Page 2001, Seiler 2009).
- First, stressed open syllable lengthening (OSL) introduced an alternation in paradigms:
[tak] (Sg.) -- [t**a:**gə] (Pl.)
- ...which has then been eliminated in favour of the long vowel:
[t**a:**k] (Sg.) -- [t**a:**gə] (Pl.)

- The clear positive evidence for MSL in Zurich German might make us suspicious: Is MSL a much more widespread process? (And if yes, is there still a need for postulating levelling?)
- "Positive evidence": In Zurich German, MSL cannot possibly depend on earlier OSL (as there is no OSL altogether). Morphological alternations are even introduced (instead of being eliminated) by MSL: [rɑ:d] – [redər]!
- Other instances of MSL which cannot be attributed to OSL:

[lɔ:x] – [lexxa] 'hole, holes' (Middle Bavarian: Pfalz 1913)

[nɔ:xd̥] – [nɛxd̥ə] 'night, nights' (Thuringian:

Thüringisches Wörterbuch) 19

- The extent of MSL can be estimated appropriately only if the quantitative development is examined in a more comprehensive fashion:
- (i) different types of MSL
- (ii) (non)cooccurrence of MSL with OSL
- (iii) (non)cooccurrence of MSL with degeneration

- Different types of MSL:
- No MSL altogether:

Low German (Münsterland; Keller 1961: 316):

[dax], [da:ɣə]	'day, days'
[glas], [glɪɛzɐ]	'glass, glasses'
[fat], [fɪɛtə]	'barrel, barrels'

Alemannic of the Bodensee region, South Franconian
(Rastatt) (SSA III/2.010, SDS II:49):

[rad̥], [red̥ər]	'wheel, wheels'
[g̊rab̥], [g̊reb̥ər]	'grave, graves'

- *Leichtschlusssdehnung I*: MSL only in simple singleton stems (High/Low Alemannic, West Central German, Upper Saxon):

simple singleton:	MHG [glas]	>	[g̊la: [̊] z̊]
geminate:	MHG [fiʃ], viz. [fiʃʃɛ:rə]	>	[viʃʃ]
cluster:	MHG [naχt]	>	[naχd̊]

- *Leichtschlusssdehnung II*: MSL via gemination of simple singletons (Highest Alemannic/Wallis):

MHG [glas]	>	[g̊la [̊] ss]
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- *Schwerschlussdehnung I*: MSL in simple singleton and geminate stems (Silesian):

simple singleton:	MHG [glas]	>	[g̊lɑ:ž]
geminate:	MHG [fiʃ], viz. [fiʃʃɛ:rə]	>	[v̊i:ʒ]
cluster:	MHG [naχt]	>	[naχd̥]

- *Schwerschlussdehnung II*: MSL in simple singleton, geminate, and cluster stems (Bavarian, Thuringian):

simple singleton:	MHG [glas]	>	[g̊lɑ:ž]
geminate:	MHG [fiʃ], viz. [fiʃʃɛ:rə]	>	[v̊i:ʒ]
cluster:	MHG [naχt]	>	[nɑ:χd̥]

- The different MSL types can easily be traced back to different interactions of prosodic parameters we have established already, i.e. minimal weight of words and/or stressed syllables, Weight-by-Position, or tolerance for geminates [in final position] (Seiler 2009).
- E.g. Thuringian:

Minimal word? YES	WBP? NO	Geminates? NO
[ra:d̥], *[rad̥]		

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Minimal word? YES	WBP? NO	Geminates? NO
[ra:d̥], *[rad̥] [na:xd̥], ?[naxd̥] [vi:ʒ̥], *[vi:ʒ̥], ?[vi:ʃʃ]	[na:xd̥], *[naxd̥]	[vi:ʒ̥], *[vi]ʃʃ]

A typology of quantity systems in varieties of German (Seiler 2009: 249)

	MSL	OSL	Lengthening before cluster	Final degemination	Total degemination
Alemannic of Bodensee region:	no	no	no	no	no
High Alemannic:	yes	no	no	no	no
Uri (Highest Alemannic):	no	yes	no	no	no
Low Alemannic:	yes	yes	no	no	no
Swabian:	yes	yes	no	no	yes
Middle Bavarian:	yes	yes	yes	yes	no
West-Central German:	yes	(yes)	no	no	yes
Thuringian and East Franconian:	yes	yes	yes	yes	yes
Silesian:	yes	yes	no	yes	yes
Upper Saxon:	yes	yes	no	no	yes
Low German:	no	yes	no	n/a	yes
Standard German:	yes	yes	no	no	yes

- Result: Some varieties (Low Alemannic, Upper Saxon, NHG) display the *Leichtschlussdehnung I* type of MSL together with OSL.
- Here, and only here, it is possible (desirable??) to attribute lengthened forms to analogical levelling.
- However, for the majority of dialects it is obvious that MSL is independent of OSL, either because it is not accompanied by OSL, or because it is of one of the *Schwerschlussdehnung* types.
- And this has consequences for the syllable vs. word language typology.

- A typology is not just about the spread of individual features. It is about **correlations**.
- MSL optimises the phonological word. It is thus indicative of the word-language type.
- What does the presence of MSL predict about the two other quantity-related processes which are indicative of the word-language type, namely OSL and degemination (according to Auer 2001, Nübling & Schrambke 2004, Szczepaniak 2007)?

MSL & OSL:

	-MSL	+MSL
-OSL	?	?
+OSL	?	?

MSL & OSL:

	-MSL	+MSL
-OSL	[rad̥], [red̥ər] and similar: Alemannic (Bodensee), South Franconian (Rastatt)	?
+OSL	?	?

MSL & OSL:

	-MSL	+MSL
-OSL	[raᶇ], [reᶇər] and similar: Alemannic (Bodensee), South Franconian (Rastatt)	?
+OSL	?	[raːᶇ], [reːᶇər] and similar: Low Alemannic, Bavarian, East Central German

MSL & OSL:

	-MSL	+MSL
-OSL	[raḡ], [reḡər] and similar: Alemannic (Bodensee), South Franconian (Rastatt)	?
+OSL	[raḡ], [re:ḡər] and similar: Low German, Highest Alemannic (Uri)	[ra:ḡ], [re:ḡər] and similar: Low Alemannic, Bavarian, East Central German

MSL & OSL:

	-MSL	+MSL
-OSL	[raɔ̯], [reɔ̯ər] and similar: Alemannic (Bodensee), South Franconian (Rastatt)	[raːɔ̯], [reɔ̯ər] and similar: High Alemannic
+OSL	[raɔ̯], [reːɔ̯ər] and similar: Low German, Highest Alemannic (Uri)	[raːɔ̯], [reːɔ̯ər] and similar: Low Alemannic, Bavarian, East Central German

MSL & degemination:

	-MSL	+MSL
-degem	?	?
+degem	?	?

MSL & degemination:

	-MSL	+MSL
-degem	[rad̥], [ʒatt̥ən] and similar: Alemannic (Bodensee, Uri)	?
+degem	?	?

MSL & degemination:

	-MSL	+MSL
-degem	[raɖ], [ʒattən] and similar: Alemannic (Bodensee, Uri)	?
+degem	?	[raːɖ], [ʒaːdən] and similar: Swabian, Central German

MSL & degemination:

	-MSL	+MSL
-degem	[raɖ], [ʒattən] and similar: Alemannic (Bodensee, Uri)	?
+degem	[raɖ], [ʒaɖən] and similar: South Franconian (Rastatt), Low German	[raːɖ], [ʒaːɖən] and similar: Swabian, Central German

MSL & degemination:

	-MSL	+MSL
-degem	[rad̥], [ʒatt̥ən] and similar: Alemannic (Bodensee, Uri)	[raːd̥], [ʒatt̥ən] and similar: High/Low Alemannic, Bavarian
+degem	[rad̥], [ʒad̥ən] and similar: South Franconian (Rastatt), Low German	[raːd̥], [ʒad̥ən] and similar: Swabian, Central German

- Interim summary:
- MSL is independent of OSL, contrary to mainstream assumptions of German historical linguistics.
- There is no correlation between the occurrence of MSL and other word-oriented quantitative innovations such as OSL and degemination.
- MSL as a southern innovation has not reached the Low German areas. It is counter-predicted in the context of the broader picture by Nübling & Schrambke (2004), according to which the degree of word-orientation monotonically decreases from north to south.

4. Conclusion and outlook

- MSL is another word-oriented innovation of German diachronic phonology, which supplements the picture presented by Szczepaniak (2007).
- MSL shows up in different versions which can be attributed to different interactions of well-established parameters of moraic theory (Hayes 1989, 1995).
- We have examined the robustness of correlations between MSL and other word-oriented properties of quantity systems.
- Given the syllable vs. word languages typology, we expect correlations, or at least implications, between MSL, OSL, and degemination.
- MSL does not predict anything about other quantitative properties, since \pm MSL, \pm OSL and \pm degemination freely combine.

- We conclude that \pm MSL, \pm OSL and \pm degemination are three independent structural parameters, irrespective their joint word-orientation.
- We have assessed the predictive power of one syllable/word language parameter for other parameters. To get the full picture, the next step must be a similar examination of each of the other claimed syllable/word language parameters. Only then the power of the typology as a whole can be assessed in a substantial way.

- "A deeper inspection of the typological hypothesis word vs. syllable languages is still a desideratum; it requires both a detailed examination of single languages in all of their manifestations (not only the codified standard language) and an empirical examination of the above mentioned correlations between individual properties of different phonologies" (Auer 2001: 1338).

Die genauere Untersuchung der typologischen Hypothese Silben- vs. Wortsprachen steht noch aus; sie erfordert neben der eingehenden Untersuchung von Einzelsprachen in ihrer gesamten Erscheinungsbreite (nicht nur der kodifizierten Standardsprache) [...] auch die empirische Überprüfung der oben skizzierten Korrelationen zwischen einzelnen Merkmalen von Einzelphonologien.

- Both can be achieved by microparametric comparison of genetically closely related phonologies.

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