Narrow prosodic-evolutionary trajectories

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N.B.: This presentation (incl. bibl.) can be downloaded:
→ https://rnoske.home.xs4all.nl/narrowtraj.pdf

Aims of this talk

- Comparison of a millennium of the history of High German (750-1750) and of Western Romance, more particularly Classical Latin > Old French (1st millennium AD)
- Explanation of the parallel changes for these periods in German and Western Romance, especially French, from the perspective of prosodic typology

What will we see?

I. **9 processes** in the history of **High German**

II. Interrelatedness of these processes

III. **9 identical processes** in the evolution of **Late Latin > Old French**

IV. Conclusions

I. Historical processes in High German

Periodization:

period	name	abbreviation
750-1050	Old High German	OHG
1050-1350	Middle High German	MHG
1350-1650	Early New High German	ENHG
1650-	New High German	NHG

We will focus mostly on OHG, MHG and ENHG

A sample of OHG text

Dat grafregin ih mit firahim firiuuizzo meista,
Dat ero ni uuas noh ufhimil,
noh paum nog pereg ni uuas,
ni nohheinig noh sunna ni scein,
noh mano ni liuhta, noh der mareo seo.

(Wessobrunn prayer, 9th century)

"That I have experienced as the biggest miracle: that the earth was not there, and no heaven, there was no tree, neither a mountain, not a single star shone, nor the sun, the moon did not show, and neither the sparkling sea."

(Translated from a Modern German translation of this text.)

Contrary to Modern New High German: **many open syllables**, **no complex codas**.

Some contrasting characteristics of OHG and NHG

		OHG	NHG
i.	**syllable structure**	simple: clusters of two consonants at most	complicated
ii.	**contrastive vowel length**	long and short vowels in all positions (stressed and unstressed syllables)	long vowels only present in stressed positions
iii.	**vowel reduction**	no	yes
iv.	**harmony processes**	vowel harmony and phonological umlaut (e.g., gast+i > gesti 'guests')	no vowel harmony, umlaut is morphological
v.	**geminates**	yes	no (instead, ambisyllabic consonants)
vi.	**final devoicing**	no	yes

List of relevant processes OHD > NHD

regarding:	**historical process**
vowels	1. syncope and apocope
	2. vowel reduction
	3. diphthongization
	4. stressed open syllable lengthening
consonants	5. intervocalic lenition (voicing and spirantization)
	6. intervocalic consonant deletion → contraction
	7. degemination
	8. advent of final devoicing
	9. consonant epenthesis at the right word edge

1. MHG syncope and apocope

- syncope affecting a nonfinal syllable:

OHG	MHG	
frew+**i**da	vröu+de	'happiness'
gemein+**i**da	gemeinde	'community'
ner+**i**ta	ner+te	'fed'
off**a**n+unga	(ENHD/NHD) Öffn+ung	'opening'

- syncope affecting a final syllable:

OHG	MHG	
(*MHG*) abent+**e**s	abents	'evening' (gen. sg.)
fel**i**s	vels	'rock'
mil**u**h	milch	'milk'
ma**g**ad	magt	'virgin'

1. MHG syncope and apocope

- apocope

MHG	later MHG	
hin**e**	hin	‘to’
dan**e**	dan	‘then’
von**e**	von	‘of, from’
ab**e**	ab	‘but’ (Mod. Ger. aber)
und**e**	und	‘and’
frouw**e**	frouw	‘woman, lady’
hirt**e**	hirt	‘herdsman, sheperd’
herz**e**	herz	‘heart’

2. Vowel reduction

- reduction of unstressed vowels

OHG	MHG	
ˈsunn**a**	ˈsunn[**ə**]	‘sun’
ˈhim**i**l	ˈhim[**ə**]l	‘heaven’
bi**ˈ**līb**a**n	b[**ə**]ˈlīb[**ə**]n	‘to stay’ (Mod. Ger. *bleiben*)
ˈbot**a**ˌscaf	ˈbot[**ə**]ˌschaft	‘message’ (Mod. Ger. *Botschaft*)
ˈzungōno (gen.)	(LATE OHG) ˈzungōn > ˈzung[**ə**]n	‘tongues’
ˈbein**i**+hhīn	ˈbein([**ə**])+ch[**ə**]n	‘little leg’

3. Diphthongization (Late MHG and ENHG)

(Common Germanic already had diphthongs: ai, au, eu. Additional diphthongizations, 8th-9th century: ē > ia > ie; ō > uo > ue. This was undone by the so-called ENHG monophthongization)

Late MHG and ENHG diphthongization:

iː > [ae] *ei*, yː > [oi] *eu*, uː > [ao] *au*

change	MHG	NHG	
iː > [ae] *ei*	mīn, ˈsīte, ˈschrīben, wī**t**, rīch	m**ei**n, S**ei**te, schr**ei**ben, w**ei**t, r**ei**ch	‘my, page, (to) write, far, rich’
yː > [oi] *eu*	ˈl**iu**te, ˈh**iu**te, ˈh**iu**ser (*iu* = [**yː**])	L**eu**te, h**eu**te, H**äu**ser	‘people, today, houses’
uː > [ao] *au*	hūs, sū, ūf, rūch, ˈsūfen	H**au**s, S**au**, **auf**, r**au**, s**au**fen	‘house, sow, on, rough, drink’

4. Stressed open syllable lengthening in ENHG

Open syllable lengthening in stressed syllables only:

MHG	ENHG	
ˈt**a**ge (pl.)	[ˈt**aː**gə]	‘days’
ˈn**e**men	[ˈn**eː**mən]	‘to take’
ˈh**a**se	[ˈh**aː**se]	‘hare’

Bimoraic Condition: ‘a stressed syllable must have exactly two moras’ (Dresher and Lahiri 1991, Riad 1992, Ramers 1999, also called Prokosch’s Law)

(Another historical scenario for satisfying the Bimoraic Condition is amsyllabification (before *t* and *m)*

MHG	ENHG	
ˈkomen	[ˈkɔm̩ən] (kommen)	‘to come’

(‘.’ indicates ambisyllabicity)

5. MHG lenition

'Voicing' (~ lenition)

OHG	MHG	
ri**pp**a	(> rippe >ripe >) ri**b**e	'rib'
bin**t**an	bin**d**en	' (to) tie'
bru**kk**on (verb)	bru**ck**e > bru[**g**]e	'bridge'
brie**f**es (gen. sg.)	brie**v**es	'letter'

5. MHG lenition – Spirantization

(Very early on, intervocalic spirantization (of singletons only) had already applied to voiceless stops in Old High German Consonant Shift. This is immaterial to the present argument.

Proto-Germanic	OHG	
*slē**p**an-	slā**f**an	'sleep'
*e**t**an-	e[**s**]an	'eat'
*ma**k**an	ma**h**an	'make'

)

However, later, in MHG dialects occurrences of spirantization of 'voiced' (lenis) stops can be found (Weinhold 1883; Moser 1951, Goblirsch 2018:145-147)

MHG	
kna**b**e ~ kna**v**e	'boy'
ha**b**en ~ ha**v**en	'(to) 'have'
sa**g**en ~ sa**gh**en (gh = [ɣ])	'(to) say'

6. MHG intervocalic consonant deletion → contraction

This affects voiced obstruents

sound	contraction	OHG	MHG		
g	ege > ei	getragida	getr**ege**de > getr**ei**de		'grain'
d	ade > ā	badōt	b**ad**et	> b**ā**t	'bath' (pres. 3rd pers. sg.)
b	ibe > ī	gibist	g**ibe**st	> g**ī**st	'give' (pres. 2nd pers. sg.)
h	ahe > ā	slahan	sl**ah**en	> sl**ā**n	'(to) beat'

7. MHG and ENHG degemination

(Geminates are the result of the so-called West Germanic gemination, which took place in the 3rd-4th cent. AD)

After long vowels:

OHG	MHG	
hlū**tt**ar	lū**t**er	'merely, pure'
rū**zz**an	rū**z**en	'snore'

Later also after short vowels:

(However, in the orthograpy the double consonants remained, with a new function, i.e. to indicate that the preceding vowel is short.)

The consonant in question became ambisyllabic, hence blocking Stressed Open Vowel Lengthening.

OHG	MHG	NHG	
mitti	mi**tt**e	Mi[t̬]e	'centre'
offan	o**ff**en	o[f̬]en	'open'

8. Arrival of final devoicing

in MHG, from the 12th century onwards

orthographic alternation word medially	word finally	examples (genitive – nom.; –es = gen. ending)	
b	p	lo**b**es – lo**p**	'praise'
v	f	ho**v**es – ho**f**	'court'
g	c (=[k])	sla**g**es – sla**c** [k]	'punch, stroke'
h	ch (=[χ])	hō**h**es – hō**ch** [χ]	'high'
d	t	ei**d**es – ei**t**	'oath'

In contrast to a wide-spread idea, final devoicing takes place at the right edge of a phonological word, not of a syllable, cf. *re*[d]*lich* 'honest' (Auer 1994).

9. ENHG consonant epenthesis at the right word edge

Mostly: *d, t*

MHG	ENHG	
māne	man**t**/man**d**/mon**d**	'moon'
nieman	nieman**d**	'nobody'
saf	saf**t**	'juice'
(vin) sec > sek	sek**t**	'sparkling wine'
obez	obs**t**	'fruit'
nimest	nim**p**st	'take' (2nd pers. sg. pres.)
eigenlich	[eigen**t**]$_{\omega}$ [lich]$_{\omega}$	'real, in reality'
heimlich	[heim**b**]$_{\omega}$ [lich]$_{\omega}$	'hidden'

II Motivation of the processes by prosodic phonology

Typology: the *phonetic* **dichotomy** of *syllable-timed vs. stress-timed languages* has been **disproved** at numerous occasions.

Instead: a *phonological*, ***scalar*** typology based on *prosodic categories*: the syllable and the prosodic word.

The **syllable** vs. the **phonological word** as the most prominent/relevant prosodic unit.

Continuum: Syllable languages ── Word languages

Litt.: Auer 1994, Szczepaniak 2007, Nübling et al. 2008, Reina & Szczepaniak (eds.) 2014.

	prototypical syllable language	prototypical word language
syllable structure	simple, clear-cut syllable boundaries, high sonority difference between onset and rhyme	complex, syllable boundaries can be blurred
quantity distinction (if it exists)	uniform (**in all syllables**)	stress-sensitive or word-related (distinctive **only in stressed syllables**)
vocalism	little or no discrepancy between stressed and unstressed vowels	strong discrepancy between stressed and unstressed vowels; centralizations
geminates	possible	generally do not exist, only possible when created by morphology (compounds)
phonological processes	syllable-related (ex.: resyllabification across word boundaries); external sandhi	word-related (ex. word-medial allophones, invulnerable word boundaries); internal sandhi
epenthesis (Cs and Vs)	for syllable structure optimization	for enhancement of morphological structure

- Szczepaniak 2007: In the history of German, there is a typological shift from the syllable towards the phonological word.
- In OHG, the syllable is the central domain.
- Since MHG/ENHG, the phonological word is the central domain.

1. **Syncope and apocope**: **syllable structure becomes less regular and less open**, but the phonological word is highlighted, by the reduction of the number of feet, and by making stems monosyllabic.
2. **Vowel reduction in unstressed syllables**: **makes the stressed syllable stand out**. This enhances the recognizability of the prosodic word.
3. **Diphthongization in stressed syllables: idem**.
4. **Stressed open syllable lengthening**: In ENHG, a stressed vowel in open syllables is lengthened because of the arrival of the **Bimoraic Condition** (stressed syllables should contain exactly two moras).
5. **Intervocalic lenition/voicing**: syllable structure becomes less well clear-cut: **word-internal syllabic borders weaken:** less sonority difference between onset and rhyme).

6. **Consonant deletion → word contraction: fewer open syllables, less sonority difference between onset and rhyme.**
7. **Degemination**: after long vowels degemination is needed to reduce trimoraic syllables to bisyllabic ones because of the newly arrived Bimoraic Condition.

   - After short vowels: degemination happens in a later stage (ENHG) and ambisyllabification sets in, **worsening syllabic structure but highlighting the coherence of the prosodic word.**
8. **Arrival of final devoicing: as it stands in** ENHG and NHG, final devoicing is a process **enhancing the right edge of a phonological word** (after having existed in certain OHG dialects as a syllable-determined process and in MHG as a syllable- and foot-determined process).
9. **Consonant epenthesis at the right word edge**: by the insertion of a plosive at the end of a phonological word (often with a sonority hierarchy violation), **the edges of the phonological word are enhanced.**

III. Processes in the evolution from Latin to Old French

An example of a Proto-French text

Text	Reconstructed pronunciation	Translation
Buona pulcella fut eulalia.	bwɔnə pylt͡sɛlə fyθ əylaljə	Eulalia was a good girl,
Bel auret corps bellezour anima	bɛl avrəθ kɔ**rps** bɛlədzo͟ur anəmə	She had a beautiful body, a soul more beautiful still.
Voldrent la veintre li deo Inimi.	vɔldrə**nt** la ve͟intrə li dɛə enəmi	The enemies of God wanted to overcome her,
Voldrent la faire diaule seruir	vɔldrə**nt** la fa̤irə dia͟vlə sɛrvir	they wanted to make her serve the devil.
Elle no'nt eskoltet les mals conselliers.	elə nɔ**nt** ɛskolt̪əθ les ma**ls** ko͟nseʎɛ**rs**	She does not listen to the evil counsellors,
Qu'elle deo raneiet chi maent sus en ciel.	kelə dɛə rənei̯əθ ki mæ̃**nt** sy͟s e͟n t͡sjɛl	(who want her) to deny God, who lives up in heaven.

From the *Séquence de Sainte Eulalie*, ± 880

Existence of **complex codas**, many closed syllables.

Some contrasting properties of Classical Latin, Western Late Latin and Proto-French

		Classical Imperial Latin	Western Late Latin	Proto-French (end of 9th century)
i.	**syllable structure**	more closed syllable structure	more open syllable structure	more closed syllable structure
ii.	**contrastive vowel length**	in stressed syllables; on the way out in unstressed syllables	disappearing altogether	no
iii.	**vowel reduction**	no (but existed in a limited way in Pre-Classical Latin)	no	extensive: omni-presence of schwas
iv.	**diphthongs**	yes (traditional, accor-ding to Cser 2020: no)	Disappeared. Later: 'Romance' diphthongization (4th century)	omnipresence of diph-thongs; triphthongs
v.	**geminates**	yes	loss of geminates (in Gallo-Roman: after 7th century)	no
vi.	**final devoicing**	no	no	yes

Let us recall the list of relevant processes in the evolution OHG > NHG
Typologically: syllable language > word language.

regarding:	**historical process**
vowels	1. syncope and apocope
	2. vowel reduction
	3. diphthongization
	4. stressed open syllable lengthening
consonants	5. intervocalic lenition (voicing and spirantization)
	6. intervocalic consonant deletion → contraction
	7. degemination
	8. advent of final devoicing
	9. consonant epenthesis at the right word edge

Do we find these processes also in the evolution from Latin to Old French?
➔ **Let us find out!**

1. Syncope and apocope

Syncope: already starting in Classical Latin (where it was optional)

complex onsets	*heterosyllabic sonorant + obstruent clusters*	*heterosyllabic obstruent-obstruent clusters*	*heterosyllabic sonorant+ sonorant clusters*
ˈpop**(u)**lus	ˈcal**(i)**dus	ˈnep**(o)**te	ˈcal**(a)**mus
ˈoc**(u)**lum	ˈvir**(i)**de	ˈpos**(i)**tu	ˈhom**(i)**nem
ˈreg**(u)**la	ˈjur**(i)**go	ˈav**(i)**ca	ˈpir**(u)**la

Later: Gallo-Roman syncope, (i) affecting a non-final syllable

Late Latin	**Old French**	
*ˈturb**u**lat	trouble	'trouble'
ˈtab**u**la	table	'table'
lib**e**ˈrāre	[livrer]	'to liberate'

1. Syncope and apocope

(ii) affecting a final syllable:

Late Latin	**Old French**	
ˈmūr**o**s	m[y]rs	'walls'
ˈdēb**e**t	deift	'should, must'

(examples mainly from Fouché 1958)

Apocope:

Late Latin	**Old French**	
ˈmūr**u**	m[y]r	'wall'
ˈher**ī**	hier	'yesterday'
ˈport**o**	(je) port	'(I) carry'

2. Vowel reduction

All unstressed vowels of Late Latin (a, e, o, au) can be reduced to schwa. The process takes place over an extended period of time, often followed by complete deletion.

Appearances of vowels reduced to ə, chronology (according to GGHF: 324):

	starting from		**non-initial position**	**initial position**
a.	3rd century	e, o, au	> ə	
b.	7th century	a	> ə	
c.	11th century	e		> ə

2. Vowel reduction

Examples of attested schwas in Old French originating from full vowels in Latin:

Latin	Old French	
orn**ā**ˈmentu	orn[**ə**]ment	‘ornament’
ˈport**a**	port[**ə**]	‘door’
*quadriˈfurcu (reconstr.)	carr[**ə**]for	‘road crossing’
ˈintr**o** (1st pers. sg.)	(je) entr[**ə**]	‘(I) enter’
ˈgen(e)r**e**m	gendr[**ə**]	‘son-in-law’

➔ Vowel reduction is productive in Present-day Catalan.

3. Diphthongization

Diphthongization in stressed open syllables (‘spontaneous diphthongizations’)

‘Roman’ and ‘French’ diphthongizations (resp. beginning of our era and from the 6th century onwards):

Latin	Old French	
ˈc**a**ru	ch**ie**r	‘dear’
ˈp**e**dem	p**ie**d	‘foot’
ˈb**o**nu	b**uo**n	‘good’
m**e**	m**ei**	‘me’

4. Stressed open syllable lengthening

Occurred in Late Latin. Vowels in stressed open syllables were lengthened.

Classical Latin	Late Latin	Old French	
ˈf**ĕ**ru	ˈf**ē**ru	fier	‘proud’
ˈc**ă**sa	ˈc**ā**sa	case	‘house’

Loporcaro 2015: Open Syllable Lengthening (OSL), starting in Late Imperial Latin: **a stressed syllable requires two moras**. OSL supplants Contrastive Vowel Length (CVL). (But CVL is maintained for some time in Northern varieties.)

Cf. the Bimoraic Condition (Ramers 1999) for MHG!

5. Lenition: voicing + spirantization

Latin	voicing	spiranti-zation	ɣ > jj β > v	result	Old French	
ˈrīpa	ˈri̱ba	riβə	ri**v**e	**v**	rive	‘bank, shore’
ˈfa**b**a		faβə	fe**v**e	**v**	feve	‘bean’
laˈ**v**āre		laβare	la**v**er	**v**	laver	‘(to) wash’
ˈra**ph**anu		ra**v**anu		**v**	ravene	‘radish’
ˈvī**t**a	ˈvi**d**a	viðə		**ð**	vide	‘life’
lauˈ**d**āre		lauðare		**ð**	lauder	‘(to) praise’
paˈ**c**āre	paˈ**g**are	paɣare	pa**jj**er	**jj**	paiier	‘(to) pay’
neˈ**g**āre		neɣare	ne**jj**er	**jj**	neiier	‘(to) deny, (to) refuse’

(Adapted from GGHF:410)

6. Word internal consonant deletion → contraction

Latin	Old French	
ˈ**tepi**du	t**ie**de	‘lukewarm’
ˈc**ubi**tu	c**ou**de	‘elbow’
n**āvi**ˈgāre	n**a**gier	‘(to) sail, (to) navigate’
ˈr**otu**lu	r**o**lle	‘little wheel’
*r**ādī**ˈcīna (< radix)	r**a**cine	‘root’

(adapted from GGHF:400)

7. Degemination

Degemination of heterosyllabic geminates: 7th century or later.

(Exception: *rr* is degeminated only from the 12th cent. onwards.)

Latin	Old French	
ˈgu**tt**a	go**t**e	‘drop’
ˈbu**ll**a	bo**l**e	‘bubble’
ˈa**bb**as	a**b**es	‘abbot’
ˈmi**tt**ere	me**t**re	‘(to) send’

8. Arrival of final devoicing (FD)

FD in Gallo-Roman, Proto- and Old French:

Old Fr. froi**t** (*masc.*) – froi**d**e (*fem.*) ‘cold’
Lat. lun**g**um > *Old Fr*. lon**c** ‘long’

There are remnants of this process in contemporary French:

Latin	Mod. French (fem.)	Mod. French (masc.)	
no**v**us	neu**v**e	neu**f**	‘new’
gran**d**is	gran[**d**]e amie *(liaison context)*	gran[**t**] ami *(liaison context)*	‘big friend’

→ FD exists also in other Western Romance languages: it is productive in contemporary Catalan, Occitan, Friulian, Ladin and Rhaeto-Romansh.

9. Consonant epenthesis at the right word edge

Does not exist in Old French (as far as we know), but does exist in present-day Central and Eastern Catalan (Caro Reina 2014: 379, 2019: 163-6):

Present-day Central and Eastern Catalan		
api	[ˈapi] ~ [ˈapi**t**]	‘celery’
collegi	[kulˈlɛʒi] ~ [kulˈlɛʒi**t**]	‘school’
tave	[ˈtaβə] ~ [ˈtaβə**t**] ~ [ˈtaβə**k**]	‘horsefly’
rave	[ˈraβə] ~ [ˈraβə**t**] ~ [ˈraβə**k**]	‘radish’
cor	[kɔr] ~ [kɔr**t**]	‘heart’
mar	[mar] ~ [mar**t**]	‘sea’

9. Consonant epenthesis at the right word edge

Also in Friulian (Pellis 1910; Francescato 1966: 16, 63-65; Heinemann 2001, all three reported by Caro Reina 2019: 87-8)

	Friulian	
stomi	[ˈstɔmi] ~ [ˈstɔmi**t**]	'stomach'
om	[ɔm] ~ [ɔm**p**]	'man'
ğovin	[ˈʒɔvin] ~ [ˈʒɔvin**t**]	'youngster'
len	[lɛŋ] ~ [lɛŋ**k**]	'wood'

Comparison

	historical process	OHG→ NHG	Cl. Lat.→ Old Fr.
vowels	1. syncope and apocope	+	+
	2. vowel reduction	+	+
	3. diphthongization	+	+
	4. stressed open syllable lengthening	+	+
consonants	5. intervocalic lenition (voicing and spirantization)	+	+
	6. intervocalic consonant deletion → contraction	+	+
	7. degemination	+	+
	8. arrival of final devoicing	+	+
	9. consonant epenthesis at the right word edge	+	–*

*Exists in Present-day Catalan and Friulian

Question:

Is it a **coincidence**, that we find this many parallels between the evolutions OHG > NHG and Cl.L > OF? Why and how do these changes **conspire**?

- The evolution Cl.L > OF is just like OHG > NHG a change from a (relative) Syllable Language (SL) to a (relative) Word Language (WL).

Question:

Is the change SL > WL in High German and in Western Romance just the **result** of these 8 or 9 processes, or is there an **original force** behind these processes?

- We can assume that this is at least partially the case: a given process may change the place of the language in question on the SL-WL scale and thus setting in motion a second process, typical to the particular place on the SL-WL scale.

We can go one step further and make the conjecture:

The 9 processes of High German and Western Romance treated above are by **no means primitive changes**, but are **driven by changes in the prosodic system** of the respective languages.

E.g.: by the loss of Contrastive Vowel length (CVL) in unstressed syllables (or the loss of CVL altogether), or, more broadly, by **the change from a syllable language to a word language**.

(For an overview of the change from CVL to Open Syllable Lengthening (OSL): see Riad 1992 for Germanic, Loporcaro 2015 for Romance).

General conclusions:

1. There is a remarkable similarity between the history of High German from 750 to 1750 and that of Latin → Old French from 0 to 1000.
2. For both languages, the changes are based on a similar change in prosodic organization, i.e. away from a syllable language towards a word language.
3. When studying language change, one should focus more on prosodic change – with its consequences for segmental structure – rather than on isolated segmental changes.

Thank you!
Dziękuję!

This presentation (incl. bibl.) can be downloaded:
→ https://rnoske.home.xs4all.nl/narrowtraj.pdf

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