Rethinking the Middle High German Syllable

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MHG syllabification

ta-ge, *zwî-vel*, *sê-le, ge-nant*, *sa-gen*, *â-ne*

onset maximization

be-gun-de, *senf-ter*, *um-be*, *ker-zen*, *ge-dul-de-keit*

sonority sequencing principle: the segments in a syllable rise in sonority from the onset to the nucleus, and fall from the nucleus to the coda

geminates

vallen/fallen: NHG [fɑlən] vs MHG [fɑlːən]

MHG *vallen* can be syllabified as *val-len* vs NHG with an ambisyllabic consonant

geminate vs ambisyllabic?

velar nasals

lange

NHG [lɑŋə] vs MHG [lɑŋgə]

heterosyllabic in MHG: *lan-ge*

ambisyllabic velar nasal in NHG

issues: affricates

1. [zɪ.ʦən] *sitzen*

advantages: monophonemic affricate

adheres to onset maximization principle

disadvantages: results in NHG [ziːʦən]

361 si sêre solde letzen

X / X' X / X' X / ---' / X`

362 und vil gar ent - setzen (*Der arme Heinrich*)

X' X / X' X /---'/ X`

issues: affricates

2. [zɪʦ.ən] monophonemic, belongs to left syllable

solves open syllable problem

difficult to justify the violation of the onset maximization principle

compare *le-ben*

issues: affricates

3. /zɪʦən/ monophonemic, ambisyllabic

4. /zɪt.sən/ biphonemic, heterosyllabic phonemes

both result in a closed first syllable and a second syllable with an onset

for our algorithm there is no difference: *sit-zen* could be read as having an ambisyllabic affricate or two heterosyllabic phonemes

affricate as a unit phoneme vs avoiding ambisyllabicity

issues: clusters with *s*

-*beste* → *be-ste* or *bes-te*?

-*be-ste* would result in NHG [beː.stə]

-metrical evidence supports *bes-te*:

97 Dirre werlde veste,

X' X / X' X /---' / X`

98 ir stæte und ir beste (*Der arme Heinrich*)

X/ X' X / X' X / ---' / X`

implementation

-Sonority Sequencing Principle (SSP)

-syllable boundaries occur at low points of sonority

-our algorithm assigns sonority values to graphemes and looks for these points

-two problems: morpheme boundaries and language-specific illegal onsets

implementation: morpheme boundaries and illegal onsets

-*geste* → *ges-te* but *gestalt* → *ge-stalt*

-*wîplich* → *wîp-lich*, not *wî-plich*

-*lich* and -*heit* treated individually

-*enweiz* (*ich enweiz*) → *en-weiz*, not *e-nweiz*

accuracy

99.4% based on our principles

the 95% confidence interval is 98.9% to 99.9%

automated scansion (Parzival)

502: von a-râ-bîe des gol-des

X / X' X / X` X / ---' / X` Zweisilbig klingend

503: he-ter ma-ne-gen knol-len brâht

/ X' X / X' ◡ ◡ / X' X / X' Einsilbig männlich

504: liu-te vin-ster sô diu naht

/ X' X / X' X / X' X / X' Einsilbig männlich

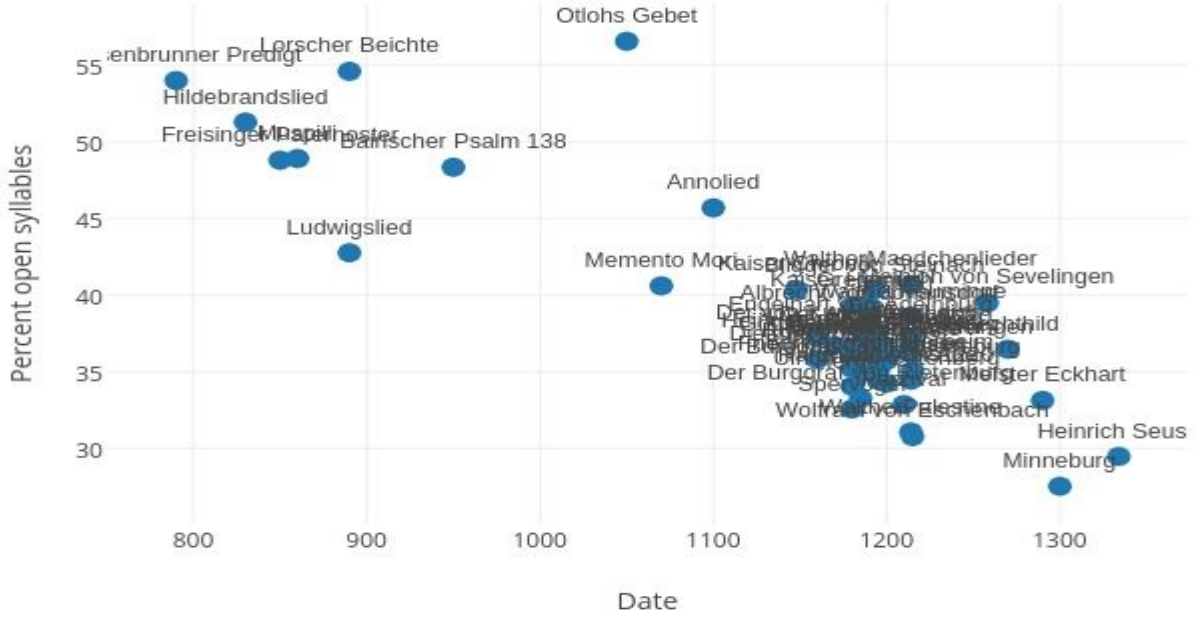
505: wârn al-le die von za-za-manc

X / X' X / X' X / X' X / X` Dreisilbig klingend

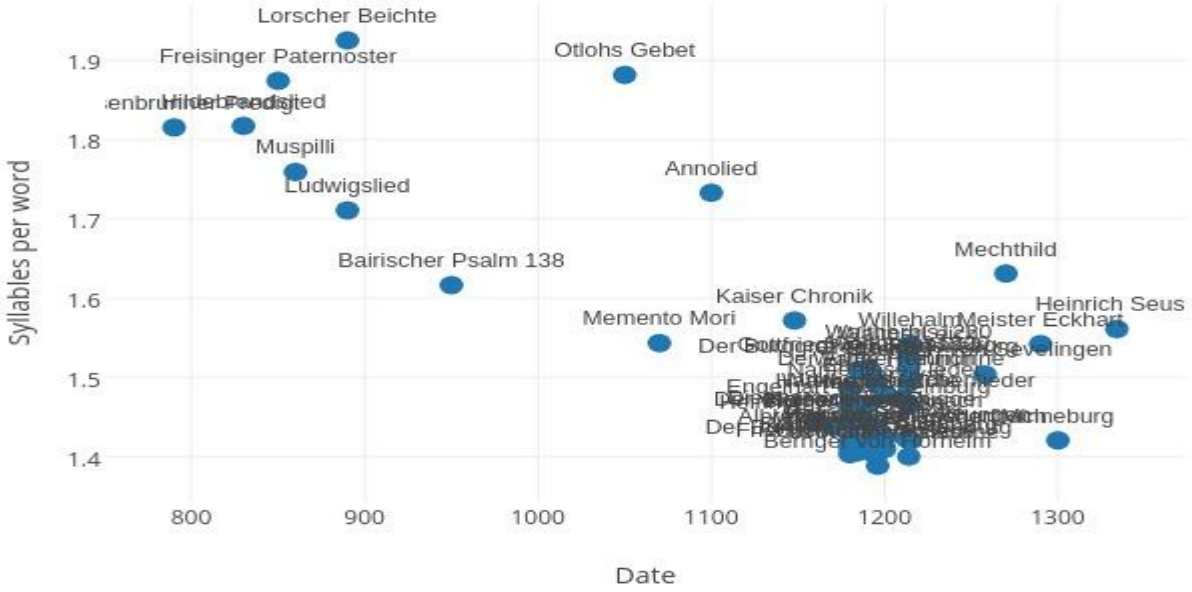
506: bî den dûht in diu wî-le lanc

/ X' X / X' ◡ ◡ / X' X / X' Einsilbig männlich

percent open syllables over time



syllables per word over time



syllable attrition

regression analysis shows that German has lost .09 syllables per word per century since 800 AD

roughly one syllable per millennium

by the year 2700, the German language will have ceased to exist entirely