

## 1. Corpus

- ◆ Synchronic & diachronic electronic corpus of German
- ◆ 15825 New High German (NHG) monomorphemic words
- ◆ 6524 native forms (i.e. attested in Early New (ENHG) / Middle (MHG) / Old High German (OHG))
- ◆ NHG entries taken from Maurer & Al. (1996-2001), etymologies from Auberle (2001), Kluge (1989) & Pfeifer (1989)

## 2. Framework

- ◆ Results are theory independent
- ◆ CVCV theory, as in Scheer (2004)

## 3. Start point & goals

Vowel length distinctions in German have been dealt with a lot, in both synchronic and diachronic perspectives.

A complementary distribution is assumed:

- ◆ long vowels in open syllables: [i:]be "love" ...
- ◆ short vowels in closed syllables: fi[ɪ]nden "to find" ...

Objectives:

- ◆ More than syllable structure is needed to account for NHG 'open syllable lengthening';
- ◆ Vowel length: closely related to stress;
- ◆ NHG lengthening = (complex kind of) tonic lengthening, as found in Italian (Vogel 1982);
- ◆ Representation of stress in (Middle High) German.

## 4. Standard assumptions... are not enough!

Long (VV) & short (V) vowels are said to be in complementary distribution (Benware 1986, Hall 1992, Lenerz 2000, Ramers 1992, Vennemann 1982, Wiese 1996 and others).

- ◆ VVs in open syllables (OS), banned from closed syllables (CS):  
 ☺ [ɛ:] "sea", [i:]be "love" - 5110 items ⇒ fi:]nden
- ◆ Vs only in CS - banned from OS:  
 ☹ fi:]nden "to find", B[ɛ:]tʃ "bed" - 5197 forms ⇒ \*ʃ[ɛ:]

**BUT:** ☹ VVs in final CS: R[ɛ:]]m "cream" - 2826 words;

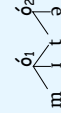
⇒ extrasyllabicity, appendices, VXC ...

All kinds of consonants

and ☹ VVs in internal OS: M[ɪ]tʃe "middle" - 2086 items.

⇒ ambisyllabicity

Only voiceless consonants



## 5. Using data - Part 1. Status of vowel length distinctions in German...

No vowel length alternation in German

Length is defined in roots and does **never** vary: derivation, inflection and composition do **not** influence the length of the root vowel!

e.g. **Inflection:** [i:]be "love" vs. [i:]bʏt "he loves"

**Derivation:** [i:]ben "life" vs. [i:]bhaft "lively"

**Composition:** [i:]hɪren "to drive" vs. [i:]hrkɑrte "bus ticket"

Exceptions: 'strong' paradigms which show real alternations:  
 g[ɛ:]be "(I) give" vs. g[ɪ]bʏt "he gives"

## 6. Using data - Part 2. NHG OSL is more complex a phenomenon as it has been assumed...

◆ MHG: VVs & Vs enjoy free distribution: *dāchte* " (he) thought", *klē "clover", kater* "tom cat", *gewichte* "weight".

◆ MHG > NHG: lengthening, seen as an Open Syllable Lengthening (OSL) Syllable is hold responsible for it (cf. Paul 1998, Ebert 1993...).

**BUT:** other factors are crucially needed (Caratini, to appear).

- ◆ **Position of the syllable:**  
 MHG *richten, schrift* > NHG [ɪ]chten "to address", *Schr[ɪ]ft* "writing" (1803 items, 94,8 %)  
 MHG *tag* > NHG [ɪ:]g "day" (159 forms, 93,5 %)

◆ **Following vowel: full vowel vs. schwa:**

MHG *strival* > NHG *St[ɪ:]f[ɛ:]le* "boot" (11 words, 78,6 %)

MHG *rede* > NHG *R[ɛ:]t[ɛ:]r* "sieve"

◆ **Voice value of the following (intervocalic) consonant:**

MHG *rise* > NHG *R[ɪ:]se* "giant" (547 words, 95,04 %)

MHG *buter* > NHG *B[ʊ:]t[ɛ:]r* "butter" (61 items, 53,04 %)

## 7. Using data - Part 3. NHG OSL has affected only stressed vowels...

OSL did not lengthen unstressed vowels. As a consequence, in NHG, only stressed vowels can be long:

e.g. MHG *kūnic* > NHG *K[ɔ:]nig* "king"

vs. MHG *z[ɔ:]balle* > NHG *Zw[ɪ:]b[ɔ:]l*, *\*Zw[ɪ:]d[ɔ:]l* "onion"

MHG *obe* > NHG [ɔ:]b "if"<sup>3</sup>

NHG *M[ɔ:]bel* "furniture" vs. NHG *m[ɔ:]b[ɪ:]gen* "to furnish"

⇒ **MHG > NHG OSL was a kind of Tonic Lengthening!**

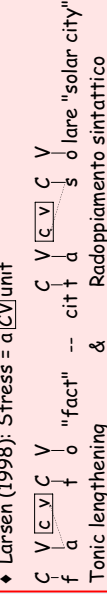
## 8. Length happens because of stress...

... And length is a problem of syllabic space

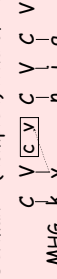
⇒ **Stress provides the required syllabic space...**

◆ Vogel (1982) for Italian: stress = additional x-slot

◆ Larsen (1998): Stress = a [CV] unit



◆ German ⇒ (komplex) kind of Tonic Length(ening):



If stress = [CV] unit in German ⇒ prediction:

◆ MHG > NHG: sometimes, V ✗ VV / V\_\_V

⇒ CV should affect neighbouring segments, i.e. the following consonant.



**That is indeed the case:** for words like NHG *Butter*, *Pappel*..., any synchronic analysis needs to assume the existence of geminates in order to account for **stress & vowel length** in NHG.

## 9. Concluding remarks

- ◆ V Length: no alternation
- ◆ OSL: Position of the syllable in the word  
 Identity of the following vowel  
 ??? Voice value of the following consonant
- ◆ Length = stress-dependent (Italian & German)
- ◆ Length needs syllabic space: [CV] unit
- ◆ [CV] unit ⇒ vowel length AND consonant length

**Only voiceless consonants** can spread to an empty site.

Voiced consonants cannot spread: no short V in OS before a voiced consonant in NHG (\**b[ɪ]dde*), except in some loans.

WHY is it so?

⇒ Why do voiceless obstruent spread **and sometimes not** (cf.

*M[ɪ:]te* vs. *B[ʊ:]tten*)?

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Notes: <sup>1</sup> In "Normal MHG", circumflex stands for "long".

<sup>2</sup> Stressed vowels are underlined.

<sup>3</sup> Propositions were (probably) not stressed in MHG.