

◆ **CV** unit provides an explanation for both 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[i]dde*), except in some loans.

WHY is it so?

⇒ Why do voiceless obstruent spread **and sometimes not** (cf. *M[i:]te* vs. *B[u]tter*)?

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## Where does vowel length come from?

### *Synchronic and diachronic evidence*

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### 1. Corpus

- ◆ **Synchronic & diachronic** electronic corpus of German
- ◆ **15825** New High German (NHG) **monomorphemic** words (cf. 5)
- ◆ **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**: *L[i:]be* "love"...
- ◆ **short vowels in closed syllables**: *f[i]nden* "to find"...

Objectives:

- ◆ Show that **more than syllable structure** is needed to account for NHG 'open syllable lengthening': the position of the syllable in the word, the identity of the following vowel & the voice value of the following intervocalic consonant;
- ◆ Point at the fact that vowel length is **closely related to stress**;
- ◆ Argue that NHG lengthening = (complex kind of) **tonic lengthening**, as found in Italian (Vogel 1982);
- ◆ Provide a **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 are said to occur in open syllables (OS) - be banned from closed syllables (CS):*

☺ *S[e:]* "sea", *L[i:]be* "love" - 5110 items      ⇒ \**f[i:]nden*

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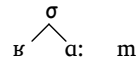
♦ Vs are said occur only in closed syllables - to be banned from open syllables:

☺  $f[i:]nden$  "to find",  $B[\varepsilon:]t$  "bed" - 5197 forms  $\Rightarrow$  \*  $S[\varepsilon:]$

**BUT:** ☹ VVs also surface in final CS:  $R[\alpha:]hm$  "cream" - 2826 words;

$\Rightarrow$  **extrasyllabicity, appendices, VXC...**

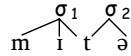
All kinds of consonants are concerned



**and** ☹ Vs do occur in internal OS:  $M[i:]tte$  "middle" - 2086 items.

$\Rightarrow$  **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:**  $L[i:]be$  "love" vs.  $f[i:]bt$  "he loves"

**Derivation:**  $L[e:]ben$  "life" vs.  $f[e:]bhaft$  "lively"

**Composition:**  $f[\alpha:]hren$  "to drive" vs.  $f[\alpha:]hrkarte$  "bus ticket"

Exceptions: 'strong' paradigms which show real alternations:

$g[e:]be$  "(I) give" vs.  $g[i:]bt$  "he gives"

$\Rightarrow$  Each form is isolated, i.e. behaves as a root.

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

♦ MHG: VVs & Vs enjoy free distribution: MHG  $d\acute{a}chte^1$  "(he) thought",  $kl\acute{e}$  "clover",  $kater$  "tom cat",  $gewichte$  "weight". **Environment does not influence the V.**

♦ MHG > NHG: lengthening, seen as an Open Syllable Lengthening (OSL); contextual change; the syllable is hold responsible for it (cf. Paul 1998, Ebert 1993...).

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

♦ **Position of the syllable:**  $\_ C \#$  ( $\Rightarrow$  VV) vs.  $\_ C C X$  ( $\Rightarrow$  V) (cf. 4)

MHG  $richten, schrift$  > NHG  $r[i:]chten$  "to adress",  $Schr[i:]ft$  "writing" (1803 items, 94,8 %)

MHG  $tag$  > NHG  $T[\alpha:]g$  "day" (159 forms, 93,5 %)

♦ **Identity of the following vowel: full vowel** ( $\Rightarrow$  VV) vs. **schwa** ( $\Rightarrow$  V):

MHG  $stival$  > NHG  $Sf[i:]fel$  "boot" (11 words, 78,6 %)

MHG  $rede$  > NHG  $R[\varepsilon:]er$  "sieve"

♦ **Voice value of the following (intervocalic) consonant:** if voiced, then VV (cf. 4)

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

MHG  $buter$  > NHG  $B[u:]tter$  "butter" (61 items, 53,04 %)

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

### 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<sup>2</sup>:

e.g. MHG  $k\acute{u}nic$  > NHG  $K[\underline{u}:]nig$  "king"

vs. MHG  $z(w)ibolle$  > NHG  $Zwieb[\underline{ə}]$ , \* $Zwieb[\underline{o}:]$  "onion"

MHG  $obe$  > NHG  $[\underline{ɔ}]b$  "if"<sup>3</sup>

NHG  $M[\underline{ɔ}:]bel$  "furniture" vs. NHG  $m[\underline{ɔ}]blieren$  "to furnish"

$\Rightarrow$  **MHG > NHG OSL was a kind of Tonic Lengthening!**

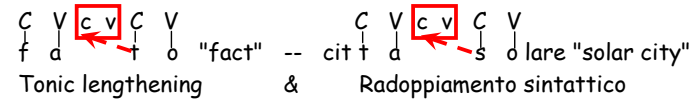
### 8. Length happens because of stress...

... And length is a problem of syllabic space

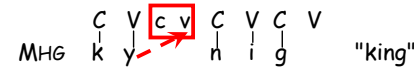
$\Rightarrow$  Then **stress** must **provide** the required **syllabic space!**

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

♦ For Larsen (1998): Stress = a **CV** unit

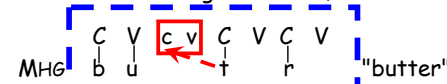


♦ German  $\Rightarrow$  (komplex) kind of Tonic Length(ening):



If stress = **CV** unit in German  $\Rightarrow$  prediction:

♦ MHG > NHG: When the vowel does not lengthen, the neighbouring segments, for instance the following consonant, should be affected by the added accentual **CV**



**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. Cf. 4.

### 9. Concluding remarks

♦ There is no V-length alternation in German; V-length is stable;

♦ 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  $\Rightarrow$  **CV** unit

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

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