



# Writing Systems in Comparison: German, Dutch, English

*Nanna Fuhrhop (Potsdam)*

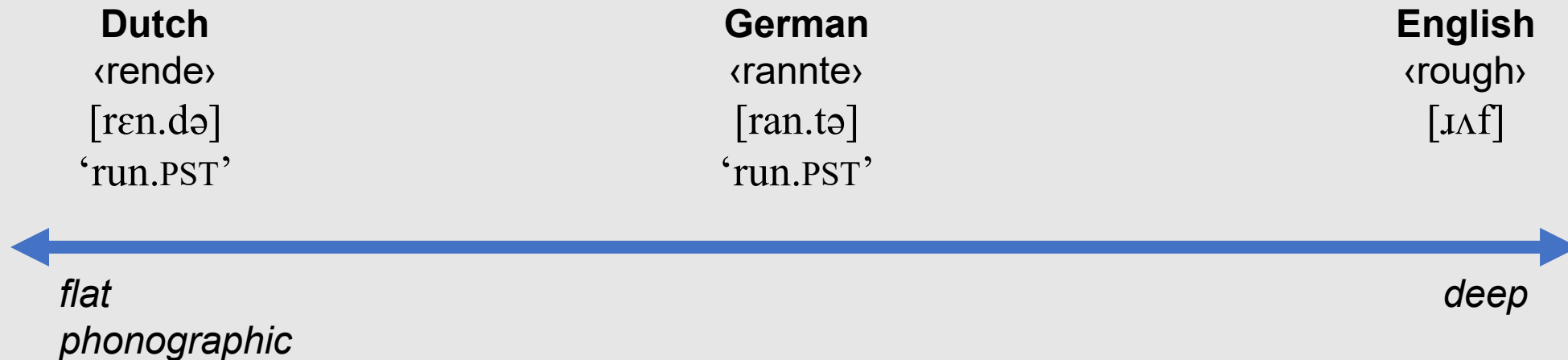
*Niklas Reinken (Leipzig)*

*Reena Poeschel (Potsdam)*

*Torsten Leuschner (Gent/QMUL)*

A Germanic Sandwich 10, FU Berlin, May 8th, 2026

# ‘Deep’ vs. ‘flat’ writing systems



- Traditionally: the flatter, the closer to the ideal of 1:1 phoneme grapheme correspondence; the deeper, the less phonographic correspondence (due to conflicting writing principles and historic developments)
- Is there another definition of deep and flat? Is German ‘flatter’ than English?

# Phenomena & writing strategies in comparison

1. How to show vowel quantity:

1.1 lax

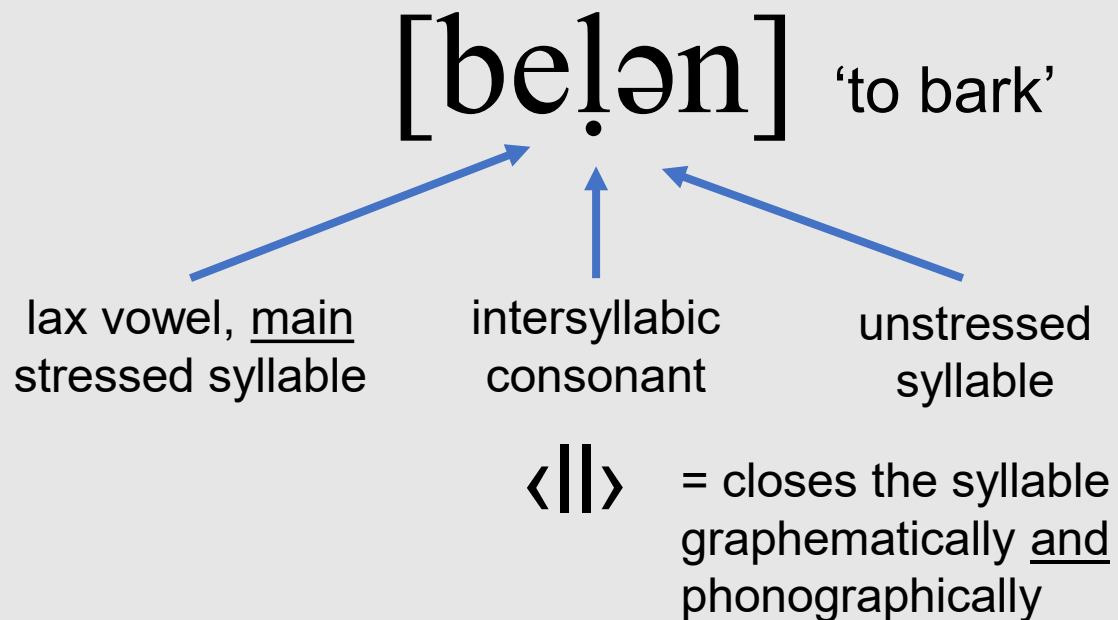
1.2 tense

2. How to show syllable boundaries?

3. Morphological principles – how to show lexical and grammatical information?

# 1.1 Lax vowel > double consonants

- a. **German:** *schrubben, bellen, kämmer, trennen, kippen, knurren, küssen, retten*
- b. **Dutch:** *tobben, redden, blaffen, leggen, bakken, hollen, trimmen, rennen, morren, gissen, pletten*
- c. **English:** *robbing, kidding, sniffing, begging, calling, humming, banning, stepping, stirring, kissing, chatting, buzzing*



Digraphs and Trigraphs such as <sh, sch> are not doubled.

<tz> in German for \*zz, <ck> in German and English for \*kk

# 1.1 Double consonants in monosyllabic words

	one consonantal letter	two consonantal letters	
German		<i>jobb-t, klaff-t, knall-t, schwimm-t, renn-t, schnapp-t, knurr-t, küss-t</i>	> stem constancy, morphological principle
Dutch	<i>kis-t, cros-t, bel-t, blaf-t, bak-t, ren-t, zwem-t</i>		> 1:1 correspondence, phonographic principle
English	<i>rob, nod, beg, hum, ban, stir, stop, chat</i>	<i>call, sniff, buzz, kiss</i>	> middle ground

# 1.1.1 Double consonants after a syllable that does not carry the main stress

<b>German</b>	<i>Potsdam – der Potsdamer, Rotterdam – der Rotterdamer</i> <i>Hindernis – Hindernisse, Kenntnis – Kenntnisse, Zirkus – Zirkusse</i>
<b>Dutch</b>	<i>Rotterdam – de Rotterdammer, Amsterdam – de Amsterdammer</i> <i>fruniken, grinniken, haviken, kanunniken</i>
<b>English</b>	<i>to benefit – benefitted (BrE) vs. benefited (AmE)</i> <i>to travel – travelled (BrE) vs. traveled (AmE)</i> <i>to cancel – cancelled (BrE) vs. canceled (AmE)</i>



# 1.2 Showing tense vowels

Strategy	German	Dutch	English
<b>Graphematic syllable structure:</b> <ul style="list-style-type: none"> <li>- open syllable &gt; tense vowel</li> <li>- closed syllable &gt; lax vowel</li> </ul> <b>&gt; no extra indication</b>	<i>! Los, Huf</i>		
<b>Doubling of the vowel letter</b>	<i>Boot, Beet, Aal</i>	<i>huren &gt; huurt</i>	<i>roof, seek</i> <i>! book, good</i>
<b>Digraphs</b>	⟨ie⟩ <i>tief</i>	⟨oe eu ie⟩ <i>boek, deur, fiets</i>	⟨ea ou⟩ <i>seat, wound</i>
<b>Lengthening ⟨h⟩</b> (stems ending with ⟨l m n r⟩)	<i>Wahl, Lehm,</i> <i>Rohr, Bahn</i>	—	—

# 1.2.1 Tense vowels and graphematic bisyllabicity

⟨Lob⟩  
[lo:p]  
,praise'

⟨Lobes⟩  
[lo:.bəs]  
,of praise'

⟨fat⟩  
[fæt]

⟨fate⟩  
[feit]

In this cases, bisyllabicity shows that the first syllable is an open one and thus, it is probably tense.

In English, the silent <e> does something similar (with an additional vowel quality change).

## Syllable openers

	checked (lax)	vs.	free (tense)
<a>	/æ/ 'fat'		/ei/ 'fate'
<e>	/ɛ/ 'pet'		/i:/ 'Pete'
<i>	/ɪ/ 'tin'		/aɪ/ 'tine'
<o>	/ɒ/ 'lob'		/əʊ/ 'lobe'
<u>	/ʌ/ 'run'		/u:/ 'rune'

## 2. Two vowels next to each other

	one syllable	syllable border	explicit marking of second syllable
<b>Dutch</b>	<i>geit, ruim, boud, boud</i>	<i>beantwoorden, gearresteerd ...</i>	<b>diacritics:</b> <i>geïnd, ruïne, geüniformiseerd, coöperatie, officiële, creëert ...</i> <i>*geärresteerd</i>
<b>German</b>	<i>Preis, Haus, feucht</i>	<i>beachten, beerben, beirren, beobachten ...</i>	<b>syllable initial &lt;h&gt;:</b> <i>nahe, Ruhe, Mühe, ziehen ...</i> <i>*bauhen, *teuher</i>
<b>English</b>	<i>gain, pound</i>	<i>doable</i>	<b>syllable opening &lt;a&gt;:</b> <i>boat, meat, coat, peat</i>

### Syllable openers

Graphematic diphthongs with <a> as a second part correspond to the syllable opening strategy in English:

*met* – *meat* – *mete*  
           *vial* – *vile*  
*cot* – *coat* – *cote*  
*pet* – *peat* – *Pete ...*

# 3. Morpheme constancy

	Dutch	English	German
stem constancy	⟨leven⟩ – ⟨leeft⟩	⟨leaf⟩ – ⟨leaves⟩	⟨Lob⟩ – ⟨Lobes⟩
	[levən]– [left]	[li:f] – [li:vz]	[lo:p] – [lo:.bəs]
	<b>flat</b>	<b>flat</b>	<b>deep</b>

	one consonantal letter	two consonantal letters	
<b>German</b>		<i>jobb-t, klaff-t, knall-t, schwimm-t, renn-t, schnapp-t, knurr-t, küss-t</i>	> stem constancy, morphological principle
<b>Dutch</b>	<i>kis-t, cros-t, bel-t, blaf-t, bak-t, ren-t, zwem-t</i>		> 1:1 correspondence, phonographic principle
<b>English</b>	<i>rob, nod, beg, hum, ban, stir, stop, chat</i>	<i>call, sniff, buzz, kiss</i>	> middle ground

# The ‚depth‘ of writing systems

	Dutch	German	English
Double consonants in monosyllabic words	flat	deep	middle
Showing tense vowels	flat	deep	middle
Syllable openers	flat	middle	deep
morpheme constancy <i>double consonants in monosyllabic forms</i> <i>final devoicing</i>	flat	deep	middle flat

## Writer-orientation vs. reader-orientation

Keeping the morphological structure visible – to the point of abandoning the phonographic principle – facilitates the reading and the identification of lexemes but aggravate the writing.

# Literature & Sources

- Buetler, Karin A.; de León Rodríguez, Diego; Laganaro, Marina; Müri, René; Spierer, Lucas; Annoni, Jean-Marie (2014): Language context modulates reading route. An electrical neuroimaging study. In: *Frontiers in human neuroscience* 8 (83), S. 1–16. DOI: 10.3389/fnhum.2014.00083.
- Caravolas, Markéta (2005): The Nature and Causes of Dyslexia in Different Languages. In: Margaret J. Snowling und Charles Hulme (Hg.): *The science of reading. A handbook*. Malden: Blackwell, S. 336–355.
- Cook, Vivian (2004): *The English writing system*. London: Arnold.
- Fuhrhop, Nanna; Berg, Kristian (2021): Schreibdiphthonge und graphematische Silbenkerne. Was ist daran modalitätsspezifisch und was modalitätsübergreifend? In: Martin Evertz-Rittich und Frank Kirchhoff (Hg.): *Geschriebene und gesprochene Sprache als Modalitäten eines Sprachsystems*. Berlin, Boston: de Gruyter, S. 5–36.
- Fuhrhop, Nanna; Leuschner, Torsten; Poeschel, Reena; Reinken, Niklas (in prep.): The Dutch writing system compared to the German and English systems.
- Frost, Ram; Katz, Leonard; Bentin, Shlomo (1987): Orthographical Depth. A Multilingual Comparison. In: *Journal of Experimental Psychology: Human Perception and Performance* 13 (1), S. 104–115. DOI: 10.1037//0096-1523.13.1.104.
- Meisenburg, Trudel (1998): Zur Typologie von Alphabetschriftsystemen anhand des Parameters der Tiefe. In: *Linguistische Berichte* (173), S. 43–64.
- Schmalz, Xenia; Marinus, Eva; Coltheart, Max & Castles, Anne (2015): Getting to the bottom of orthographic depth. *Psychonomic Bulletin & Review* 22, S. 1614–1629. <https://doi.org/10.3758/s13423-015-0835-2>
- Schmidt, Karsten (2018): *Phonographie und Morphographie im Deutschen*. Tübingen: Stauffenburg.



Many thanks for your attention  
and for any questions or comments!

Otherwise, just enjoy the coffee break

