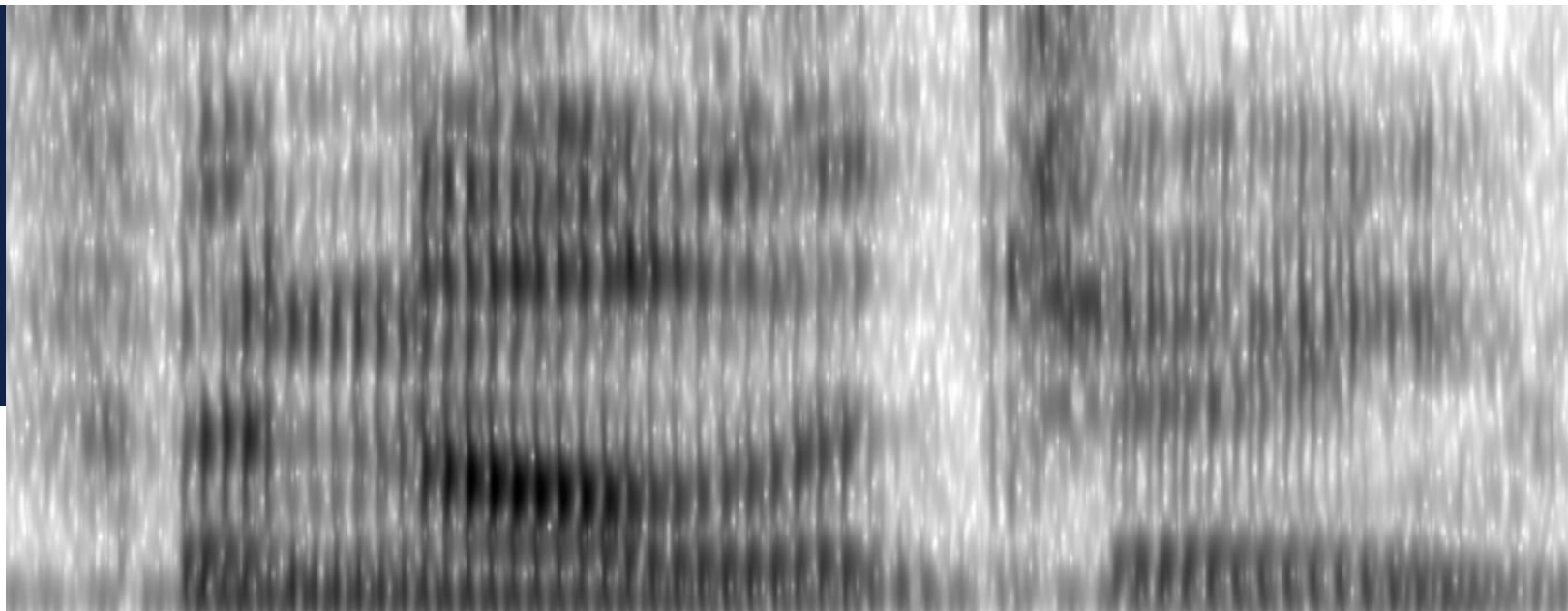




UNIVERSITY OF
OXFORD



Middle High German: Phonology I

Joshua Booth

joshua.booth@ling-phil.ox.ac.uk

Language & Brain Laboratory

Faculty of Linguistics, Philology & Phonetics

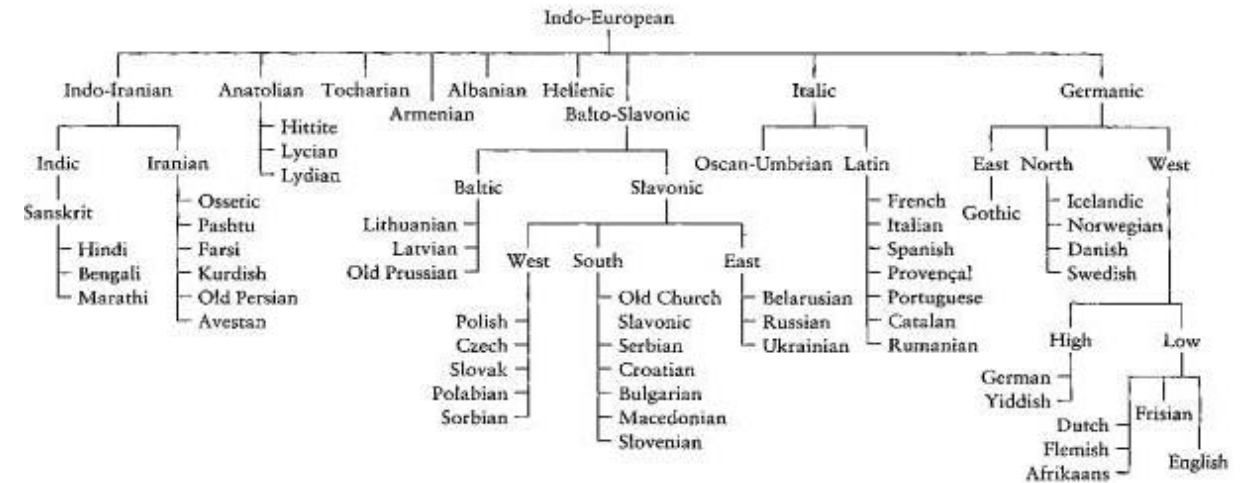
University of Oxford

Michaelmas Term 2025

1. Introduction to Historical Linguistics and Middle High German
2. Phonology I
3. Phonology II
4. Morphology I
5. Morphology II
6. Syntax
7. Lexis & Language Contact
8. Verse and Metre

Recap: Defining MHG

- Time
- Space
- Linguistic features



1. Spoken in later mediaeval period (ca. 1050–1350)
2. (West) Germanic language
3. Affected by the 2nd Sound Shift
4. Spoken in High German dialect area



Phonology

Phonetics and Phonology

- Concerned with **sounds** of language

Phonology

- Organisation/structure of speech sounds
- Abstract/underlying representations
- Groups sounds into hierarchical units
- Interacts with other domains

Phonetics

- Physical properties of speech sounds/acoustics &c.

For an introduction to these topics, see Ashby, M. & Maidment, J. 2005. *Introducing Phonetic Science*. Cambridge: Cambridge University Press



Segments vs. letters

Individual *segments* (sounds) are the building blocks of speech

Segments ≠ letters

How many vowels in English?

~~• a, e, i, o, u?~~

- ɪ, iː, ʊ, uː, ɔɪ, ɛ, ɜɪ, ə, ʌ, ɔ, æ, ɑɪ, ɛɪ, ʌɪ, ɔɪ, aʊ, əʊ, ɪə, ɛə, ʊə

⟨ough⟩?

- *bough*
- *cough*
- *hiccough*
- *though*
- *through*
- *thorough*
- *ought...*

Segments vs. letters

Individual *segments* (sounds) are the building blocks of speech

- No inherent 'meaning', word-class restrictions &c.

Segments ≠ letters

Same sound, different letters:

- [k] *kitchen, a**ch**e, ba**ck***
- [tʃ] ***ch**ease, ba**tt**ch, **Tu**esday, **c**iao*
- [i:] *pie**ce**, p**ea**s, p**ee**s, pi**que***

Same letter, different sound: <ch>

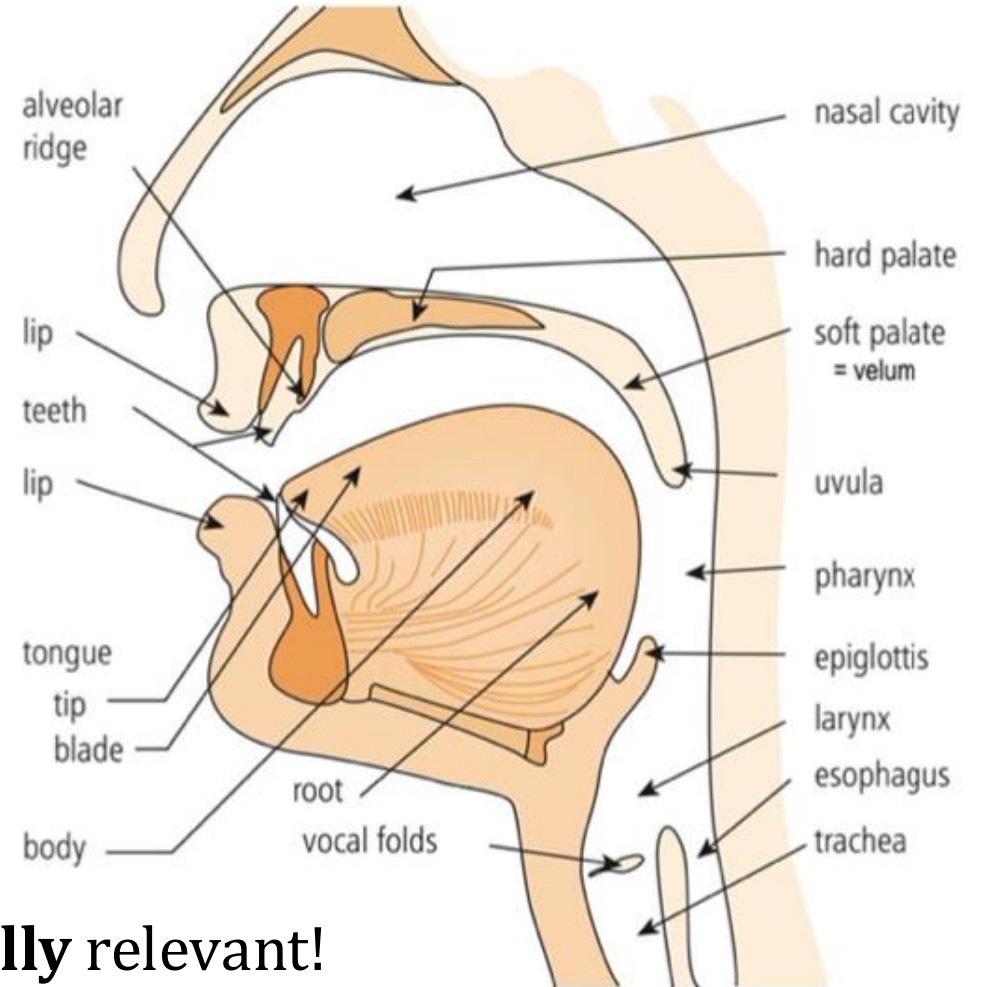
- [k] ***ch**orus*
- [tʃ] ***ch**ick*
- [ʃ] *ni**ch**e*
- [x] *lo**ch***

The vocal tract: Above the larynx

Consonants can be described according to their:

- Voicing
- Place of articulation
- Manner of articulation

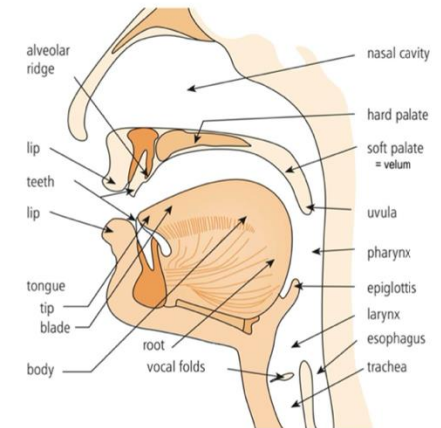
	Labial		Coronal		Dorsal		Glottal
Plosive	p	b	t	d	k	g	
Nasal	m		n		ŋ		
Trill			r				
Tap or Flap							
Fricative	f	v	s	ʃ	x		h
Lateral fricative							
Approximant				j			
Lateral approximant			l				



NB: Not all *phonetic* distinctions are **phonologically** relevant!

Place of articulation

- Bilabial = lips together
- Labiodental = lower lip raised towards upper front teeth
- Dental = touching upper front teeth with tip of tongue
- Alveolar = raising tip of tongue towards the ridge right behind upper front teeth
- Palatoalveolar = raising blade of tongue towards part of palate just behind alveolar ridge
- Palatal = similar to palatoalveolar, just further back towards soft palate (velum)
- Velar = raising back of tongue towards soft palate (velum)
- Glottal = when the air passes through the glottis as it is narrowed



Manner of articulation

- Plosive = complete closure of articulators
- Nasal = lowered velum, allows air to escape through the nose
- Trill = airstream causes the articulator to vibrate.
- Tap/Flap = single contraction of the muscles so that one articulator (such as the tongue) is thrown against another; no release burst.
- Fricative = a partial blockage of the vocal tract so that air has to be forced through a narrow channel.
- Lateral Fricative = tongue blocks the middle of mouth so that air has to pass around the sides.
- Approximant = when two articulators come close together but not quite close enough to create air turbulence.
- Lateral Approximant = made by releasing air past the sides of the tongue whilst making a block in the middle.

Vowels

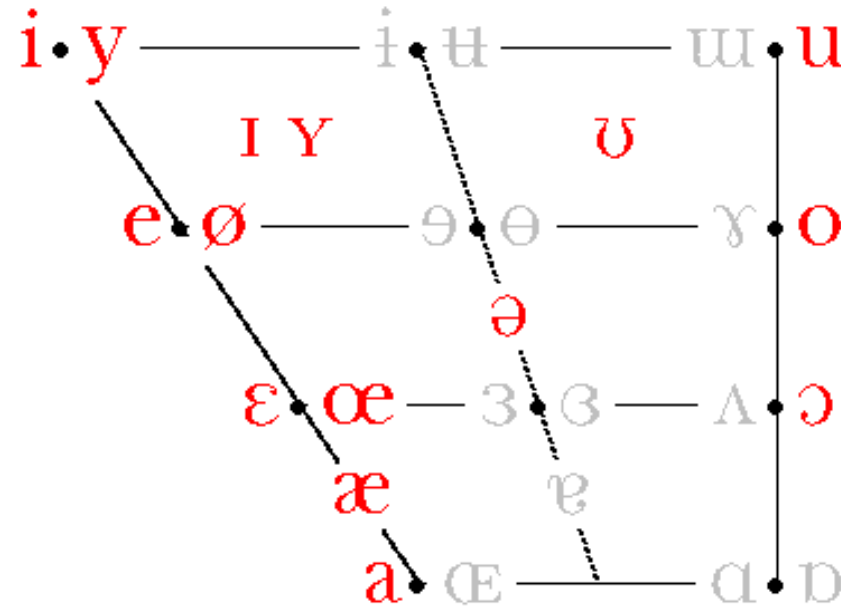
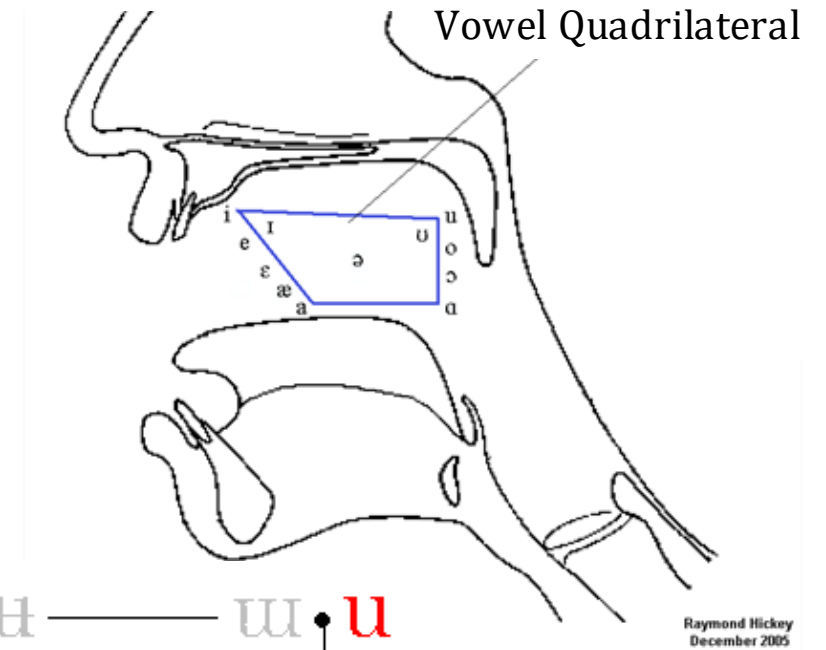
Quality

- High/low
 - bead [b*iː*d], bid [b*i*d], good [gud], ghoul [guːl]
 - bad [bæt], bark [bɑːk]
- Front/back
 - Miete [m*iː*tə], Bett [bɛt]
 - Mut [muːt], Gott [gɔt]
- Rounded/unrounded
 - Tier [t^h*iː*ɐ] / Tür [t^h*yː*ɐ]

• Monophthong/Diphthong

Quantity

- Short/long
 - Masse [masə] / Maße [maːsə]



Allophones

Consider the /t/ sound in each of the following words

coat

take

stop

sweetie

There are several variants of /t/ (depending on context)

[tʰ/?]

coat

[tʰ]

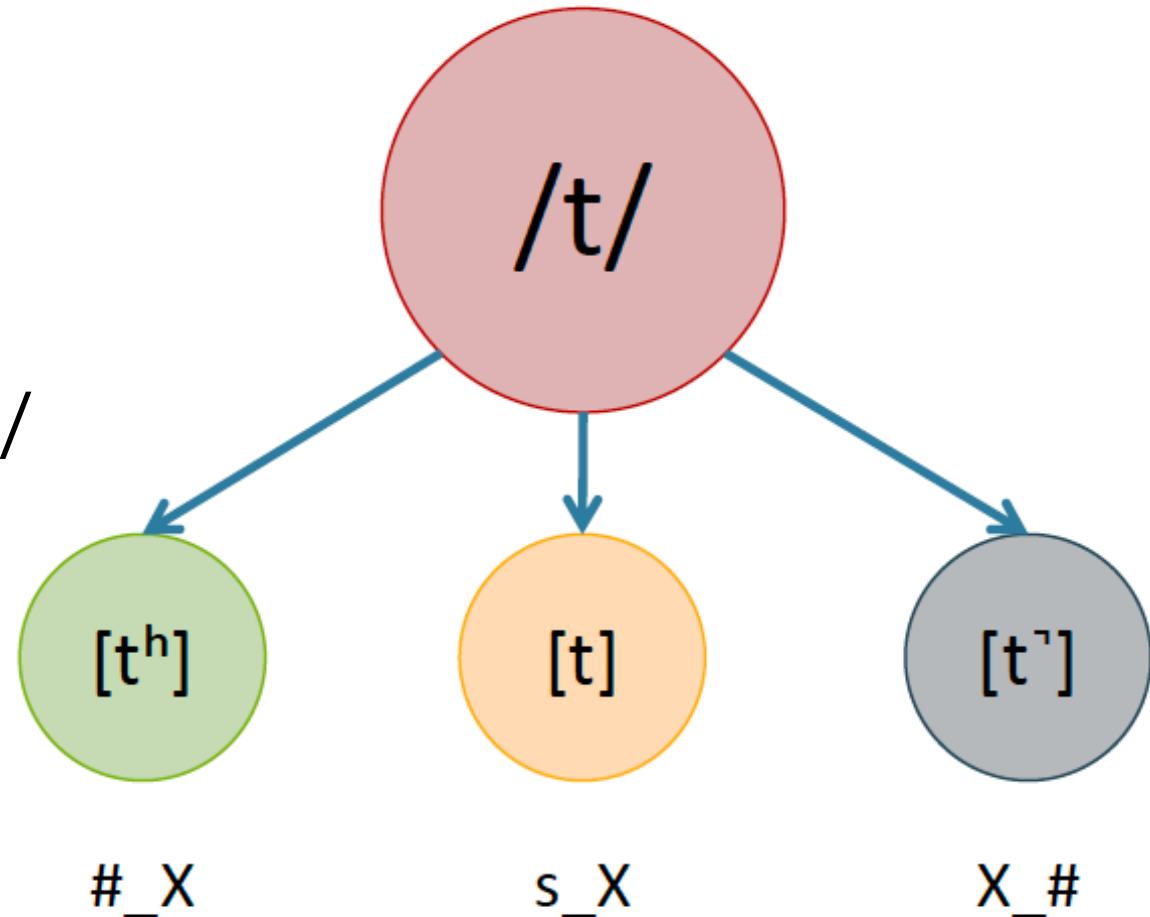
take

[t]

stop

[ɾ/?/ɾ̥]

sweetie



Allophones

These alternations are conditioned by environment, but the different sounds may be contrastive in other languages (with different phonological systems)

e.g. Bengali

তান /t̪an/ ‘tune’

থান /t̪ʰan/ ‘roll of cloth’

দান /d̪an/ ‘donation’

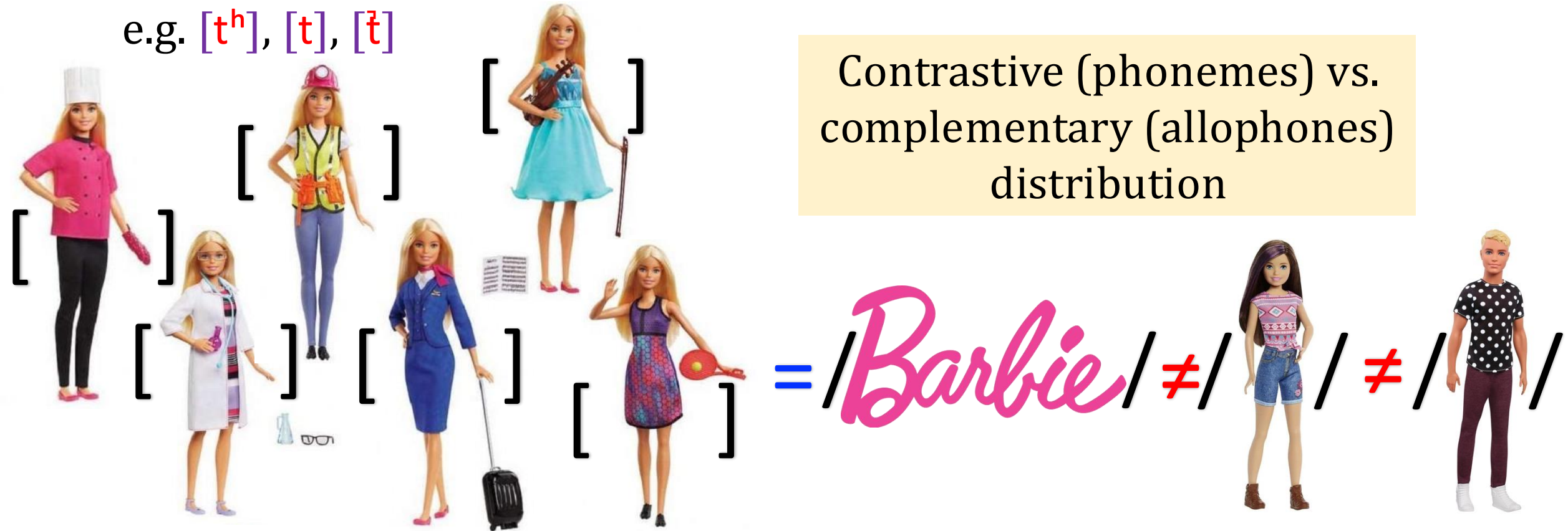
ধান /d̪ʰan/ ‘grain’

Allophones

Phoneme = abstract representation of a contrastive sound, e.g. /t/

Allophone = the various realisations of a phoneme which represent the phonetic segments produced by a speaker in different contexts, e.g. [t^h], [t], [t̚]

Contrastive (phonemes) vs.
complementary (allophones)
distribution



MHG Consonants

Quality

Major class

- Sonorant (m, n, r, l, j, w)
- Obstruent (stops, affricates, fricatives)

Laryngeal (voicing)

- Voiced/voiceless

Place

- Labial/coronal/dorsal
- High (k, g, ʃ, w, j)/—

Manner

- Plosive/continuant
- Strident (sibilants)
- Nasal/lateral/rhotic

Quantity

- Short (singleton)
- Long (geminate)

LABIAL	CORONAL	DORSAL	
p b	t d	k g	Plosives/Stops
pː	tː	kː	
pʃ	ʃs	kx	Affricates
	s <ʒ> ʃ [ʒ] <s> ʃ [sː] ʃː		Fricatives
f v		x h	
[fː]		[xː]	
w	j		Approximants
m	n	[ŋ]	Nasals
mː	nː		
	l		Laterals
	lː		
	r		Rhotics
	rː		

MHG orthography

⟨k⟩, ⟨c⟩ = [k] (⟨c⟩ word-finally or before ⟨l, r⟩)

In UG, initial [k^h/k̥] is often ⟨ch⟩

⟨ch⟩ = [x] (never pronounced [ç], as in NHG)

⟨f⟩ = [f]

⟨v⟩ = [v] (or sometimes [f] if initial or before ⟨l, r, u⟩)

⟨h⟩ = [x] before or after consonants, otherwise [h], e.g. *sehen*

⟨qu⟩ = [kw]

⟨r⟩ was probably a trill [r]

⟨s⟩ = [ç], but [z] between vowels (& possibly initially)

⟨st, sp⟩ = [st, sp] (not [ʃt, ʃp]!)

⟨w⟩ = [w]

⟨z⟩ = [ʦ] initially, after consonants (or sometimes finally, alternating with ⟨tz⟩)

= [s] between or after vowels ([s] in NHG, usually ⟨ss⟩ or ⟨ß⟩)

⟨pf, ph⟩ = [pʰ]

⟨ng⟩ = [ŋg]

[ʦ] and [s] are sometimes differentiated in modern editions (as ⟨z⟩ and ⟨3⟩ respectively), but never in manuscripts

See Wright's *Middle High German Primer* ([1888]/1951: §19–20)

Helmbrecht

1. Einer seit waz er gesiht,
2. der ander seit waz im geschiht,
3. der dritte von minne,
4. der vierde von gewinne,
5. der fünfte von grôzem guote,
6. der sehste von hôhem muote:
7. hie wil ich sagen waz mir geschach,
8. daz ich mit mînen ougen sach.
9. ich sach, deist sicherlîchen wâr,
10. eins gebûren sun, der truoc ein har,
11. daz was reide unde val;

12. ob der ahsel hin ze tal
13. mit lenge ez volleclichen gienc.
14. in eine hûben er ez vienc,
15. diu was von bilden wæhe.
16. ich wæn ieman gesæhe
17. sô manegen vogel ûf hûben:
18. siteche unde tûben
19. die wâren al dar ûf genât.
20. welt ir nû hœren waz dâ stât?



MHG Vowels

Quality

- High/low
 - bead [b*i*:d], bid [b*i*d], good [gud], ghoul [gu:l]
 - bad [b*æ*t], bark [b*ɑ*:k]
- Front/back
 - Miete [m*i*:tə], Bett [b*ɛ*t]
 - Mut [mu:t], Gott [gɔ̯t]
- Rounded/unrounded
 - Tier [t^h*i*:ə] / Tür [t^h*y*:ə]
- Monophthong/Diphthong

Quantity

- Short/long
 - Masse [m*as*ə] / Maße [m*ax*sə]

Tense vs. lax, e.g. /i, u/ vs. /ɪ, ʊ/

Short

ɪ	ʏ		ʊ
e ɛ	œ	ə	ɔ̯
æ			a

Long

i:	y:		u:
e:	ø:		o:
æ:			a:

ei	iə	ou	øʏ	yə	uə
----	----	----	----	----	----

i	ü		u
e	ö	e	o
ä			a

î	iu		û
ê	œ		ô
æ			â

ei	ie	ou	öu, eu	üe	uo
----	----	----	--------	----	----

Helmbrecht

1. Einer seit waz er gesiht,
2. der ander seit waz im geschiht,
3. der dritte von minne,
4. der vierde von gewinne,
5. der fünfte von grôzem guote,
6. der sehste von hôhem muote:
7. hie wil ich sagen waz mir geschach,
8. daz ich mit mînen ougen sach.
9. ich sach, deist sicherlîchen wâr,
10. eins gebûren sun, der truoc ein har,
11. daz was reide unde val;

12. ob der ahsel hin ze tal
13. mit lenge ez volleclichen gienc.
14. in eine hûben er ez vienc,
15. diu was von bilden wæhe.
16. ich wæn ieman gesæhe
17. sô manegen vogel ûf hûben:
18. siteche unde tûben
19. die wâren al dar ûf genât.
20. welt ir nû hoeren waz dâ stât?



MHG orthography & 'Cl-MHG'

MHG manuscript spelling is characterised by variation & reflects dialectal phonology

Cl-MHG is an idealised, standardised and sanitised version of MHG

Cl-MHG:

- Flattens the diversity of MHG manuscript spelling
- Irons out dialectal features
- Adds regularity
- *Never existed*

Phoneme	Grapheme
/i: /	î, i
/u: /	û, v, u
/iə /	ie, îe, ĩ, î
/e: /	ê, e
/eɪ /	ei, êi
/y: /	iv, iu, îv, îu, îw, îv̥, îw̥
/a: /	â, a
/o: /	ô, o

MHG orthography & 'Cl-MHG'

**St. Gallen, Stiftsbibliothek, Cod.
857**

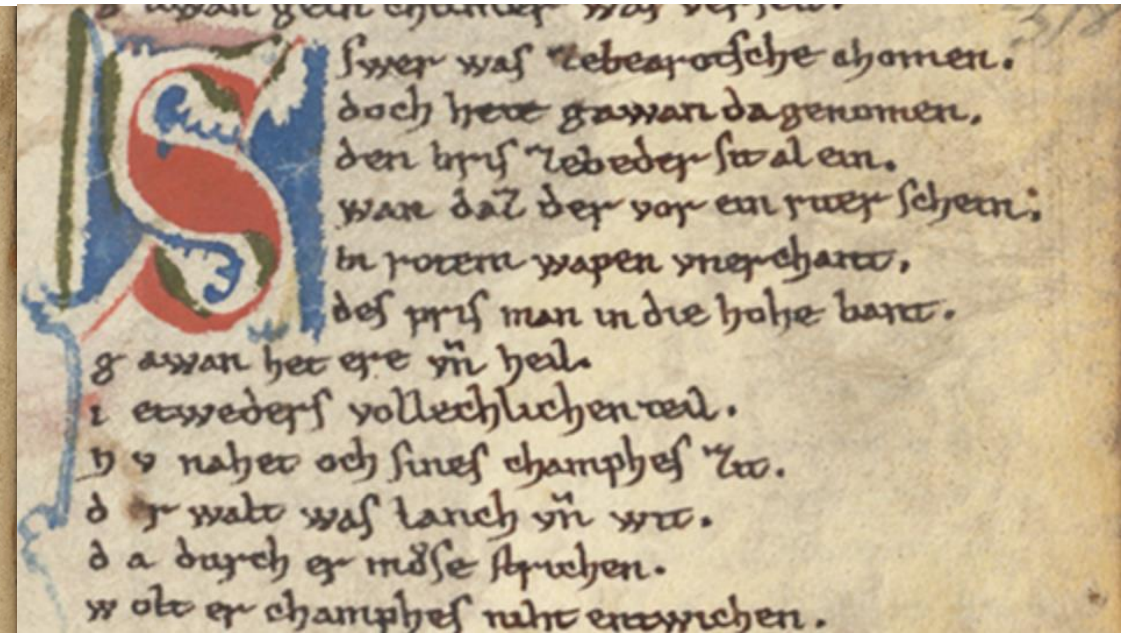
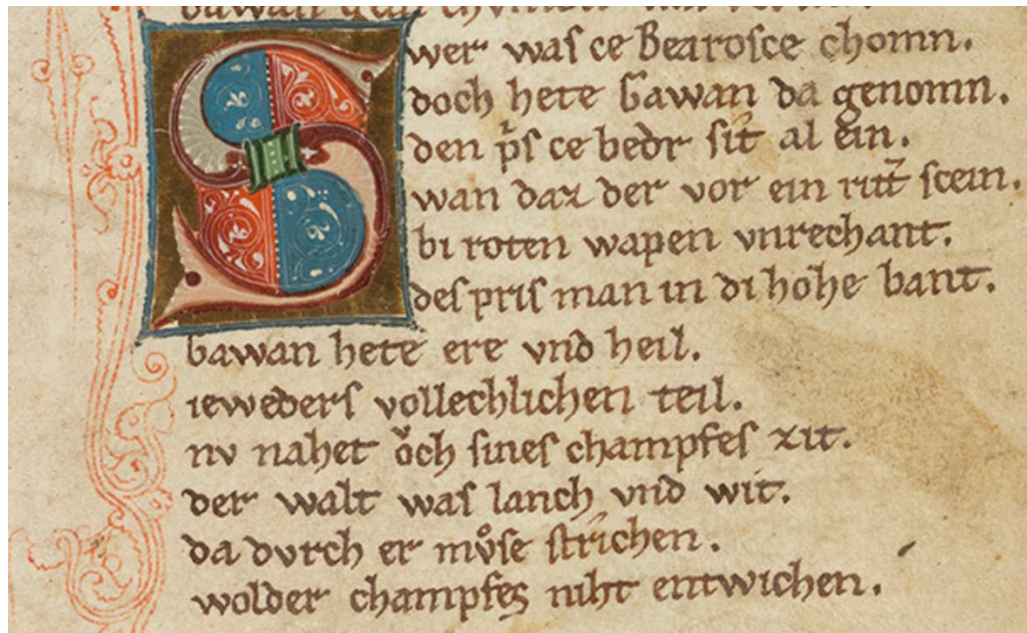
Swer was ce Bearosce chomn.
doch hete Gawan da genomn.
den p(ri)s ce bedr sît al ein.
wan daz der vor ein ritt(er) scein.
bi roten wapen vnrechant.
des pris man in di hohe bant.
Gawan hete ere vnd heil.

**München, Bayerische
Staatsbibliothek, Cgm 19**

Sswer was zebearotsche chomen.
doch hete gawan da genomen.
den bris zebeder sit al ein.
wan daz der vor ein riter schein:
bi rotem wapen vnerchant.
des pris man in die hohe bant.
gawan het ere vñ heil.

**Standardised MHG (Karl Lachmann,
ed.)**

Swer was ze Bêârosche komn,
doch hete Gâwân dâ genomn
den prîs ze bêder sît al ein;
wan daz dervor ein ritter schein,
bî rôtem wâpen unrekant,
des prîs man in die hœhe bant.
Gâwân het êre unde heil,



Advanced

Distinctive Features

Group sounds into *natural classes*

Phonological rules/processes generally refer to such classes of segments (some phonetic/phonological similarity)

Can define classes in terms of *distinctive features*

Segments are building blocks, comprising a group of features

Many historical changes involve adding/deleting/changing features

- /b/ → /p/ (change in [VOICE] feature)
- /t/ → /tʃ/ (adding [STRIDENT] feature)



MHG Vowels

	[COR]	[LAB, COR]	[DOR]	[LAB, DOR]
[HIGH]	i iː	y yː		ʊ uː
	e ɛ eː	œ øː	ə	ɔ oː
[LOW]	æ æː		a aː	

	eɪ		oʊ		øʏ		iə		yə		uə	
	e	ɪ	o	ʊ	ø	ʏ	ɪ	ə	y	ə	u	ə
[LAB]			✓	✓	✓	✓			✓		✓	
[COR]	✓	✓			✓	✓	✓		✓			
[DOR]			✓	✓							✓	
[HIGH]		✓		✓		✓	✓		✓		✓	
[LOW]												

Tense and lax vowels (e.g. /i/ vs. /ɪ/) may be differentiated with the 'tongue root' features [ATR] and [RTR] respectively (advanced vs. retracted tongue root), but this is not relevant for MHG

MHG Consonants

Quality

Major class

- Sonorant (m, n, r, l, j, w)
- Obstruent (stops, affricates, fricatives)

Laryngeal (voicing)

- Voiced/voiceless

Place

- Labial/coronal/dorsal
- High (k, g, ʃ, w, j)/—

Manner

- Plosive/continuant
- Strident (sibilants)
- Nasal/lateral/rhotic

Quantity

- Short (singleton)
- Long (geminate)

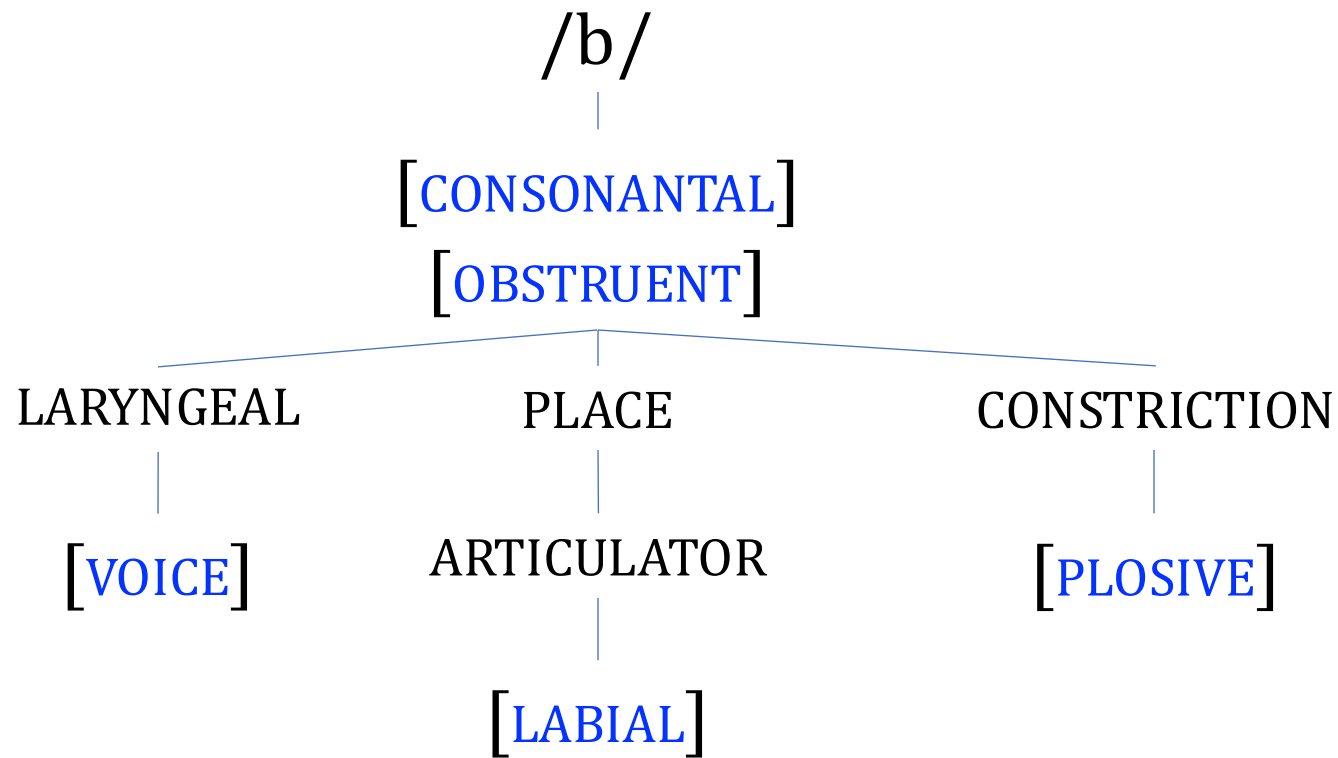
LABIAL	CORONAL	DORSAL		
p b	t d	k g		Stops
pː	tː	kː		
pʃ	tʃ	kx		Affricates
	s <ʒ> ʃ [ʒ] <s> ʃ [sː] ʃː			Fricatives
f v		x	h	
[fː]		[xː]		
w	j			Approximants
m	n	[ŋ]		Nasals
mː	nː			
	l			Laterals
	lː			
	r			Rhotics
	rː			

MHG Consonants

MHG Consonants			LABIAL	CORONAL	DORSAL		
OBSTRUENT	PLOSIVE		p b pː	t d tː	k g kː		Stops
			pʃ	tʃ	k͡x		Affricates
	CONTINUANT	STRIDENT		s <ʒ> ʃ [z] <s> ʒ [sː] ʃː			Fricatives
			f v [fː]		x [xː]	h	
SONORANT		HIGH	w	j			Approximants
	NASAL		m mː	n nː	[ŋ]		Nasals
	LATERAL			l lː			Laterals
	RHOTIC			r rː			Rhotics

Distinctive features

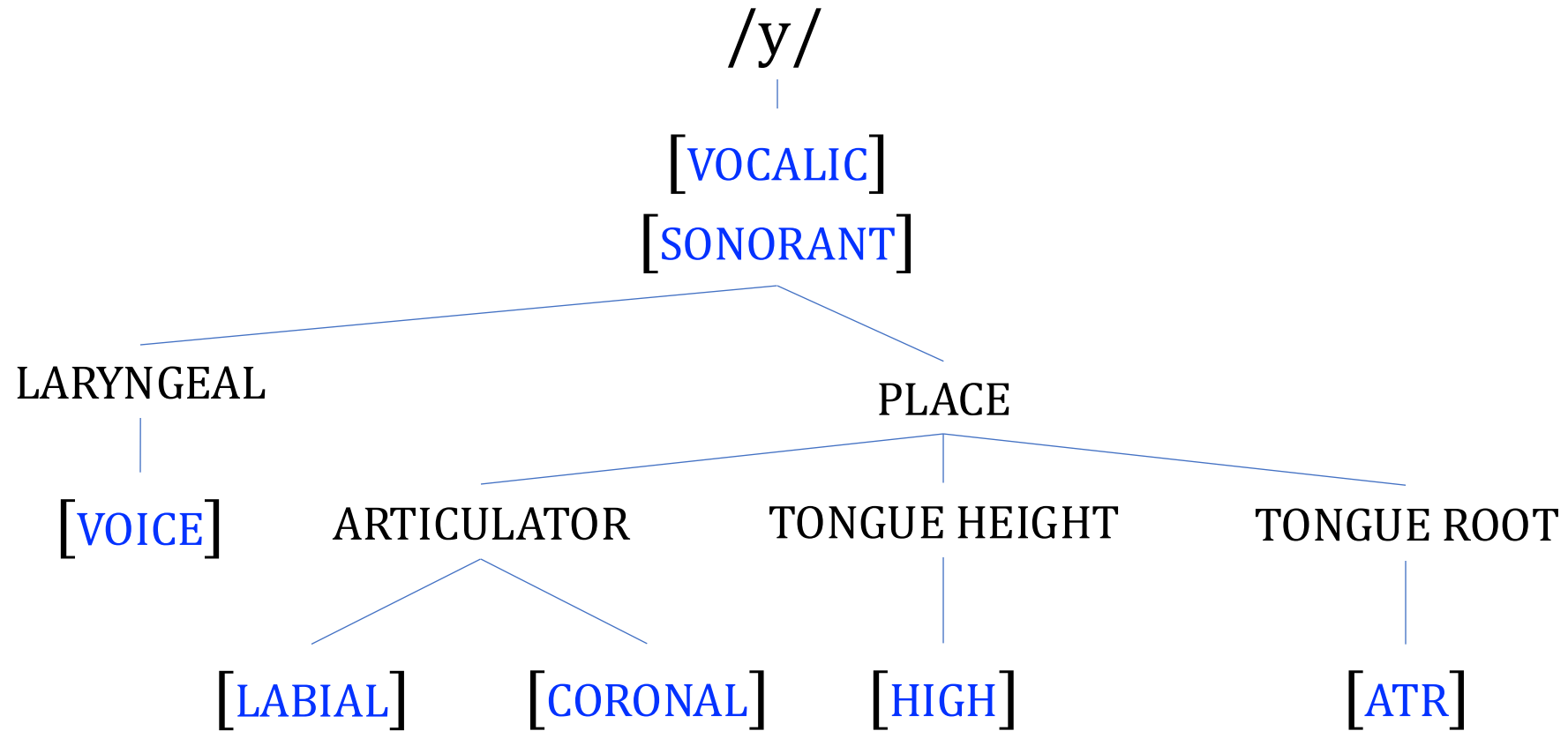
[CONSONANTAL, OBSTRUENT, PLOSIVE, VOICE, LABIAL]



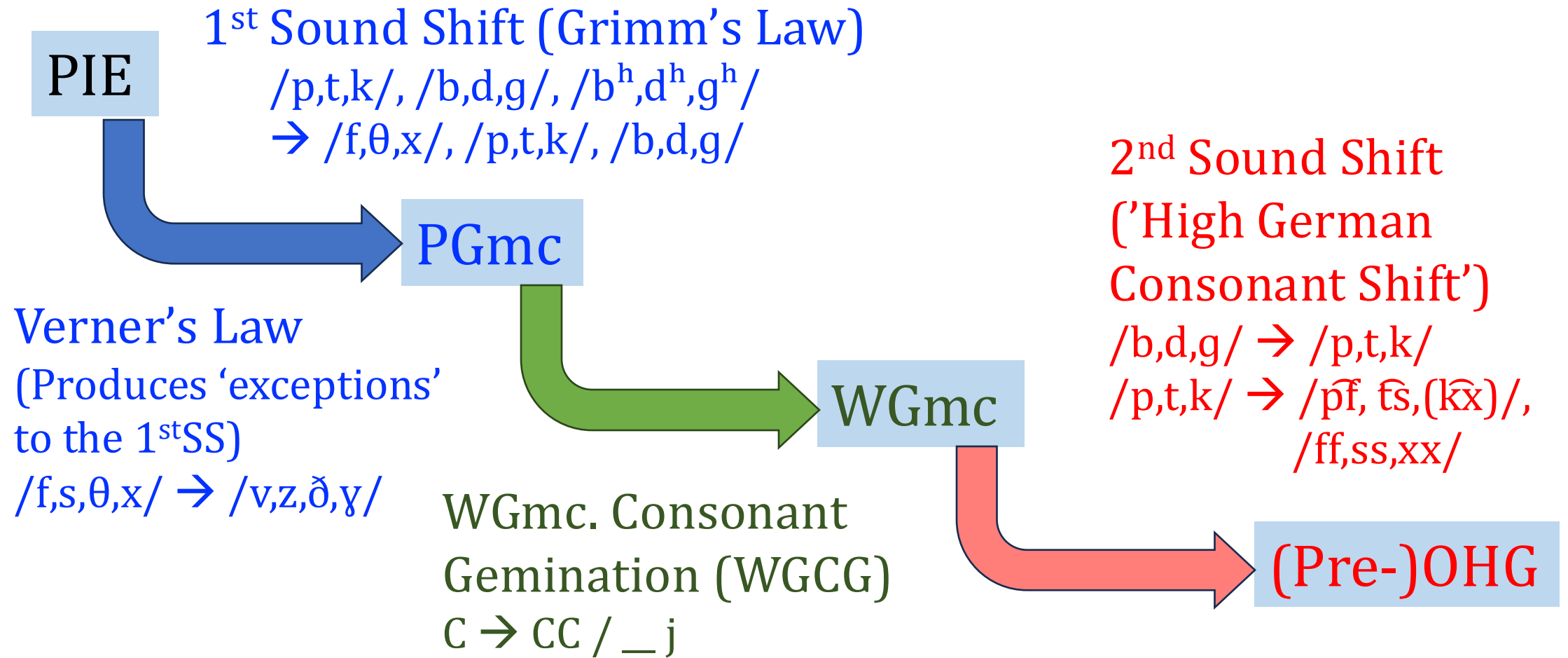
N.B. A table with all of the features of the relevant sounds will be uploaded to canvas

Distinctive features

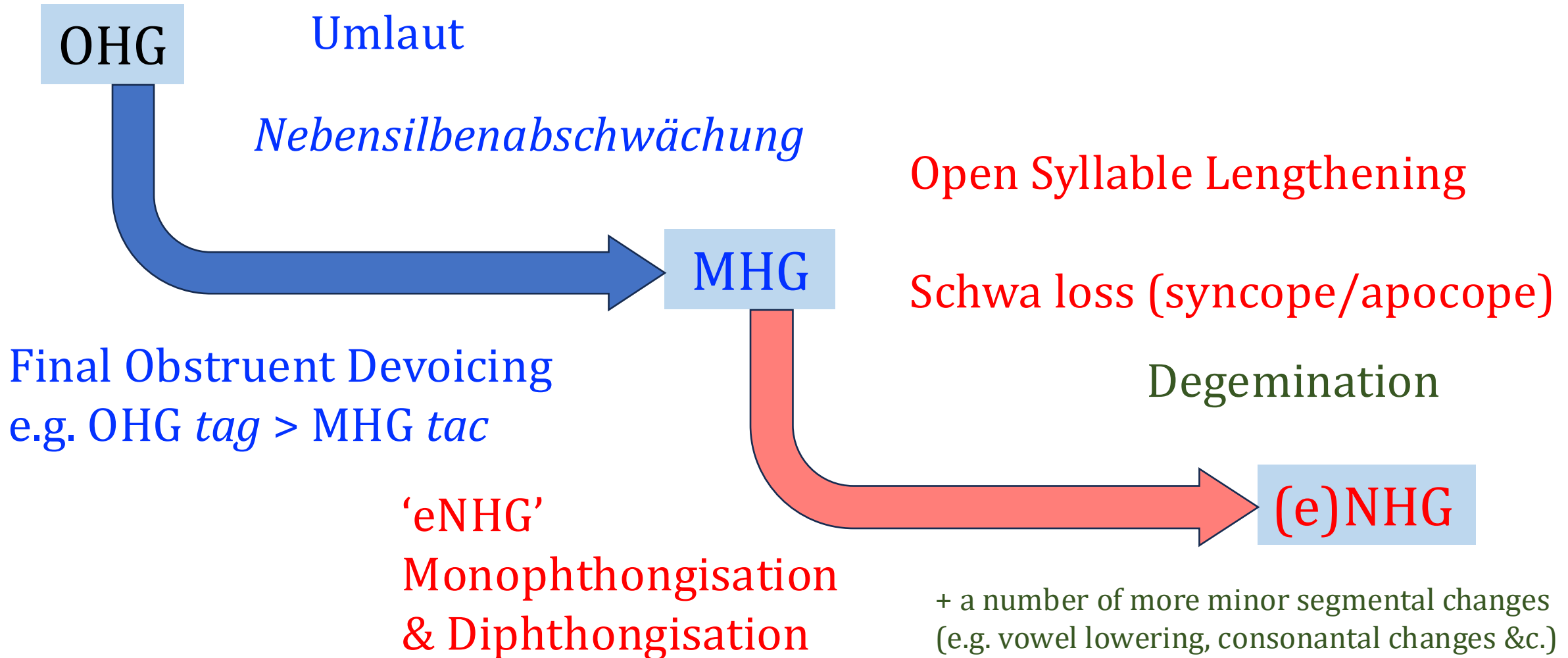
[VOCALIC, SONORANT, VOICE, LABIAL, CORONAL, HIGH, ATR]



Next Week:



Next Week:



Suggested further reading

Overview of the relevant developments (especially in the various dialects):

OHG

Braune, Wilhelm & Frank Heidermanns. 2023. *Althochdeutsche Grammatik I: Phonologie und Morphologie*, 17th edn. Berlin: De Gruyter.

MHG

Paul, Hermann. 2007. *Mittelhochdeutsche Grammatik*, 25th ed. Tübingen: Niemeyer

eNHG

- Ebert, Robert Peter, Oskar Reichmann, Hans-Joachim Solms & Klaus-Peter Wegera. 1993. *Frühneuhochdeutsche Grammatik*. Tübingen: Niemeyer

PIE–NHG

- Penzl, Herbert. 1975. *Vom Urgermanischen zum Neuhochdeutschen: Eine historische Phonologie*. Berlin: Erich Schmidt.
- Russ, Charles V. J. 1982. *Studies in historical German phonology*. Berne: Peter Lang.
- Wright, Joseph. [1907]/1962. *Historical German grammar: Phonology, word-formation and accidence*. London: OUP.

MHG

Penzl, Herbert. 1989. *Mittelhochdeutsch: Eine Einführung in die Dialekte*. Bern: Peter Lang.

Wright, Joseph. [1888]/1951. *Middle High German Primer*. Oxford: Clarendon Press.

Please Help with our Experiments!

The Language and Brain Laboratory at the University of Oxford are looking for judgements from **18-26 year old monolingual native British English speakers** on some English words. The task, which asks you to decide whether you think a word is more of a noun or more of a verb, should take no longer than 15 minutes to complete and can be done on a mobile (although it is easier on a computer). At the end, you can enter an email address to receive a £5 amazon voucher.

<https://app.onlinesurveys.jisc.ac.uk/s/oxford/noun-verb-survey>

