

5. Sounds and Signs II

Introduction to Language (Ling 201)

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Spring 2026

[s]elf awareness

- Consider the speech sound [s]. To make this sound:
- What are your lungs doing?
- What is your glottis doing? (Is it open or closed?)
- What is your velum doing? (Is it raised, for an oral sound, or lowered, for a nasal sound?)
- What is your tongue doing?
- What are your lips doing?



International Phonetic Alphabet

- The International Phonetic Alphabet (IPA) is how linguists represent speech sounds.
- 1:1 ratio between sound and symbol (pretty much).
- Useful for all spoken languages.
- Devised and arranged on an articulatory basis. (This'll become clearer soon.)
- Learning and using the IPA improves phonemic awareness and allows us to engage with other materials in linguistics.

[nōt]

nōt

not

There are other notation systems that you may come across. IPA is preferred by most linguists.

Consonants

- There are two types of speech sounds: **consonants** and **vowels**.
- Consonants involve some sort of obstruction of the airflow as you breathe out.
- They cannot appear on their own in English speech; they must precede or follow a vowel within a syllable.
- We can describe consonants with reference to three features:
 - Voicing
 - Place of Articulation
 - Manner of Articulation

Vowels

Is [s] a consonant or a vowel?

- Vowels, meanwhile, have relatively little obstruction to the airflow. They are clear and sonorous, and can stand alone in English speech as words in their own right. (Think “eye” or “awe.”)
- Each syllable needs a vowel, and each vowel creates a syllable.
- In English, most vowels are monophthongs but some are diphthongs.
- Vowels can be identified with reference to four features:
 - height
 - backness
 - rounding
 - tenseness

Phonemes and graphemes

- In alphabets, there's a general correspondence between letters (“graphemes”) and speech sounds (“phonemes”).
- This is complicated by a number of factors, among them:

accents

tomato: “tomayto,” “tomahto”

inconsistency

sign, pleasure, resign

one sound, two letters

path, chart, ashes

one letter, two sounds

exactly, usual

silent letters

knight, gnome, psychology

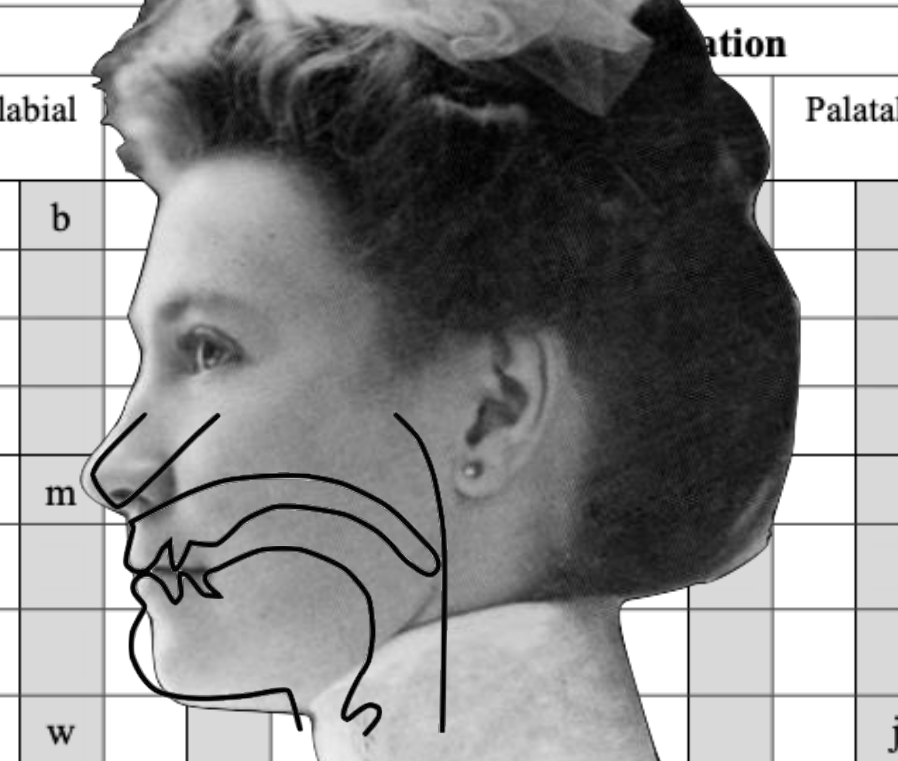
Activity!

- In groups, do activity 1 on your sheets.
- Now do activity 2.
- Now do activity 3. (Some of the terms are dated. I borrowed this activity from a textbook published in 2014.)

How to use the IPA

- The IPA charts for vowels and consonants are arranged on an articulatory basis, as maps of a left-facing mouth.
- Key elements for consonants: **voicing**, **place**, and **manner**.
- Key elements for vowels: **height**, **backness**, **rounding**, and **tenseness**.

Consonants

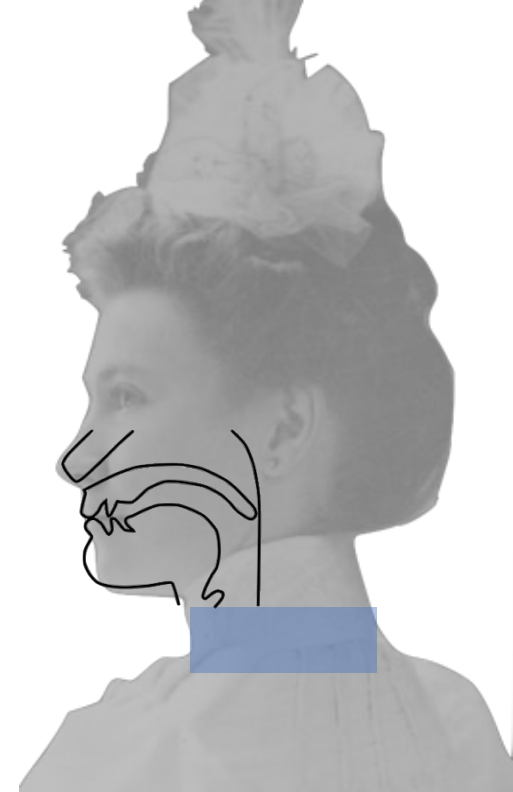


		Place of Articulation												
		Bilabial		Labiodental		Dental		Alveolar		Palatal	Velar		Glottal	
Manner of Articulation	Stop	p	b								k	g	ʔ	
	Fricative												h	
	Affricate													
	Flap													
	Nasal		m									ŋ		
	Lateral Liquid													
	Retroflex Liquid													
	Glide	w	w							j				

State of ... ed

See p.57 of *Language Files*

Consonants



		Place of Articulation															
		Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal	
Manner of Articulation	Stop	p	b					t	d					k	g	ʔ	
	Fricative			f	v	θ	ð	s	z	ʃ	ʒ					h	
	Affricate									tʃ	dʒ						
	Flap								r								
	Nasal		m						n						ŋ		
	Lateral								l								
								ɹ									
													j				

Vocal folds open: voiceless
 Vocal folds vibrating: voiced

State of the Glottis Voiceless Voiced

See p.57 of *Language Files*

Consonants

Bilabial: two lips

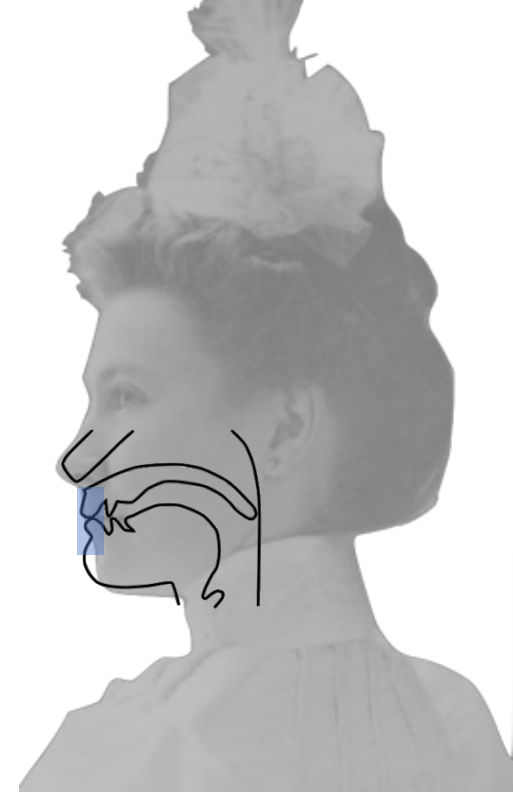
		Place of Articulation															
		Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal	
Manner of Articulation	Stop	p	b					t	d					k	g	ʔ	
	Fricative			f	v	θ	ð	s	z	ʃ	ʒ					h	
	Affricate									tʃ	dʒ						
	Flap								r								
	Nasal		m						n						ŋ		
	Lateral Liquid								l								
	Retroflex Liquid								ɭ								
	Glide	ɥ	w											j			

State of the Glottis

Voiceless

Voiced

See p.57 of *Language Files*



Consonants

Labiodental: lips + teeth

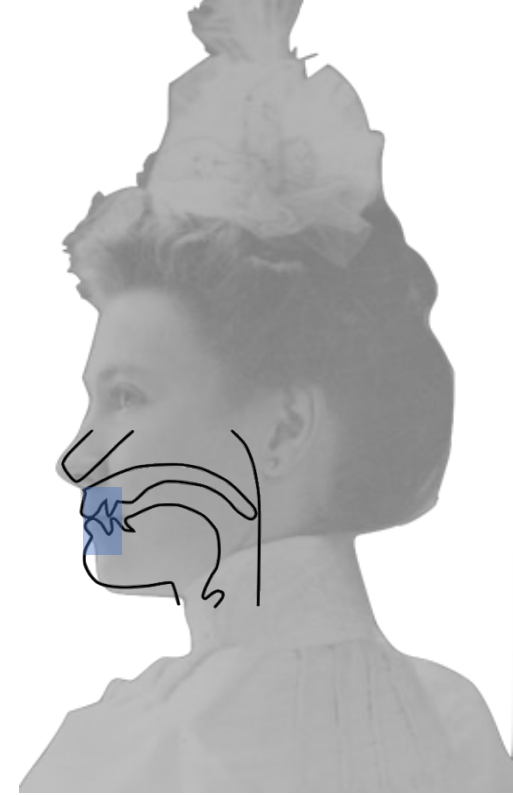
		Place of Articulation															
		Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal	
Manner of Articulation	Stop	p	b					t	d					k	g	ʔ	
	Fricative			f	v	θ	ð	s	z	ʃ	ʒ					h	
	Affricate									tʃ	dʒ						
	Flap								r								
	Nasal		m						n						ŋ		
	Lateral Liquid								l								
	Retroflex Liquid								ɭ								
	Glide	ɥ	w											j			

State of the Glottis

Voiceless

Voiced

See p.57 of *Language Files*



Consonants

Interdental: between teeth

		Place of Articulation																
		Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal		
Manner of Articulation	Stop	p	b					t	d						k	g	ʔ	
	Fricative			f	v	θ	ð	s	z	ʃ	ʒ						h	
	Affricate									tʃ	dʒ							
	Flap								r									
	Nasal		m						n							ŋ		
	Lateral Liquid								l									
	Retroflex Liquid								ɭ									
	Glide	ɥ	w											j				

State of the Glottis

Voiceless

Voiced

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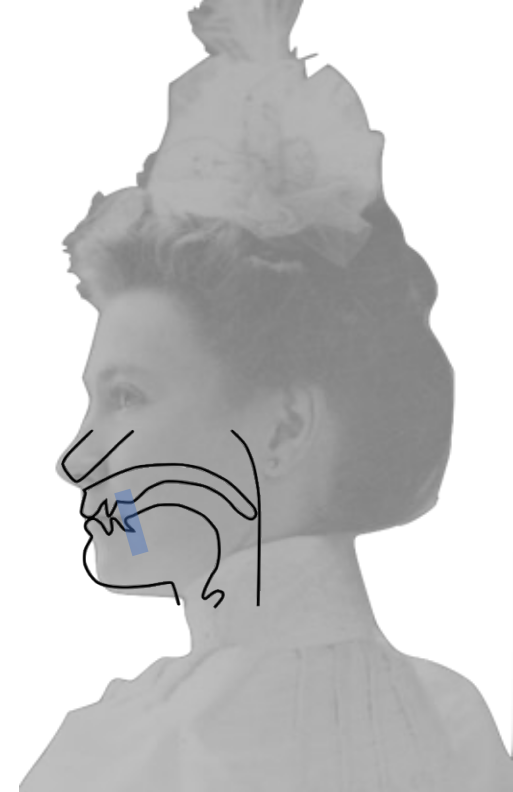


Consonants

Alveolar: at that ridge of flesh behind your upper teeth

		Articulation															
		Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal	
Manner of Articulation	Stop	p	b					t	d					k	g	ʔ	
	Fricative			f	v	θ	ð	s	z	ʃ	ʒ					h	
	Affricate									tʃ	dʒ						
	Flap								r								
	Nasal		m						n						ŋ		
	Lateral Liquid								l								
	Retroflex Liquid								ɭ								
	Glide	w	w										j				

State of the Glottis Voiceless Voiced



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Consonants

Postalveolar: behind your alveolar ridge

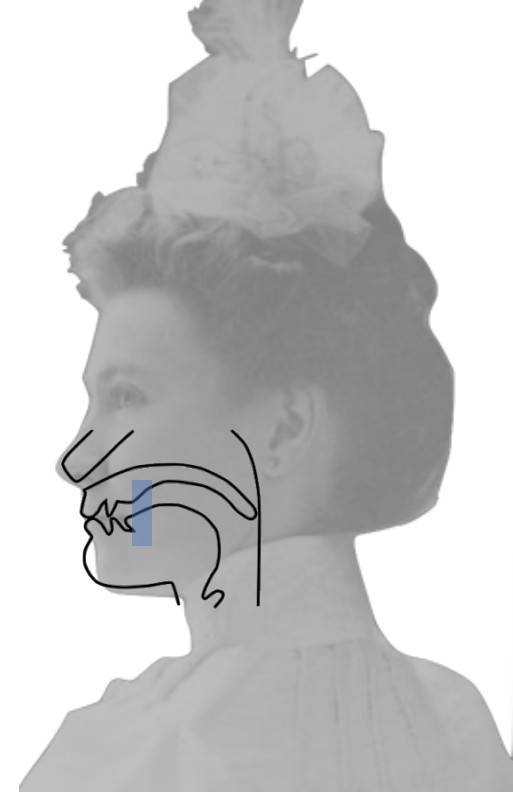
Manner of Articulation	Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal	Velar		Glottal	
	p	b	f	v	θ	ð	t	d	ʃ	ʒ		k	g	ʔ	
Stop															
Fricative															
Affricate															
Flap								r							
Nasal		m						n					ŋ		
Lateral Liquid								l							
Retroflex Liquid								ɭ							
Glide	w	w									j				

State of the Glottis

Voiceless

Voiced

See p.57 of *Language Files*



Consonants

Palatal: at your hard palate

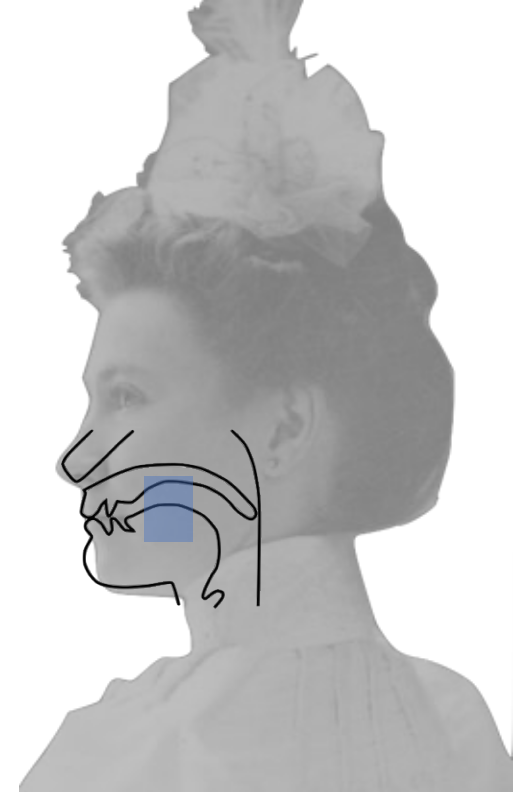
Manner of Articulation	Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal	
	p	b	f	v	θ	ð	t	d	ʃ	ʒ			k	g	ʔ	
Stop	p	b					t	d					k	g	ʔ	
Fricative			f	v	θ	ð	s	z	ʃ	ʒ					h	
Affricate									tʃ	dʒ						
Flap								r								
Nasal		m						n					ŋ			
Lateral Liquid								l								
Retroflex Liquid								ɭ								
Glide	w	w										j				

State of the Glottis

Voiceless

Voiced

See p.57 of *Language Files*



Consonants

Velar: at your soft palate (*velum*)

Manner of Articulation	Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal	Velar		Glottal
	p	b	f	v	θ	ð	t	d	ʃ	ʒ		k	g	ʔ
Stop														
Fricative							s	z						h
Affricate									tʃ	dʒ				
Flap								r						
Nasal		m						n					ŋ	
Lateral Liquid								l						
Retroflex Liquid								ɭ						
Glide	w	w									j			

State of the Glottis

Voiceless

Voiced

See p.57 of *Language Files*



Consonants

Glottal: at your glottis/vocal folds

		Place of Articulation															
		Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal	
Manner of Articulation	Stop	p	b					t	d					k	g	ʔ	
	Fricative			f	v	θ	ð	s	z	ʃ	ʒ					h	
	Affricate									tʃ	dʒ						
	Flap								r								
	Nasal		m						n						ŋ		
	Lateral Liquid								l								
	Retroflex Liquid								ɭ								
	Glide	ɥ	w											j			



State of the Glottis

Voiceless	Voiced
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Place of Articulation

- What is the place of articulation for...

[p]	[b]	[f]	[k]
[ʃ]	[d]	[m]	[n]
[ŋ]	[z]	[s]	[g]
[h]	[ʔ]	[t]	[ʒ]
[dʒ]	[ɹ]	[l]	[j]
[tʃ]	[θ]	[ð]	[v]

Is it voiced or voiceless?

Consonants

		Place of Articulation															
		Bilabial		Labio-dental		In-dental		Alveolar		Palato-alveolar		Palatal		Velar			
Manner of Articulation	Stop	p	b					t	d					k	g	ʔ	
	Fricative			f	v	θ	ð	s	z	ʃ	ʒ					h	
	Affricate									tʃ	dʒ						
	Flap								r								
	Nasal		m						n						ŋ		
	Lateral Liquid								l								
	Retroflex Liquid								ɭ								
	Glide	ɥ	w											j			

State of the Glottis Voiceless Voiced

Stop: Build up, then release, pressure

See p.57 of *Language Files*

Consonants

		Place of Articulation												
		Bilabial	Labio-	Inter-	Alveolar	Post-	Palatal	Velar	Glottal					
Manner of Articulation	Stop	p	b											
	Fricative			f	v	θ	ð	s	z	ʃ	ʒ			h
	Affricate									tʃ	dʒ			
	Flap								r					
	Nasal		m						n				ŋ	
	Lateral Liquid								l					
	Retroflex Liquid								ɭ					
	Glide	ɥ	w										j	

Fricative: Steady stream of constricted speech.

State of the Glottis Voiceless Voiced

See p.57 of *Language Files*

Consonants

		Place of Articulation											
		Bilabial	Labio-dental	Inter-dental	Alveolar	Post-Alveolar	Palatal	Velar	Glottal				
Manner of Articulation	Stop	p	b										
	Fricative												
	Affricate							tʃ	dʒ				
	Flap						r						
	Nasal		m				n				ŋ		
	Lateral Liquid						l						
	Retroflex Liquid						ɭ						
	Glide	w	w							j			

State of the Glottis Voiceless Voiced

Affricate: Stop that releases into a fricative.

See p.57 of *Language Files*

Consonants

		Place of Articulation															
		Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal	
Manner of Articulation	Stop	p	b					t	d					k	g	ʔ	
	Fricative			f	v	θ	ð	Flap: Quick little flap of tongue.									
	Affricate																
	Flap							r									
	Nasal		m						n						ŋ		
	Lateral Liquid								l								
	Retroflex Liquid								ɭ								
	Glide	ɥ	w										j				

State of the Glottis Voiceless Voiced

See p.57 of *Language Files*

Consonants

		Place of Articulation															
		Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal	
Manner of Articulation	Stop	p	b					t	d					k	g	ʔ	
	Fricative			f	v												
	Affricate																
	Flap																
	Nasal		m						n						ŋ		
	Lateral Liquid								l								
	Retroflex Liquid								ɭ								
	Glide	ɥ	w										j				

Nasal: Velum lowers to let air escape through your nose instead of mouth.

State of the Glottis Voiceless Voiced

See p.57 of *Language Files*

Consonants

		Place of Articulation															
		Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal	
Manner of Articulation	Stop	p	b					t	d					k	g	ʔ	
	Fricative			f	v	θ	ð	s	z	ʃ	ʒ					h	
	Affricate																
	Flap																
	Nasal		m														
	Lateral Liquid								l								
	Retroflex Liquid								ɭ								
	Glide	ɥ	w										j				

Liquid: Clear, flowing sounds.
More constricted than vowels.

State of the Glottis Voiceless Voiced

See p.57 of *Language Files*

Consonants

		Place of Articulation															
		Bilabial		Labio-dental		Inter-dental		Alveolar		Post-Alveolar		Palatal		Velar		Glottal	
Manner of Articulation	Stop	p	b					t	d					k	g	ʔ	
	Fricative			f	v	θ	ð	s	z	ʃ	ʒ					h	
	Affricate									tʃ	dʒ						
	Flap								r								
	Nasal		m						n						ŋ		
	Lateral Liquid								l								
	Retroflex Liquid																
	Glide	ɥ	w											j			

Glide: Very little obstruction.

State of the Glottis

Voiceless

Voiced

See p.57 of *Language Files*

Manner of Articulation

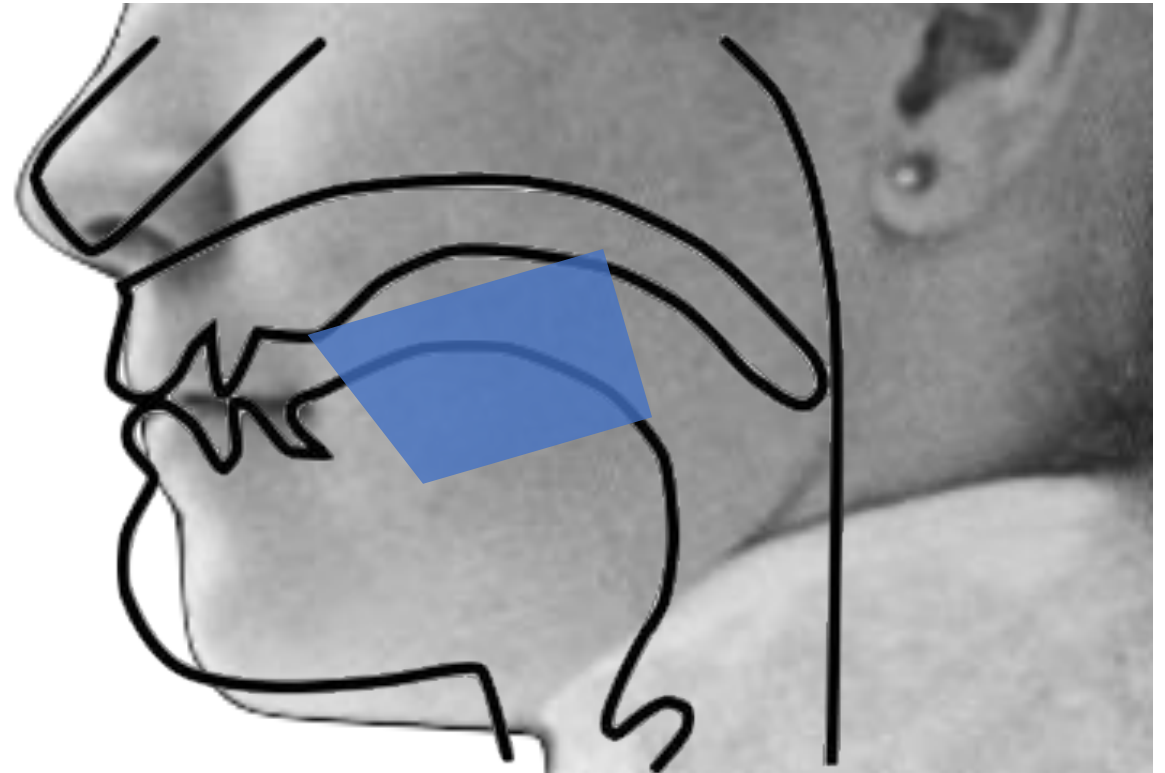
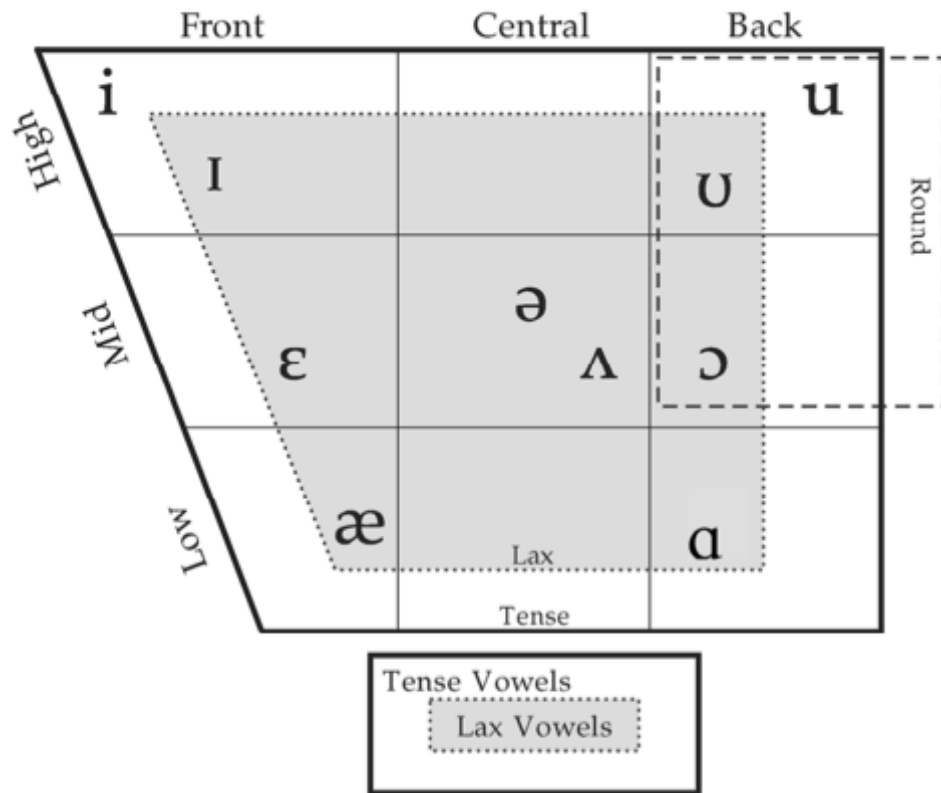
- What is the manner for...

[p]	[b]	[f]	[k]
[ʃ]	[d]	[m]	[n]
[ŋ]	[z]	[s]	[g]
[h]	[ʔ]	[t]	[ʒ]
[dʒ]	[ɹ]	[l]	[j]
[tʃ]	[θ]	[ð]	[v]

Vowels

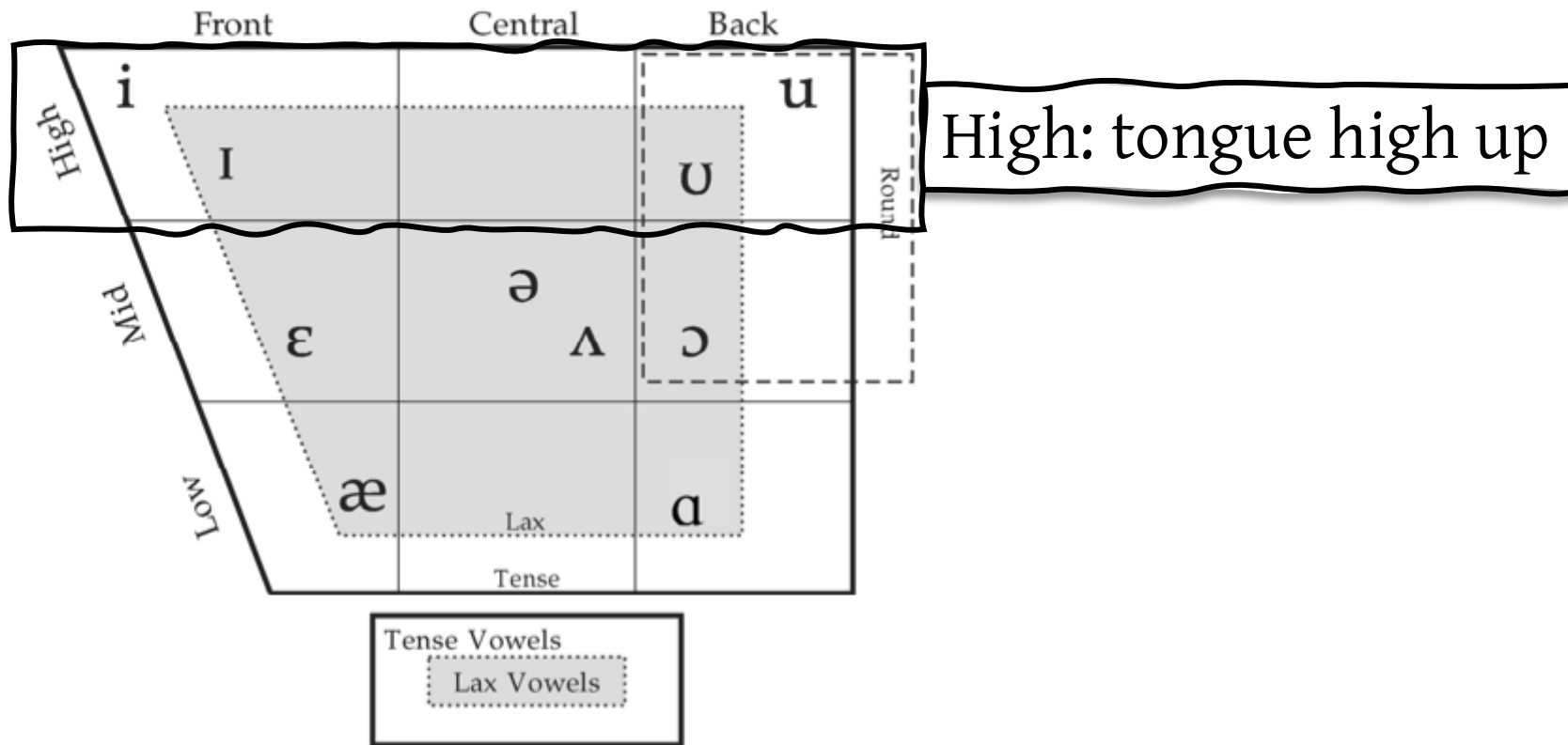
- Monophthongs (single sound) and diphthongs (flow from one vowel into another without creating a new syllable).
- Some diphthongs are sometimes called “long vowels” outside of linguistics.
- In English, all vowels are syllabic, clear, and voiced (unless you’re whispering).
- Key elements for vowels: **height**, **backness**, **rounding**, and **tenseness**.

Vowels : Monophthongs



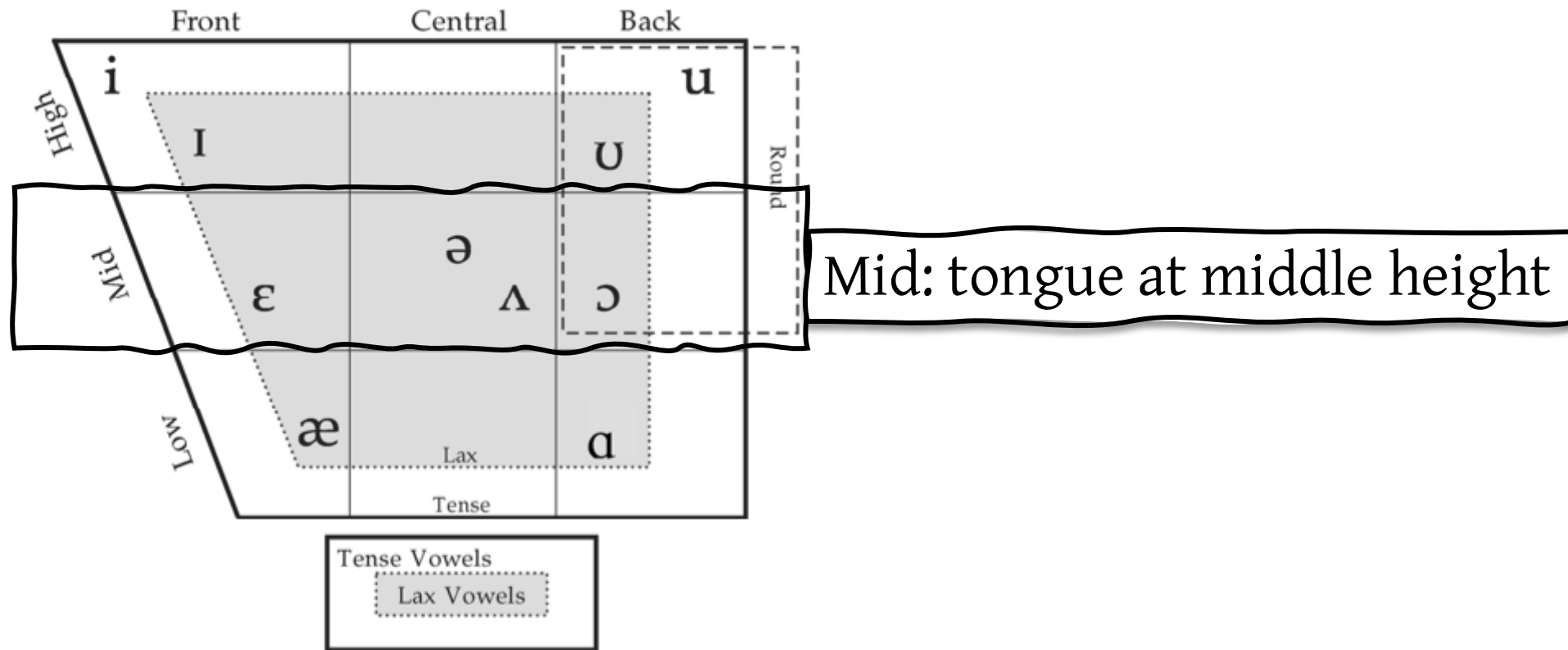
See p.59 of *Language Files*

Vowels : Monophthongs



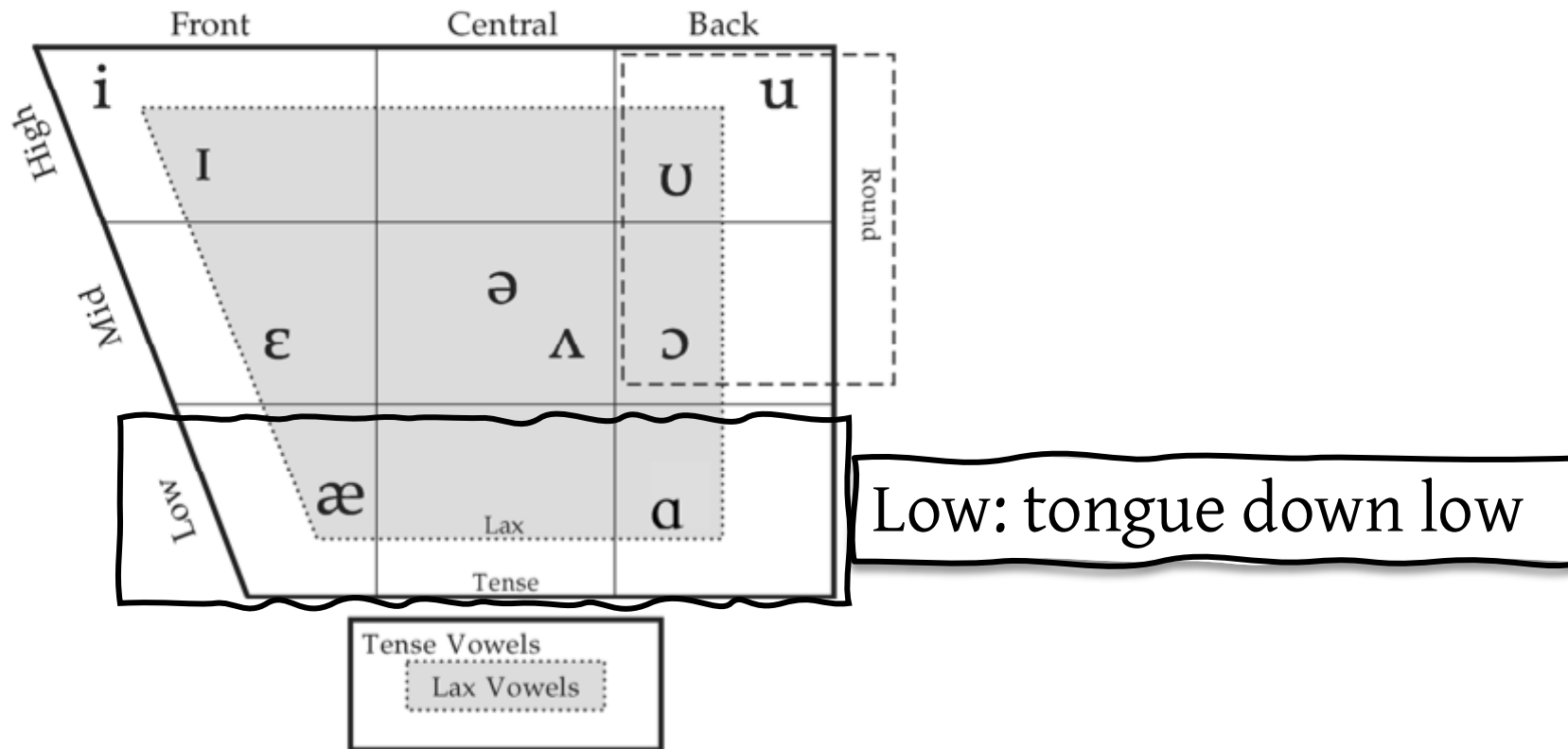
See p.59 of *Language Files*

Vowels : Monophthongs



See p.59 of *Language Files*

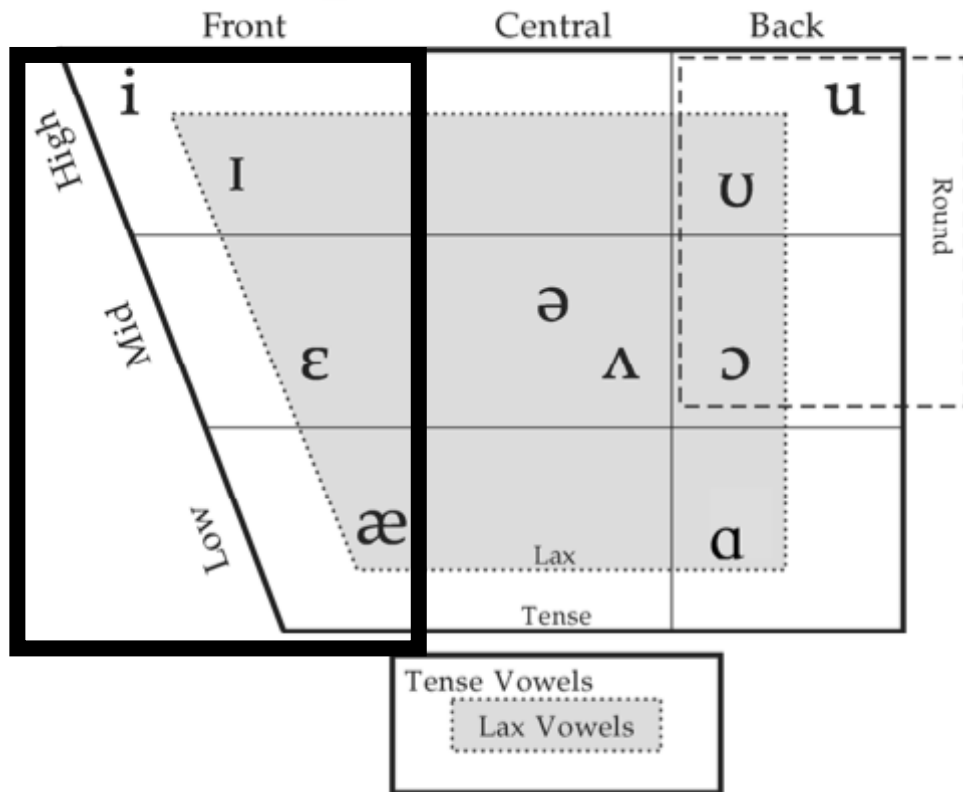
Vowels : Monophthongs



See p.59 of *Language Files*

Vowels : Monophthongs

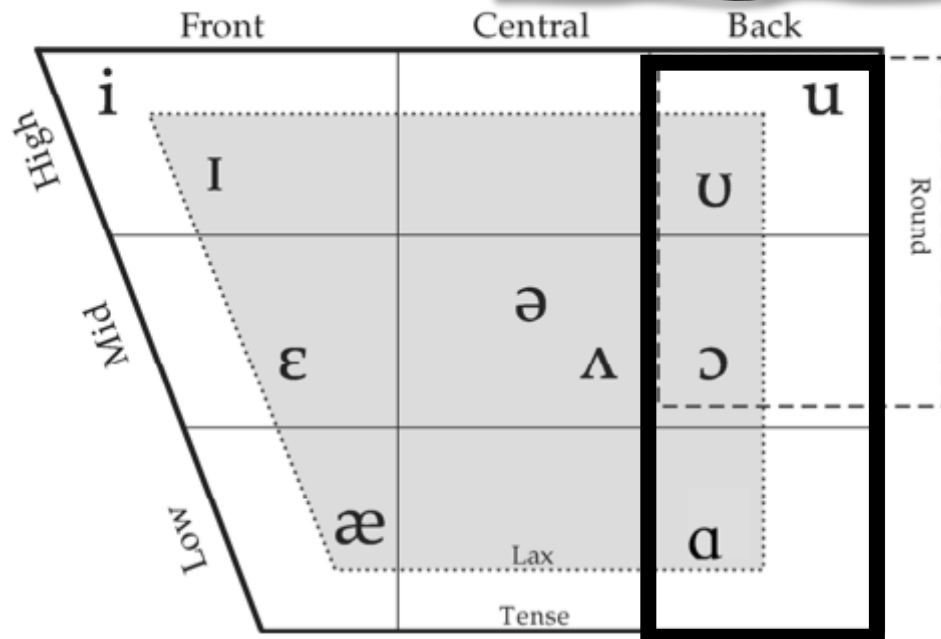
Front: tongue towards front



See p.59 of *Language Files*

Vowels : Monophthongs

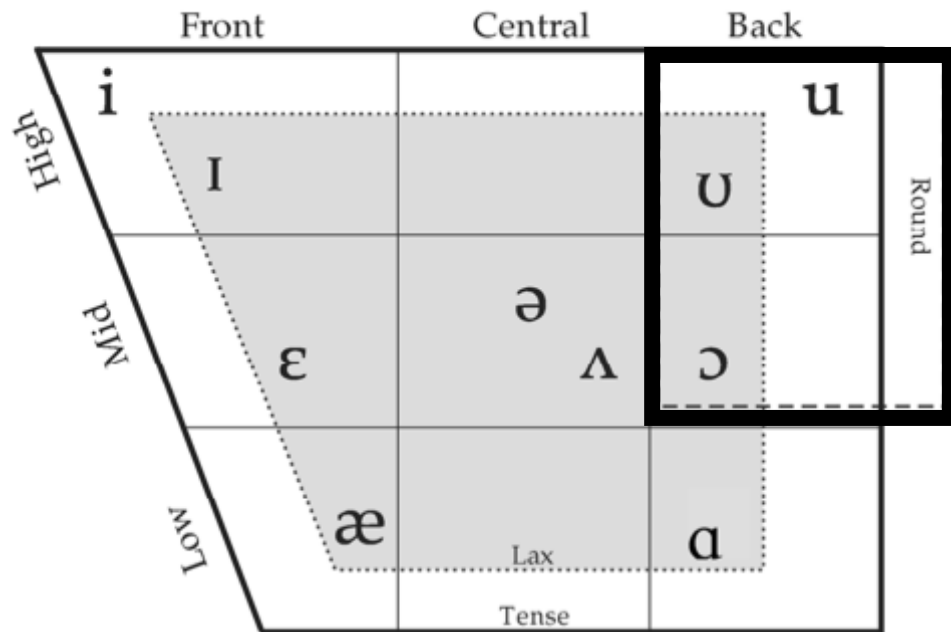
Back: tongue at back



- Say [i] into [u].
- Say [ɛ] into [ʌ].
- Say [æ] into [ɑ].

See p.59 of *Language Files*

Vowels : Monophthongs

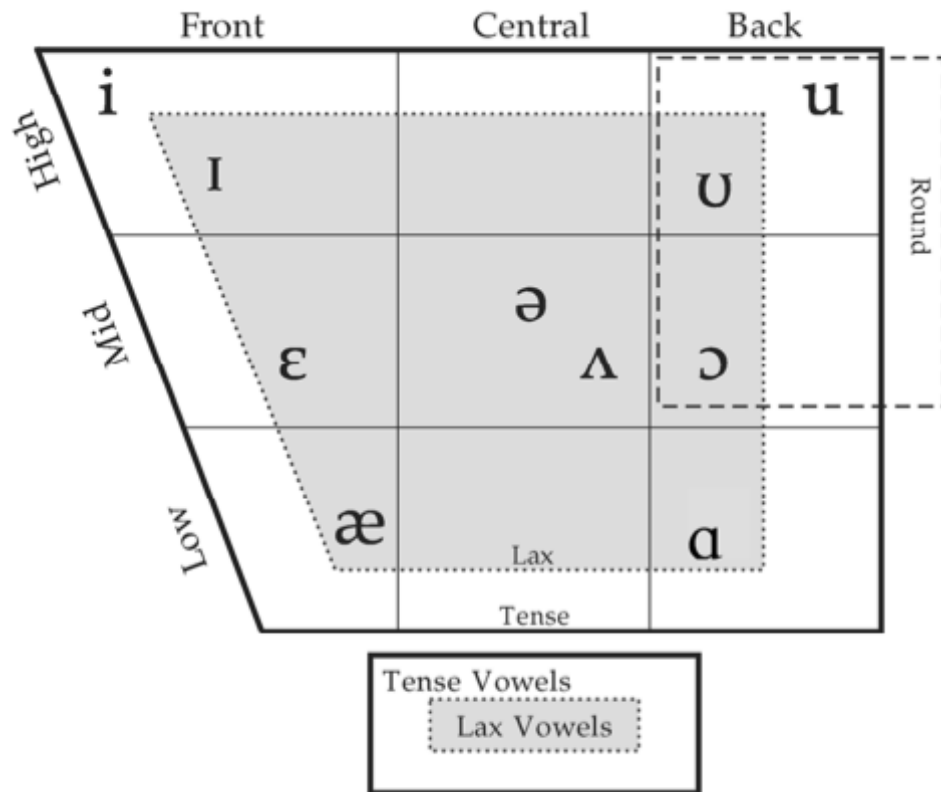


Round: lips rounded

Tense Vowels
Lax Vowels

See p.59 of *Language Files*

Vowels : Monophthongs

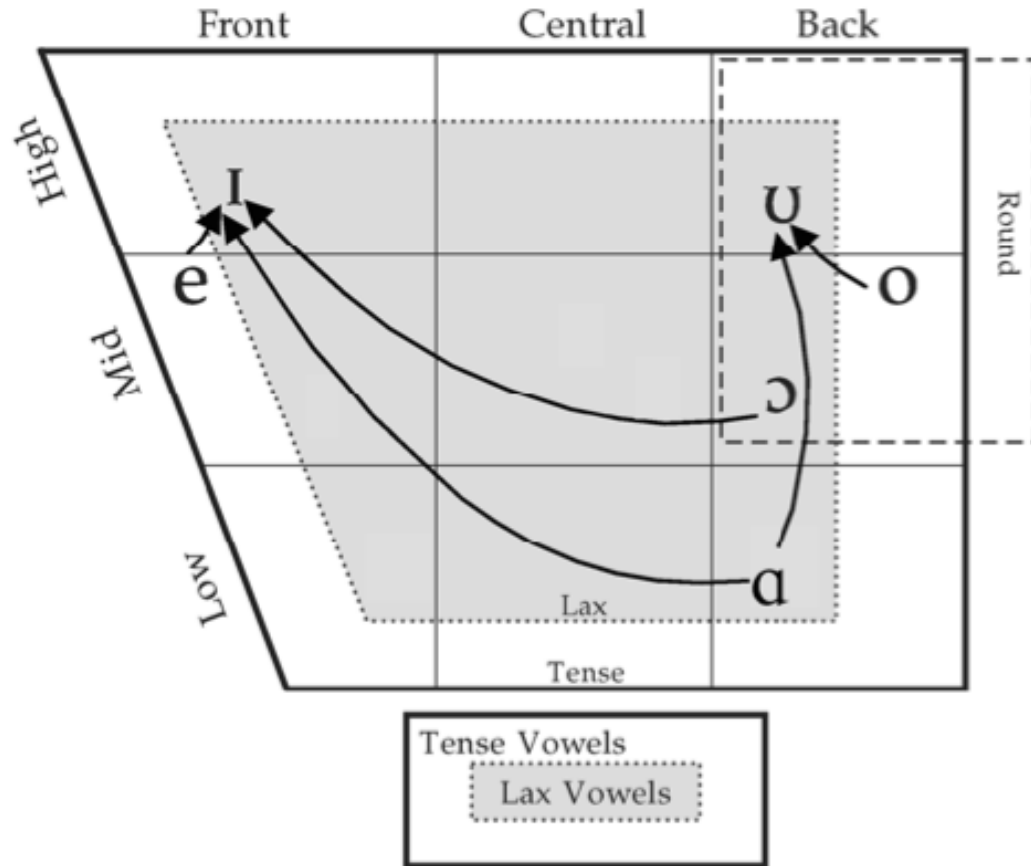


Tenseness

- Has to do with the tenseness of your tongue.
- Use it to distinguish [i] from [ɪ] and [u] from [ʊ].

See p.59 of *Language Files*

Vowels : Diphthongs



buy [baɪ]

cow [kaʊ]

bay [beɪ]

low [loʊ]

boy [bɔɪ]

[eɪ] and [oʊ]

Sometimes, you'll see these written as monophthongs, [e] and [o].

See p.59 of *Language Files*

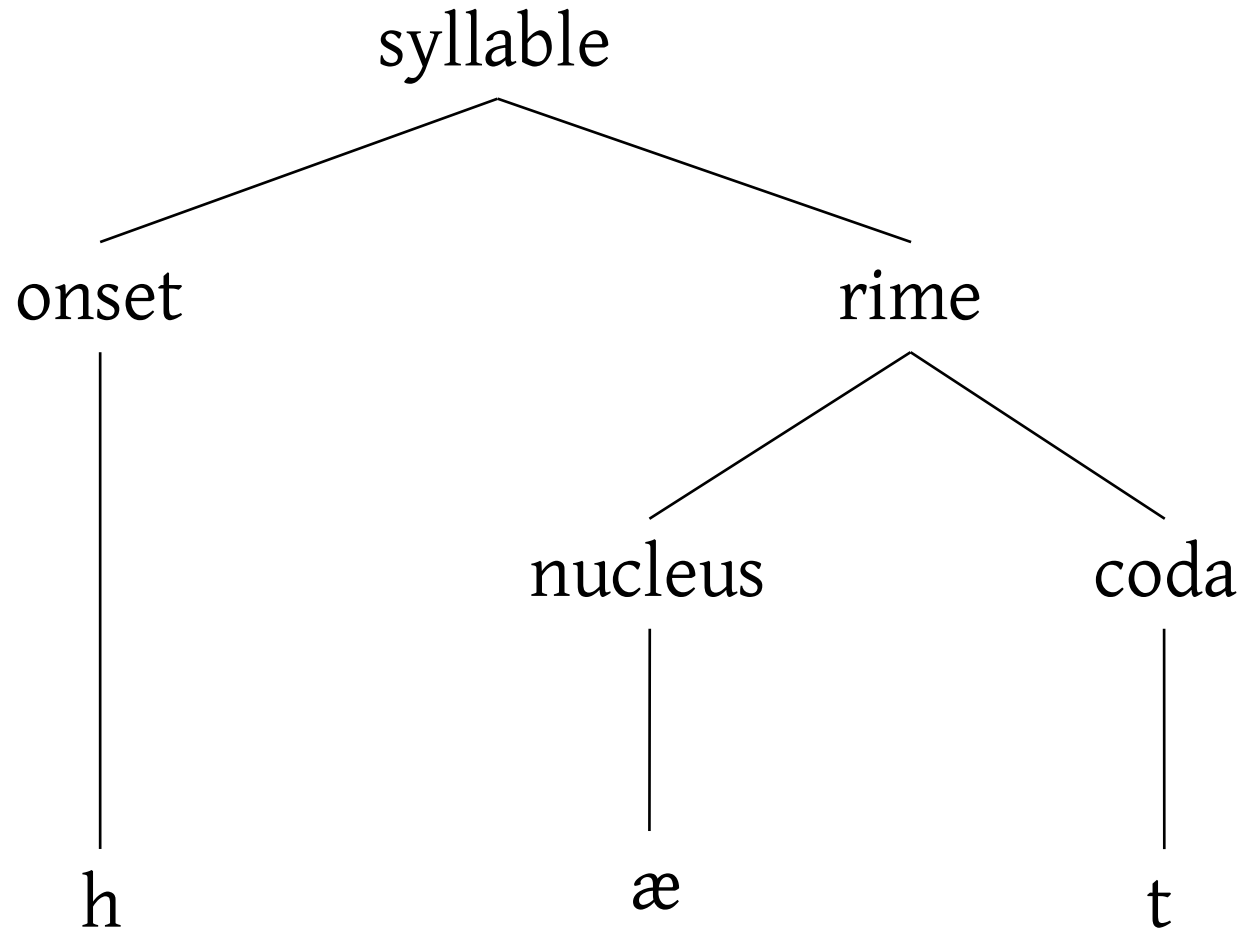
Activity!

- In groups, do activity 4 on your sheets.

Syllables

- What's an *onset*?
- What's a *rhyme / rime*?
- What does it mean for two syllables to rhyme?

Syllables



hat

What's the onset?

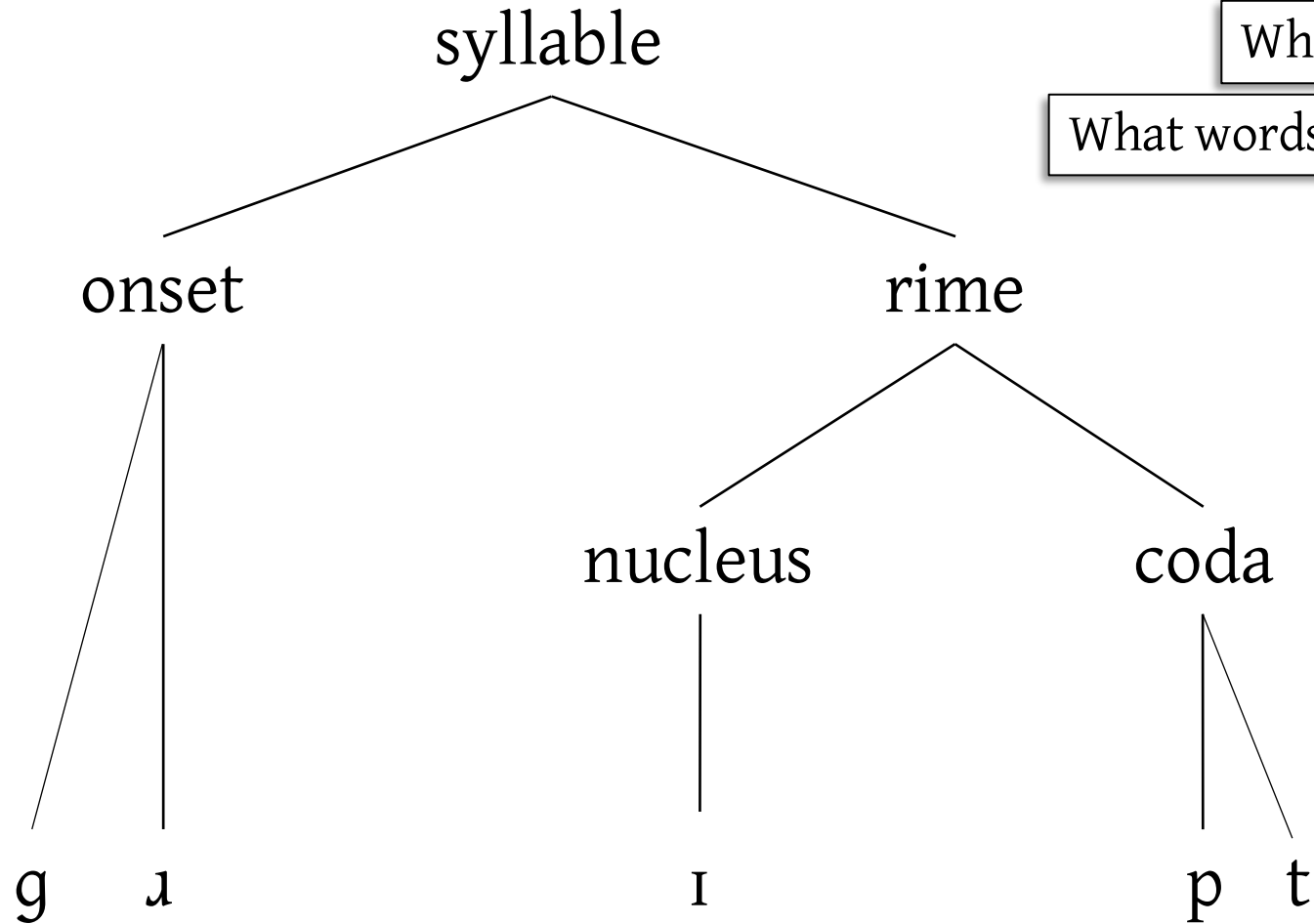
What's the nucleus?

What's the coda?

What's the rime?

What words rhyme with it?

Syllables



What's the onset?

What's the nucleus?

What's the coda?

What's the rime?

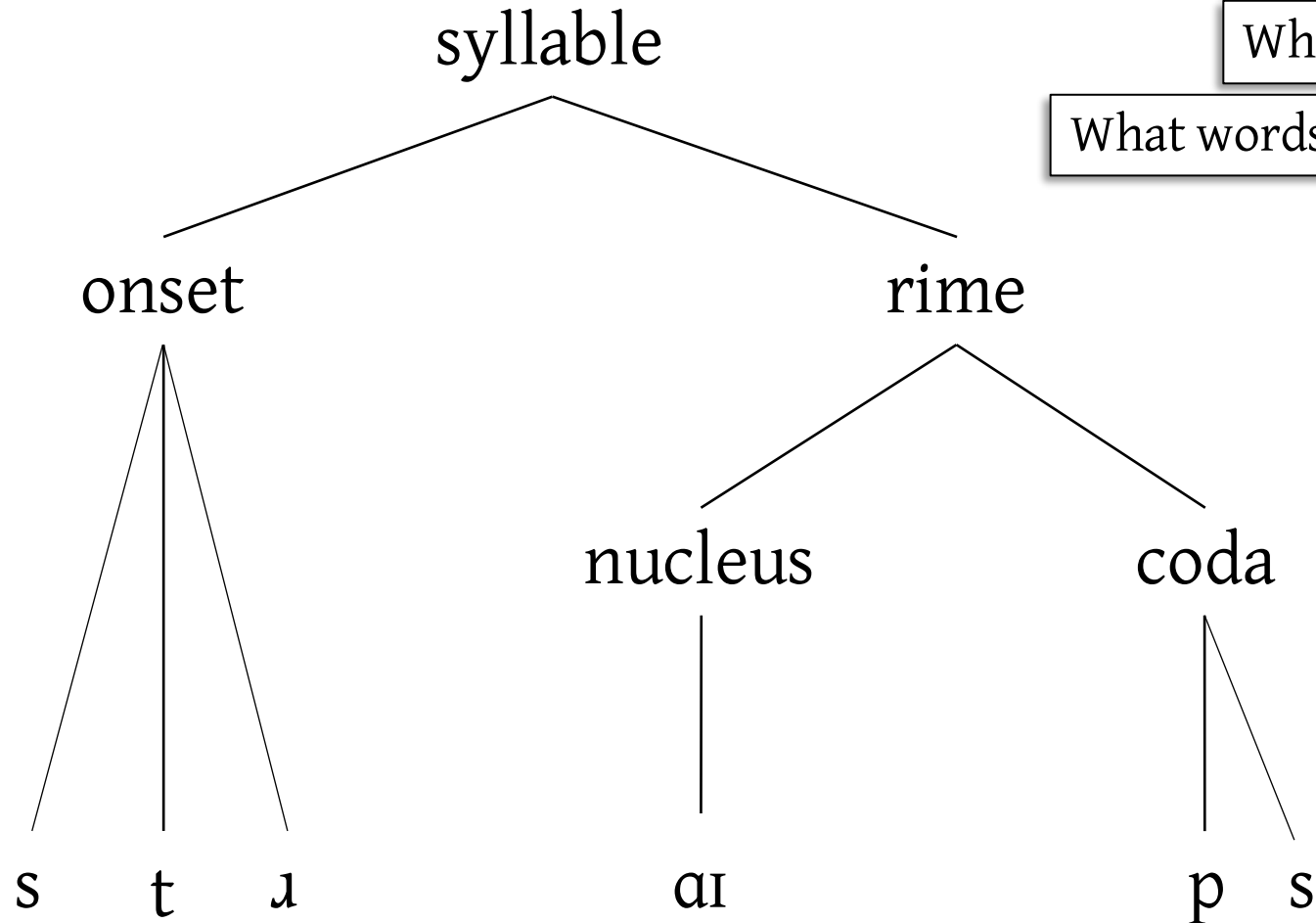
What words rhyme with it?

hat

gripped

Note
The IPA symbol is [g], not [g]. [g] is not an IPA symbol.

Syllables



What's the onset?

What's the nucleus?

What's the coda?

What's the rime?

What words rhyme with it?

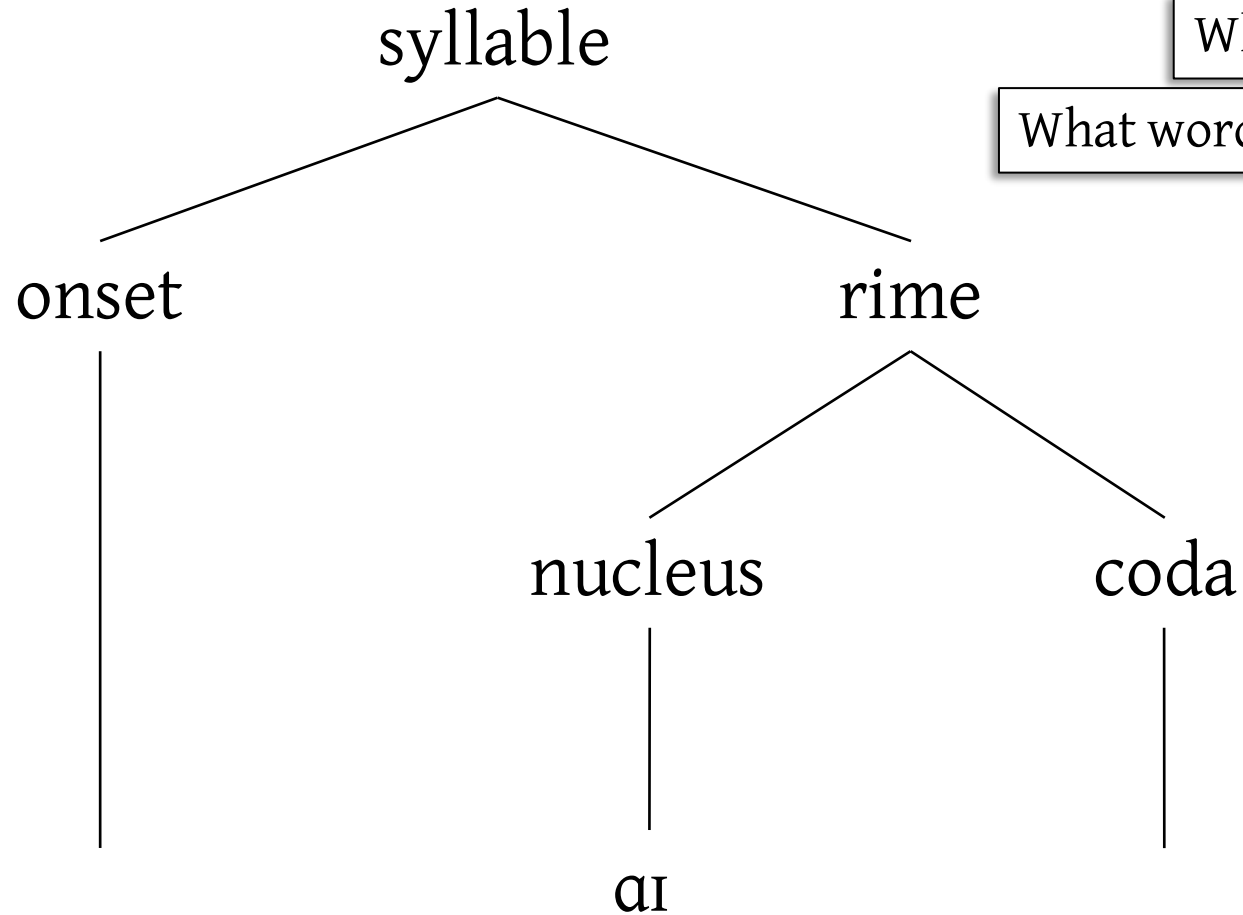
hat

gripped

stripes

Note
[aɪ] is a *diphthong*, functions as only one vowel sound.

Syllables



What's the onset?

What's the nucleus?

What's the coda?

What's the rime?

What words rhyme with it?

hat

gripped

stripes

eye

Note

Not all syllables have an onset and/or a coda, but all **must** have a nucleus.

Activity!

- In groups, do activity 5 on your sheets.

For next week:

- Read pp.102–105 in *The 5 Minute Linguist* and pp.86–94 in *Language Files*. There will be a quiz on these readings at the start of class.
- Come prepared for the open-book Midterm Review. It's like a timed team trivia game where you can win extra credit points on the midterm.