

Week 5: The International Phonetic Alphabet

LING 201

Spring 2024

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Quiz #4

Answer any two questions. Don't answer all three!

You have 15 minutes.



1. What are two ways that the International Phonetic Alphabet differs from the English alphabet?
2. What's one thing that makes vowels different from consonants, as discussed in the reading?
3. If I were to specify the **place**, **manner**, and **voicing** of a sound, would I be describing:
 - a. a consonant
 - b. a vowel
 - c. either a consonant or a vowel
 - d. neither a consonant nor a vowel

What we'll cover

1. What is the IPA?
2. Phonemes and graphemes
3. How to use the IPA
4. Syllables

1. What is the IPA?

- 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.

[nōʊt]

nōt

not

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

2. 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

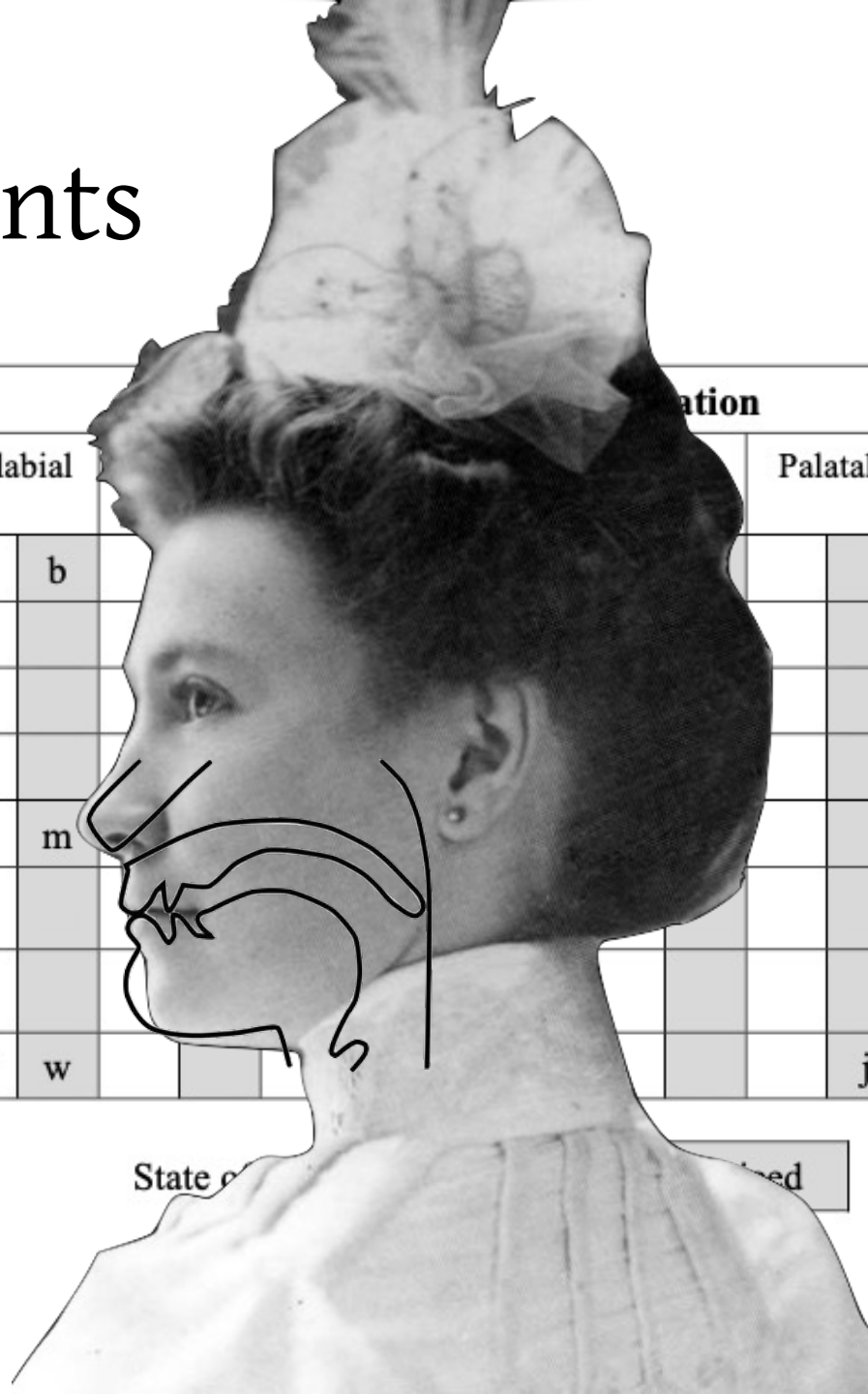
knight, gnome, psychology

3. 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.
- What's the difference between consonants and vowels?
- Key elements for consonants: **voicing, place, and manner.**
- Key elements for vowels: **height, backness, rounding, and tenseness.**

3a. 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 the vocal tract

3a. 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



3a. Consonants

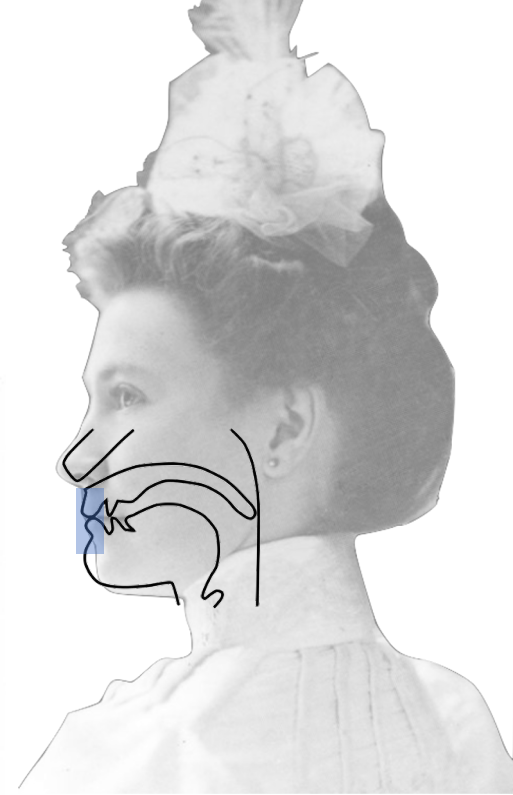
Bilabial: two lips

		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	w	w										j				

State of the Glottis

Voiceless

Voiced



3a. Consonants

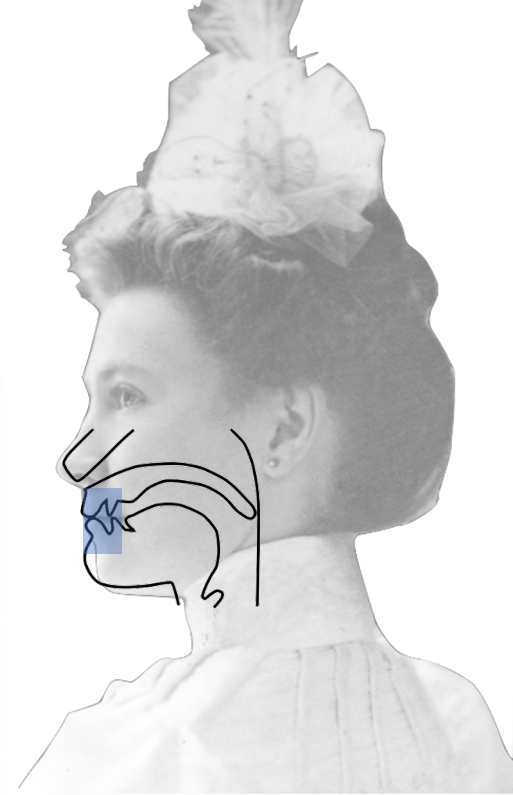
Labiodental: lips + teeth

		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	w	w											j			

State of the Glottis

Voiceless

Voiced

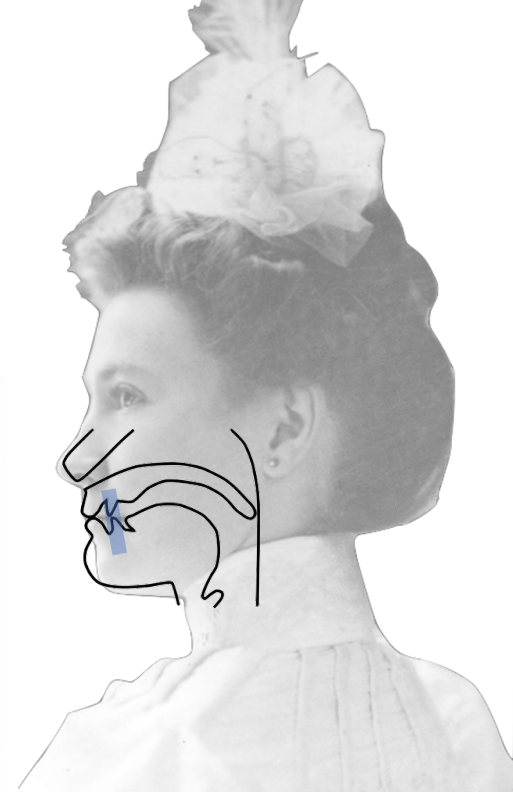


3a. Consonants

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	w	w											j			

State of the Glottis Voiceless Voiced

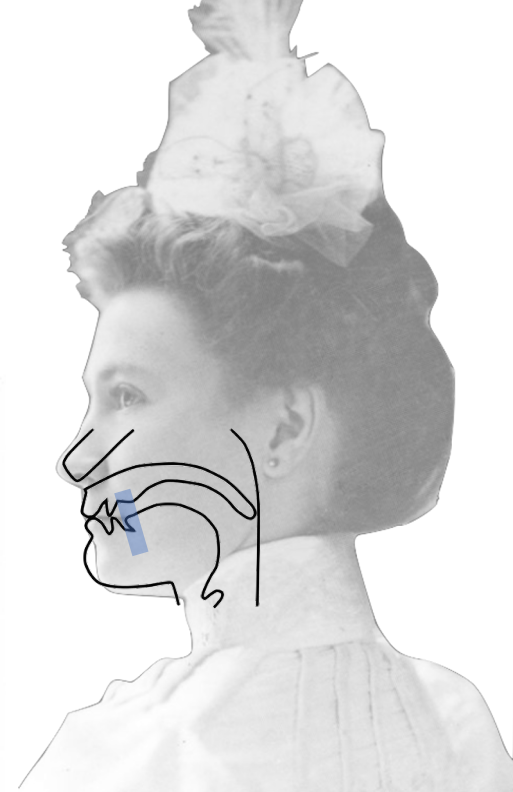


3a. Consonants

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



3a. Consonants

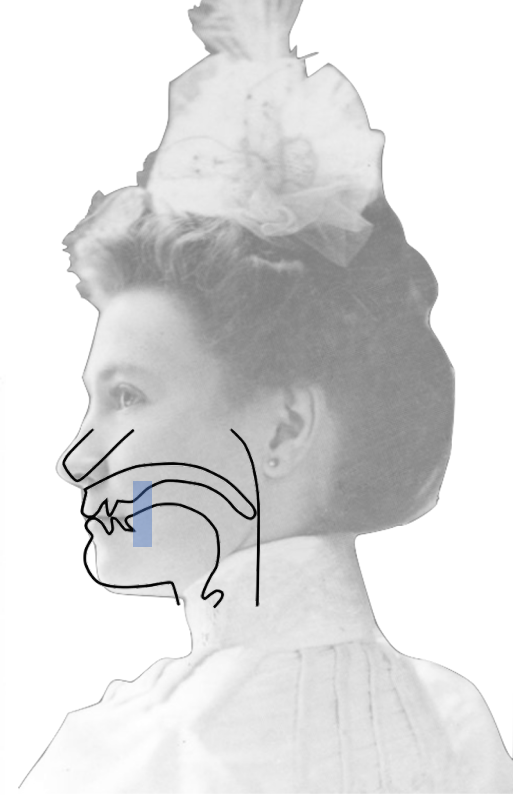
Postalveolar: behind your alveolar ridge

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							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

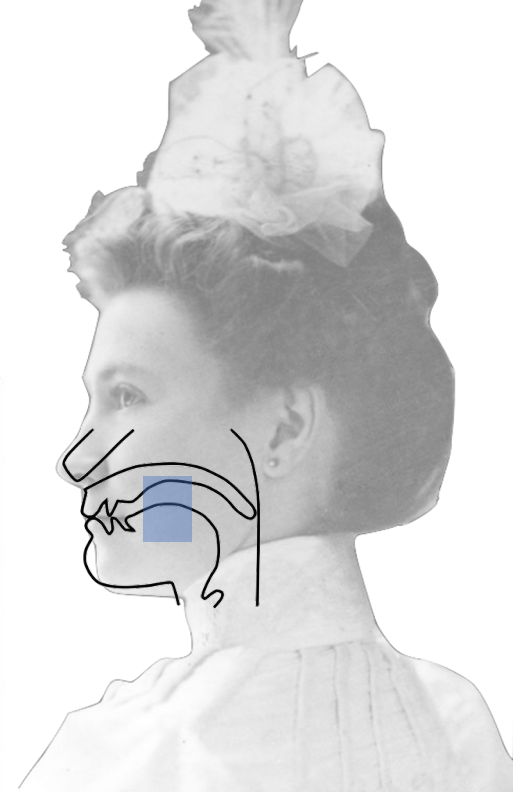


3a. Consonants

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



3a. 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



3a. 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	w	w										j			

State of the Glottis Voiceless Voiced



3a. 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	w	w											j		

State of the Glottis Voiceless Voiced

Stop: Build up, then release, pressure

3a. 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	w	w									j		

State of the Glottis Voiceless Voiced

Fricative: Steady stream of constricted speech.

3a. 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.

3a. 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										
	Affricate																
	Flap								r								
	Nasal		m						n						ŋ		
	Lateral Liquid								l								
	Retroflex Liquid								ɭ								
	Glide	w	w										j				

Flap: Quick little flap of tongue.

State of the Glottis Voiceless Voiced

3a. 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
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3a. 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	w	w											j			

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

State of the Glottis Voiceless Voiced

3a. 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	w	w											j			

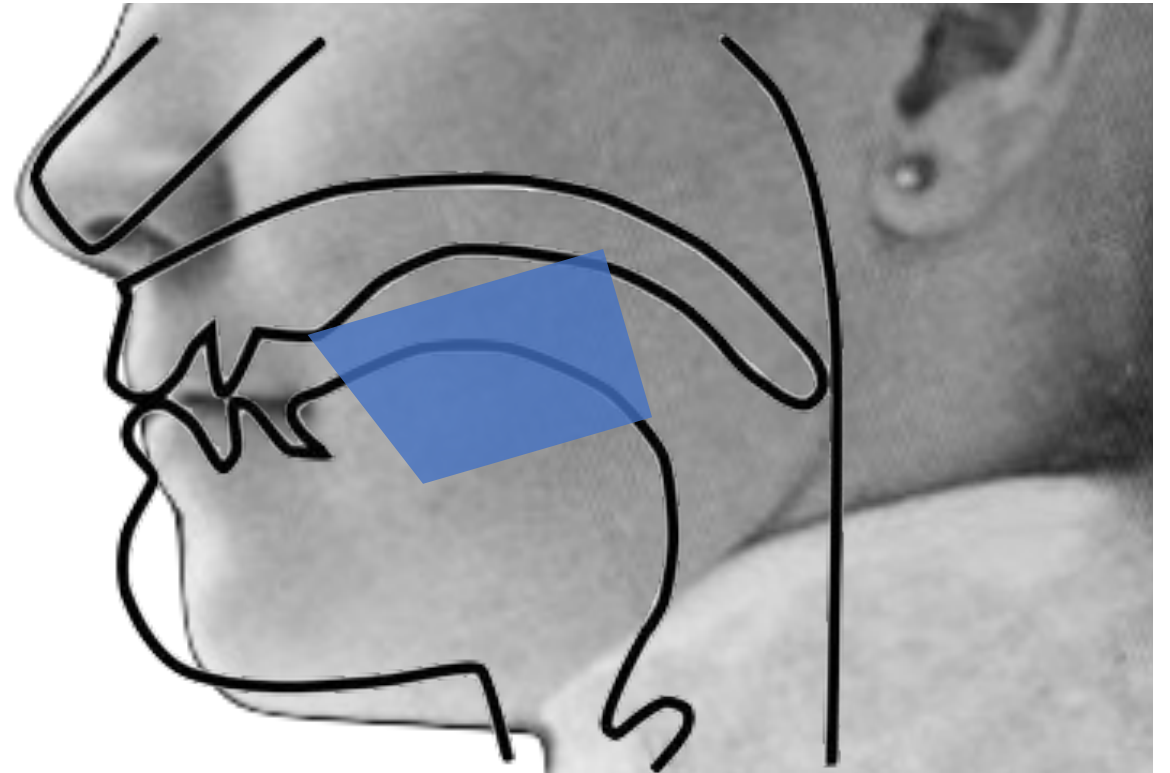
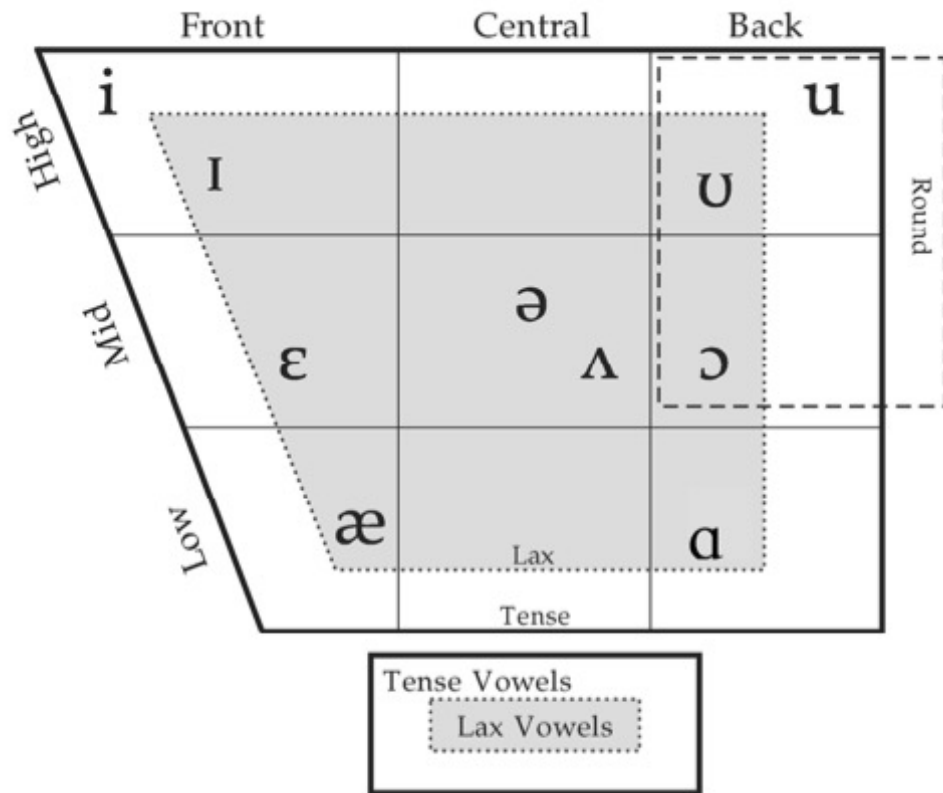
Glide: Very little obstruction.

State of the Glottis Voiceless Voiced

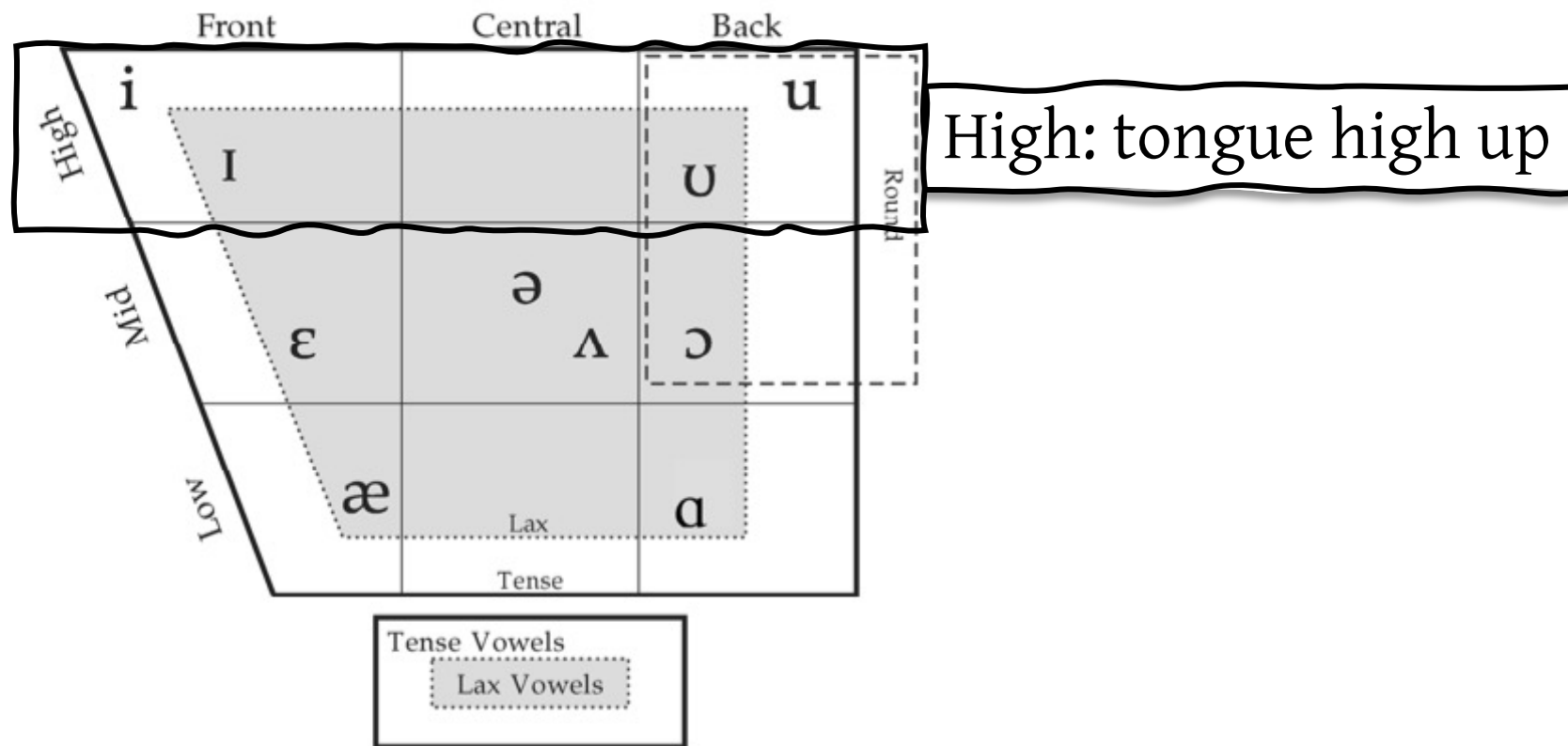
3b. Vowels

- 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**.

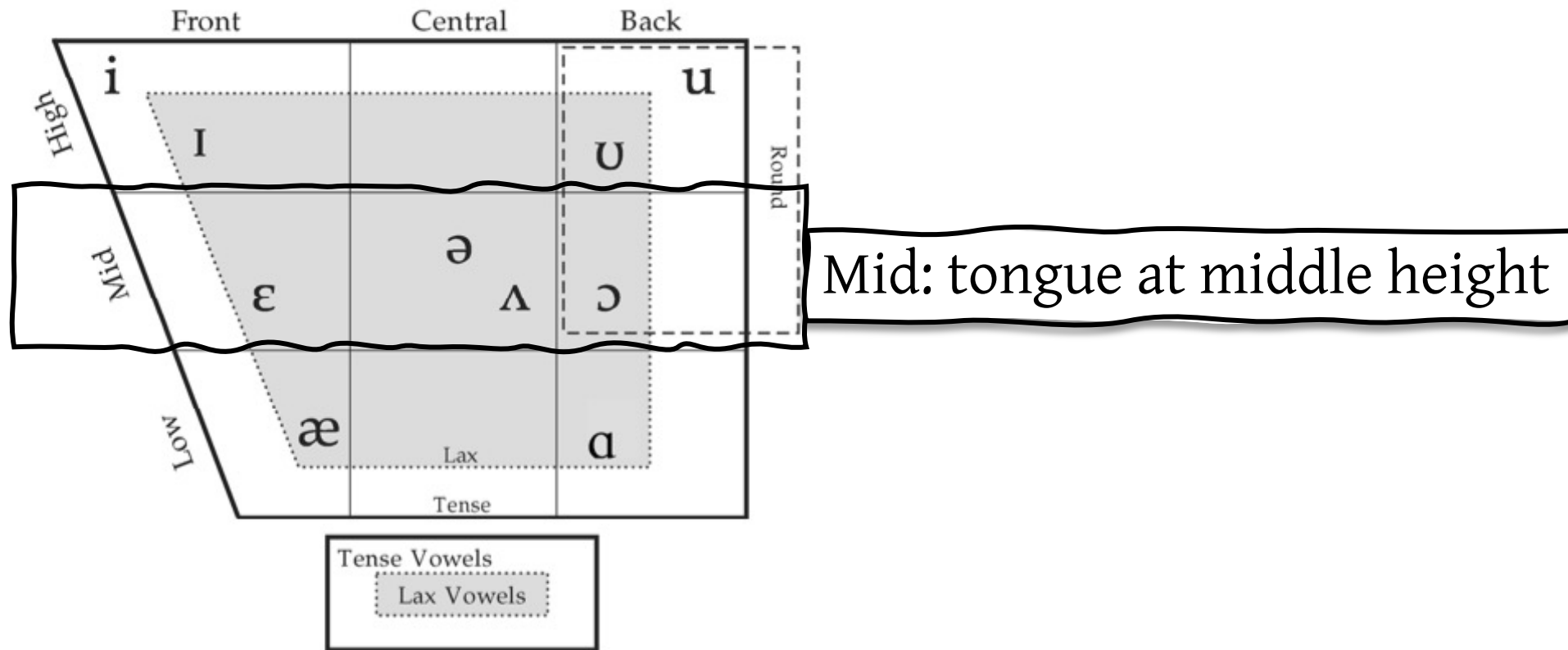
3b. Vowels : Monophthongs



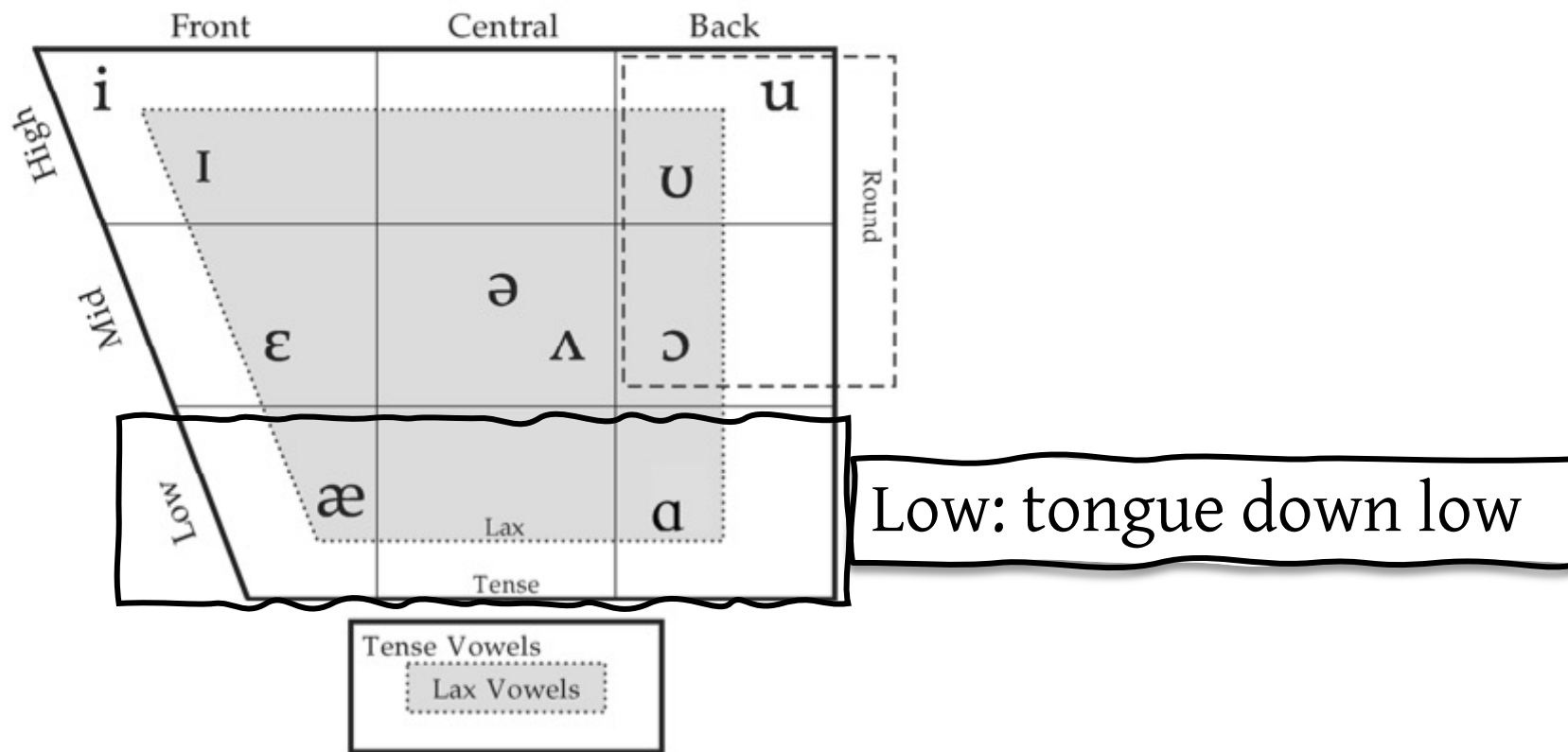
3b. Vowels : Monophthongs



3b. Vowels : Monophthongs

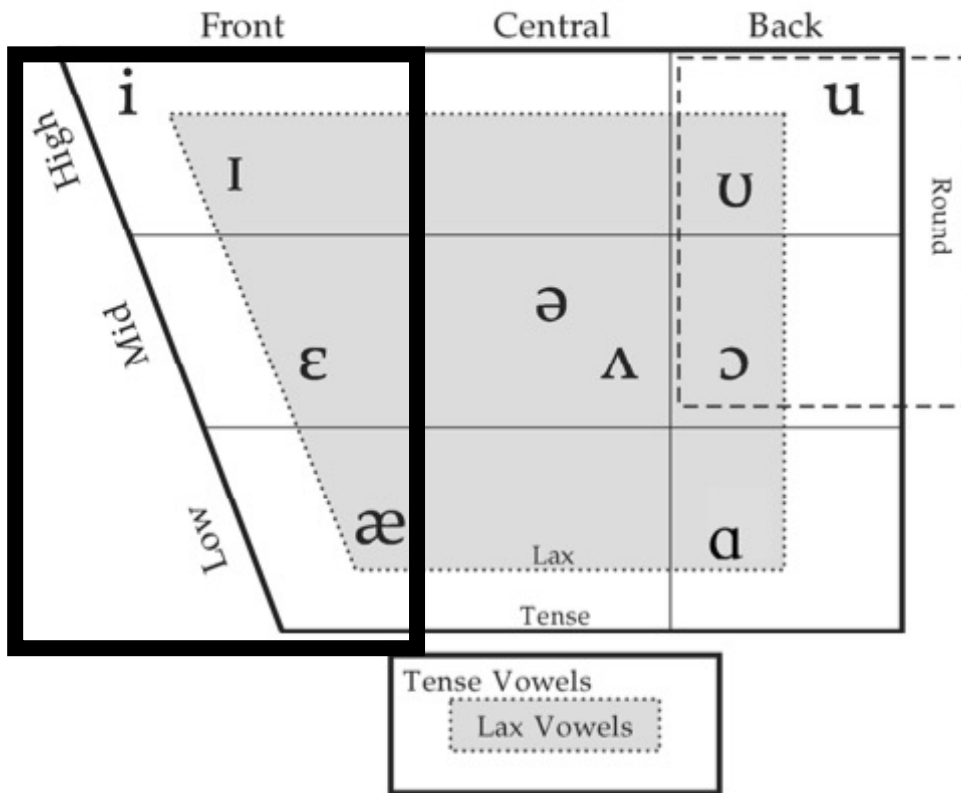


3b. Vowels : Monophthongs



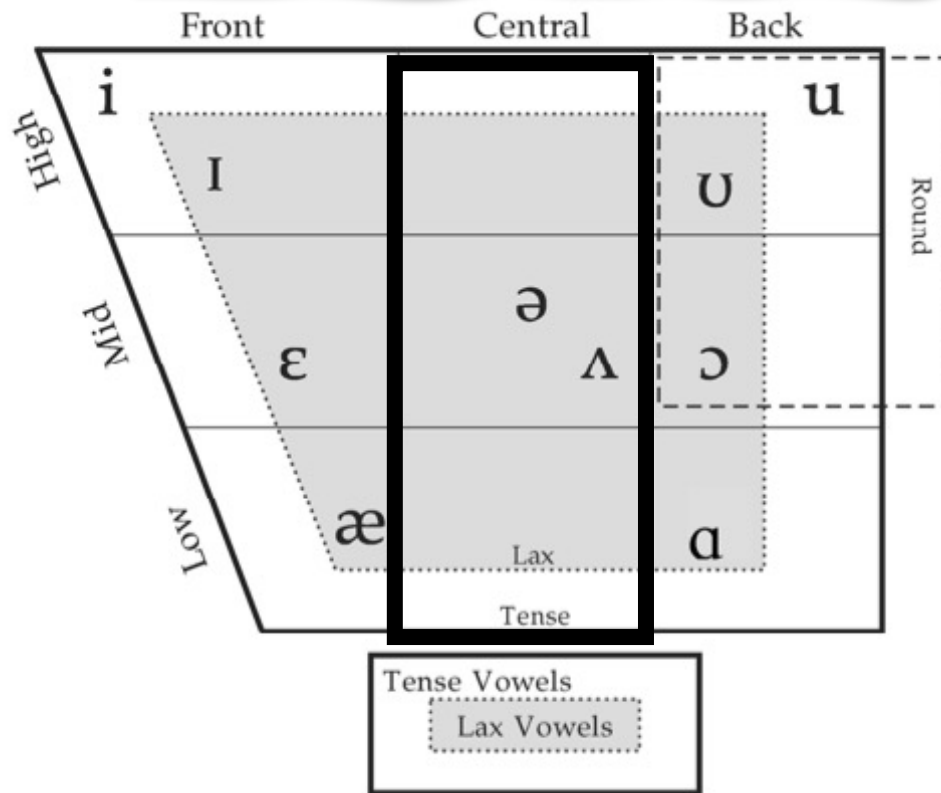
3b. Vowels : Monophthongs

Front: tongue towards front



3b. Vowels : Monophthongs

Central: tongue at center

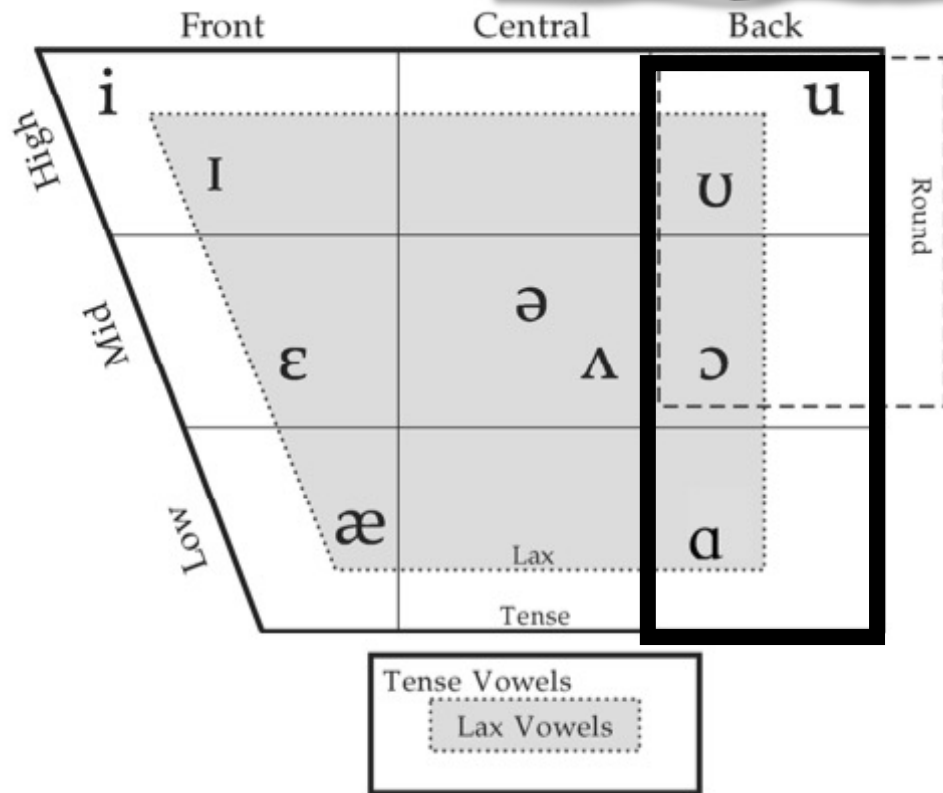


[ʌ] vs. [ə]

- Sound very similar.
- [ə] is the way many vowels are realized in destressed position, e.g. *universe* [junəvɜːs].
- [ʌ] is a vowel in its own right, and can be stressed, e.g. *hut* [hʌt].

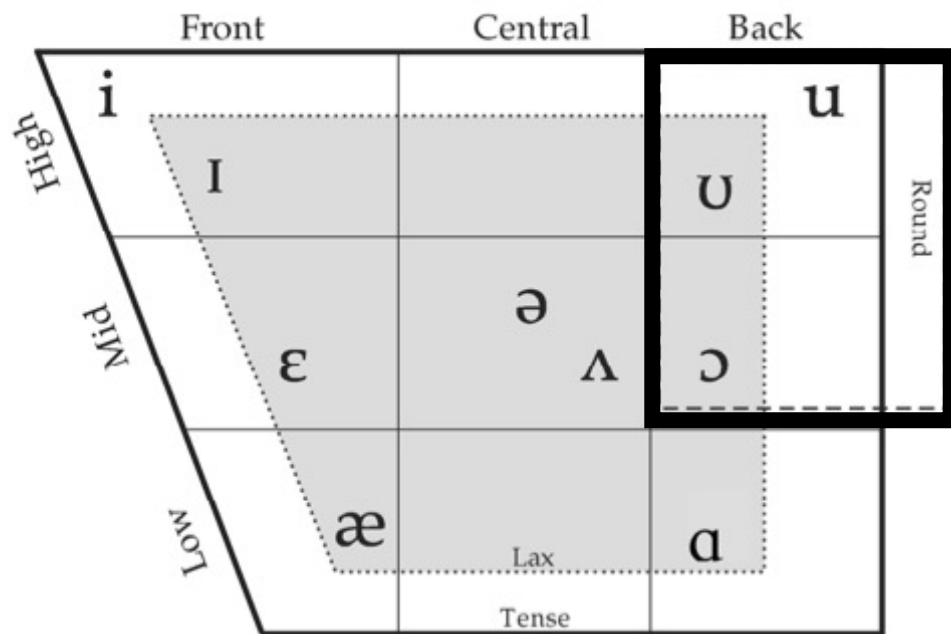
3b. Vowels : Monophthongs

Back: tongue at back



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

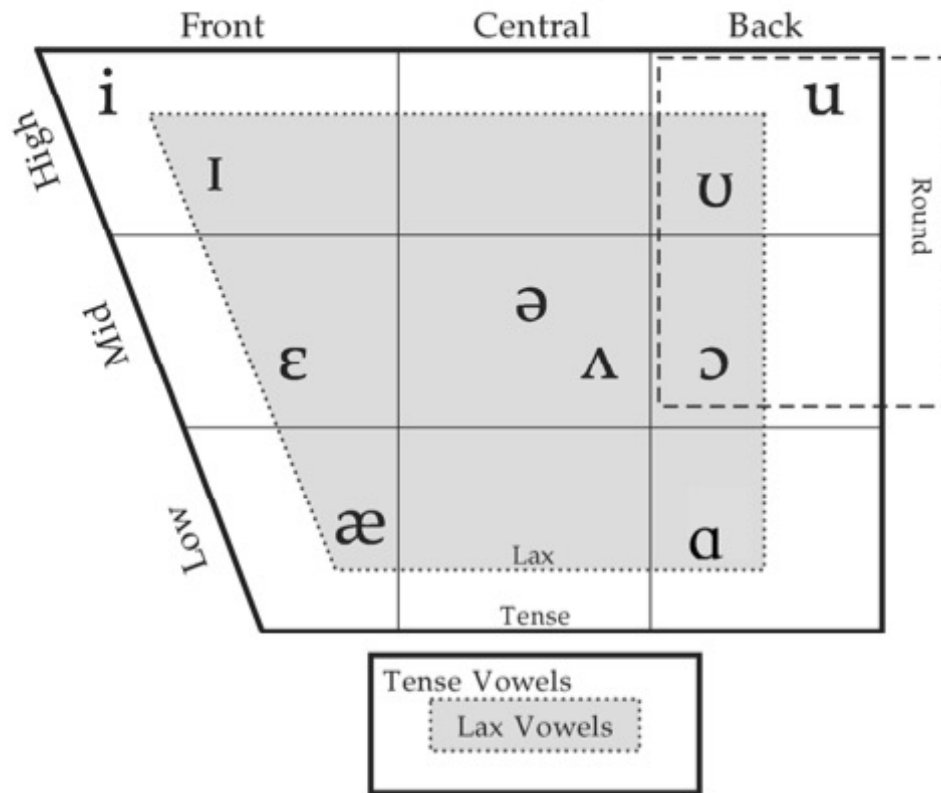
3b. Vowels : Monophthongs



Round: lips rounded

Tense Vowels
Lax Vowels

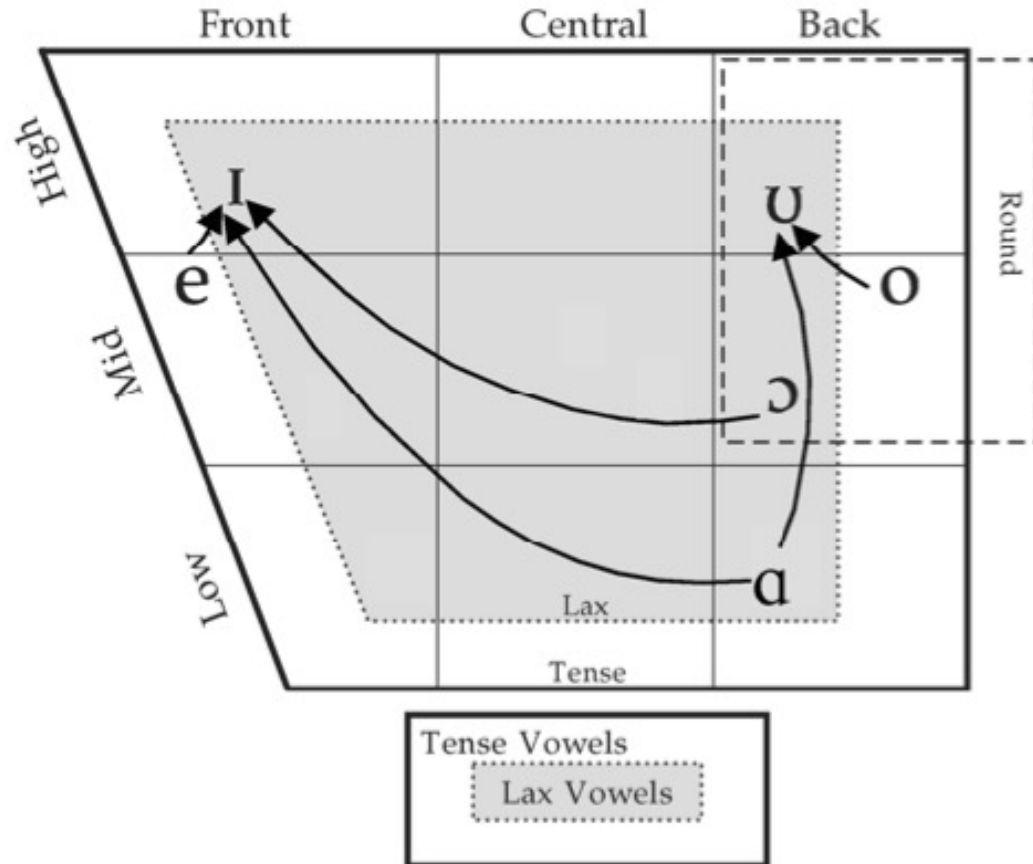
3b. Vowels : Monophthongs



Tenseness

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

3b. Vowels : Diphthongs



buy [baɪ]

cow [kaʊ]

bay [beɪ]

low [loʊ]

boy [bɔɪ]

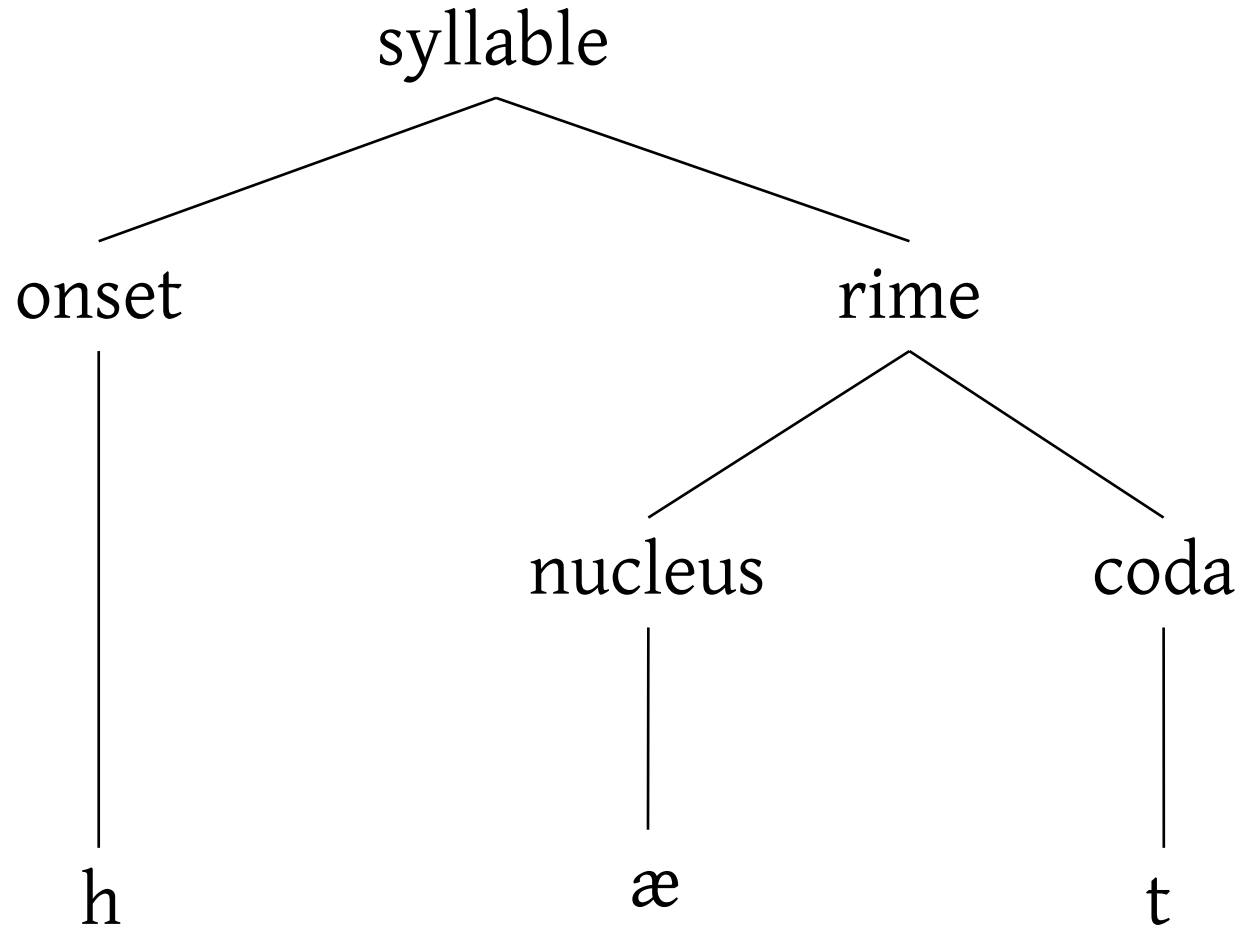
[eɪ] and [oʊ]

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

4. Syllables

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

4. Syllables



hat

What's the onset?

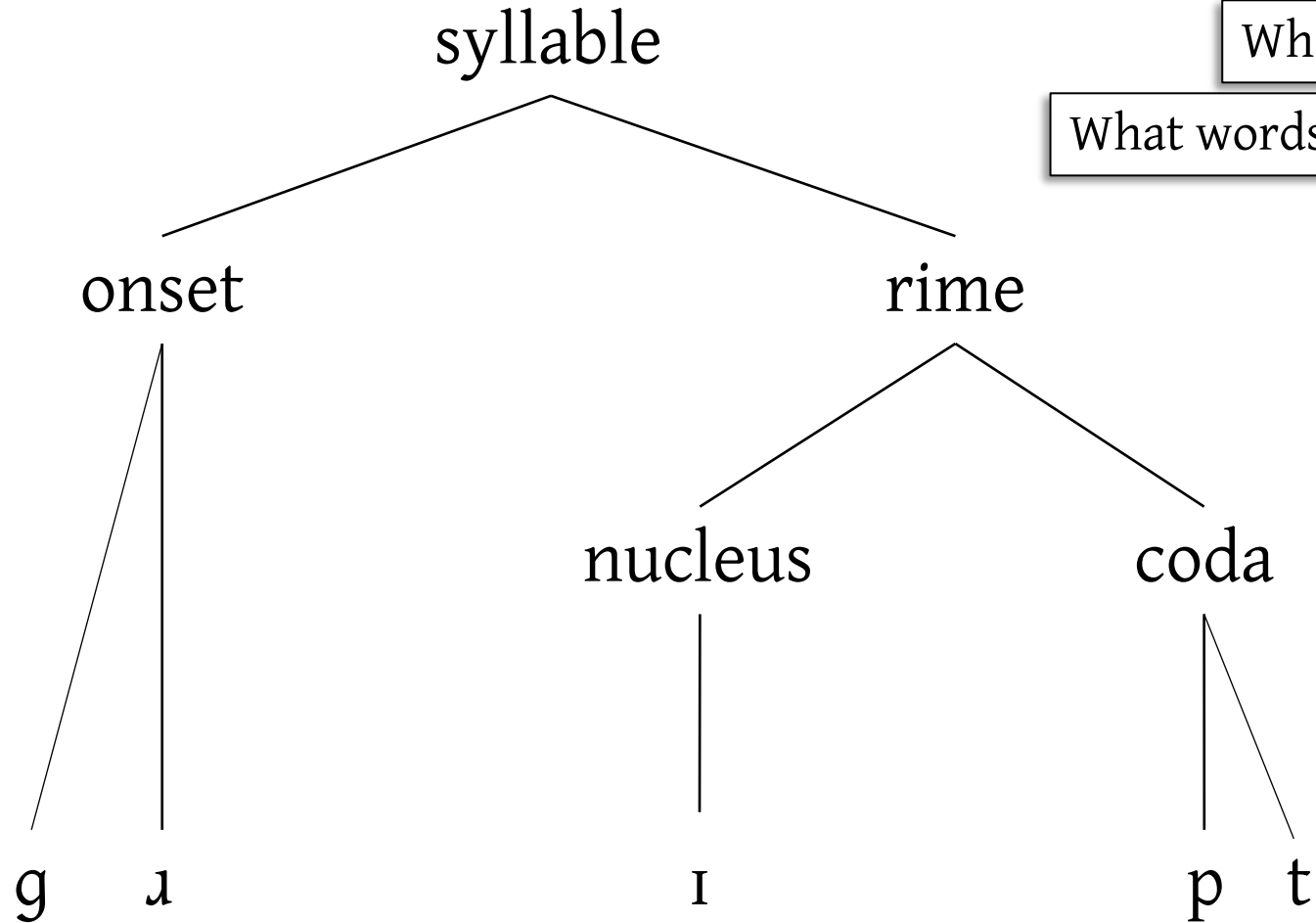
What's the nucleus?

What's the coda?

What's the rime?

What words rhyme with it?

4. Syllables



What's the onset?

What's the nucleus?

What's the coda?

What's the rime?

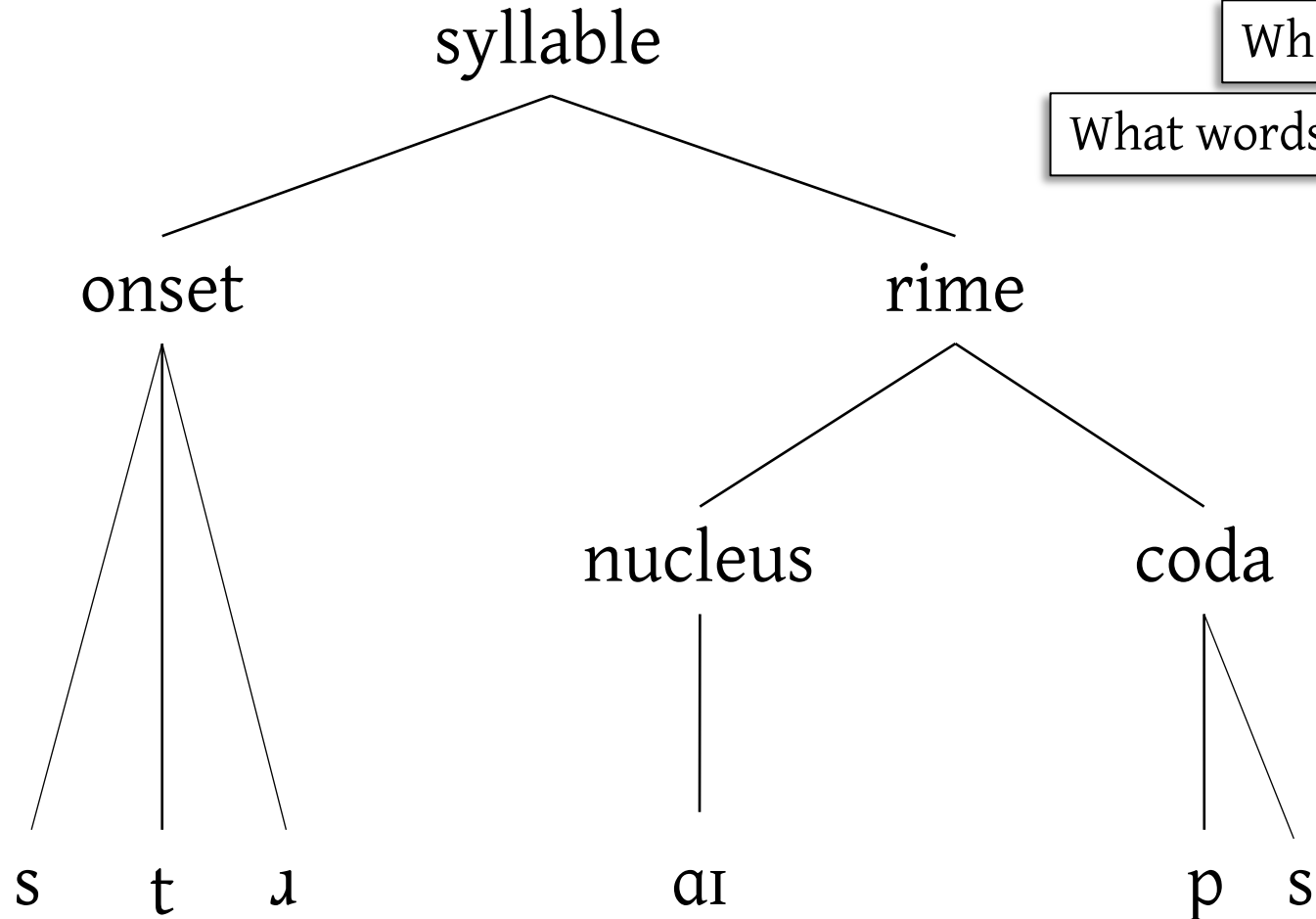
What words rhyme with it?

hat

gripped

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

4. Syllables



What's the onset?

What's the nucleus?

What's the coda?

What's the rime?

What words rhyme with it?

hat

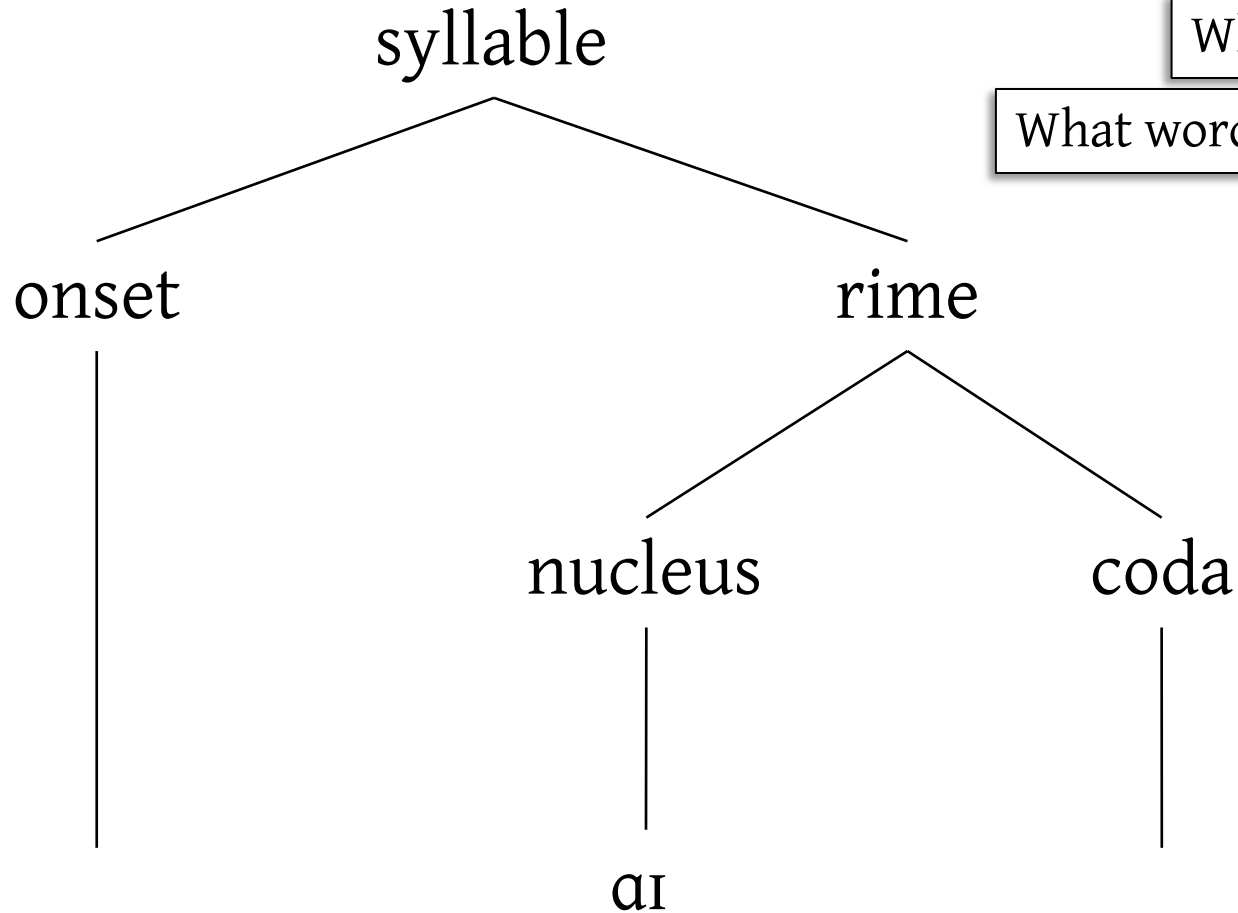
gripped

stripes

Note

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

4. 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.

Assignments

- For next week's class (March 5th), read pp.108–121 in *Language Files*. There will be a quiz on this reading at the start of class.
- There *should* be a discussion board post that I'll put on the site this week, but the Commons are down today so it's not up yet. I'll email you with an update once I have one.