

# Phonetics II

## More on the International Phonetic Alphabet

Ling 301 (Spring 2021)

Joseph Pentangelo

The College of Staten Island

# Review > Quiz 1

Which of the following is true?

- a. Any system of communication, including music and symbols, is a language.
- b. A dialect is a broken, inferior version of a language.
- c. Linguistic research is guided by descriptivism, rather than prescriptivism.
- d. Sign languages aren't real languages.

# Review > Quiz 1

Considering the reading by G. Tucker Childs that we went over in our first class session, what best characterizes the view of linguists on dialects vs. languages?

- a. All languages are mutually-intelligible to some degree.
- b. There is no consistent, scientific way of distinguishing between a dialect and a language.
- c. Dialects are high-prestige versions of a language.
- d. A dialect becomes a language when it has at least 100,000 native speakers.

# Review > Quiz 1

In your own words, why is the International Phonetic Alphabet useful for linguistic research?



# Review > Quiz 1

Give an example of a word that begins with [dʒ] that is NOT listed on page 46 of Language Files.

- I won't accept *judge, George, Jell-O, region, residual* — those are the words on p.46.

# Review > Quiz 1

Give an example of a word that ends with the voiced alveolar fricative.  
(Remember, this is about pronunciation, not spelling!)

- The voiced alveolar fricative is [z]
- Any word ending with [z] is acceptable, e.g. *buzz*, *eggs*, *houses*.

# Review > Last week

- The IPA recognizes two types of sounds: **consonants** and **vowels**.
- Last week, we went over the IPA for consonants.
- What three factors do we refer to when identifying a consonant?

Voicing, place, and manner – in that order.

# Review > Practice

Give the **voicing**, **place**, and **manner**, in that order.

- How would you describe [j]?
- What's a word that starts with it?
- How would you describe [ð]?
- What's a word that starts with it?
- How would you describe [n]?
- What's a word that starts with it?
- How would you describe [ʃ]?
- What's a word that starts with it?
- How would you describe [dʒ]?
- What's a word that starts with it?

		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								ɾ								
	Nasal		m						n						ŋ		
	Lateral Liquid								l								
	Retroflex Liquid								ɭ								
	Glide	ɰ	w										j				

State of the Glottis
 

Voiceless	Voiced
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# Vowels

- What makes a vowel different from a consonant?
- What does a vowel *do*?

Answering this requires a more extensive knowledge of the syllable.

- What is a syllable?
- How many syllables are in the following words?

hat

character

gripped

skyward

pious

statue

stripes

burst

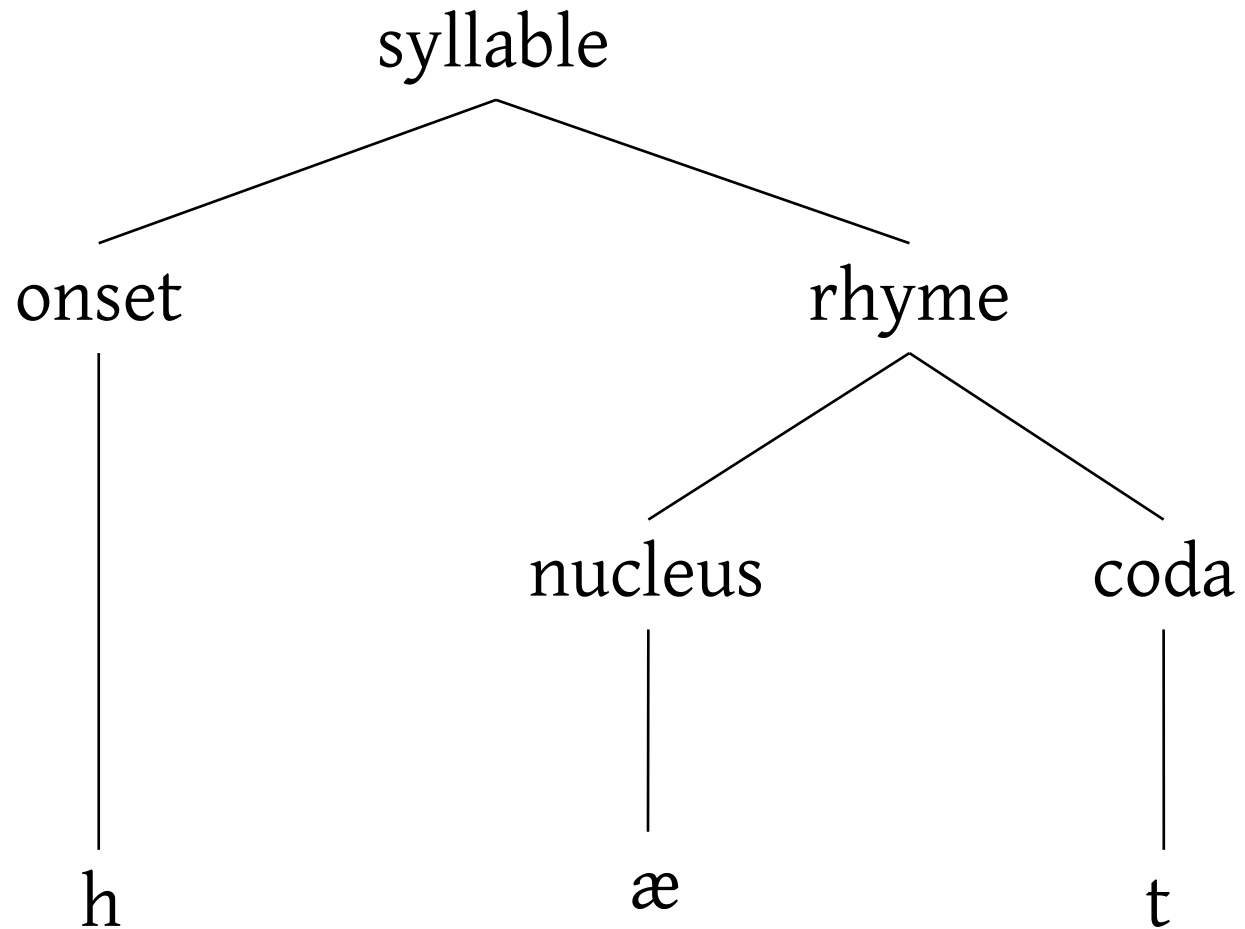
America

simple

weather

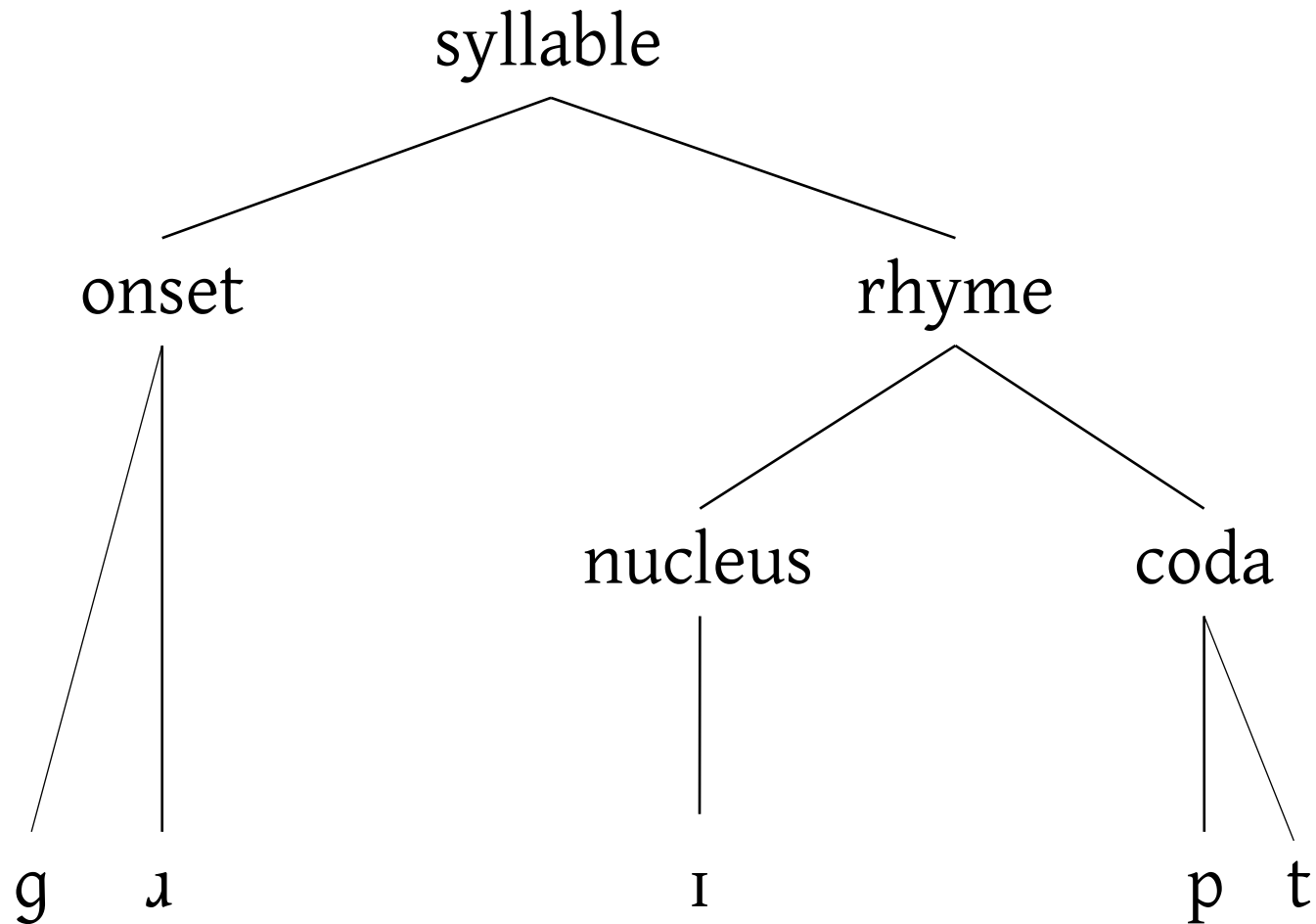
kitten

# Syllable structure



hat

# Syllable structure



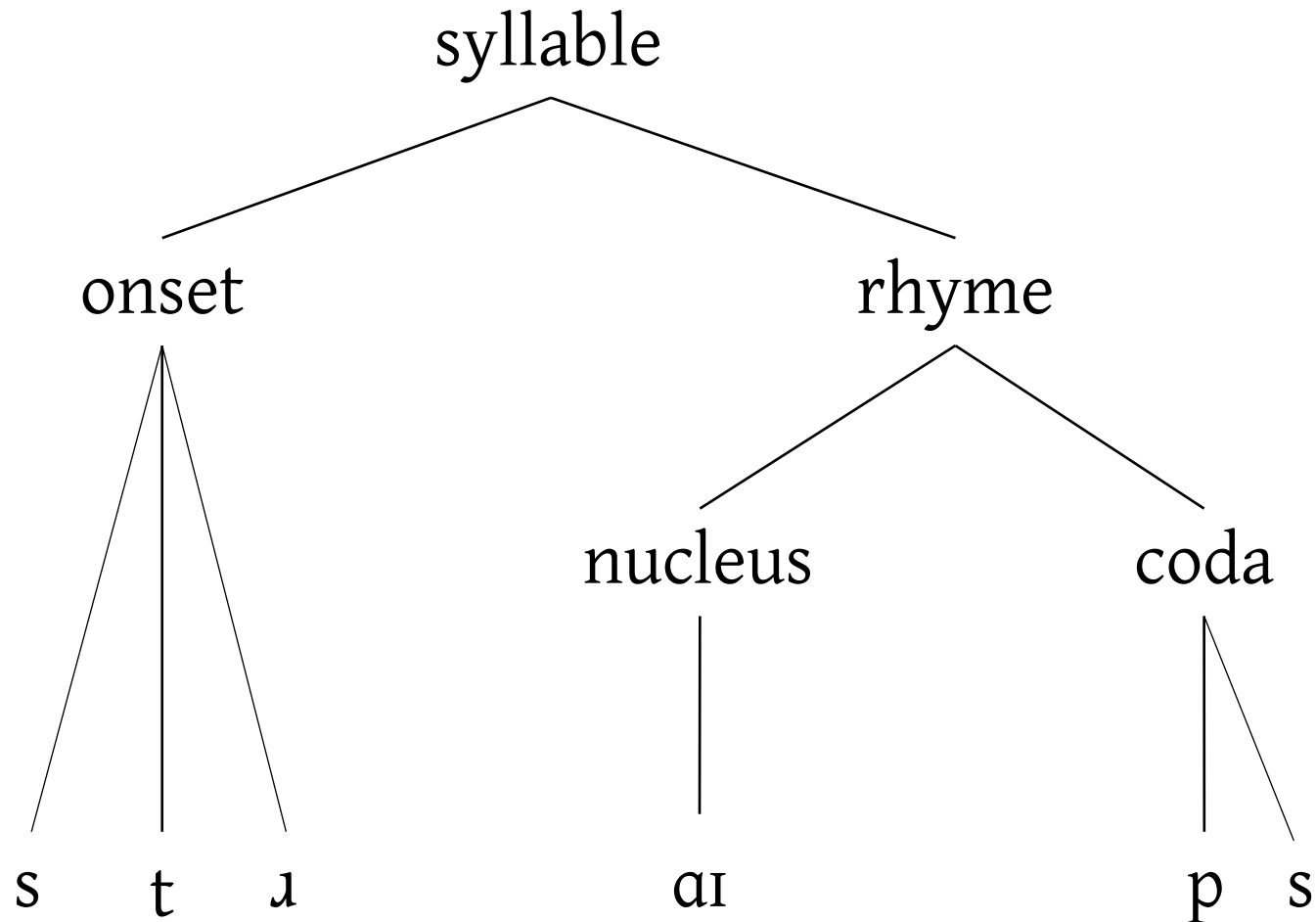
hat

gripped

## Note

Remember! The symbol is [g], not [g]. [g] is not an IPA symbol!

# Syllable structure



hat

gripped

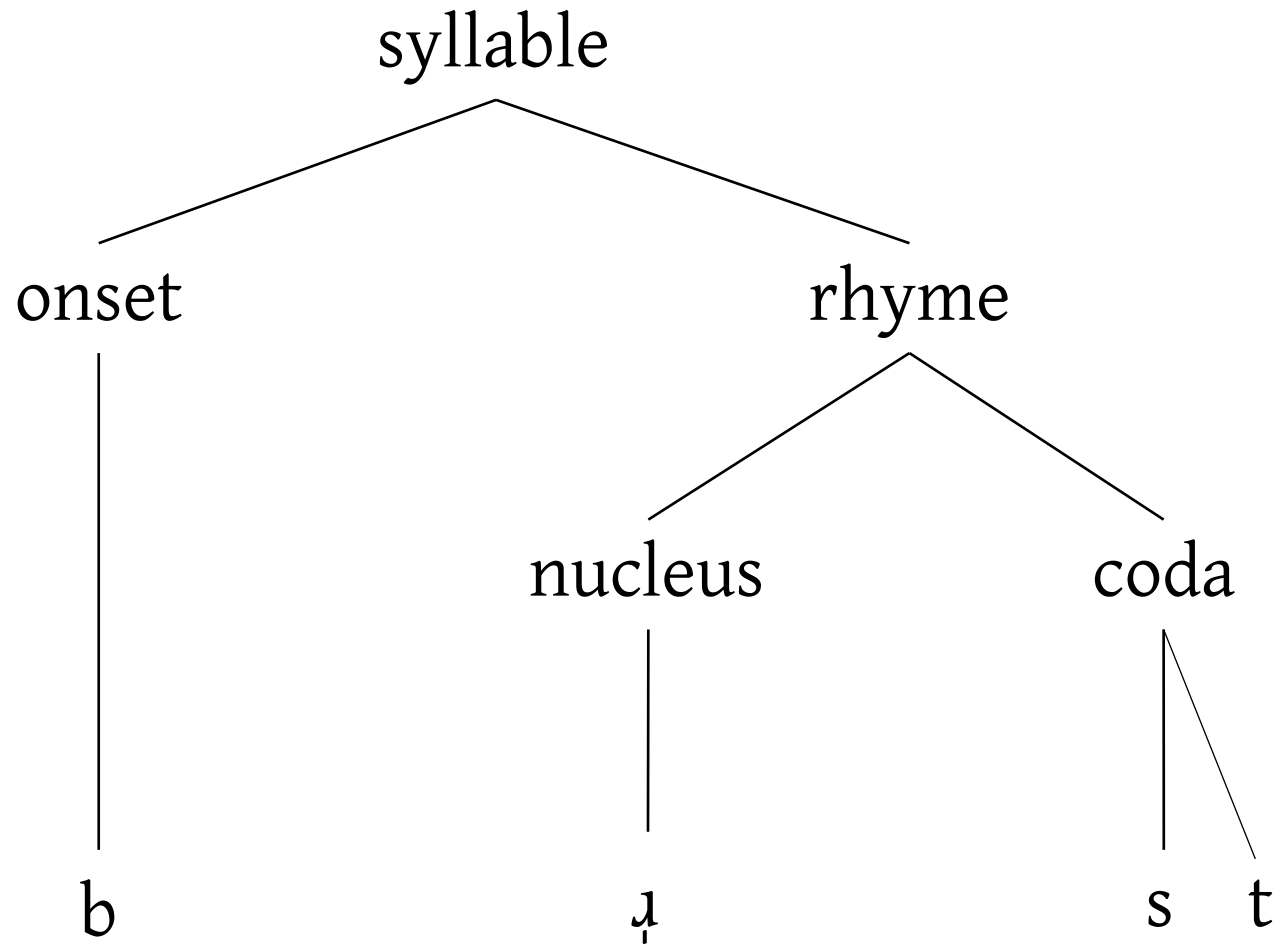
stripes

## Note

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



# Syllable structure



hat

gripped

stripes

burst

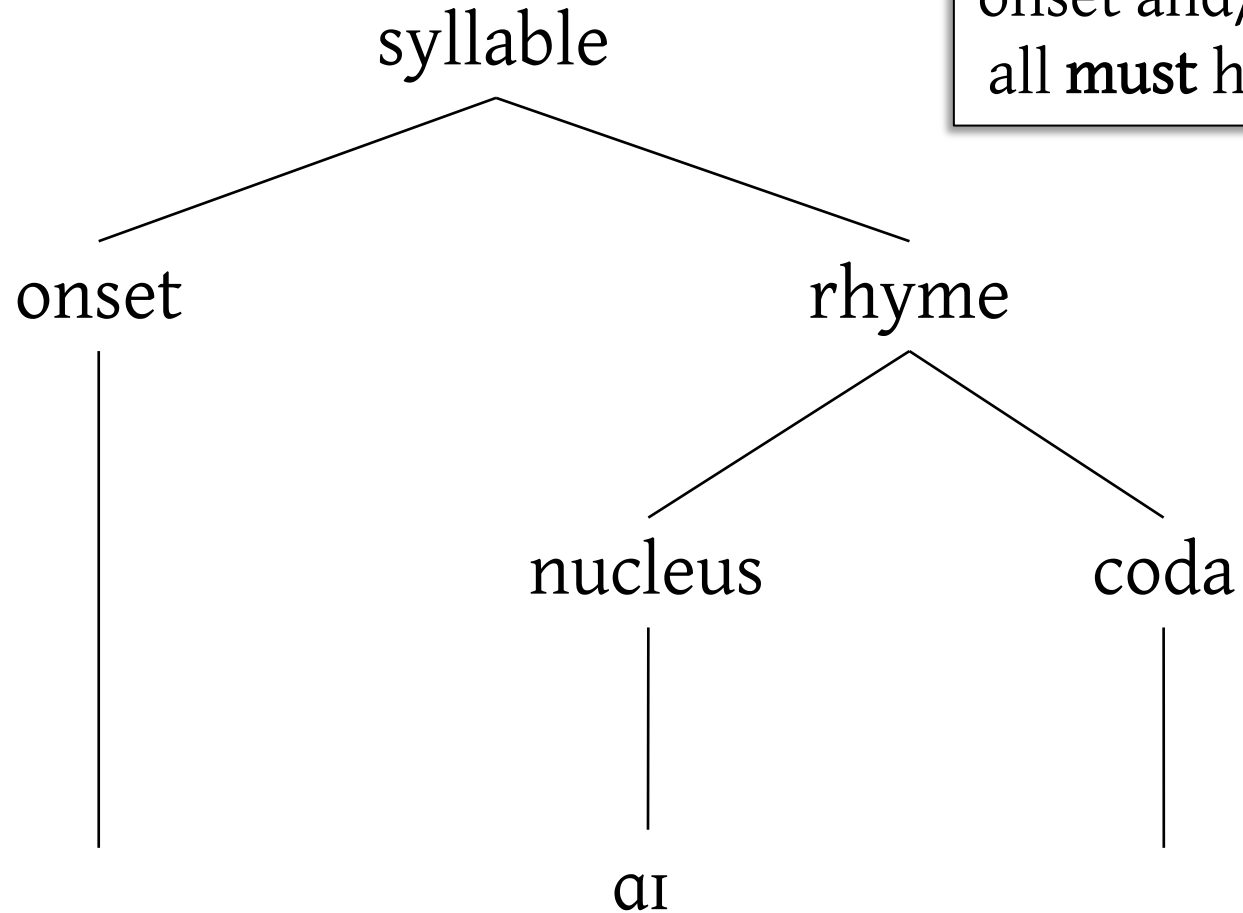
## Note

[ʌ] is a *syllabic consonant*,  
functions as a vowel.

# Syllable structure

## Note

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



hat

gripped

stripes

burst

eye

# Vowels

- Vowels – and syllabic consonants – serve as the *nucleus* of a syllable.
- Vowels **cannot** appear in the onset or coda of a syllable – only consonants can.
- The presence of a vowel entails the presence of a syllable. We'll return to this idea soon.



We're talking about pronunciation, **not** spelling.  
*Globe* is spelled with two vowels, <o> and <e>,  
but actually has one vowel, the diphthong [oʊ].

Forget about spelling altogether – in phonetics,  
we're only concerned with **pronunciation**.

# Vowels

- Now that we know what vowels are, we can learn more about the vowels of English.

## From the reading...

- How many vowels does English have? 15
- What are monophthongs? simple vowels
- What's an example? [i]
- What are diphthongs? complex vowels
- What's an example? [aɪ]

[i] [aɪ] [i] [aɪ] [oʊ]

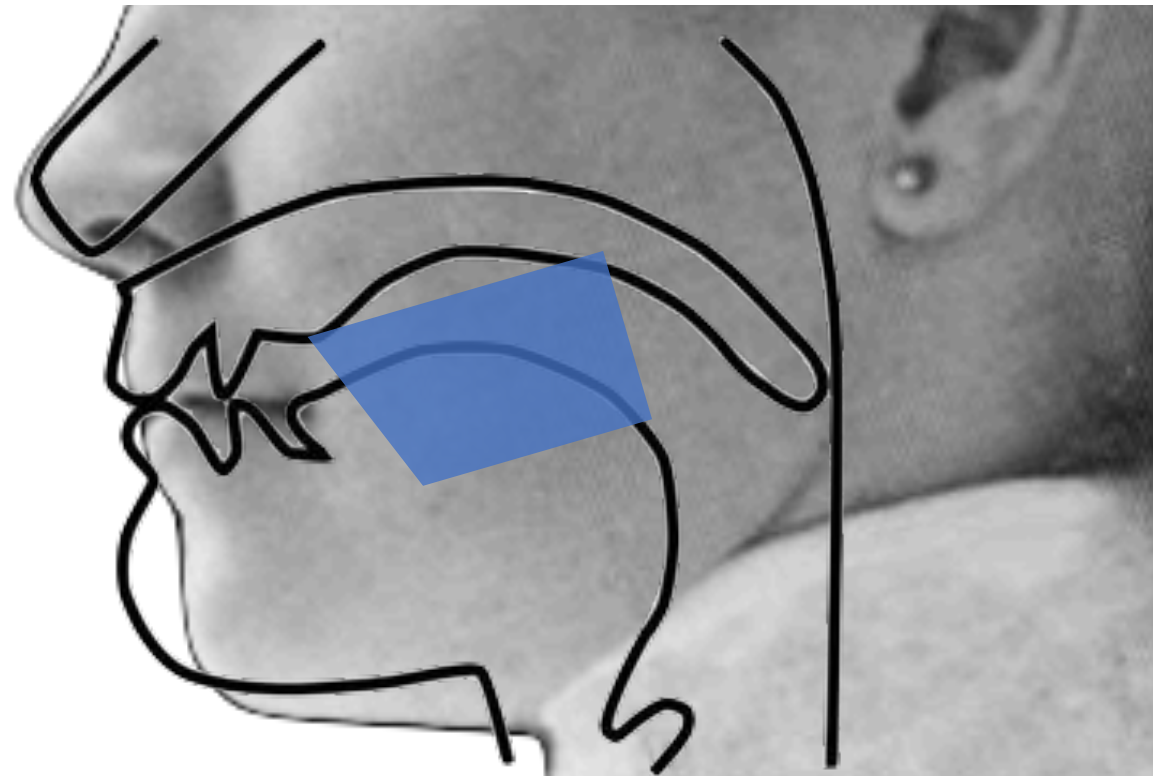
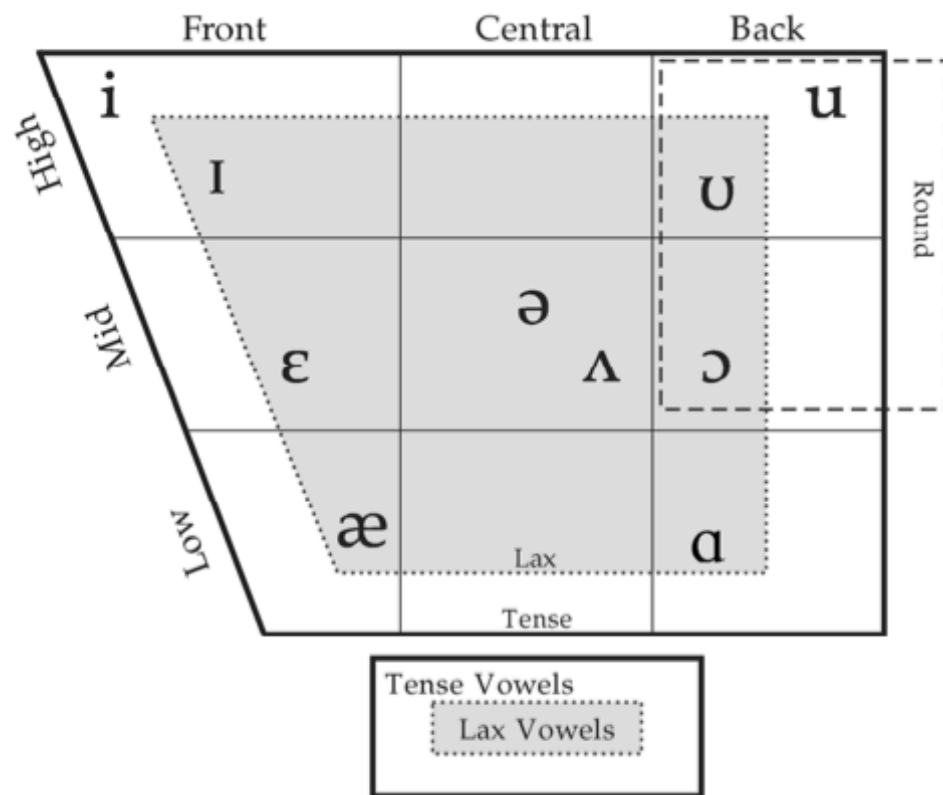


From Kennel Moritz's (1960) *Old Macdonald Had a Farm*. © 1960 Western Publishing Company, Inc. Shared here under fair use.

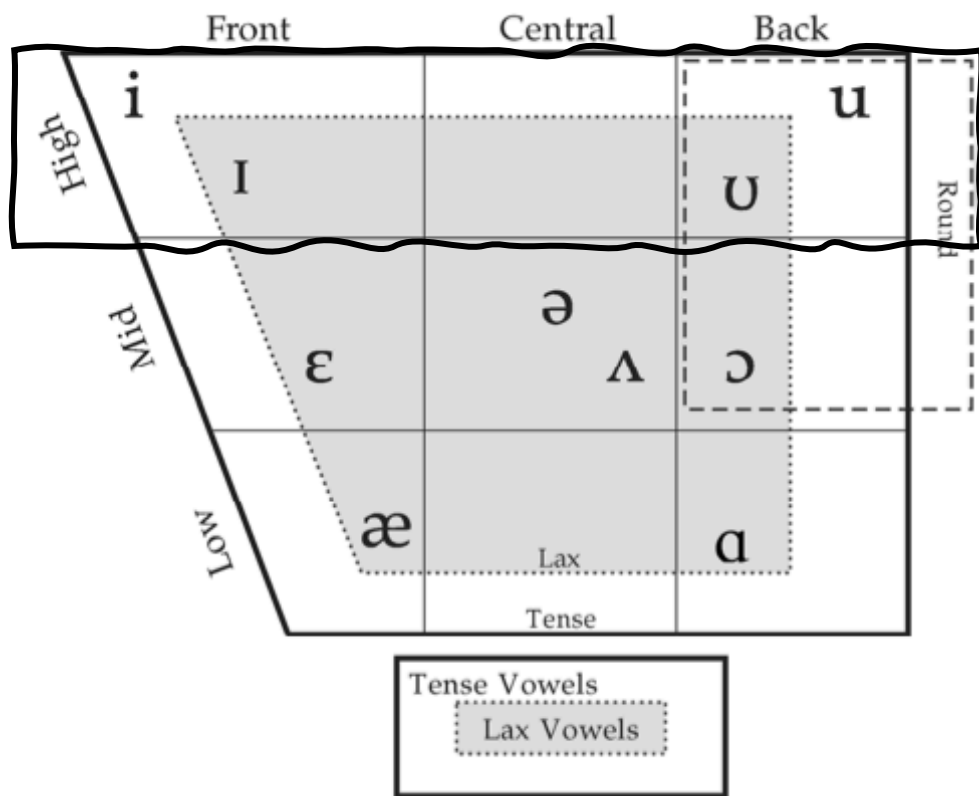
# Vowels

- Vowels are very clear, always syllabic, and always voiced (unless you're whispering). We describe them differently than we describe consonants.
- Key elements for vowels are: **height, advancement, rounding, and tenseness.**

# Monophthongs



# Monophthongs > Height



High: tongue high up

[i]

$$[I]$$

[u

$$[\vartheta]$$

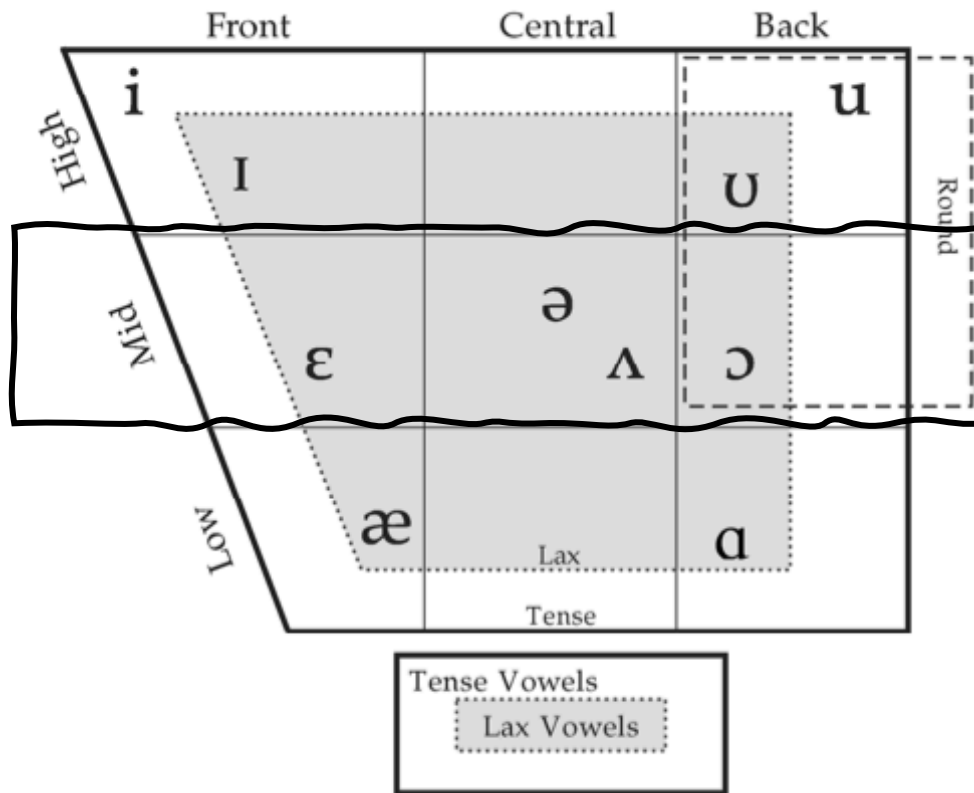
# Monophthongs > Height

[ɛ]

[ʌ]

[ɔ]

[ə]



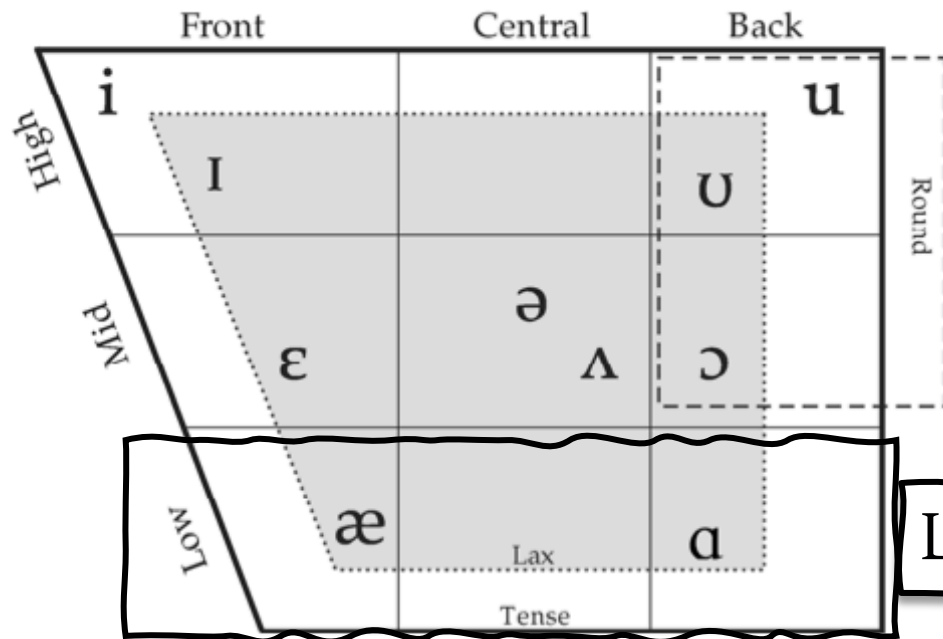
Mid: tongue at middle height



# Monophthongs > Height

[æ]

[a]



## Note

Be careful! [a] is not the same as [æ].

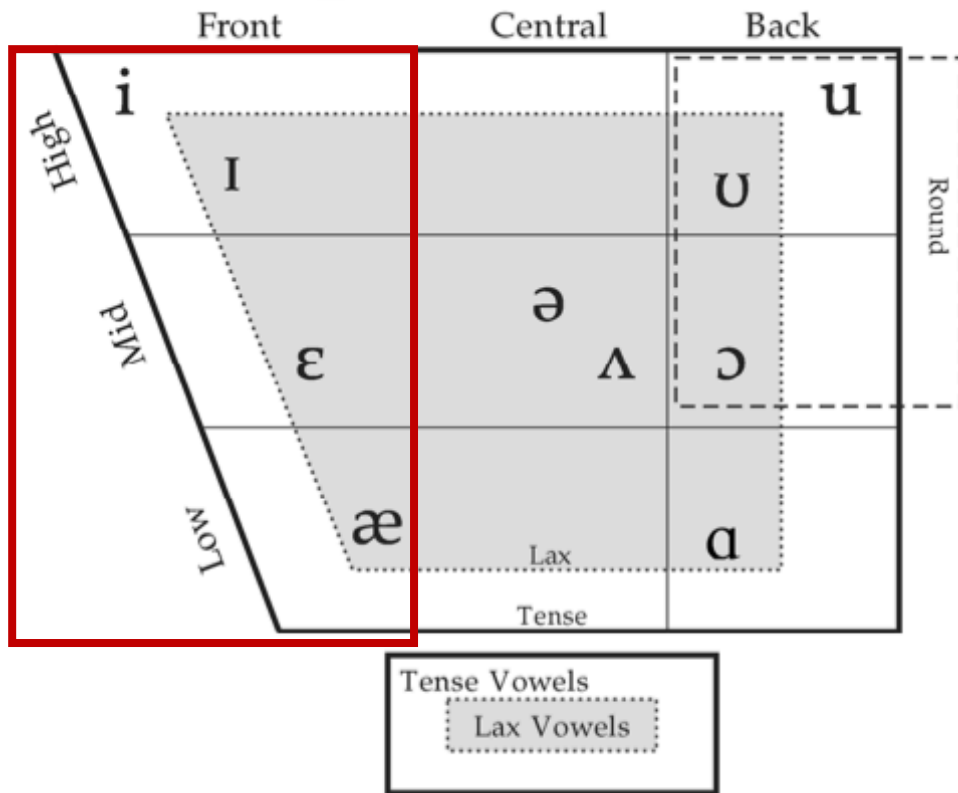
Low: tongue down low

Tense Vowels

Lax Vowels

# Monophthongs > Advancement

Front: tongue towards front



[i]

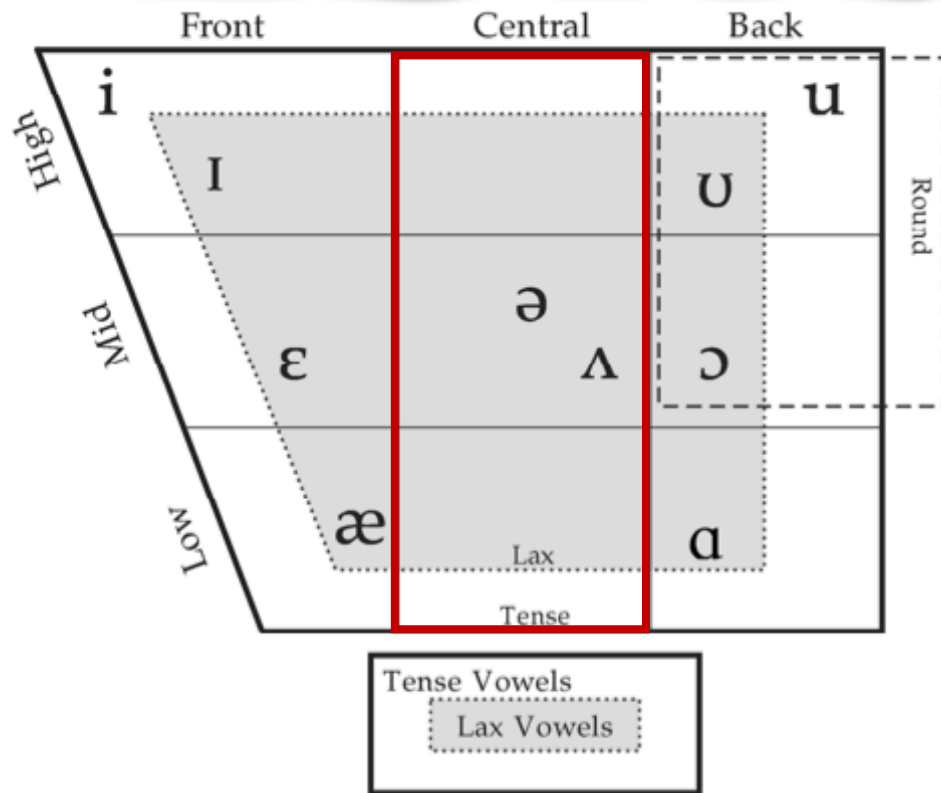
[ɪ]

[e]

[æ]

# Monophthongs > Advancement

Central: tongue at center



[ʌ]

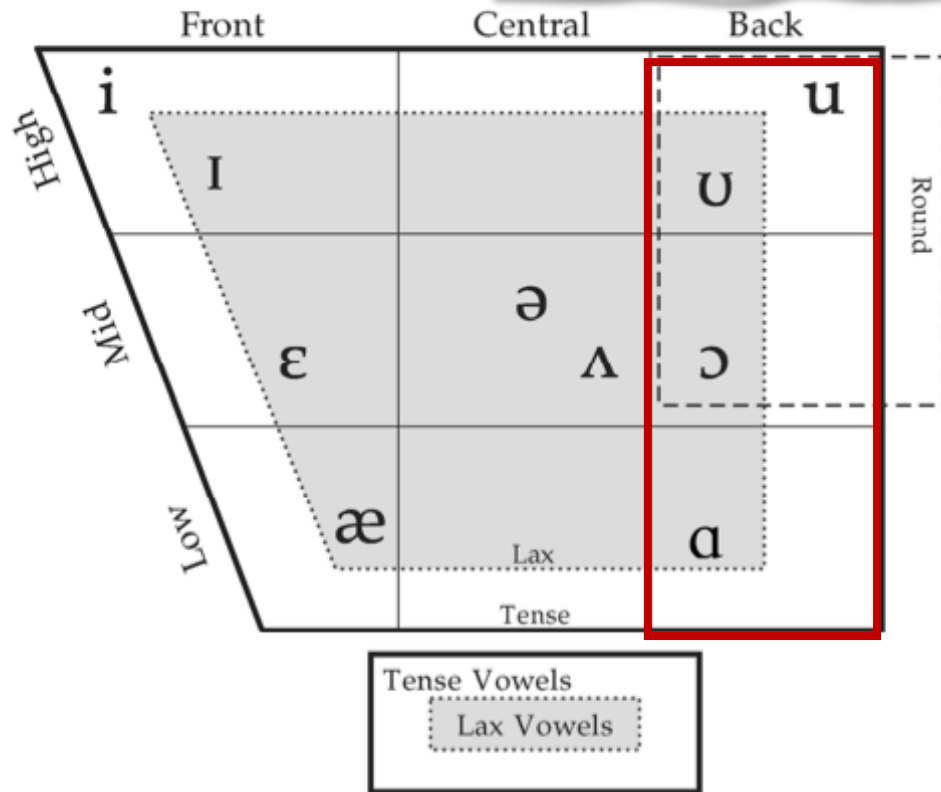
[ə]

[ʌ] vs. [ə]

- Sound very similar.
- [ə] is called *schwa*. It's how many vowels are realized in destressed position, e.g. *universe* [ju.nə.vɜːs].
- [ʌ] is a vowel in its own right, and can be stressed, e.g. *hut* [hʌt].

# Monophthongs > Advancement

Back: tongue at back



[u]

[ʊ]

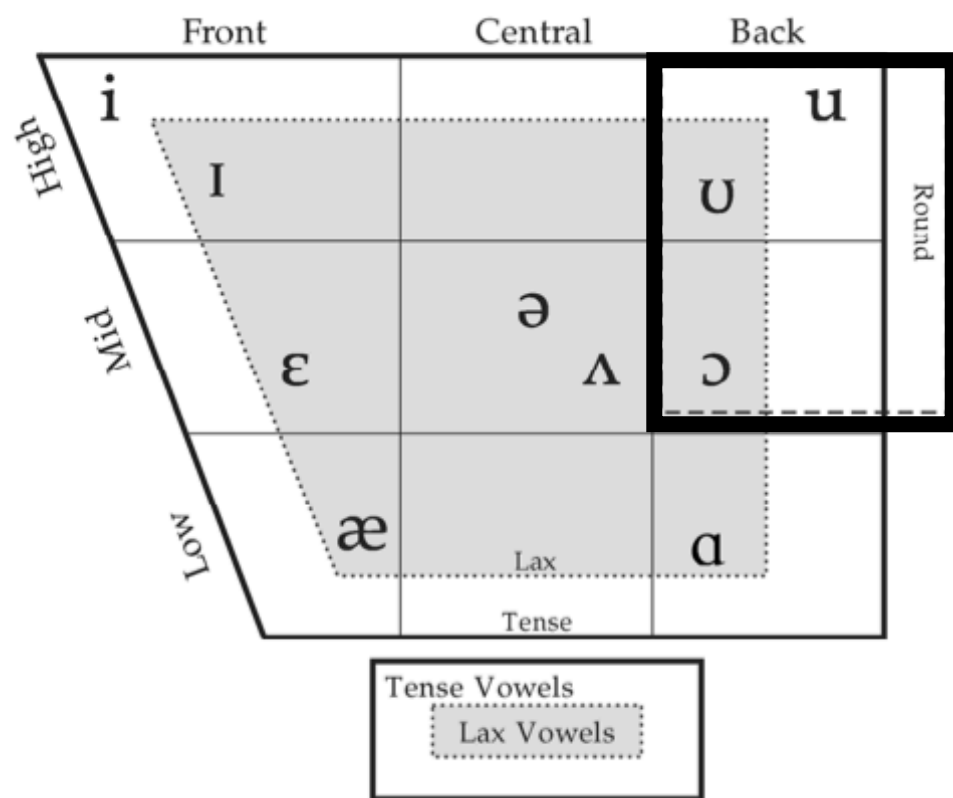
[ɔ]

[ɑ]

Test it out

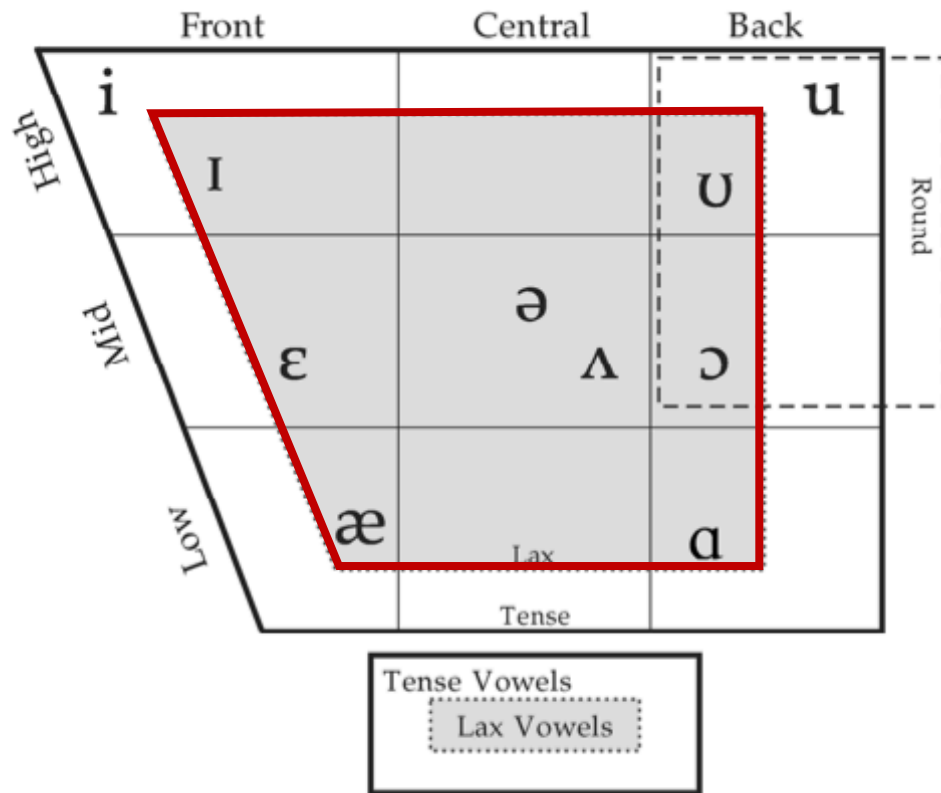
- Say [i] into [u].
- Say [ɛ] into [ʌ].
- Say [æ] into [ɑ].

# Monophthongs > Rounding



Round: lips rounded

# Monophthongs > Tenseness

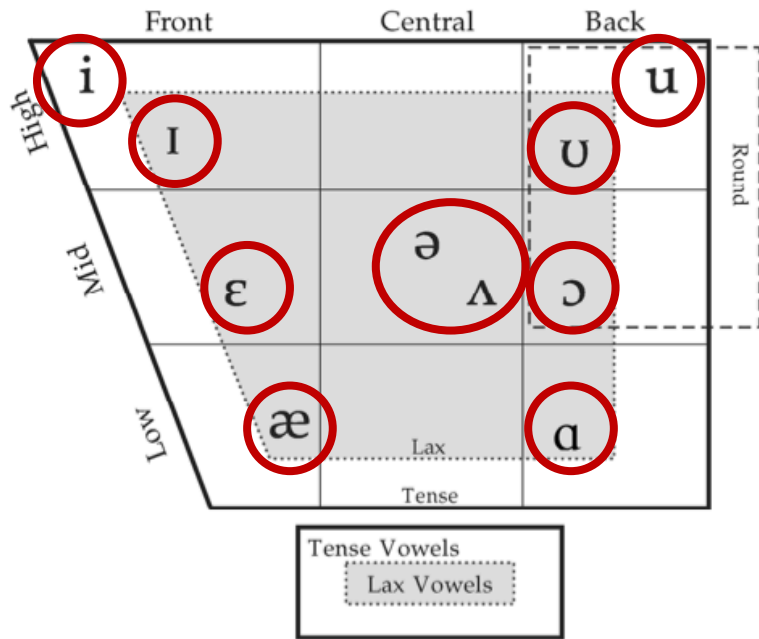


Tense: More extremely articulated.

Lax: Less extremely articulated.

Use tenseness to distinguish [i] from [ɪ] and [u] from [ʊ].

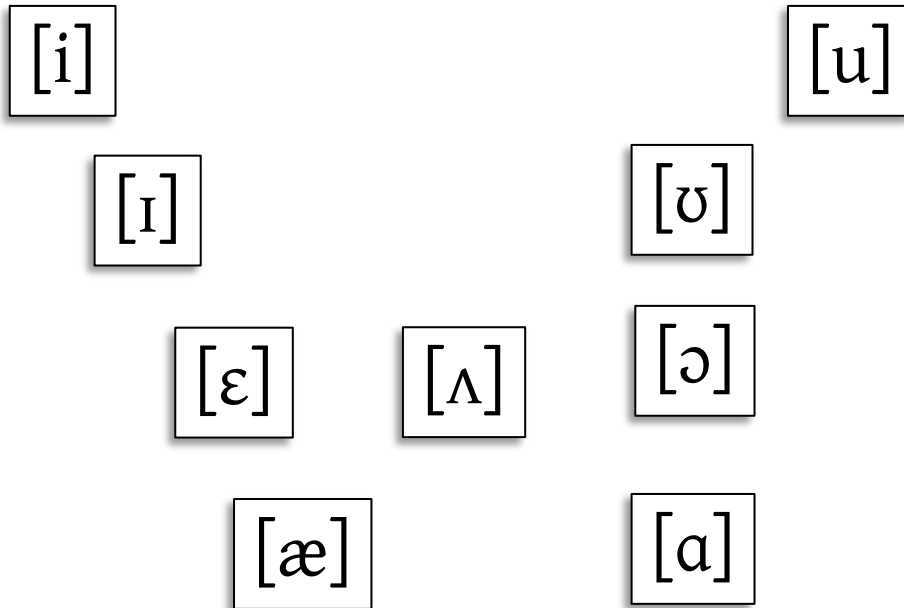
# Practice



- What's the high front lax unrounded vowel?
- What's the mid back lax rounded vowel?
- What's the low front lax unrounded vowel?
- What's the mid front lax unrounded vowel?
- What's the high front tense unrounded vowel?
- What's the high back tense rounded vowel?
- What's the high back lax rounded vowel?
- What's the low back lax unrounded vowel?
- What're the mid central lax unrounded vowels?

# Practice

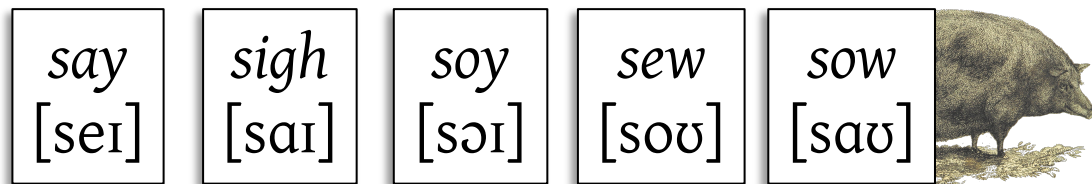
Give me a one syllable word with the following vowel...



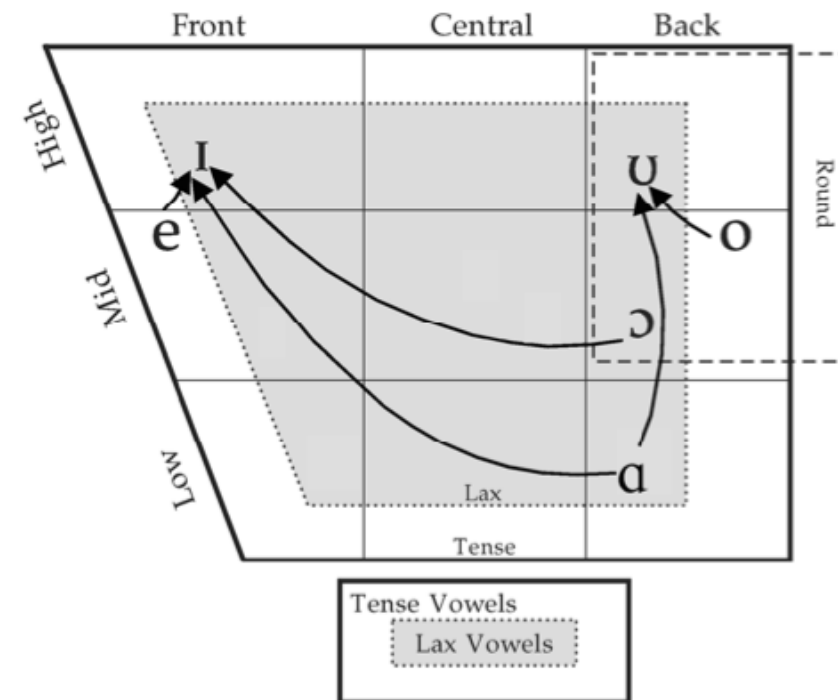


# Diphthongs

- These are *complex vowels*. You begin by articulating one sound and your tongue moves to another.
- The arrows indicate real movement — try it!



- Even though your tongue moves, diphthongs are still single vowels.
- This is proven by the fact that a single diphthong doesn't create two syllables.



# Practice

Give me a word with the following vowel...

[eɪ]

[aɪ]

[ɔɪ]

[oʊ]

[aʊ]

# Syllabic consonants

- These are consonants that can serve as the nucleus of a syllable.
- Only four consonants in English can do this. What are they?

[m̩]	[pʌɪ.zm̩]
[n̩]	[pʌɪ.zn̩]
[l̩]	[ʃʌ.vl̩]
[ɹ̩]	[mʌ.ðɹ̩]

## Note

In the IPA, we separate syllables with a dot.

# Syllabic consonants

- [ɹ̥] features prominently in the 2012 “gersberms” meme.

*ermahgerd gersberms*

[ɹ̥.mə.gɹ̥d ɡɹ̥s.bɹ̥mz]

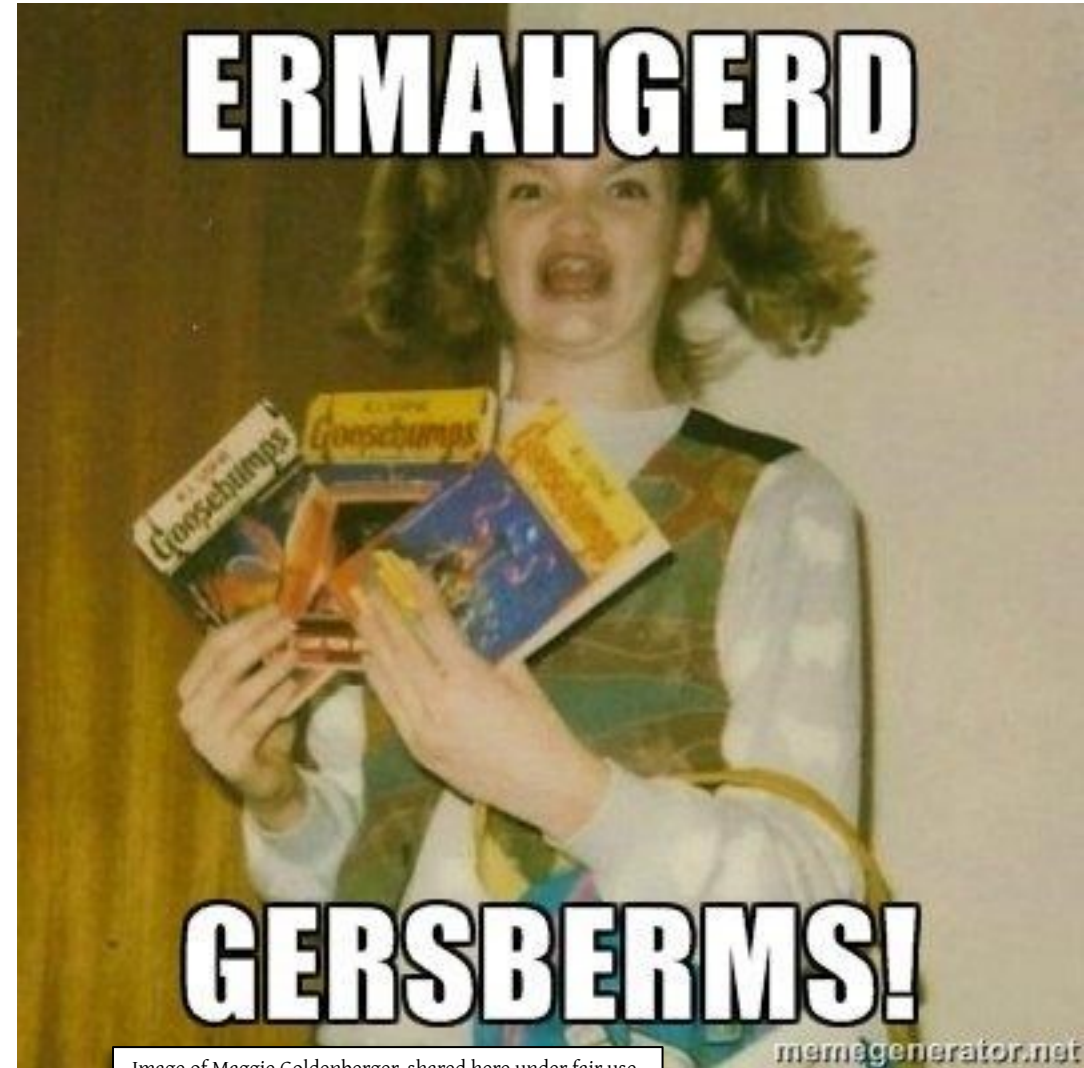


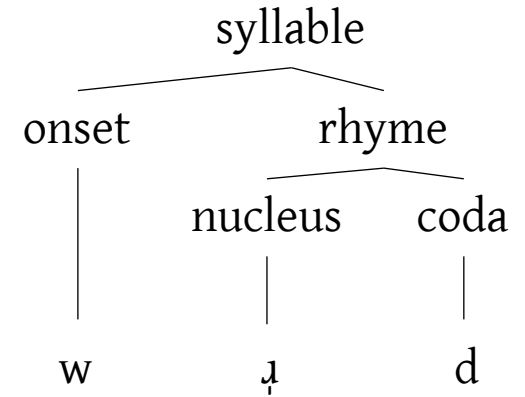
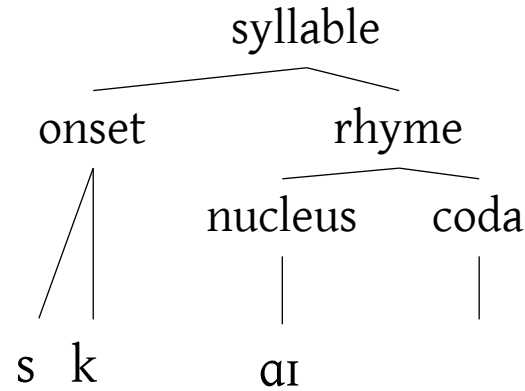
Image of Maggie Goldenberger, shared here under fair use.

# Syllabic consonants

- Syllabic [r] and [l] are found in some Slavic languages.
- Serbo-Croatian tongue-twister:  
*na vrh brda vrba mrda*  
‘on the top of the hill the willow is swaying’
- Czech & Slovak tongue-twister:  
*strč prst skrz krk*  
‘stick a finger through the throat’
- This may seem weird, but English does the same thing with [ɹ]. We just happen to write a vowel next to the <r>.  
*burn urns, stir cursors*  
[bɹn ɹnz stɹ kɹ.sɹz]

# Practice

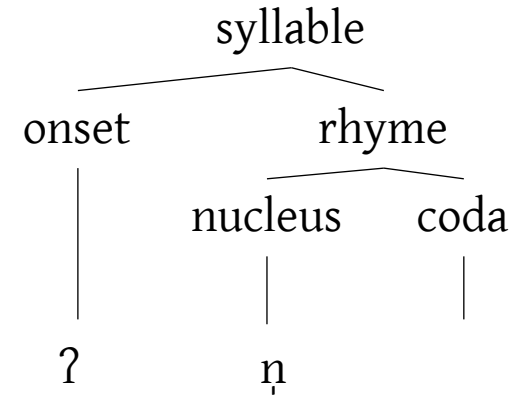
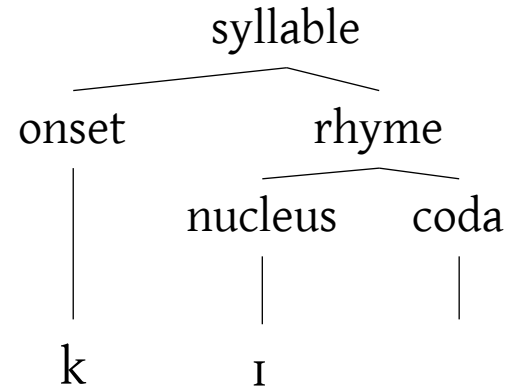
skyward



- How many syllables are there? 2
- What's the nucleus for the first syllable? [aɪ]
- What's the nucleus for the second? [ɪ]
- What's the onset for the first? [sk]
- What's the onset for the second? [w]
- What's the coda for the first? there is none
- What's the coda for the second? [d]

# Practice

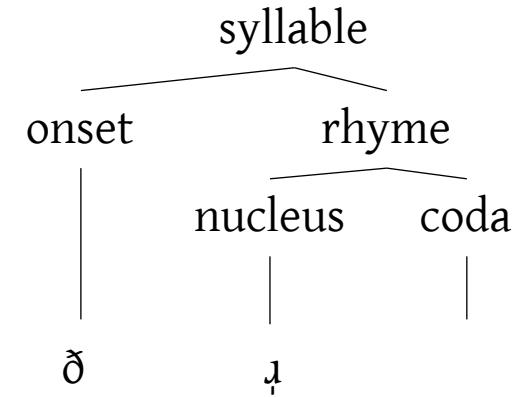
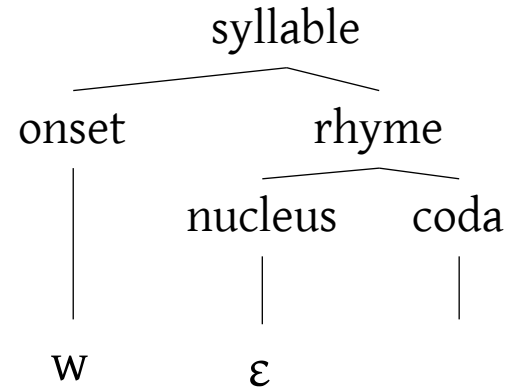
kitten



- How many syllables are there? [2]
- What's the nucleus for the first syllable? [ɪ]
- What's the nucleus for the second? [ŋ]
- What's the onset for the first? [k]
- What's the onset for the second? [ʔ]
- What's the coda for the first? there is none
- What's the coda for the second? there is none

# Practice

weather



- How many syllables are there? [2]
- What's the nucleus for the first syllable? [ε]
- What's the nucleus for the second? [ɹ]
- What's the onset for the first? [w]
- What's the onset for the second? [ð]
- What's the coda for the first? there is none
- What's the coda for the second? there is none



# For next week...

- Read sections 3.2.2 through 3.2.4 (pp.115–121) in *Language Files*. This is up now on our Readings page.
- Make note of anything that you are still unclear on by the end of the reading, and bring it up next class.