

HS 133: Introduction to Phonetics

02 August 2024

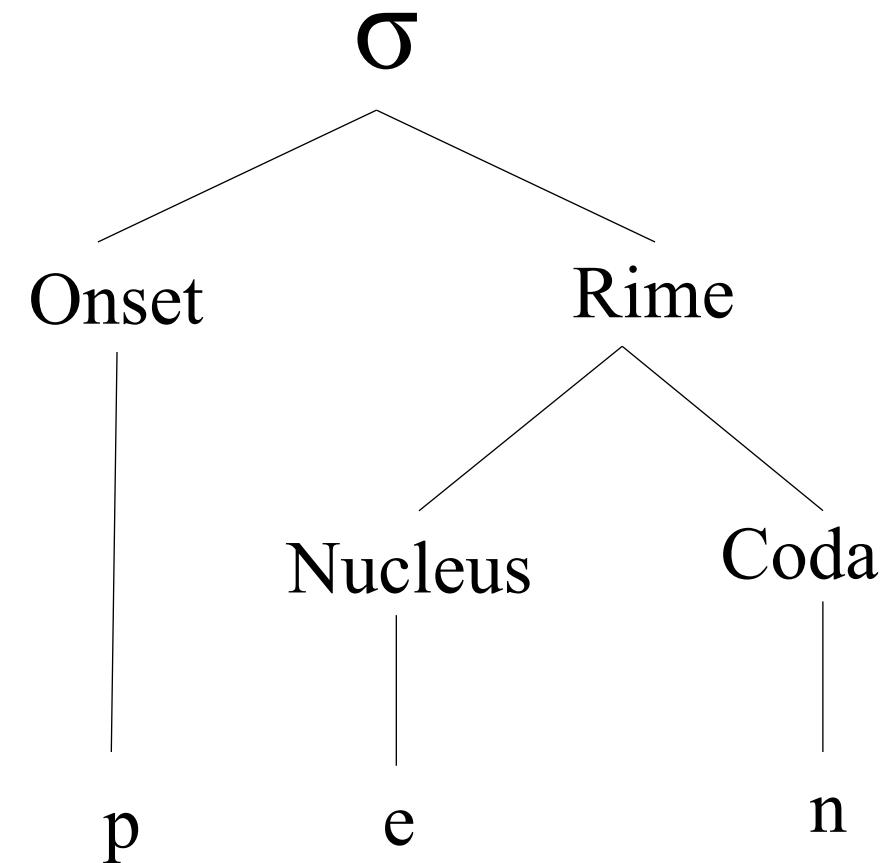
Syllables

- Syllables are denoted as σ
- The vowel in the syllable is called the **Nucleus**
- The consonant before the Nucleus are called **Onset**
- Consonants after the nucleus are called **Coda**

CCVC
| | | |
OONC

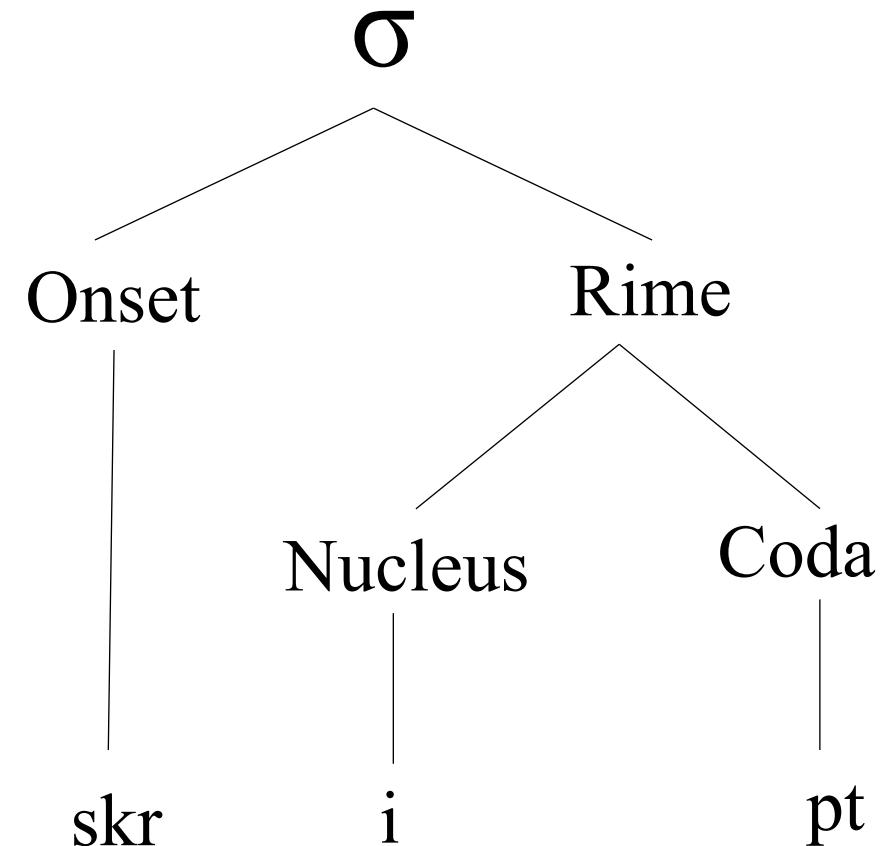
How do we divide syllables?

- Intuitively we divide syllables into
Onset ~ Nucleus + Coda
- Nucleus + Coda = Rime

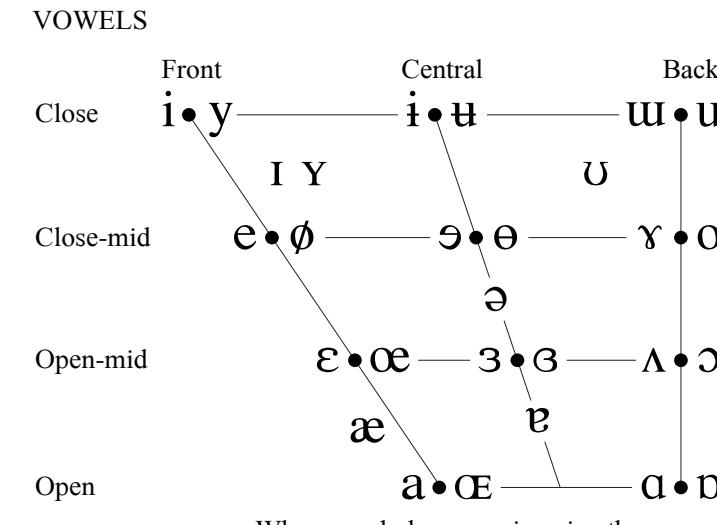
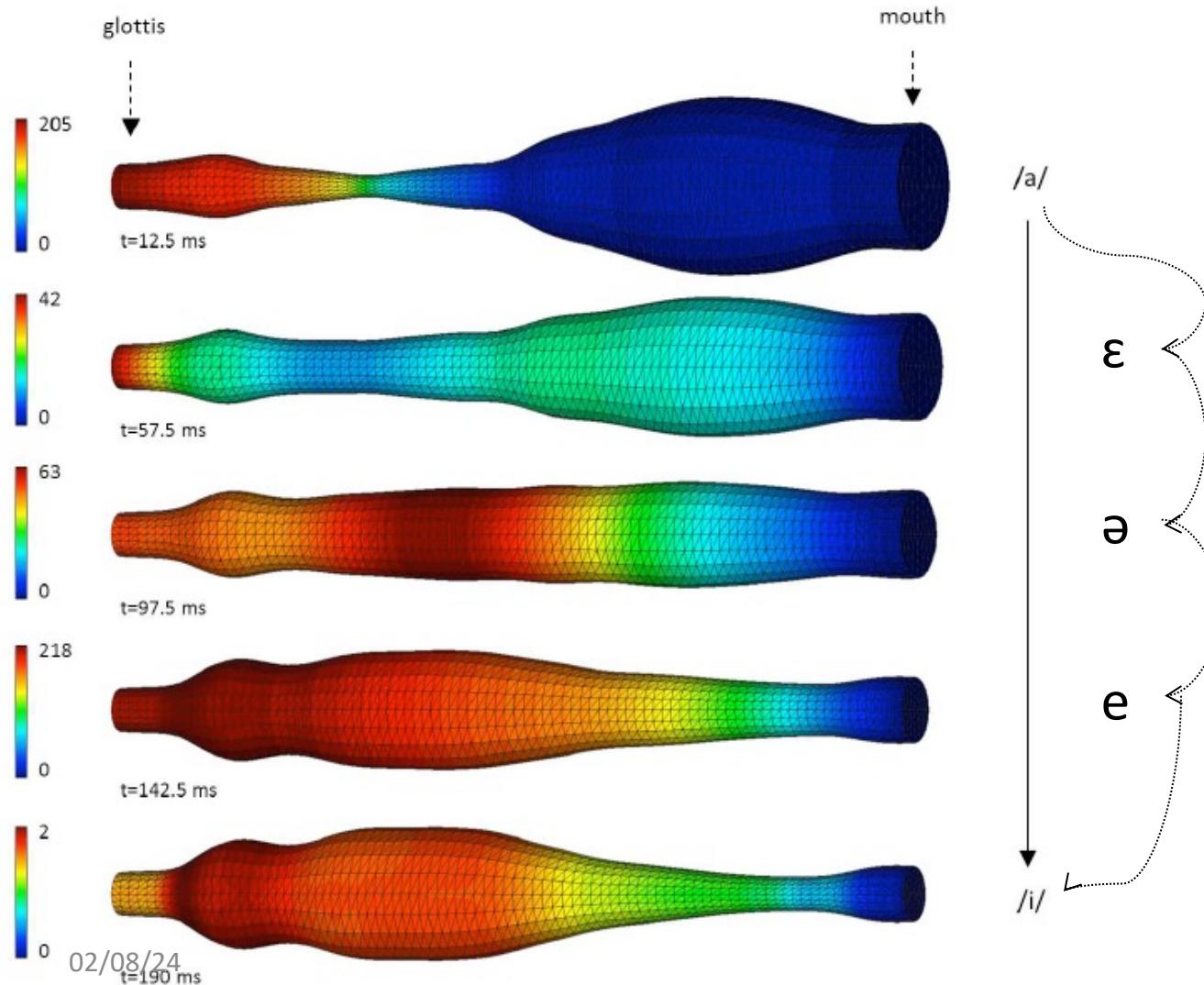


How do we divide syllables?

- How do we represent the word:
‘script’?
- How many syllables are there?
- How many sounds are there?
- /skript/



Acoustics of vowels | Vocal tract

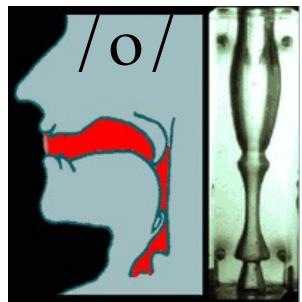


Guasch, O. et al. 2016. A Stabilized Finite Element Method for the Mixed Wave Equation in an ALE Framework With Application to Diphthong Production

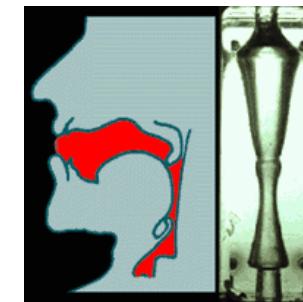
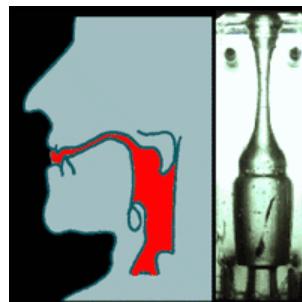
Acoustics of vowels | Vowel features



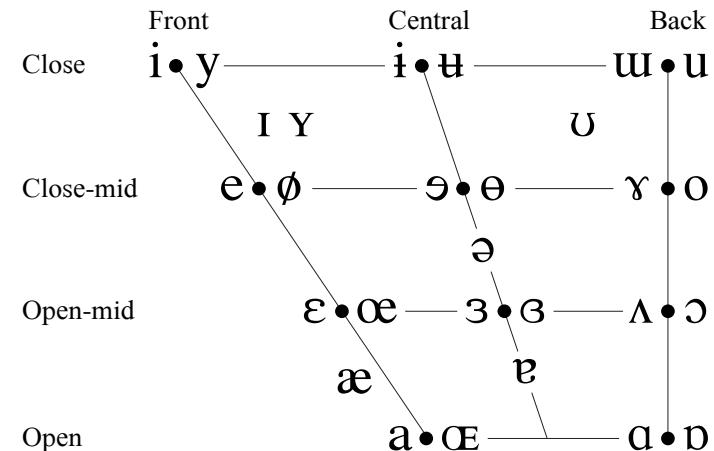
/a/



/i/



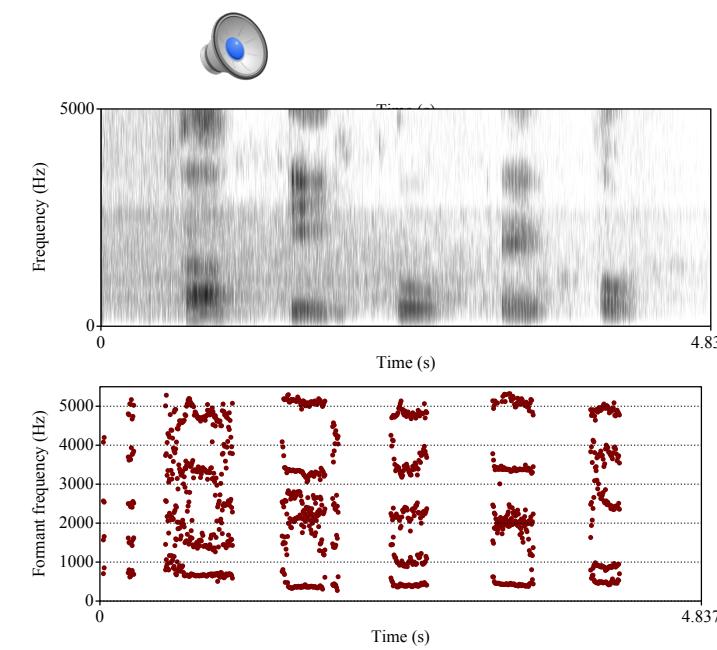
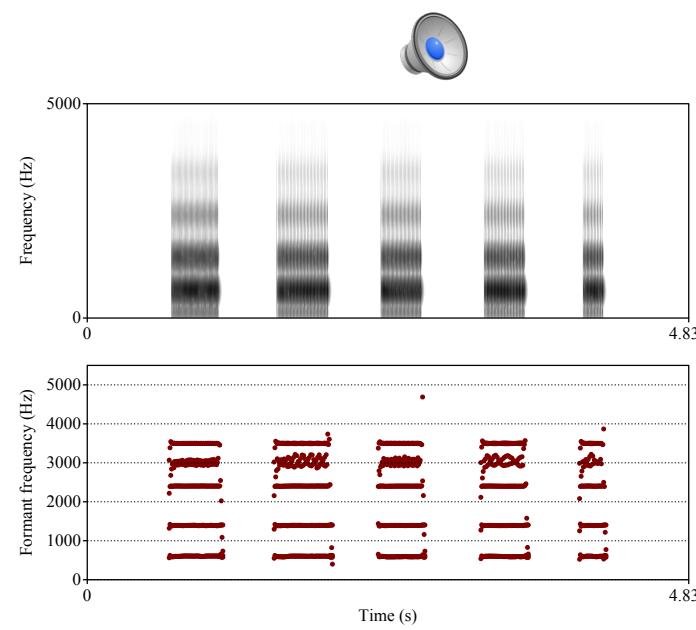
VOWELS



Where symbols appear in pairs, the one to the right represents a rounded vowel.

Source: https://www.exploratorium.edu/exhibits/vocal_vowels/vocal_vowels.html

Acoustics of vowels | Source Filter Theory



Vowels and Consonants| Seeing consonants



McGurk H., MacDonald J. (1976). "Hearing lips and seeing voices.". *Nature*. **264** (5588)

Video: <https://youtu.be/aFPtc8BVdJk>