

LING 001

Introduction to Linguistics

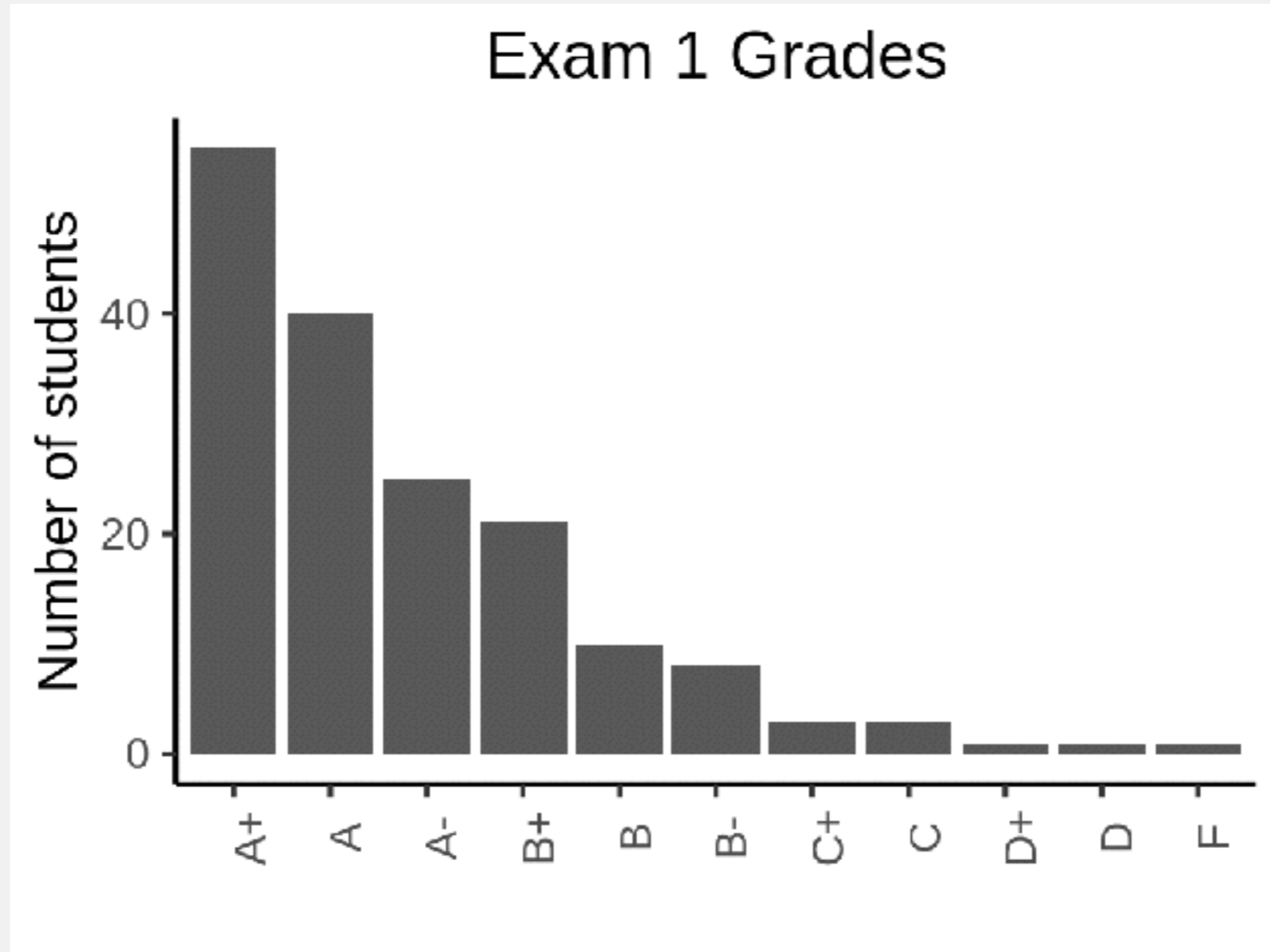
Lecture 9

Suprasegmental Features

02/19/2020

Katie Schuler

Great job!



Announcements

- Exam 1 will be **returned in recitation** this week
 - One week to make regrade requests
- Looking for a **note-taker** for the class (\$7.80/hour)
 - Email me if interested
- Additional practice problems posted later today

Two main categories

- **Segments** - the discrete units of the speech stream, produced by positioning vocal tract
- **Consonants** - obstruction of air flow
- **Vowels** - open vocal tract; vocal fold vibration

- **Suprasegmentals** - “ride on top of” the segments

Suprasegmental Host

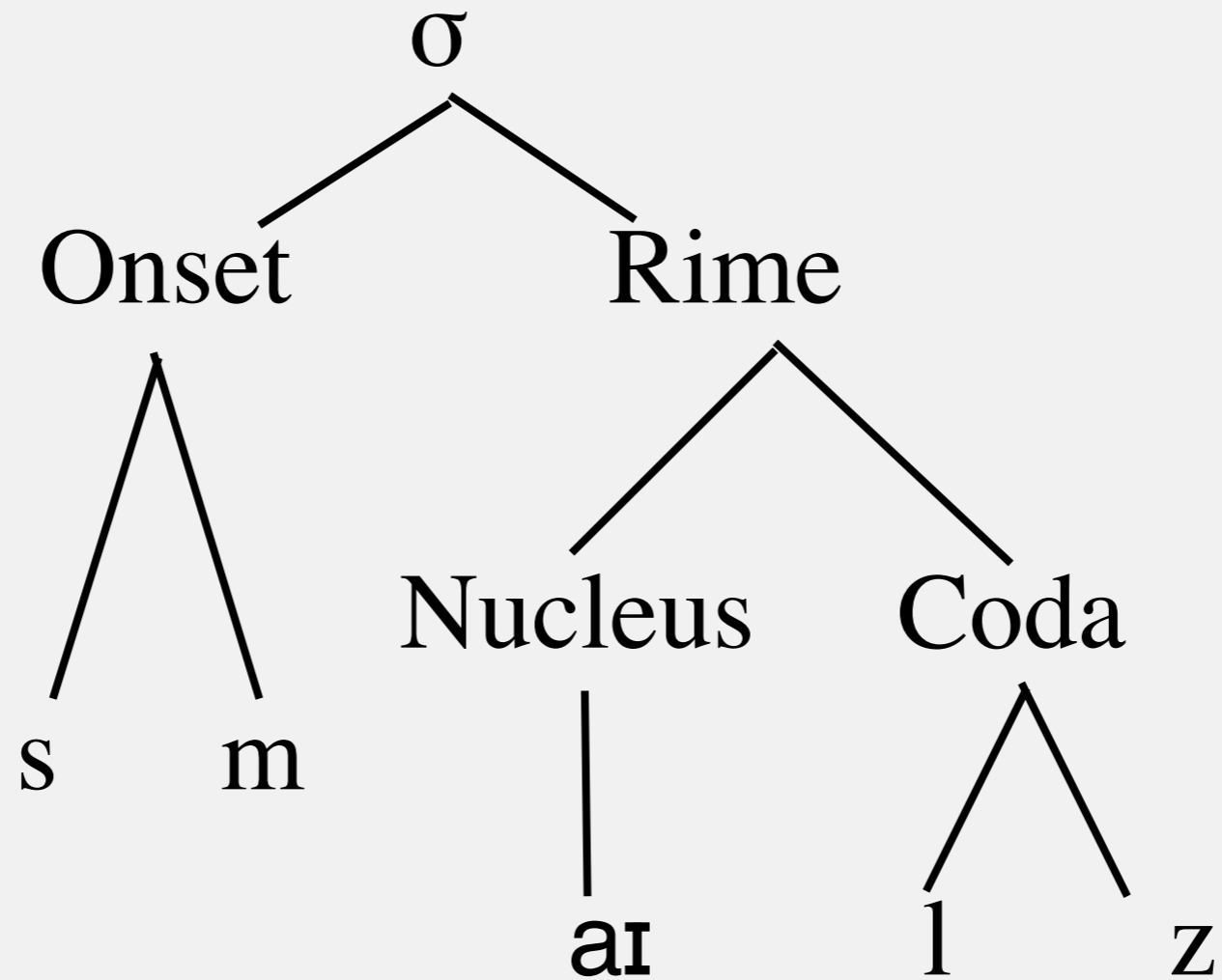
- **Syllables**
 - a level of structure above the segment
 - serve as the host for suprasegmental features

Syllable Structure

- The human mouth and vocal tract are well designed for **repetitive cycles of opening and closing**
- Basic activity in chewing
- Also involved in speech
 - Each such **cycle** corresponds (quite roughly) to a **syllable**

Syllable Structure

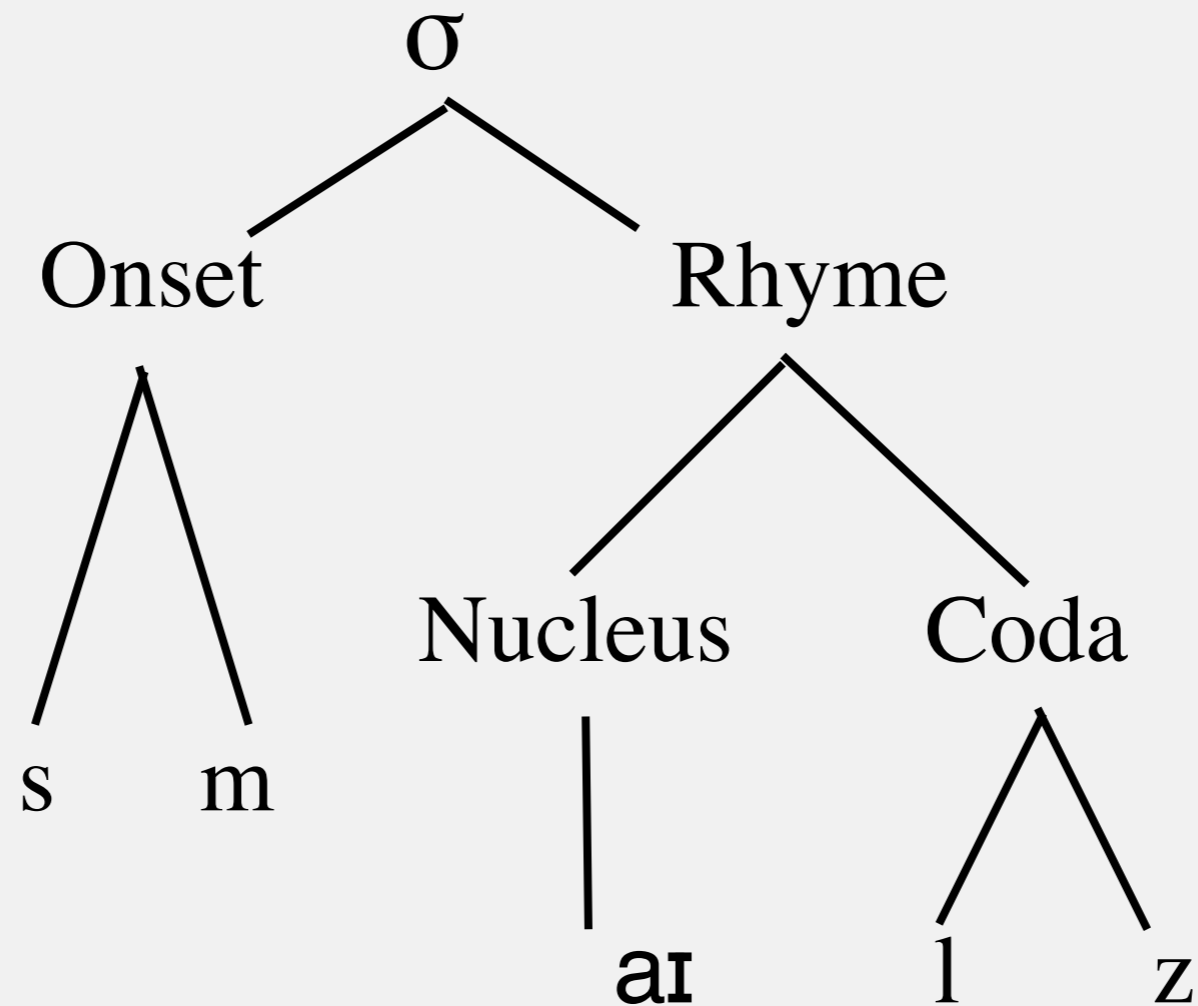
- General Template for syllable unit:



smiles

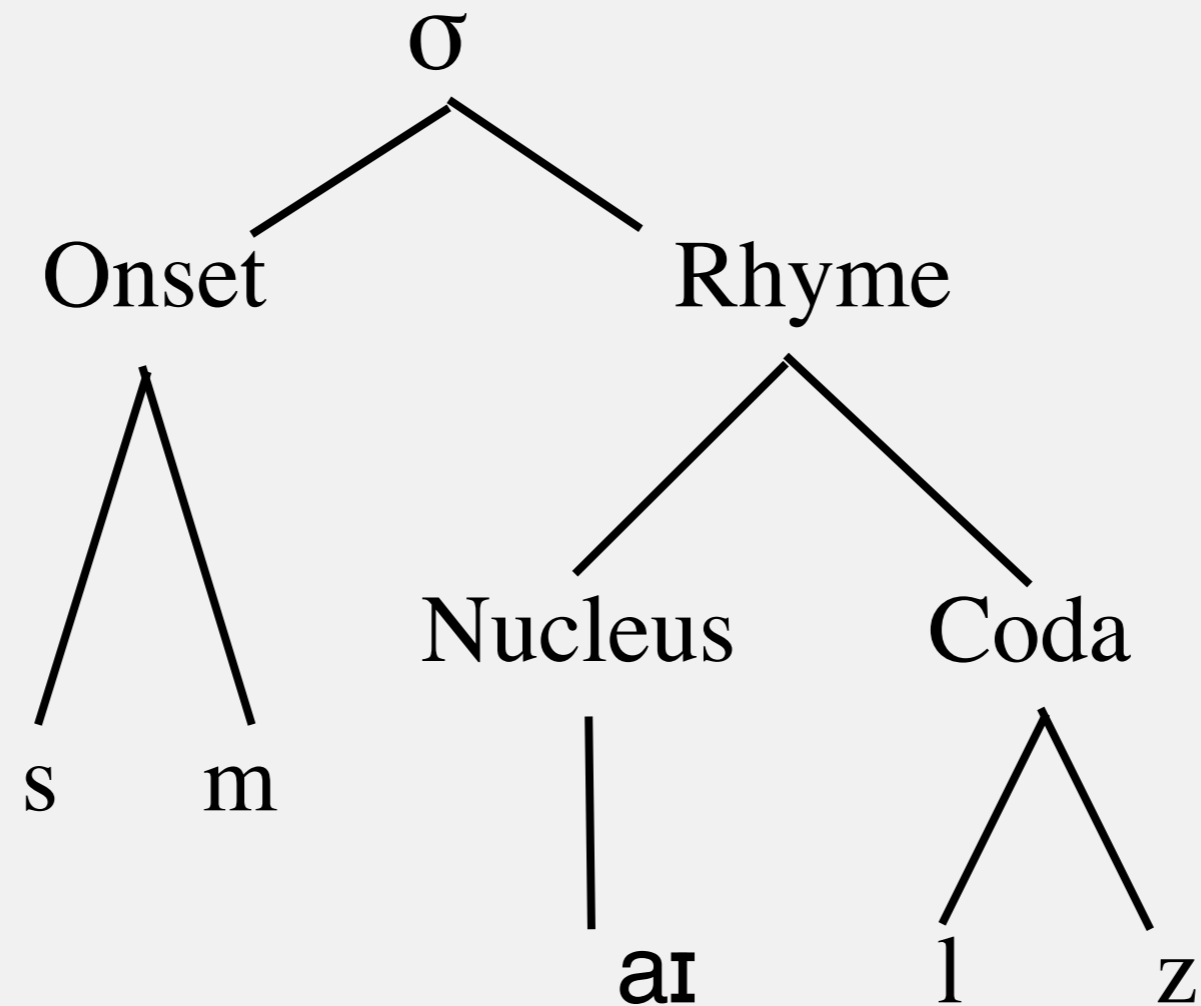
Syllable Structure

- **Onset** (optional) consonants **before the nucleus**
- **Rhyme** - the vowel and any consonants that come after (man, can, plan)



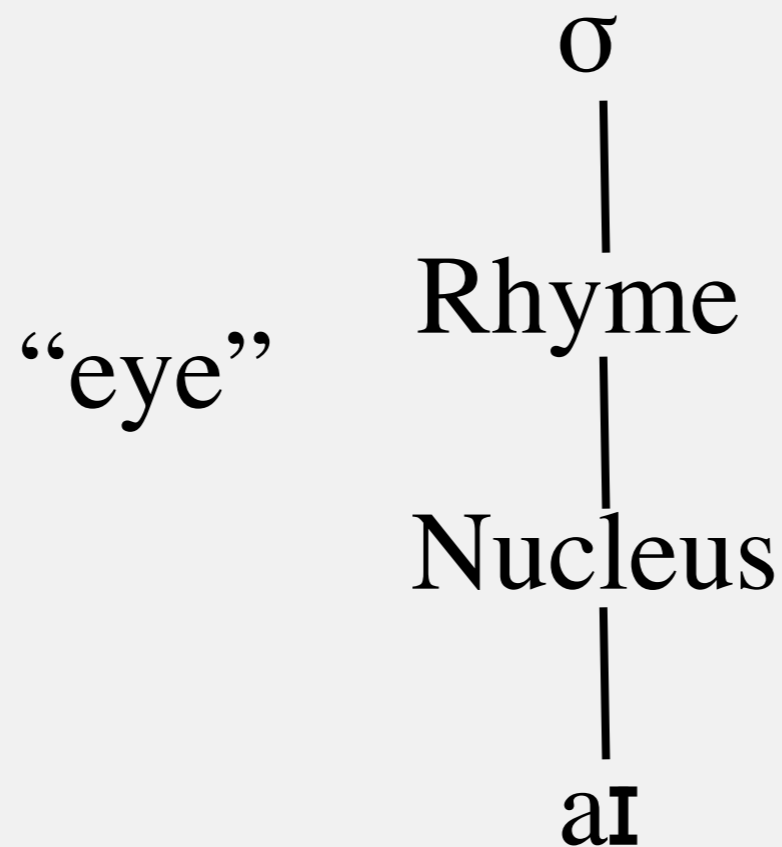
Rhyme composed of

- **Nucleus** the vowel
- **Coda** (optional) consonants **after the nucleus**



Necessary Ingredients

- The **Rhyme** and **nucleus** are the **only obligatory parts** of the syllable



- Usually filled with a vowel, but can be filled by certain consonants
- Example: Last syllable of “table” in English

Length

- Some speech sounds are longer than others
- Variation in duration can be due to things like speaking quickly or slowly.
- In some languages, differences in duration are meaningful
 - We don't do this in English, but Finnish does!

Finnish Length Contrasts

- a. i. [muta] 'mud'
- ii. [mu:ta] 'some other'
- iii. [mut:a] 'but'

- b. i. [tapan] 'I kill'
- ii. [tapa:n] 'I meet'

- c. i. [tule] 'come!'
- ii. [tule:] 'comes'
- iii. [tu:le:] 'is windy'

Length is suprasegmental

- Difference between long and short is dependent on the overall speech rate.
- You have to compare the duration of any given segment with the duration of the other segments.

Stress

- A means for marking prominence
- Stressed syllables are usually longer, louder, higher, and vowels are fully articulated

Stress can be predictable

- **Czech** - almost always on first syllable of word
- **Welsh** - almost always on next to last syllable of word
- **French** - almost always on last syllable of phrase

Stress can be contrastive

- In some languages, stress is not predictable - we have to learn it for each word.
- Placement of stress causes a difference in meaning

Stress is contrastive in English

- Lexical stress

noun

verb

SUBject

subJECT

PERvert

perVERT

PERmit

perMIT

REcord

reCORD

REfund

reFUND

- Compounding

WHITE house

white HOUSE

BLACK board

black BOARD

Intonation

- We can produce sounds (especially vowels) with different pitches by changing the rate of vibration of our vocal cords.

Intonation patterns and meaning

- You got an A on the test
- Yes

Intonation two ways

- We can think of two ways to mark intonation in sentences:
 - **Pitch accents** - pitch change in the middle of utterance to highlight important info
 - **Phrase tones** - pitch change at the end of a phrase to
 - (1) affect overall meaning or
 - (2) group words into phrases

Pitch accents

A. Who kissed Peter?

- MARY kissed Peter.

B. Who did Mary kiss?

- Mary kissed PETER.

C. What did Mary do to Peter?

- Mary KISSED Peter.

Phrase tones

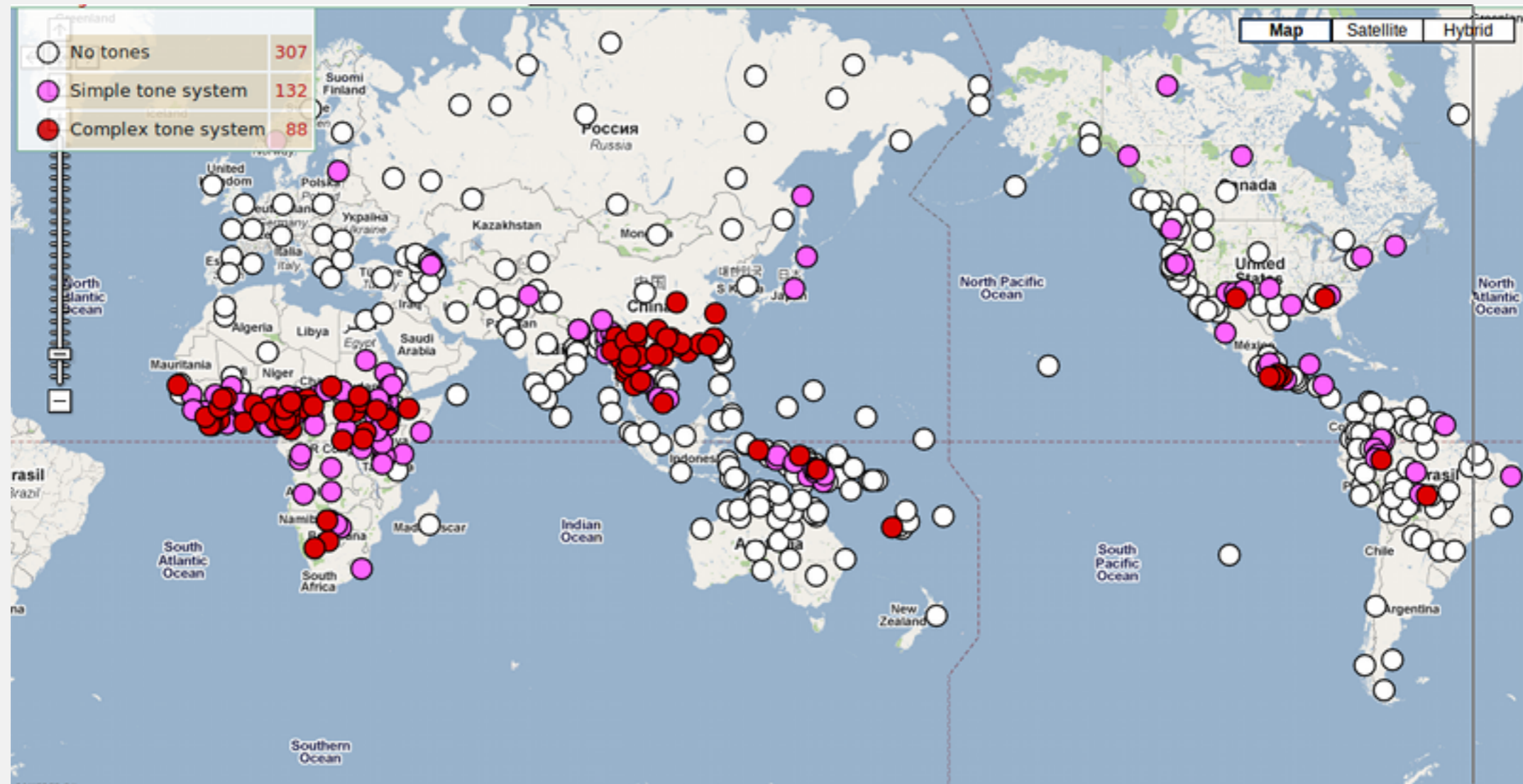
- A. You got an A on the test. (**sentence final**)
- B. You got an A on the test? (**question intonation**)
- C. You got an A on the test, a C on the homework, and B on the quiz. (**continuation rise**)

Tone

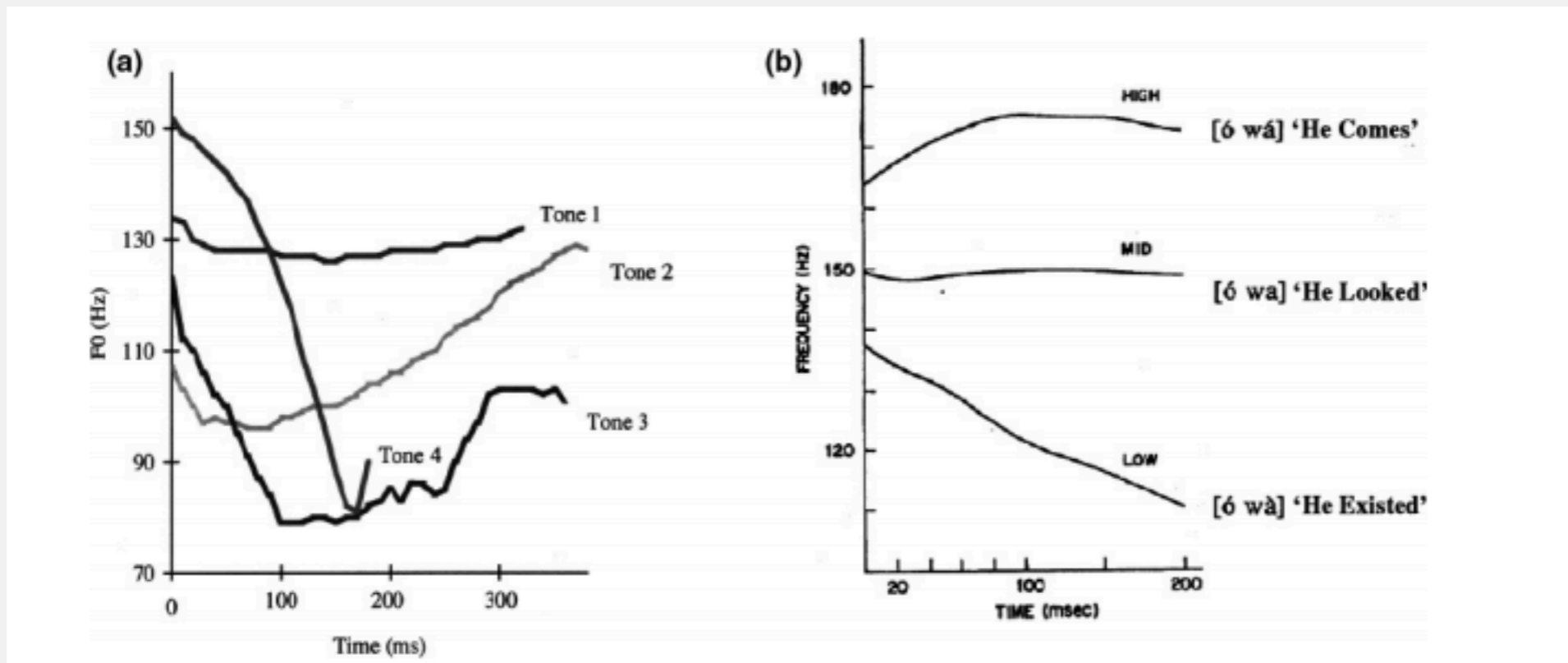
- The pitch at which the syllables in a word are pronounced.
- **Tone languages:** pitch makes a difference to word meaning.
- **Level tones** - syllables produced with a steady tone (e.g. high, mid, low)
- **Contour tones** - tone glides from one level to another (only some languages have these)

Tone languages

- Examples: Thai, Mandarin, **Croatian**, Bantu languages and many many more.



Contour v level tones



(a) Mandarin (contour)

(b) Yoruba (level)

Tone number

- Chao (1930)
- Sequence describes onset and offset (1-5)
- Lowest 1, highest 5
- Optional middle number for complex contour

Table 1

The Tonal Inventories of Mandarin Chinese, Cantonese, and Thai

Language	Chao tone numerals	Tone contour
Mandarin (Chao, 1951)	55	High level (level)
	35	Midrising (rising)
	214	Low dipping (dipping)
	51	High falling (falling)
Cantonese (Francis et al., 2008)	55	High level
	25	High rising
	33	Midlevel
	21	Low falling
	23	Low rising
	22	Low level
Thai (Diller, 2004)	33	Mid
	11	Low
	52	Falling
	45/55/454	High
	24	Rising

Examples from Mandarin

Segments	Tone Numbers²	Tone Pattern	Gloss
[ma]	55	high level	'mother'
[ma]	35	high rising	'hemp'
[ma]	214	low falling rising	'horse'
[ma]	51	high falling	'scold'

Transcription practice

[itɪn] nʌθɪŋnes ɪz ʊkɛɪ æz lɔŋ æz jɪ dɪɛst fɔɪ ɪt]

Transcription practice

[ɪf ju aɪ sɪkstin ɔː ʌndɪ tʃaɪ nat tə ɡoʊ bəld]