

Prosodic Features

1. Physical parameters of speech sounds

The production of speech sounds involves
some **amount of energy**
present at some **frequency** (vocal fold vibration)
for some **period of time**

These three parameters are perceived by humans as

loudness

pitch

- the faster the vocal folds vibrate, the higher the pitch
 - shorter vocal folds vibrate faster
children & women: smaller larynx & shorter vocal folds
higher pitched voices than men, in general

duration (length)

These three parameters define three linguistic categories

stress

tone

length

3. Prosodic features

suprasegmental features

over and above features **inherent** in individual speech sounds
(voicing, place & manner of articulation)

prosodic (from poetry) – refers to the metric structure of verse

4. Linguistic function of the three parameters

Intonation - shaping intonation contours of phrases and sentences

- questions in English
You gave the book to Mary? ↗ a rising pitch
- making words in a sentence prominent
(by raising the pitch, making them longer, and making them louder)
You gave MARY ↗ the book!

Number of phones (sounds segments) in a language

increasing the number of phones in a language, thus making more units available to phonological systems

- some languages contrast between **long** vs. **short** vowels and consonants
long and short vowels in: Hungarian, Croatian, Serbian, Czech,
long and short consonants in: Italian, Russian, Japanese
- in some languages vowels are pronounced with **various tones (tone languages)**
high, low, mid ↗ high, low, mid ↘
high, low, mid ↗ ↘ high, low, mid ↘ ↗

Chinese - most prominent example of a tone language

in Mandarin [ma] pronounced with

- a **high flat tone** → mother
- a tone **rising** from **low** to **high** → hemp
- a tone **falling** from high to low → scold
- a tone **falling** from high to low and then **rising** from low to high → horse

Stress

- **stressed** (stronger and louder) vowels vs. **unstressed** (weaker and quieter) vowels

- in every word one syllable is the loudest → **stressed syllable**

ready utter willing English

- **fixed** – assigned to a particular syllable in words

- first syllable in Czech
- last but one (penultimate) syllable in Polish & Swahili
- last syllable in French

- **variable** – assigned to different syllables in words

- English has variable stress

'WRItter be'CAUSE

- longer English words → various levels of stress

primary → disap'POINTing

secondary → ,DISap'POINTing

- stress in English can be **contrastive** →

changing the stressed syllable of an English word
can **change its meaning**

'contrast vs. cont'rast

'proceeds vs. pro'ceeds

'project vs. 'project

a 'black 'board vs. a 'black,board

- **unstressed vowels**

schwa [ə] → ,DISap'POINTing