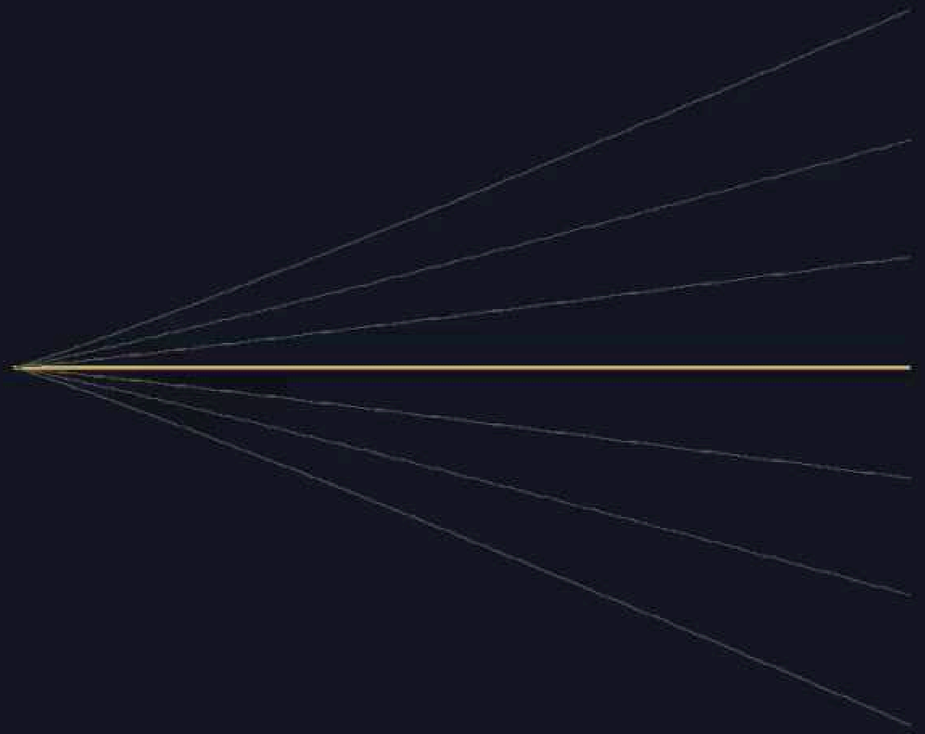
ANDERSON ACADEMY

LING 101 B · Introduction to Linguistics (Brief course)

Lecture 2 · about 6 min

Sounds: Phonetics and Phonology



A library of university-level courses

Two sound sciences

Phonetics

- Phonetics
- Physical speech sounds
- Production and acoustics

Phonology

- Phonology
- Sound systems of a language
- Patterns and rules

¶ 2.1

Phonology studies how sounds are organised into systems within a particular language.

Producing speech

Air from the lungs

▼

The larynx and vocal folds

▼

The throat, mouth, and nose

▼

Shaped by tongue and lips

¶ 2.2

The tongue, lips, teeth, and the roof of the mouth shape the airflow into different sounds.

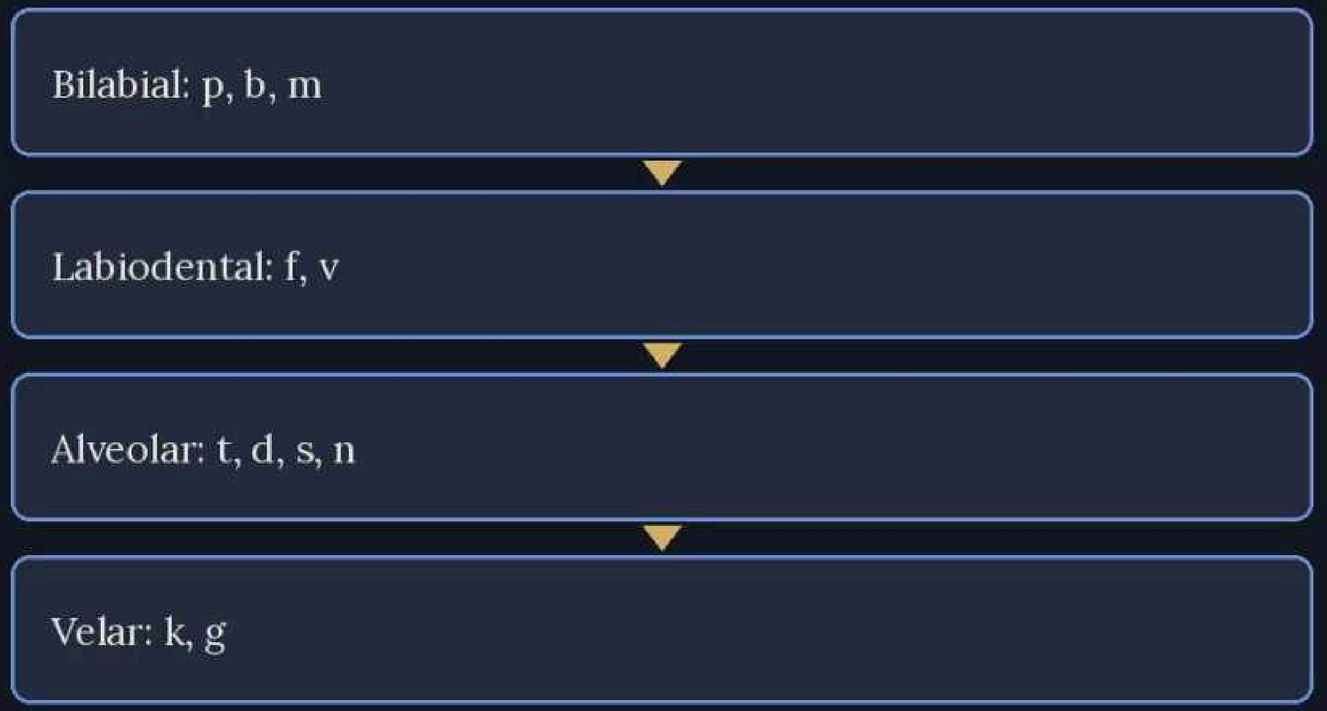
Describing consonants

- Voicing: do the vocal folds vibrate?
- Place: where is the airflow blocked?
- Manner: how is it blocked?
- Examples: z and s differ in voicing

¶ 2.3

Put your fingers on your throat and say zzz, then sss: you feel vibration only for the first.

Places of articulation



¶ 2.4

Alveolar sounds use the ridge behind the upper teeth, like t, d, s, and n.

Manners of articulation

- Stops: p, t, k
- Fricatives: f, s, sh
- Nasals: m, n
- Approximants: w, y, r

¶ 2.5

Nasals send air through the nose, like m and n.

Vowels

Height

- Tongue height
- High, as in beet
- Low, as in father

Position and rounding

- Tongue position and lips
- Front or back
- Rounded, as in boot

¶ 2.6

Rounded vowels, like the oo in boot, round the lips.

Why phonetic notation

- Spelling is inconsistent
- Through, though, tough, cough
- The IPA since 1888
- One symbol, one sound

¶ 2.7

in which each symbol stands for one sound in every language.

Minimal pairs

Consonants

- Pat and bat
- p and b are phonemes
- In English

Vowels

- Ship and sheep
- Two vowel phonemes
- In English

¶ 2.8

A pair of words that differ in only one sound, such as pat and bat,

Allophones of English p

- Aspirated in pin
- Unaspirated in spin
- Heard as one sound in English
- Separate phonemes in Hindi and Thai

¶ 2.9

English speakers hear them as the same sound, but in Hindi and Thai the difference distinguishes words.

Languages divide sounds differently

English

- English
- r and l distinct
- ship and sheep distinct

Others

- Japanese and Spanish
- r and l not distinct in Japanese
- One vowel for both in Spanish

¶ 2.10

The same physical sounds can be organised differently in different languages.

Languages divide sounds differently

English

- English
- r and l distinct
- ship and sheep distinct

Others

- Japanese and Spanish
- r and l not distinct in Japanese
- One vowel for both in Spanish

¶ 2.10

Spanish speakers may hear English ship and sheep as one word.

The English plural rule

After voiceless sounds: s, as in cats

After voiced sounds: z, as in dogs

After s, z, sh: iz, as in horses

Applied to new words

¶ 2.11

No one teaches children this rule, yet they apply it to new words: told about one wug,

Phonotactics

- str is allowed at the start
- ng is not allowed at the start
- blick is a possible word
- bnick is not

¶ 2.12

English speakers would accept blick as a possible new word but reject bnick,

Stress in English

Noun

- Noun
- REcord
- Stress on the first syllable

Verb

- Verb
- reCORD
- Stress on the second syllable

¶ 2.13

Stress makes some syllables more prominent: in English, the noun record stresses the first syllable,

Tone in Mandarin

- ma, high: mother
- ma, rising: hemp
- ma, falling-rising: horse
- ma, falling: scold

¶ 2.14

hemp with a rising tone, horse with a falling-rising tone, and scold with a falling tone.

Summary of lecture two

- ✓ The vocal tract
- ✓ Consonants and vowels
- ✓ Phonemes and allophones
- ✓ Rules, syllables, stress, and tone

¶ 2.15

Syllables, stress, and tone organise sounds further.