Outline
What is phonetics?
Decoding the speech stream
Goals
Vocal Tract Anatomy

Day 3: Phonetics
Ling 200: Introduction to Linguistic Thought

Jonathan North Washington

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Outline
What is phonetics?
Decoding the speech stream
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1. *What is phonetics?*

2. *Decoding the speech stream*

3. *Goals*

4. *Vocal Tract Anatomy*

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What is phonetics?

Phonetics

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What is phonetics?

Phonetics

Definition

The scientific study of human speech sounds

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What is phonetics?

Phonetics

Definition

The scientific study of human speech sounds

- Articulatory phonetics: how sounds are produced

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What is phonetics?

Phonetics

Definition

The scientific study of human speech sounds

- Articulatory phonetics: how sounds are produced
- Auditory phonetics: how sounds are perceived

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What is phonetics?

Phonetics

Definition

The scientific study of human speech sounds

- Articulatory phonetics: how sounds are produced
- Auditory phonetics: how sounds are perceived
- Acoustic phonetics: the physical properties of sounds

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What is phonetics?

Phonetics

Definition

The scientific study of human speech sounds

- Articulatory phonetics: how sounds are produced
- Auditory phonetics: how sounds are perceived
- Acoustic phonetics: the physical properties of sounds
- …but also for signed languages

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Videos

Some videos to watch

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Some videos to watch

- 'Phonetics', from Human Language series

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- 'Phonetics', from Human Language series
- "Why did Ken set the soggy net on top of his deck?"

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Videos

Some videos to watch

- 'Phonetics', from Human Language series
- "Why did Ken set the soggy net on top of his deck?"
- "It's ten below outside."

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Decoding the speech stream

- How many words in this sentence?

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Decoding the speech stream

- How many sounds in these words?

Example

‘leaf’ ‘feel’

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Decoding the speech stream

- How many sounds in these words?

Example

> 'leaf'   'feel'

- 'leaf' [lif] vs. 'feel' [fil]

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Decoding the speech stream

- How many sounds in these words?

Example

'leaf' 'feel'

- 'leaf' [lif] vs. 'feel' [fil]
- 'feel' [fil] vs. 'fael' [fil] ('leaf' backwards)

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Decoding the speech stream

- How many sounds in these words?

> *Example*
>
> 'leaf' 'feel'

- 'leaf' [lif] vs. 'feel' [fil]
- 'feel' [fil] vs. 'fael' [fil] ('leaf' backwards)
- 'lull' vs. 'llul' ('lull' backwards)

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Decoding the speech stream

- How many sounds in these words?

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- 'leaf' [lif] vs. 'feel' [fil]
- 'feel' [fil] vs. 'fael' [fil] ('leaf' backwards)
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- Sounds in a string are continuous

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Decoding the speech stream

- How many sounds in these words?

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'leaf' 'feel'

- 'leaf' [lif] vs. 'feel' [fil]
- 'feel' [fil] vs. 'fael' [fil] ('leaf' backwards)
- 'lull' vs. 'llul' ('lull' backwards)

- Sounds in a string are continuous
- …but we hear them as discrete, separate sounds

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Goals

Goals for Phonetics section:

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Goals for Phonetics section:

- Be able to *identify* human speech sounds

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Goals for Phonetics section:

- Be able to *identify* human speech sounds
- Learn symbols used for *transcribing* speech sounds

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Goals for Phonetics section:

- Be able to *identify* human speech sounds
- Learn symbols used for *transcribing* speech sounds
- *Describe* and classify sounds according to articulatory properties

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Anatomy of the vocal tract

What goes into producing speech sounds?

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Anatomy of the vocal tract

What goes into producing speech sounds?

- Lungs

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What goes into producing speech sounds?

- Lungs
- Larynx

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What goes into producing speech sounds?

- Lungs
- Larynx
- Tongue

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What goes into producing speech sounds?

- Lungs
- Larynx
- Tongue
- Oral cavity

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Anatomy of the vocal tract

What goes into producing speech sounds?

- Lungs
- Larynx
- Tongue
- Oral cavity
- Nasal cavity