

Reading for Wednesday: Odden book, Chapters 1 & 2

Today's Topics: Overview of Phonology

Overview of Phonology:

Phonology: the study of the systematic uses of sounds in speech; how do sounds within a language pattern or interact with each other? We ask the same general questions as other aspects of linguistic study, in terms of the sound system:

- what does it mean to know a language?
- how is language learned?
- are there any properties that all languages share?
- what happens when you learn a second language as an adult?

Some phonological things you know about English:

- 1) English uses a limited set of **segments**.
- 2) English uses a limited set of **words** (rather than all that could be built from combining its set of segments).
- 3) Sounds in English are pronounced differently in the **context** of different sounds.
- 4) You can recognize **accents**, American, British, Non-native.
- 5) Words undergo **predictable changes in sound** when suffixes are added (sane ~ sanity, vain ~ vanity: [ej] ~ [æ])

A phonological theory has to account for such systematic facts:

Inventory of sounds used in human speech and in particular languages

Constraints on sequences of sounds in particular languages

Contextual variation of “same sound” in a particular language; conversely, functional identity of different sounds in a particular language.

Dialectal variation of sounds in different versions of the same language.

Interaction of phonology with other aspects of grammar, especially morphology

In this course, we will build up a set of tools for analyzing sound systems, using:

Representations

Rules/Constraints

Levels

The International } how we transcribe speech sounds; the least abstract form of
Phonetic Alphabet } representation used in phonology; organized by articulation

Articulatory Descriptions of Sounds:

Sound is produced by modifying a body of moving air. An articulatory description states where, how, and to what extent the air is modified in making a sound.

- 1) Airstream mechanism:** How a body of air is forced to move.
Pulmonic Egressive: Pulmonic meaning the air comes from the lungs, egressive meaning it comes out; air is pushed up from the lungs, through the trachea and larynx, and out the mouth or nose.
- 2) State of the glottis:** the space between the vocal cords, can be open or closed. If the glottis is open, air passes through unimpeded and the resulting sound is “**voiceless**”. If the glottis is closed, air blows the vocal cords apart, setting up a vibration called “**voicing**”; the resulting sound is called “**voiced**”.
- 3) Place of articulation (consonants):** Where the airstream is obstructed in the vocal tract. Includes **bilabial, labio-dental, dental, alveolar, retroflex, etc.**
Height/Backness/Rounding (vowels): The position of the tongue and lips.
- 4) Manner of articulation:** The way the airstream is obstructed/shaped.
Stop: blocked by tongue at central point of articulation or by closed lips
Fricative: small opening, allowing turbulent airflow
Affricates: closed like a stop and open more gradually, like a fricative etc.

Review: You should be able to:

- 1) tell what the more common symbols stand for (what articulatory characteristics?)
- 2) read transcriptions: e.g., [bɛθ] [p^hejd] [ɔ̃uwl_l]

Theory of transcriptions: How detailed do transcriptions need to be?

- 1) must represent information about the signal that can be contrastively used in some language
- 2) also need to include aspects that differ across different languages, even when they never contrast within a single language

Transcription considerations:

do write: everything that's under articulatory control and/or is linguistically significant
 if something is pronounced differently in different languages, that shows that it's not determined solely by the limitations of our vocal apparatus, so ideally we record it.

can't or don't represent in the IPA:

- o fine details of coarticulation
- o aspects of a phonetic event that are gradual; e.g. the exact value of aspiration, degree of nasalization
- o non-linguistically significant facts, such as loudness of voice in dB, other characteristics of voice like huskiness, exact value of pitch