

Day 4: Phonetics

Ling L303/L503: Introduction to Linguistic Analysis

Jonathan North Washington

21 June 2012

1 *Vowels*

- Articulation
- Articulatory description
- Diphthongs

Vowels

Articulation

- Four chambers in mouth
 - Oral cavity
 - Pharynx
 - Area between lips
 - (Nasal cavity)
- Length and shape of each chamber affects the 'resonance' of vowel sound



- http://www.exploratorium.edu/exhibits/vocal_vowels/vocal_vowels.html

Vowels

Articulatory description

4-part classification system for vowels:

- Tongue height
- Frontness vs. backness of tongue
- Tenseness
- Lip rounding
- (Nasality)

Vowels

Height

Vowel Height

- High vowels — tongue body is raised
 - [i], [ɪ], [u], [ʊ]
- Mid vowels — tongue body is intermediate
 - [e], [ɛ], [o], [ɔ], [ə], [ʌ]
- Low vowels — tongue body is lowered
 - [æ], [ɑ]

Vowels

Frontness/Backness

Vowel Frontness/Backness

- Front vowels — tongue body is pushed forward
 - [i], [ɪ], [e], [ɛ], [æ]
- Central vowels — tongue body is neutral
 - [ə], [ʌ]
- Back vowels — tongue body is pulled back
 - [u], [ʊ], [o], [ɔ], [ɑ]

Vowels

Tenseness

Vowel Tenseness

- Tense vowels — more extreme / peripheral tongue position, slightly longer (English)
 - [i], [e], [u], [o]
- Lax vowels — more neutral / less peripheral tongue position
 - [ɪ], [ɛ], [ʊ], [ɔ], [æ], [ɑ], [ʌ], [ə]

Vowels

Roundness

Vowel Roundness

- Rounded — produced with rounded lips
 - [u], [o], [ʊ], [ɔ]
- Unrounded — produced with unrounded lips
 - [i], [ɪ], [e], [ɛ], [æ], [ʌ], [ə]

Diphthongs

Definition (Diphthong)

A two-part vowel sound consisting of transition from one vowel to another in same syllable

Diphthongs of English

- [aɪ] = [ai]
- [ɔɪ] = [oi] = [oɪ]
- [aʊ] = [aʊ] = [au]
- [eɪ] = [e] = [ei]
- [oʊ] = [o] = [ou]