

Phonetics of English

Introduction

Consonants pt 1:

Obstruents

Transcription and Description

- Transcription
 - Standard notation of C's and V's?
 - How differ from orthography?
 - Regularity
 - Self-pronouncing
 - Associated description IPA system
 - Based on stylized anatomy of vocal tract
 - E.g, sagittal sections, upper-lower articulators

Broad vs. Narrow

- Broad transcription
 - Represent ‘basic speech sounds’ of a dialect
 - Roughly phonemic: Relatively small number of basic categories
- Narrow transcription
 - Represents additional detail
 - Roughly allophonic: often includes extra diachritic marks

Which dialect?

- Western Canadian English (Edmonton area)
- Broad transcription roughly similar to ‘General American’ (GA) in Rogers
 - Details will be added as necessary
 - Curious? Preview Rogers p. 123-126
 - (Aside: Why does Rogers show RP and GA)
- Not your dialect?
 - Not mine either. Let’s cope.

Sounds of Western Canadian English

- Consonants
 - Voicing State (rough definitions)
 - Voiced - vocal folds ‘buzzing’
 - opening and closing rapidly
 - Voiceless - not buzzing: hissing or silent
 - Place of articulation
 - Manner
 - Stop, fricative etc.
 - Introduce them with groups of consonants

Places of articulation

(review)

Graphic unavailable

Rogers (2000) Table 1.1 p 11

Consonants of English: Stops

- Stop consonants
 - More precisely (IPA) *plosives*
 - Any difference? (Stops with E.P.Air)
 - Made with complete occlusion (closure) of oral cavity
 - No air flow (from mouth)

Voicing state

- The main stop sounds of English occur in pairs
 - Voiced vocal folds (glottis) vibrating
 - Voiceless not vibrating
 - May be open (some hiss or aspiration noise if airflow)
 - Or closed ‘glottal stop’

Example : Bilabial plosives

Graphic unavailable

See Rogers (2000) Fig 1.3 p 6 for related drawing

Stops (plosives) of English

- What are they?

Fricatives

- Fricatives are sounds articulated with a highly constricted, but not fully closed vocal tract
 - When sufficient air is pumped through (usually from lungs):
 - Frication noise (‘hiss’) is produced via local turbulent airflow
 - May be voiced or voiceless
- Examples of frication noise in nature?

Turbulence

Graphics unavailable

Labiodental fricative β

Graphic unavailable See Fig 1.4 p 6
Rogers(2000) for similar item

Affricates

- IPA transcription views them as:
 - Combination of stop+fricative
 - E.g. [tʃ] [dʒ]
 - Sometimes written with a ligature

[dʒɛf 'mɔ:rɪsən]

Obstruents

- Plosives, fricatives and affricates known collectively as ‘Obstruents’

Nasals

- Nasals sometimes called ‘nasal stops’
 - Complete stoppage of airflow in mouth
 - But with lowered velum
 - Open *velopharyngeal port*
 - Textbook says ‘open velic’
 - » *Velic is an old fashioned term (used mainly by linguists) for upper surface of velum, or for the velopharyngeal port itself.*
 - » *To say ‘with an open velic’ is the same as saying ‘with an open velopharyngeal’ port*

Example Bilabial nasal

Graphic unavailable. See
Fig1.13 Rogers 2000 p 10

How would /b/ be different?

Several varieties of approximants

- Liquids
 - Lateral approximants [l] - like sounds
 - Laterals get a separate manner row in official IPA chart
 - Rhotic approximants [r] -like sounds
- Glides
 - Also called semivowels
 - Movement to and from an extreme vowel like [i] or [u]
 - [j] palatal approximant
 - [w] labiovelar approximant

English laterals

- Lateral [l]
- Preferred description
 - Voiced alveolar lateral approximant
- Why called *lateral*?
 - There is typically contact of tongue tip or blade with alveolar region
 - But sides of tongue allow lateral release of air
 - Try saying [l l l l] and pinching cheeks
 - (Doesn't work for me with final 'dark ell')

Eng. Laterals (sagittal MRI tracings)

- Graphic unavailable (see web site below)

Laterals from MRI

<http://www.icsl.ucla.edu/~spapl/projects/mripix/figg3.html>

Eng. rhotics (sagittal MRI tracings)

- Considerable individual variation in production of English [ɹ]
- Graphic used in class unavailable. For similar pictures see web site below:
- <http://www.icsl.ucla.edu/~spapl/>

Filled out grid See Rogers Table 2.1 p 25

	Bi-labial	Labio-dental	Dental	Alveolar	Post Alv.	Retr o-flex	Palatal	Velar	Labio-velar
Stop	p b			t d				k g	
Fric		f v	θ ð	s z	ʃ ʒ				
Affr					tʃ dʒ				
Nasal	m			n				ŋ	
Apprx				l		ɹ	j		w

Other sounds (not on Roger's grid)

- Voiceless glottal fricative [h]
- (Glottal stop [ʔ])

Other resources

- Keywords in textbook also check my web page
 - *<http://www.ualberta.ca/tnearey>*
- Web pictures and animations
- Daniel Currie Hall, University of Toronto *Interactive Sagittal Section* <http://www.chass.utoronto.ca/~danhall/phonetics/sammy.html>
Carlos-Eduardo Piñeros, university of Iowa *The sounds of English and Spanish* <http://www.uiowa.edu/~acadtech/phonetics/>

Practice transcription of C's

Some tips

- There are no [c, y, x] in transcription of English
- [j] called 'yod' is IPA for the 'yuh' sound
- English words spelled with 'j' usually use it for [dʒ]
- If you're having trouble with [θ] vs. [ð] remember
- Try substituting [f] or [v] to decide on voicing
 - If f sounds closer it's [θ]
 - If v sounds closer, it's [ð]