

LING 201: Introduction to Linguistics

EMU
Fall 2011
D. Cavar

Agenda

- Course material, assignments and textbook
- Morphology 2
- Phonetics and Phonology I

Course material

- Textbook:
 - in the library
 - previous (5th edition) on Google Books
- Slides and other material:
 - on the web: <http://www.cavar.me/damir/ling201-11/>
 - in Google Docs
 - in Dropbox

Submission of assignments

- Email to instructor:
 - see link on course page
 - or:
 - `d c a v a r l @ e m i c h . e d u`
- File format PDF:
 - OpenOffice can export PDF, the newest release of Microsoft Office, in Linux GNOME or KDE desktop and Mac OS X from any application one can generate PDF

Emailing the Instructor

- Structure of Email:
 - Subject line indicating clearly LING 201
 - Greeting
 - Body: precise request or question
 - Closing indicating clearly your name
- Do not expect immediate response to emails on the weekend.
- No replies to assignment questions or requests before class on due date.

Excuses

- For assignments:
 - Just save your and my time: I get an assignment or not, I am not interested in, why I did not get it.
 - If you cannot come to class, please do tell me why.
 - You are missing each session a double hour, which is significant!
 - But, do not expect me to respond to this info mail.
 - I keep track of attendance and missed classes. You will get a summary of your assignment performance and number of missed classes.

Office hours

- The office hours are indicated on the web page and on the syllabus. If there is a mismatch, the web pages are right.
- You do not have to tell me that you intend to come to my office hours. Just do it.
- Changes and exceptional cancelations of office hours are always announced on the course web page.

- **Any other issues?**

Assignments

1. *Radar* and *laser* are acronyms. List three other recent English words that are acronyms and state their origin.

Assignments

2. List three recent words that, like DOB (date of birth), are alphabetical abbreviations, and state their origin.

Assignments

3. Consider the word *dissing* in the sentence *Are you dissing me?*

A. What does *dissing* mean?

B. What part of speech does *dissing* belong to? Defend your answer.

C. What is the (social) origin of *dissing* (or *diss*)? That is, what social group first started using the word?

D. How was *diss* formed? Defend your answer.

Assignments

4. The following quotation is from a San Francisco Chronicle opinion piece regarding education issues by Debra J. Saunders (January 4, 1998):

Can a teacher be an educrat? Yes, although I should think most teachers are educators, not educrats. (Bet that a teacher with a PhD in education is an educrat, one with a PhD in math is an educator.)

A. What is an *educrat*?

B. What kind of word is *educrat*? That is, how was it formed?

Assignments

- 7. English also has a prefix *un-*, whose use is illustrated in the following lists:

List A	List B
<i>likely</i>	<i>unlikely</i>
<i>acceptable</i>	<i>unacceptable</i>
<i>wise</i>	<i>unwise</i>
<i>real</i>	<i>unreal</i>
<i>common</i>	<i>uncommon</i>
<i>natural</i>	<i>unnatural</i>
<i>graceful</i>	<i>ungraceful</i>
<i>refined</i>	<i>unrefined</i>
<i>tamed</i>	<i>untamed</i>

Assignments

7. English also has a prefix *un-*, whose use is illustrated in the following lists:

- A. What parts of speech are the words that the prefix *un-* attaches to?
- B. When *un-* is prefixed to a word, what part of speech is the resulting new word?
- C. In what way does the prefix *un-* change the meaning of the word it attaches to?
- D. New words such as *Uncola* (a type of soft drink) and *Uncar* (used in a bus company advertisement to refer to a bus) have been added to the English language. Given the pattern in lists A and B, why are words such as *Uncola* and *Uncar* “irregular”?

Derivational morphology

- Deriving new words by applying rules.
- Base + affix/base → new word (base)
- Agentive -er
- Play+er, watch+er, do+er, write+er, kill+er, open+er etc.
- V+er → N
- Compositionality of meaning

Inflection versus derivation

- Derivation - deriving new words, e.g. +able (do +able), +er (open+er), etc.
- Inflection - creating different grammatical forms of the same word, e.g. +s (he play+s), +ed (play +ed), +ing (play+ing), +s (toy+s), +s (Mary's), +er (hott+er), +est (hott+est).

Inflection versus derivation

- Inflection
 - Doesn't change the grammatical category
 - Meaning relationship is regular.
- Derivation
 - May change the grammatical category.
 - Meaning relationship not always regular.
 - E.g. fixable versus readable.

Inflection versus derivation

- Derivational morphemes are closer to the base than the derivational morphemes, i.e.
- Inflectional morphemes are the “outer shell” of the word
- E.g. modern+ize+ing
- BUT: *modern+ing+ize
- E.g. play+er+s
- BUT: *play+s+er

Productivity

- Suffix *-able*
 - attaches only to transitive verbs
 - What is a transitive verb?
- Nouns with *-able* in English:
 - *peaceable, companionable, marriageable, impressionable, knowledgeable, actionable, saleable, reasonable, fashionable*
 - Is our generalization wrong?

Productivity

- $V_{\text{trans}} + \textit{able}$ is productive
- $N + \textit{able}$ is not, i.e. it is restricted to a few examples
- Such forms need to be learned and memorized explicitly

False Analysis

- What is the morphological structure of:
 - hospitable
 - sizeable (meaning “ample”)
- Is it $V + \textit{able}$?

False Analysis

- *-able* in *hospitable* and *sizeable* does not mean “to be able”
- *-able* is compatible with another derivational suffix, e.g. *-ity* that forms a noun:
 - *readable* (Adj) - *readability* (N)
 - *provable* (Adj) - *provability* (N)
 - *breakable* (Adj) - *breakability* (N)

False Analysis

- But not with *hospitable* or *sizeable*
 - * hospitability of our host
 - * sizeability of the crowd
- Two arguments:
 - semantic
 - morphological

Bound Base Morphemes

- Semantic properties of *-able* in:
 - malleable, feasible
 - are “to be able”
 - segmentation seems motivated:
 - *malle+able, feas+ible*
- But: *malle(y)* and *feas(e)* do not exist as independent or free morphemes

Problems

- When arguing about the structure of a word:
 - base might be from a closed set of no longer productive forms
 - possible completely false analysis of the base
 - base may not be an existing word

Morphological structure

- How will you analyze word 'unlockable'?
 - un+lock+able
- What are the two meanings of 'unlockable'?

Morphological structure

- Add **un-** to a verb
 - make another verb
 - means “reverse the action of” or “undo”
 - example: lock \Rightarrow unlock
- Add **un-** to an adjective
 - makes another adjective
 - means “not”
 - example: lucky \Rightarrow unlucky

Morphological structure

- Add **-able** to a verb
 - makes an adjective
 - means “able to have the action of the verb performed on it ”
 - example: break \Rightarrow break**able**

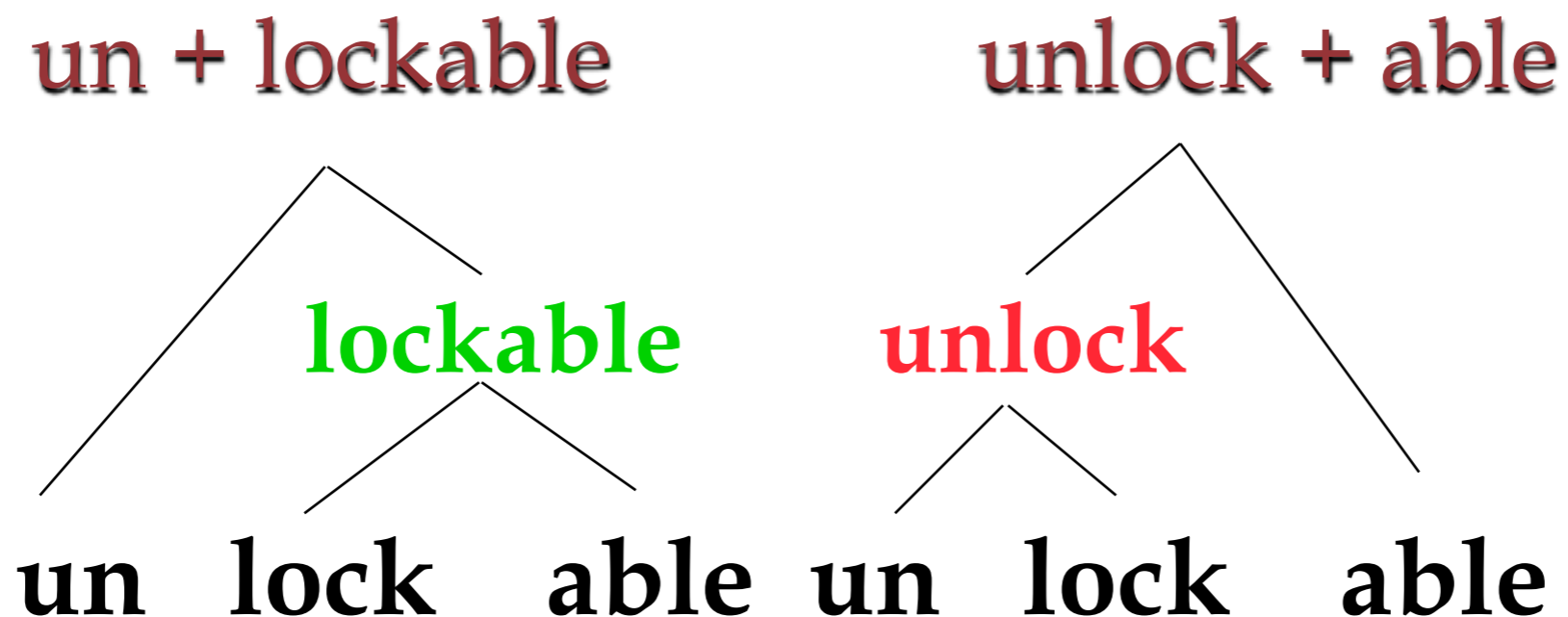
UNLOCKABLE?

UN[LOCKABLE]

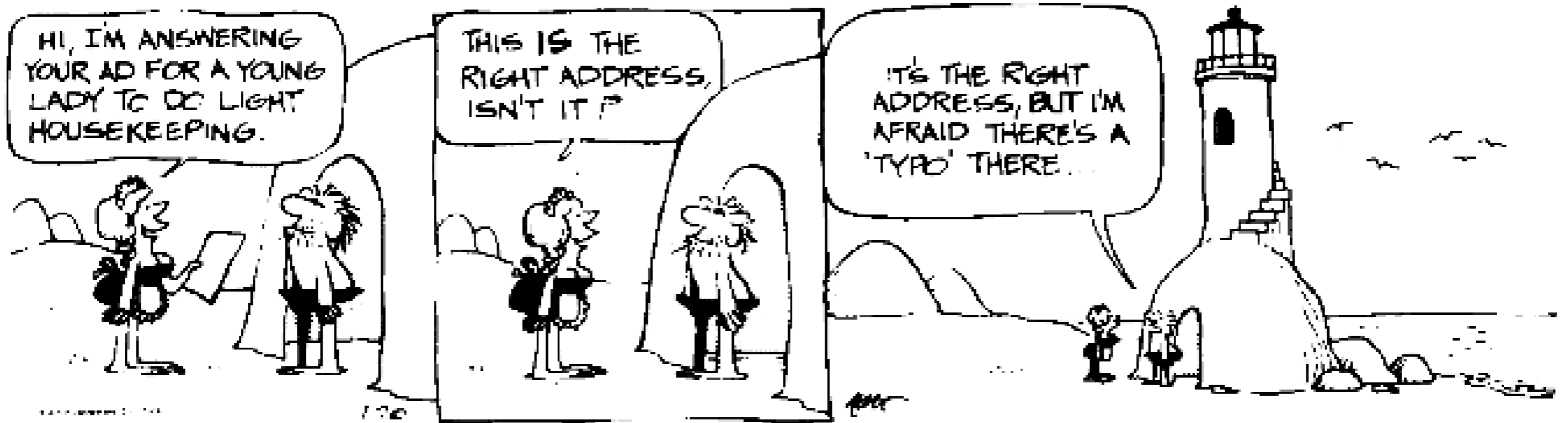
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Structure and Compositionality

- Assumption: Human language is intrinsically structured
 - Merger: two units combine to form a larger unit
 - As units combine, their meanings combine



Word Stress



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Compositionality

- *fixable* = *able to be fixed*
- *inflatable* = *able to be inflated*
- But:
 - *readable*: not just *able to be read*, but *well written or good style* etc.
 - *payable*: not just *can be paid*, rather *should be paid*
 - *questionable*: not just *can be questioned*, but *dubious or suspect*
- Additional semantic property or meaning: *semantic drift*

Compounds

- Compound - words are joined together to form another word
 - Blackboard
 - Black board
- Differences in stress:
 - Black 'board vs 'blackboard

Compounds

- Darkroom versus dark room
- Compare ‘alligator shoes’ versus ‘horseshoes’
- ‘Bigfoot’ versus ‘big foot’ and
- ‘bigwig’ versus ‘big wig’

Compounds

- high chair
- High chair (= special kind of chair for babies)
- *higher chair (only possible for the phrasal interpretation)

Phonetics

- Orthography vs. Speech
 - discrete symbols vs. continuous sound wave
 - transcription is an idealization of physical installation of speech
- Visualization of *bee, bah, boo*
 - See Praat
 - <http://www.fon.hum.uva.nl/praat/>

Phonetics

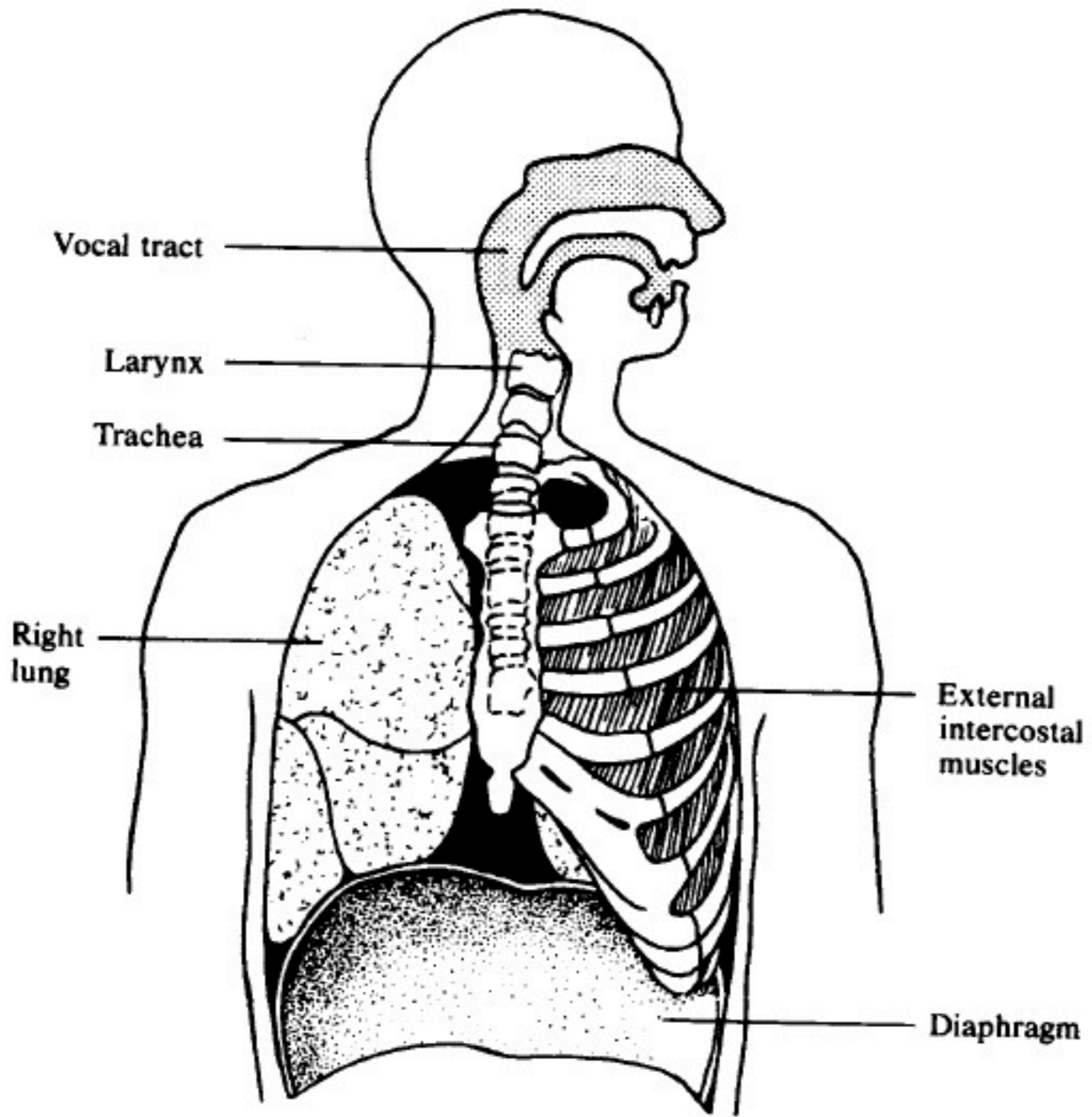
- **Articulatory phonetics:** How are speech sounds produced in the vocal tract?
- **Acoustic phonetics:** What are the physical properties of the speech sound waves generated by the larynx and vocal tract?

Articulation

- Speech is:
 - a rapidly flowing series of noises
 - produced inside the throat, mouth, and nasal passages
 - radiates out from the mouth and sometimes the nose
- Learning to speak:
 - control of a few muscles that move the lips, jaw, and tongue?

Articulation

- More complicated:
 - more than 100 muscles
 - complex interaction of
 - outward flow of air from the lungs
 - modification of the airflow at the larynx
 - modification of the airflow by the position and movement of the tongue and other anatomical structures of the vocal tract



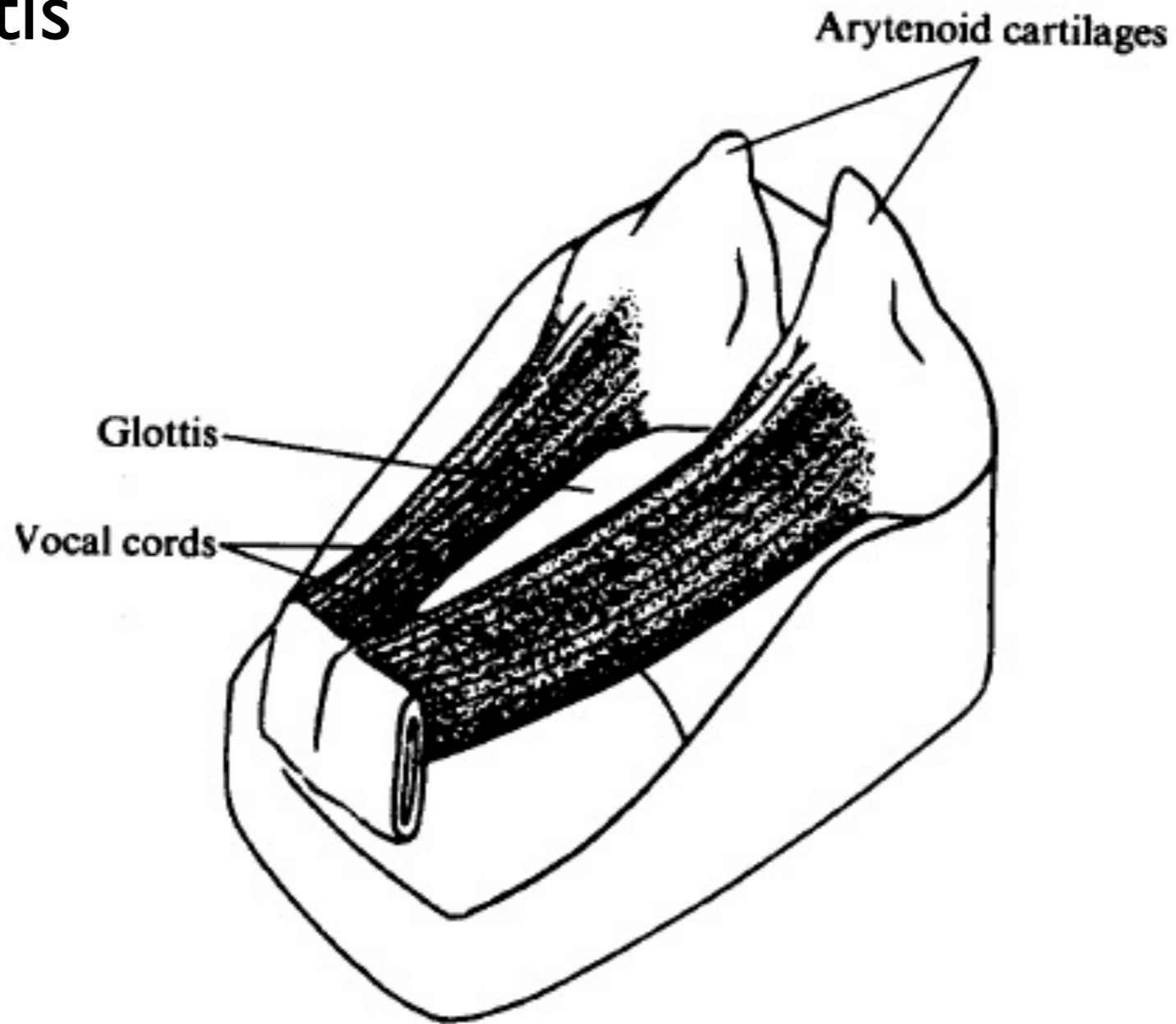
Larynx

- See [Larynx on Wikipedia](#)

Airflow from lungs

- expanding the lungs (diaphragm, external intercostals)
- muscles restrain the lungs from emptying too rapidly
- breathing is adapted to the needs of speech

Glottis



Vocal cords

- <http://www.humnet.ucla.edu/humnet/linguistics/faciliti/demos/vocalfolds/vocalfolds.htm>

The role of vocal cords

- voicing (phonation): vibration of vocal cords
 - the airflow must be sufficiently rapid
 - vocal cords must be relatively lax
 - vocal cords must be sufficiently close
- voiceless sounds: vocal cords more tense and wider apart

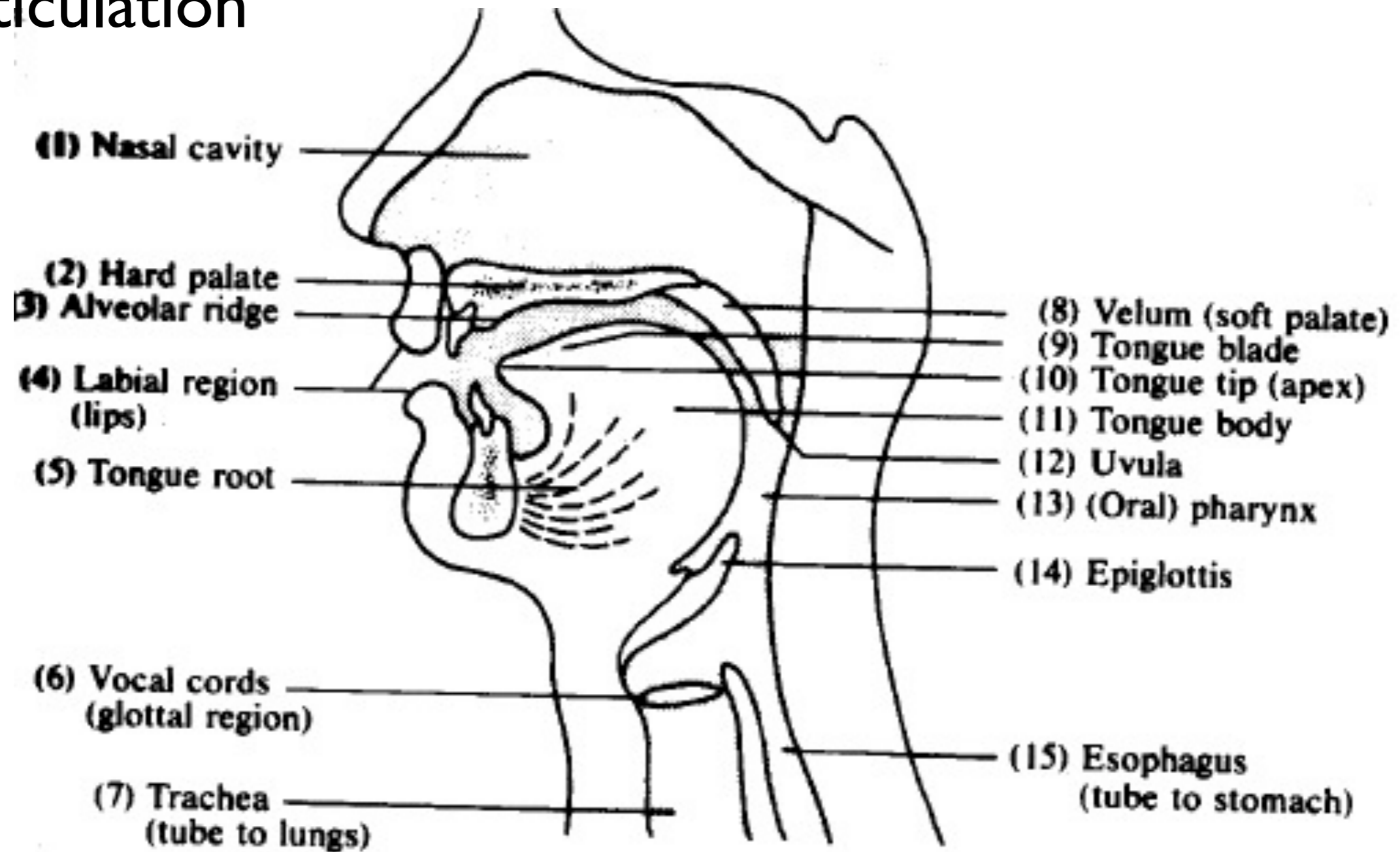
The role of vocal cords

- voicing (phonation): vibration of vocal cords
 - frequency of vocal cord vibrations determines the perceived pitch
 - determined by size (male lower, female higher)
 - extra noise or buzz with the z-sound (voiced), compared to the s-sound (voiceless)
 - for s the vocal cords are wider spread and tense, compared to z

Voicing

- p - ?
- t - ?
- f - ?

Places of Articulation



Phonetic transcription

- English has 26 letters. How many sounds does English have?

Speech versus Orthography versus Phonetic Transcription

- Our perception of speech: discrete segments
- English orthography does not reflect segments. Example:
 - tin, nation
 - kick, choir, quick, cow
- Phonetic symbols should be comparable across languages. Example
 - “c” English, French, Polish

Spelling versus Sounds

- Different spelling - the same sounds
 - see, senile, sea, seize, scenic, siege
 - ceiling, cedar, cease,
 - juicy, glossy, sexy

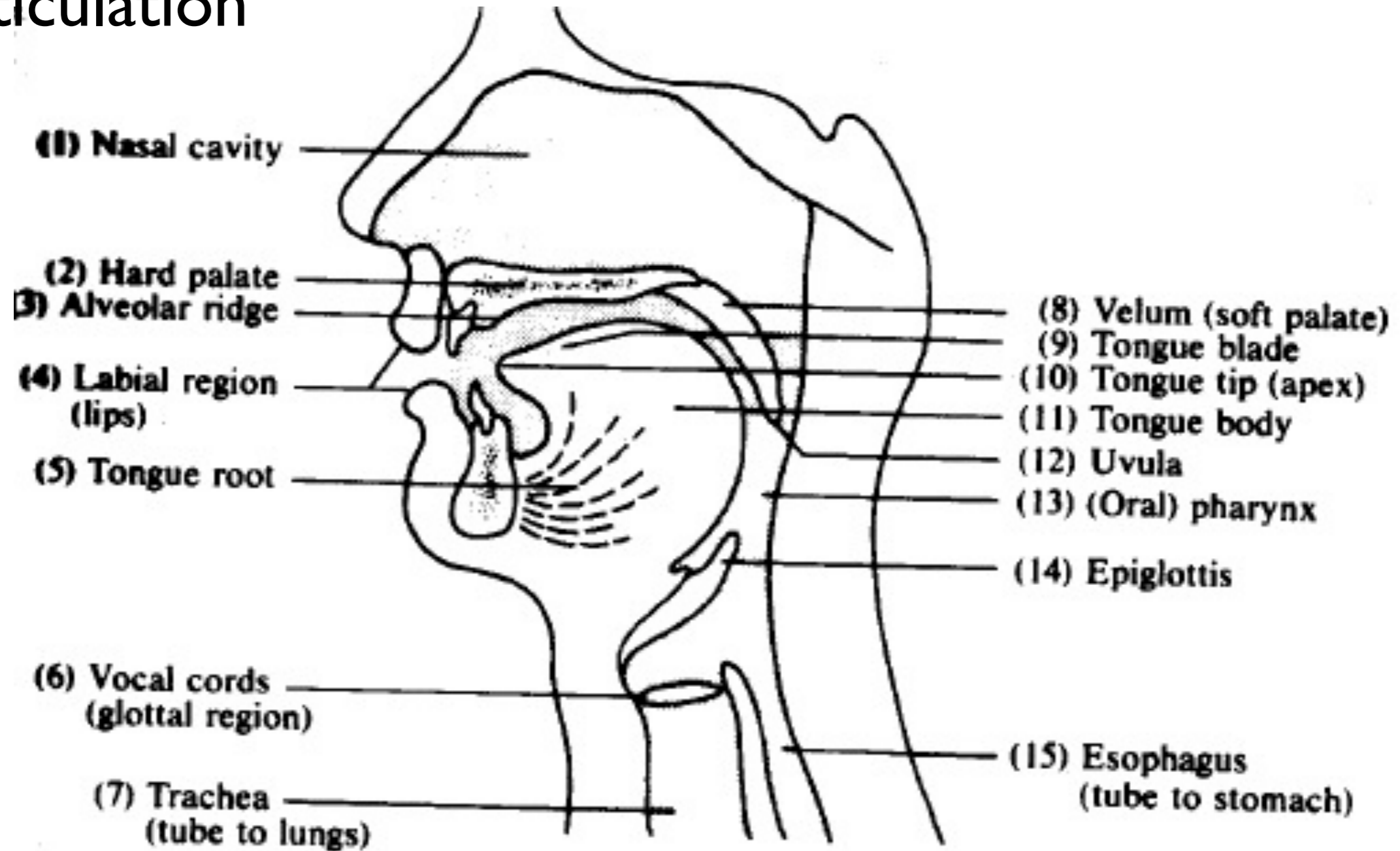
Spelling versus Sounds

- -ough
 - cough
 - tough
 - bough
 - though

Spelling versus sounds

- George Bernard Shaw claimed that English spelling is so chaotic that "ghoti" could be pronounced *fish*. Why? What words can you identify in which <gh> is pronounced "f"?

Places of Articulation



Places of Articulation

- Bilabial
 - p, b, m, w
- Labiodental
 - f, v
- Interdental
- Alveolar
 - t, d, s, z, n, l, ɹ

Places of Articulation

- Alveopalatal
 - ʃ, ʒ, tʃ, dʒ
- Velar
 - k, g, ŋ
- Glottal
 - h, ʔ

Special symbols

- Lateral fricatives:
- Alveopalatal: \int , $ʒ$, $tʃ$, $dʒ$
- r-sound: $ɹ$

Manners of articulation

- Stop
 - p, b, t, d, k, g
- Fricative
 - f, v, interdentalals: s, z, ʃ, h
- Affricate
 - tʃ, dʒ

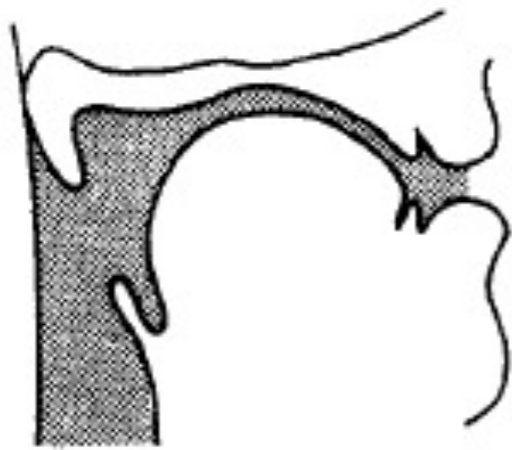
Manners of articulation

- Nasal
 - m, n, ng
- Liquids: lateral and rhotic
 - l, ɹ
- Glides
 - j, w

Practice: phonetic transcription

- Transcribe the first SOUND in the words
 - ship
 - who
 - chance
 - rough
 - joy
 - yes

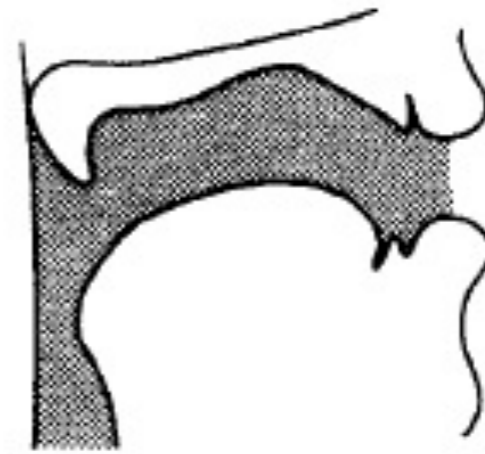
Vowel Height



/i/
“bit”

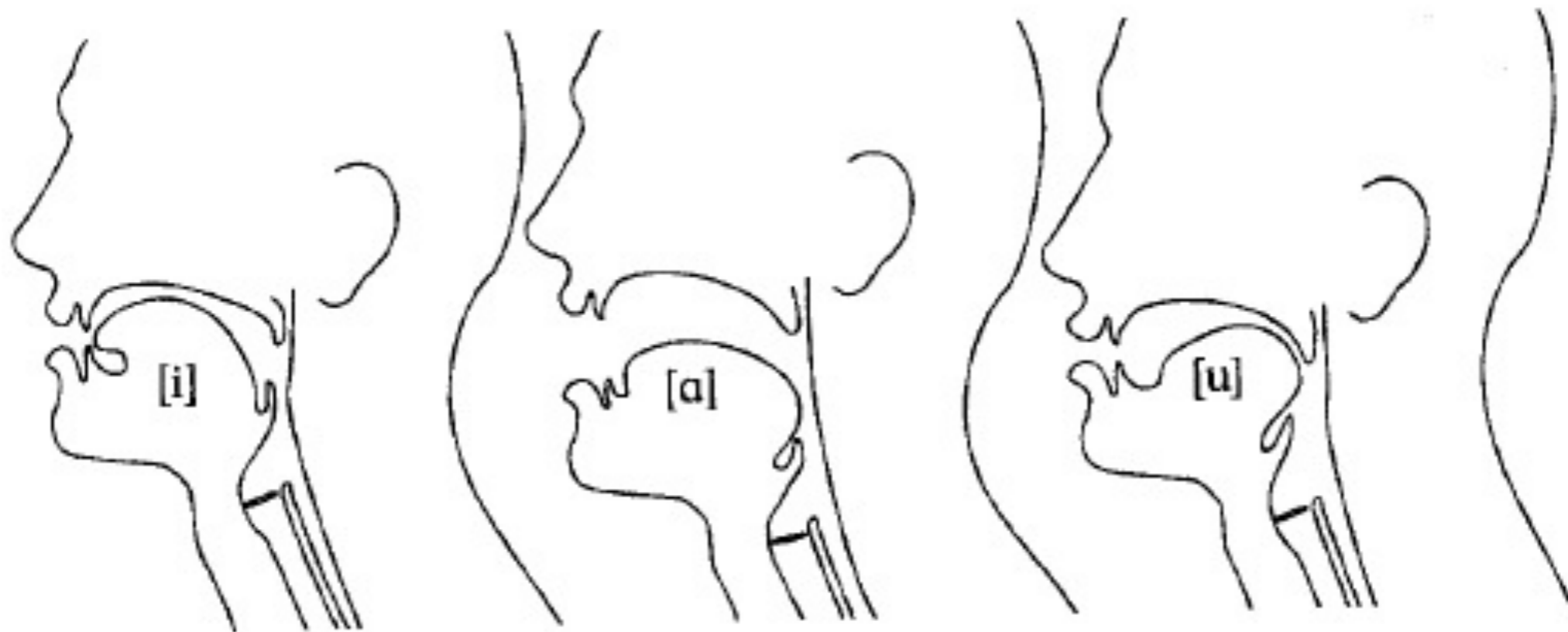


/ɛ/
“get”



/a/
“hot”

Vowels: Front-Back Dimension



Vowel Symbols

- i, I, U, u
- e, ε, ə, ʌ, oʊ, ɔ, ɔj
- æ, aɪ, aʊ, ɑ

Homework

- Homework assignment II
 - Page 61 in edition 6, i.e. the newest edition, exercise 10, and
 - pages 104-105 in edition 6 exercises 1-3
- Reading: finish chapter 3 from Akmajian et. al!