

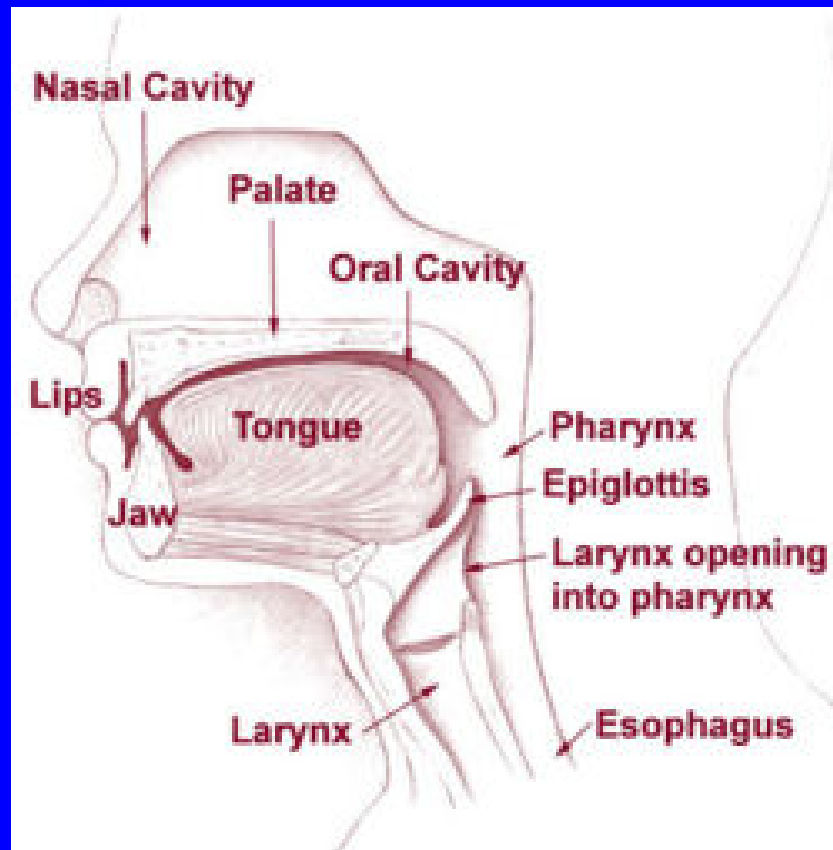
Chapter 1

Articulation and acoustics

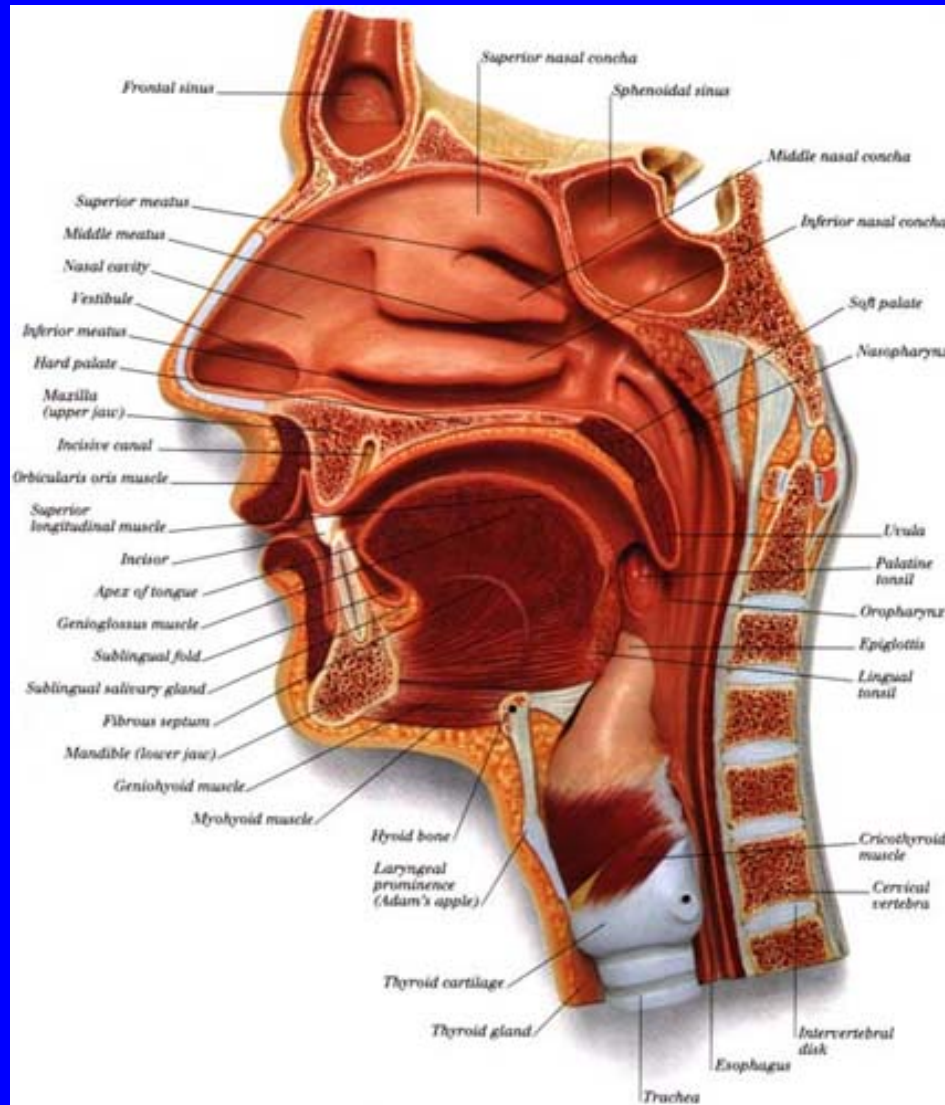
1. Vocal Organs

- Vocal folds/ords /p/ /b/
 - Voice
 - Voiceless

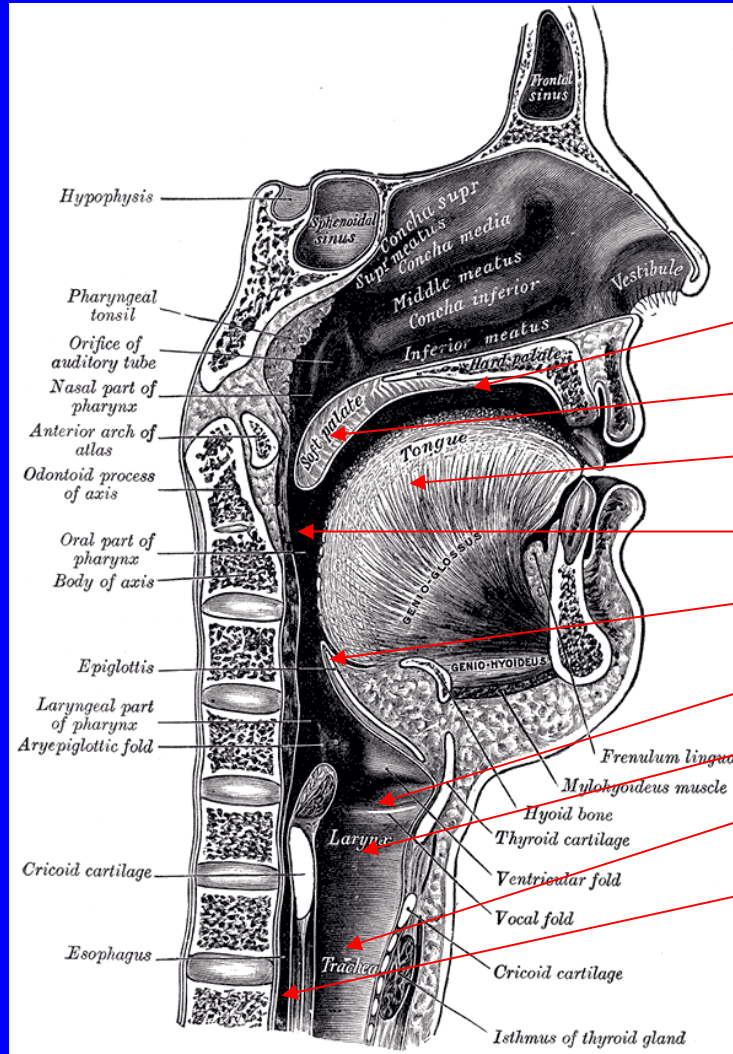
- The oral tract
- the nasal tract



1.1 Vocal Organs (detailed info)



1.2 Vocal Organs (detailed info)



Hard palate

Soft palate

Tongue

Oral part of pharynx

Epiglottis

Vocal fold

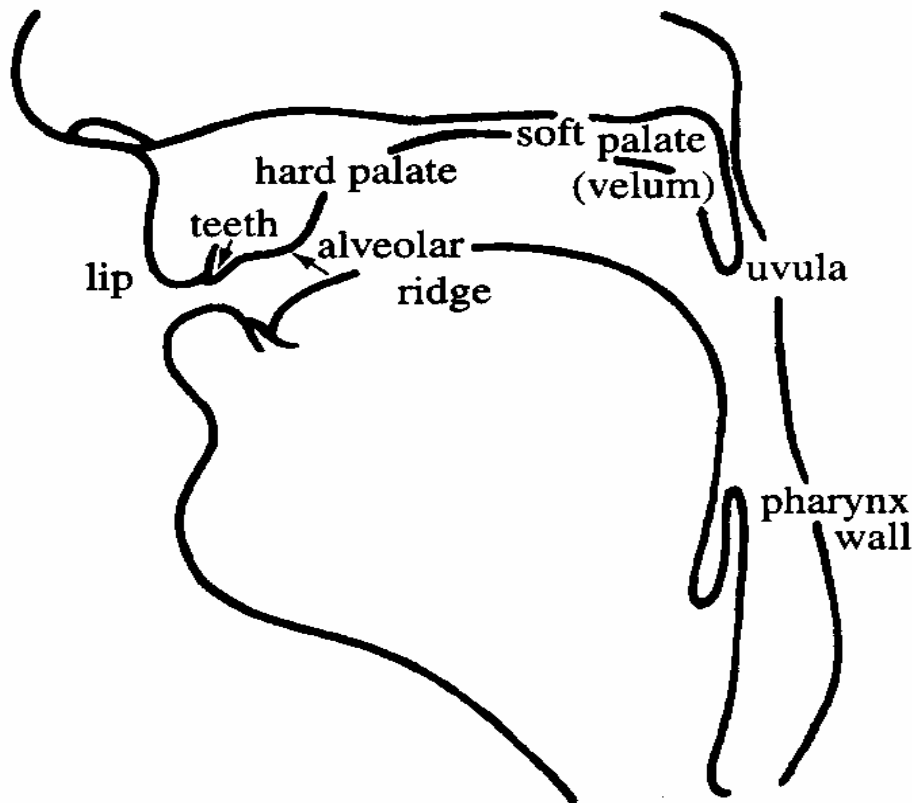
Larynx

Trachea

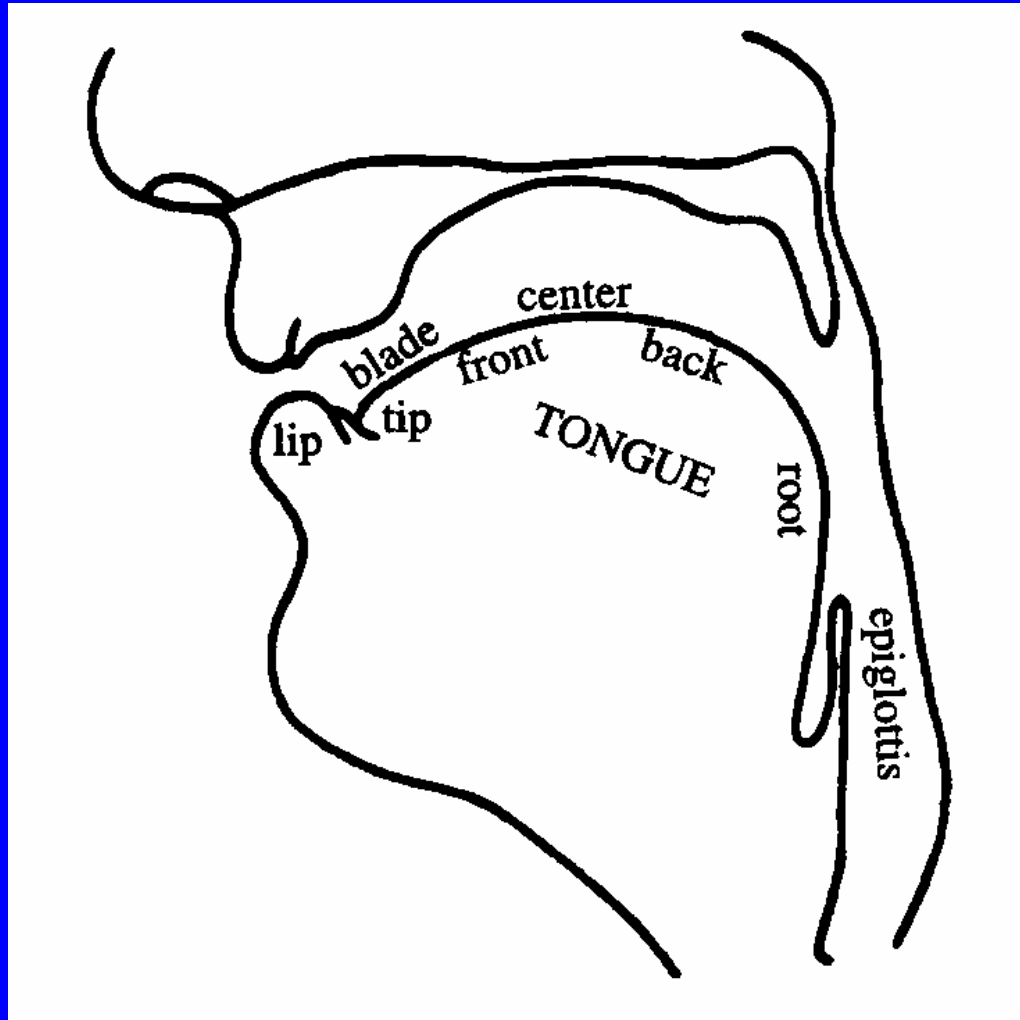
Esophagus

2. The articulators (the upper surface)

The principal parts of the upper surface of the vocal tract.

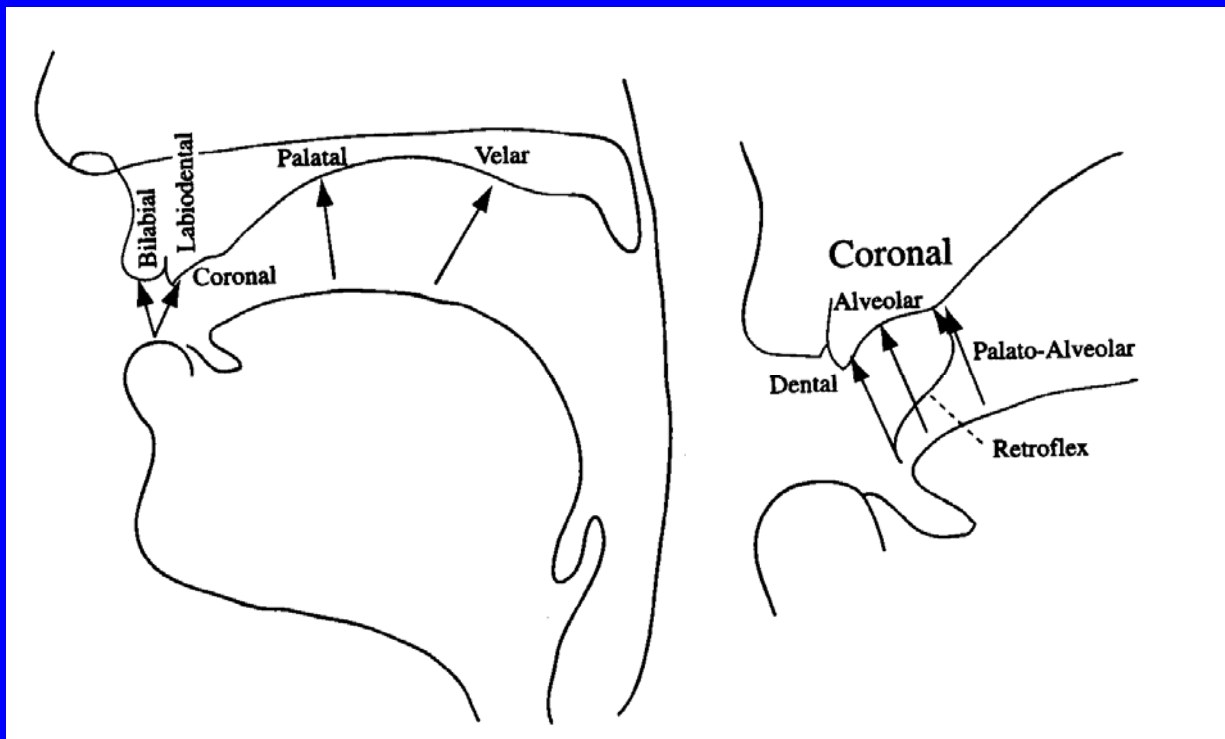


3. The articulators (the lower surface)



4. Places of articulation

- Labial: using the lips
- Coronal: using the tip or blade of the tongue
- Dorsal: using the back of the tongue



2.2 The manners and positions of English consonants

The X-ray video

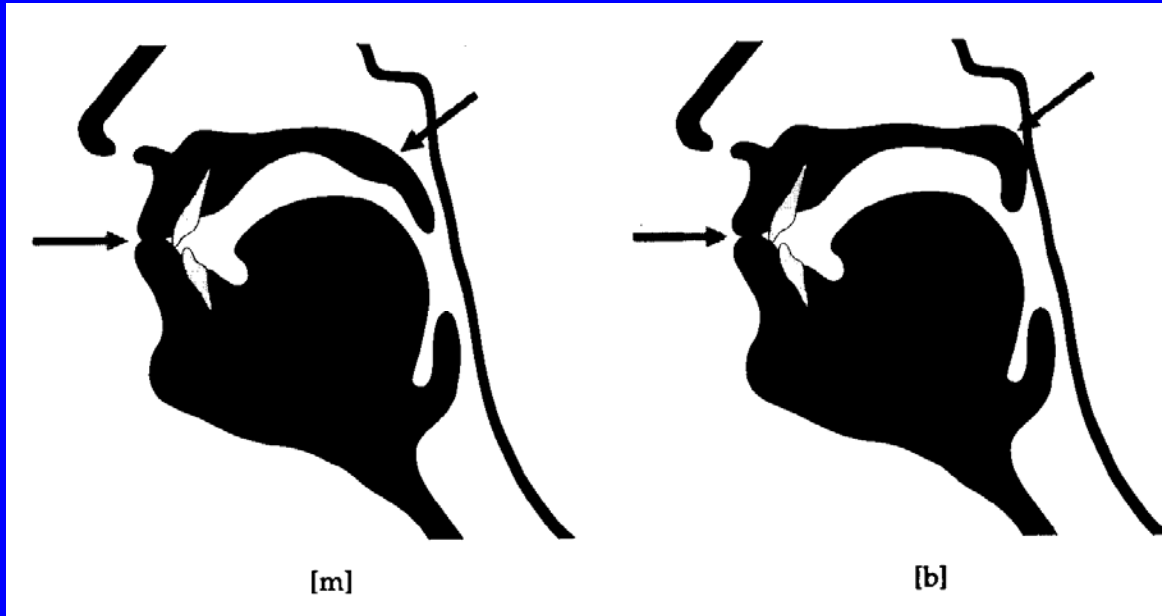
(The X-ray video
is provided by
Ladefoged,
UCLA)

həpe	həte	həke
həpə	həta	həka
həde	həne	həse
həze	həsa	
həp	hət	hek
həp	hat	hak
həti	həti	hetæ
hətu	hətu	
hetet	hetat	hetek
həpen	hidi	hida
higi	higa	ia

Why did Ken put the soggy net on
top of his desk?

I have put blood on her two clean
yellow shoes.

5. Bilabial

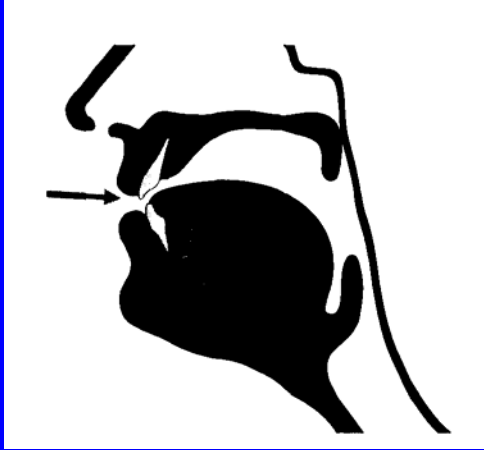


/m/ /b/

6. Labiodental

/f/ /v/

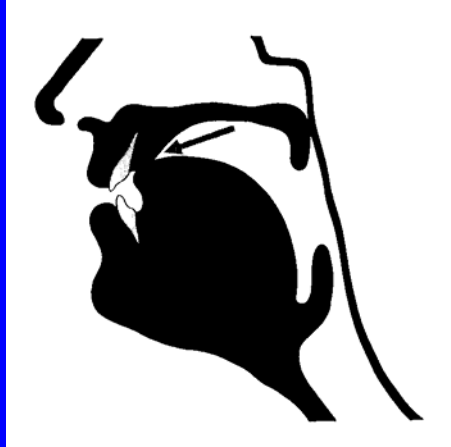
7. Dental/interdental



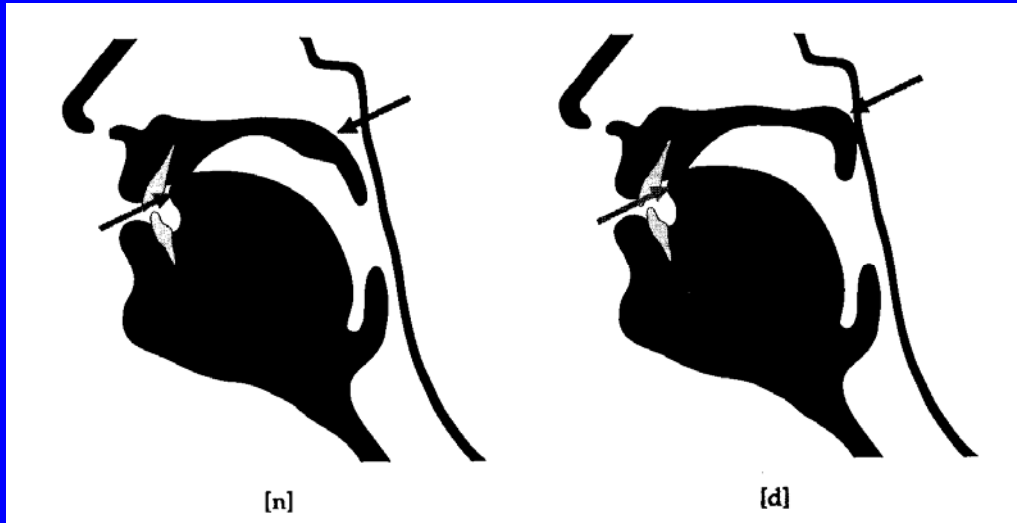
/e/ and /ø/

8. Alveolar

/t/



/n/ and /d/



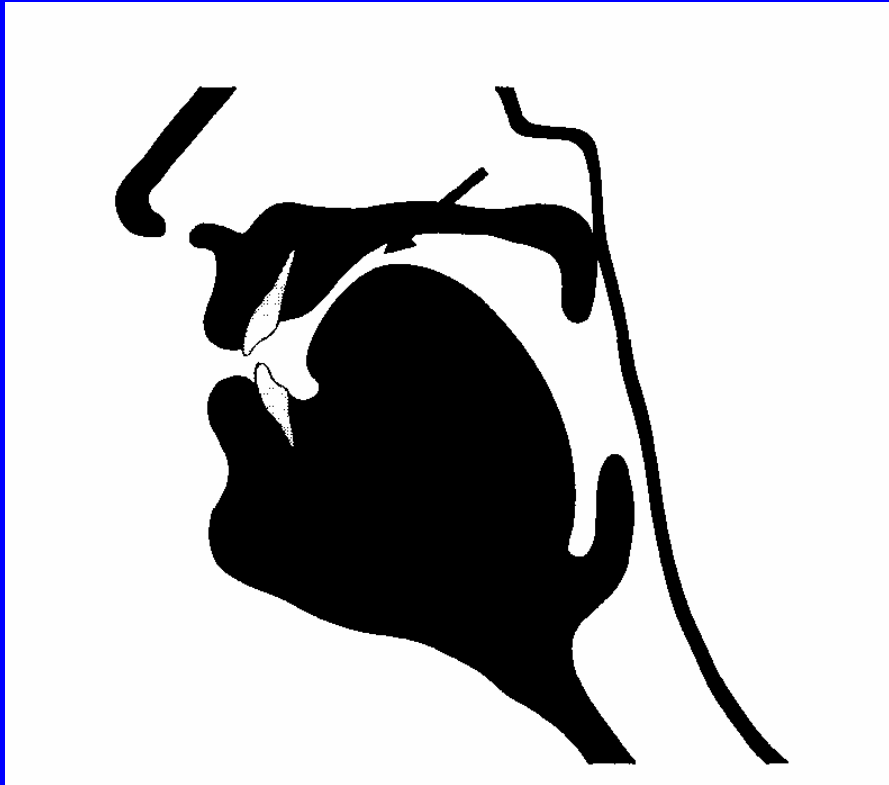
9. Retroflex

/r/



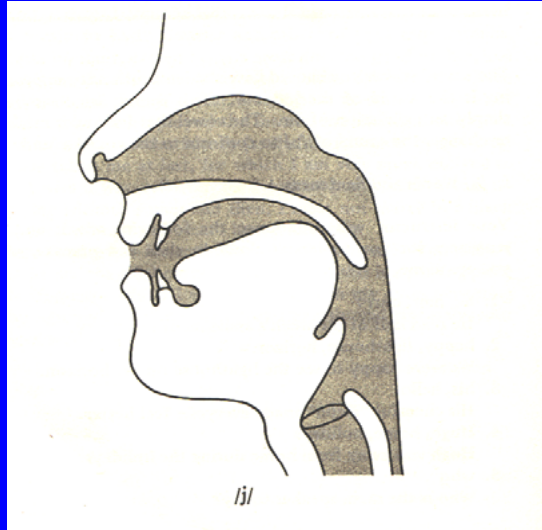
10. Palato-Alveolar/post-alveolar

/ʃ/ and /ʒ/

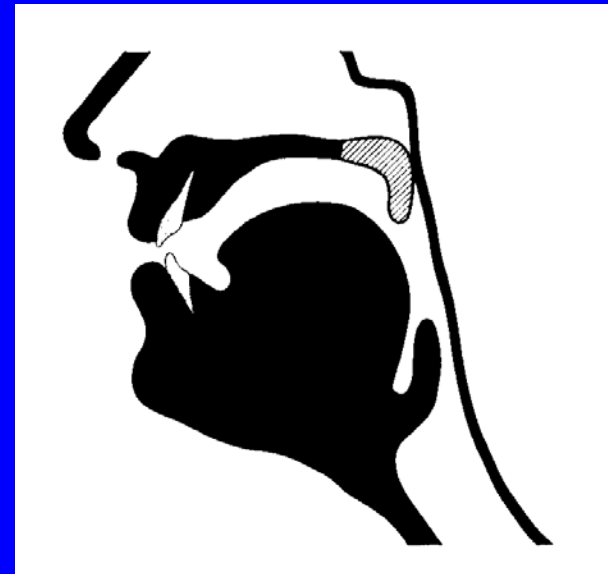


11. Palatal

/i/

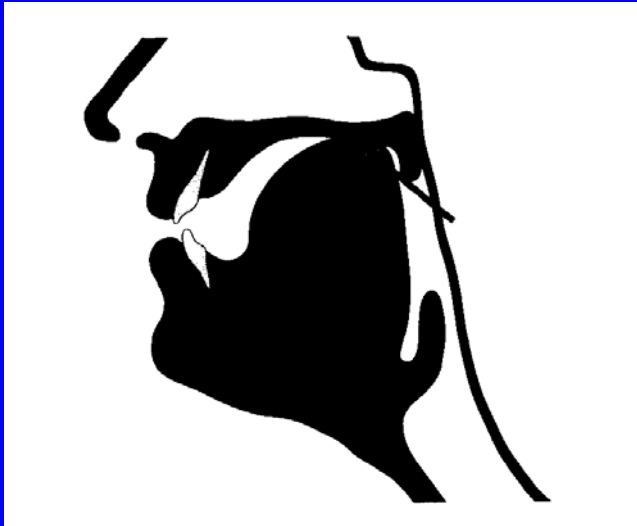


Consider this chart



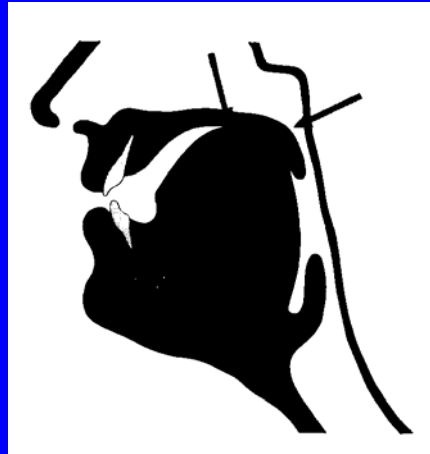
12. Velar

/k/ and /g/



13. The oro-nasal process

- Velar in “hang” -- /ŋ/
- Alveolar in “ran” -- /n/
- Bilabial in “ram” -- /m/



14. Stops

- Oral stop: /t/ /d/
- Nasal: /-n/ /n-//m/

15. Fricatives

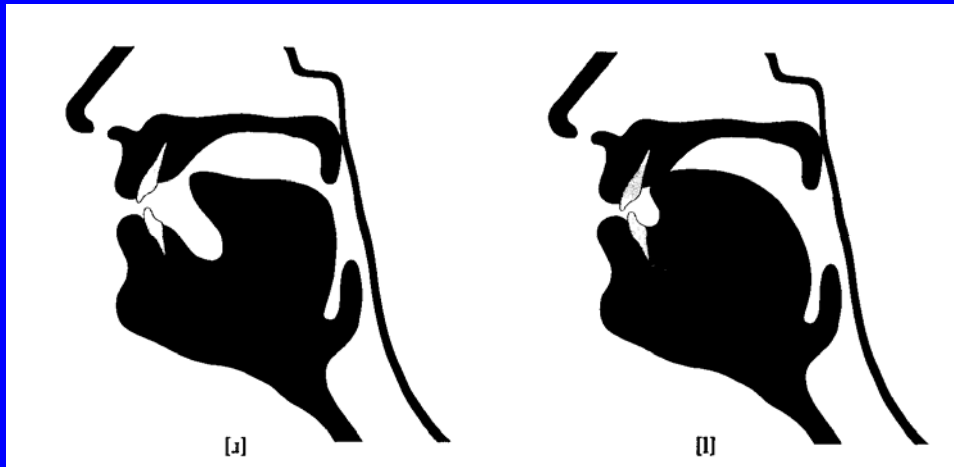
- Labiodental -- /f/ /v/
- Dental -- /θ/ /ð/
- Alveolar -- /s/ /z/
- Palato-alveolar -- /ʃ/ /ʒ/
- **What are “sibilants”?**

16. Approximants

- Approximation toward the palatal area -- /i/
- Approximation between the lips and the velar region -- /w-/
- Approximation in the alveolar region -- /-w/

17. Lateral (Approximant)

- Incomplete closure between one or both sides of the tongue and the roof of the mouth -- /l/ /r/



18. Additional terms

- Trill (or roll) and tap (or flap)
 - Rye
 - Pity, better, etc.
- Affricate
 - Church, judge, etc.

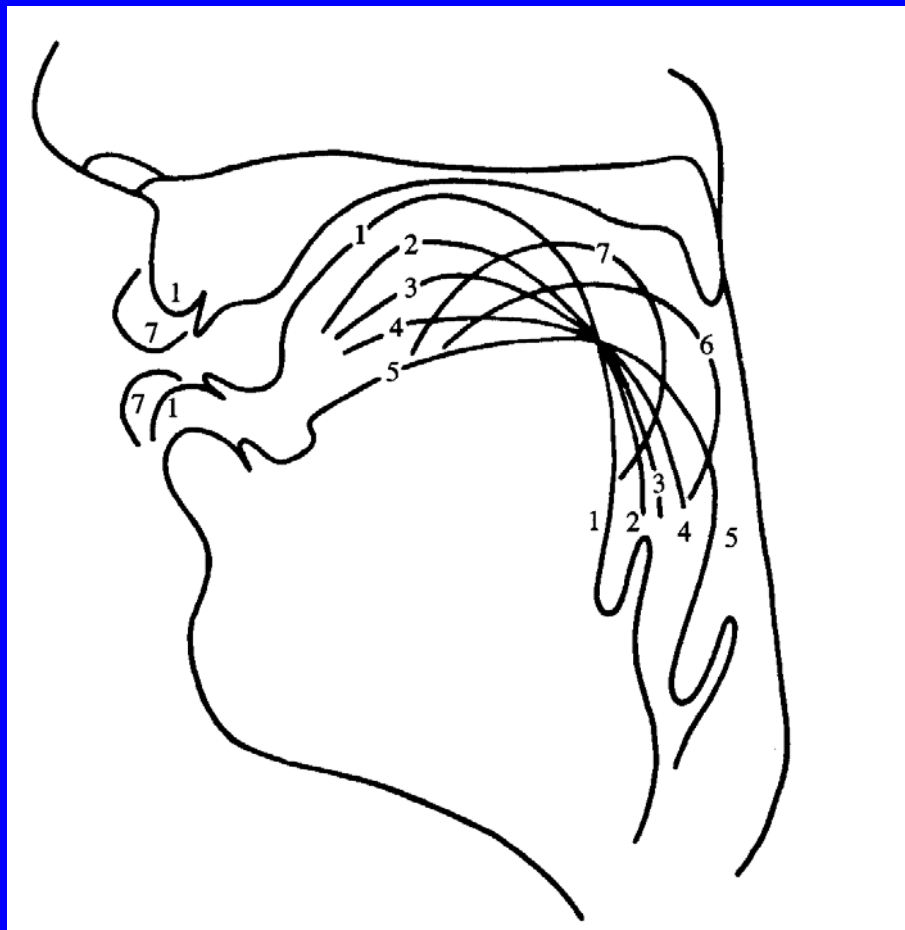
19. Articulation of vowel sounds

The positions of the vocal organs for the vowels in the words
1 heed, 2 hid, 3 head, 4 had, 5 father, 6 good, 7 food. The lip
positions for vowels 2, 3, and 4 are in between those shown for
1 and 5. The lip position for vowel 6 is between those shown for
1 and 7.

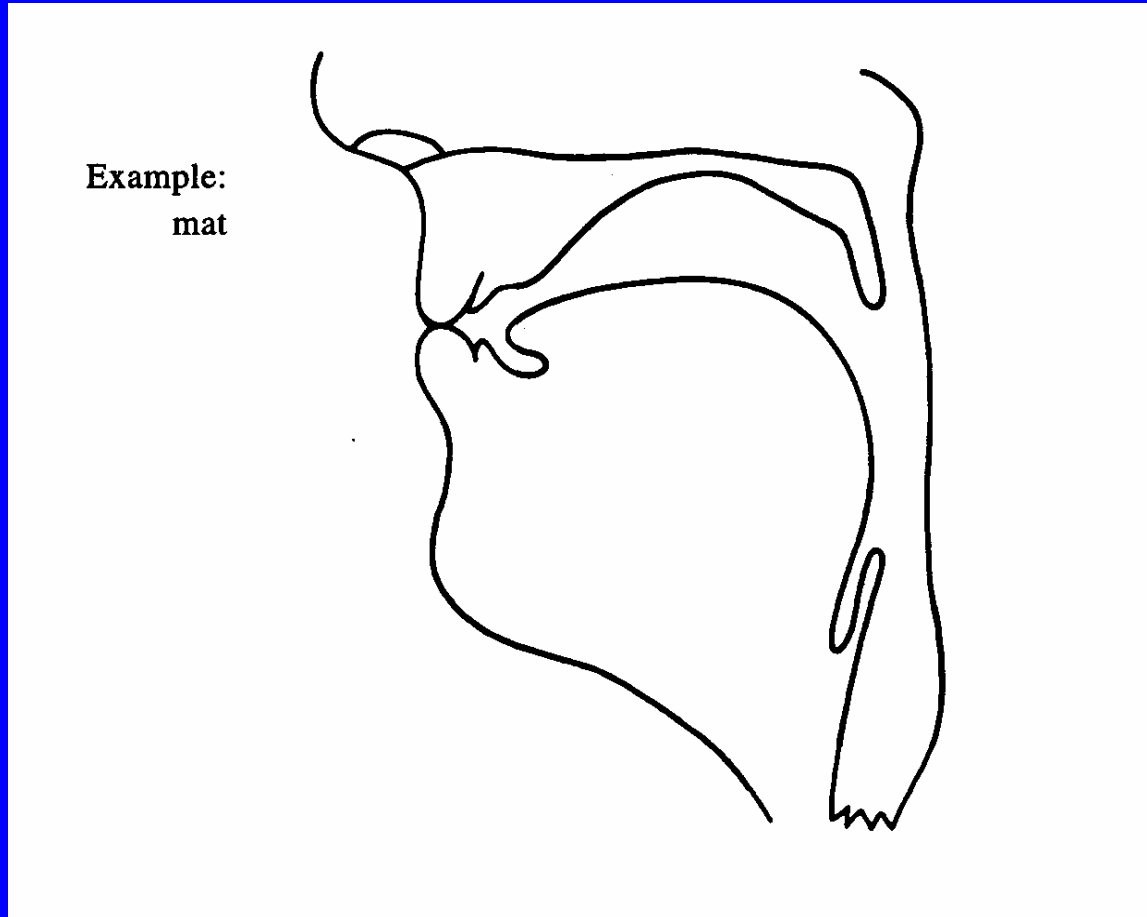


1.4 The classical contrasts of vowel space

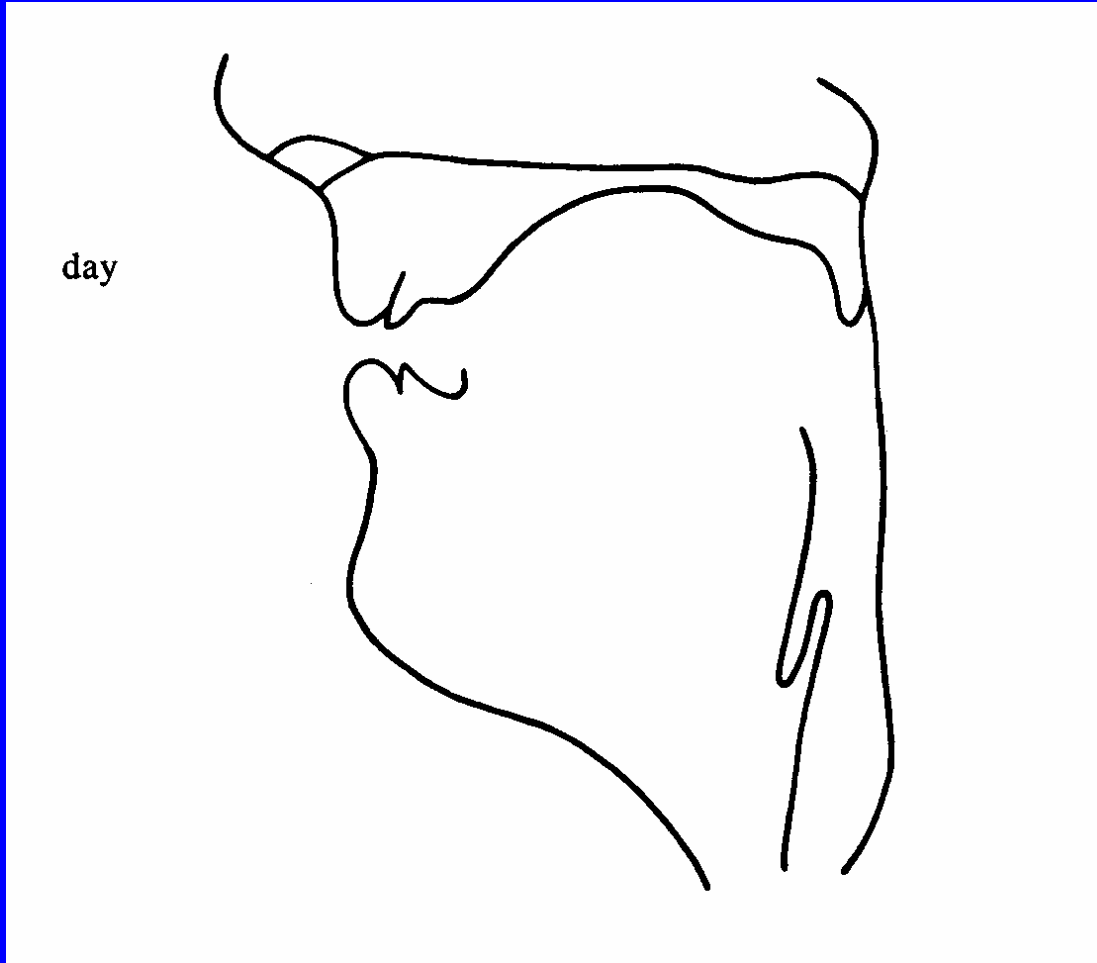
How to locate the “vowel space” and get the basic qualities of the vowel of American English



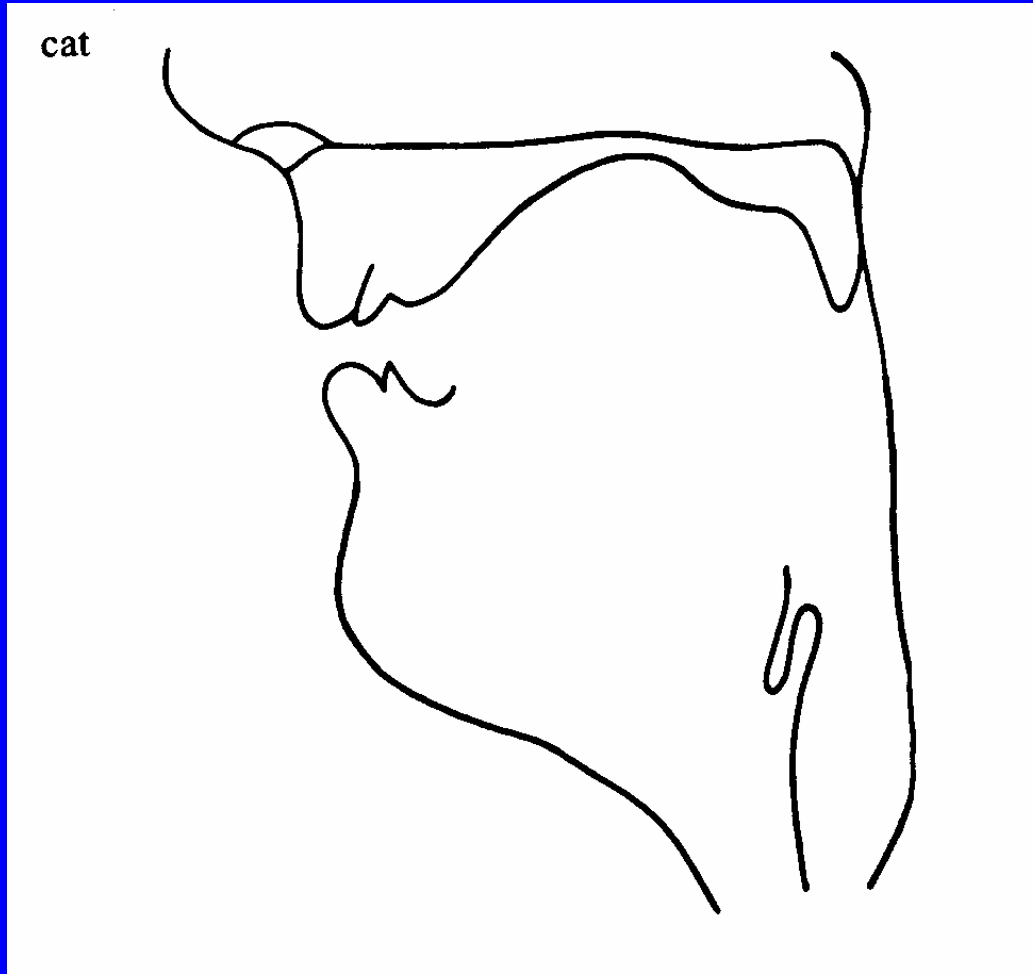
20. Practice the following items (Ex)



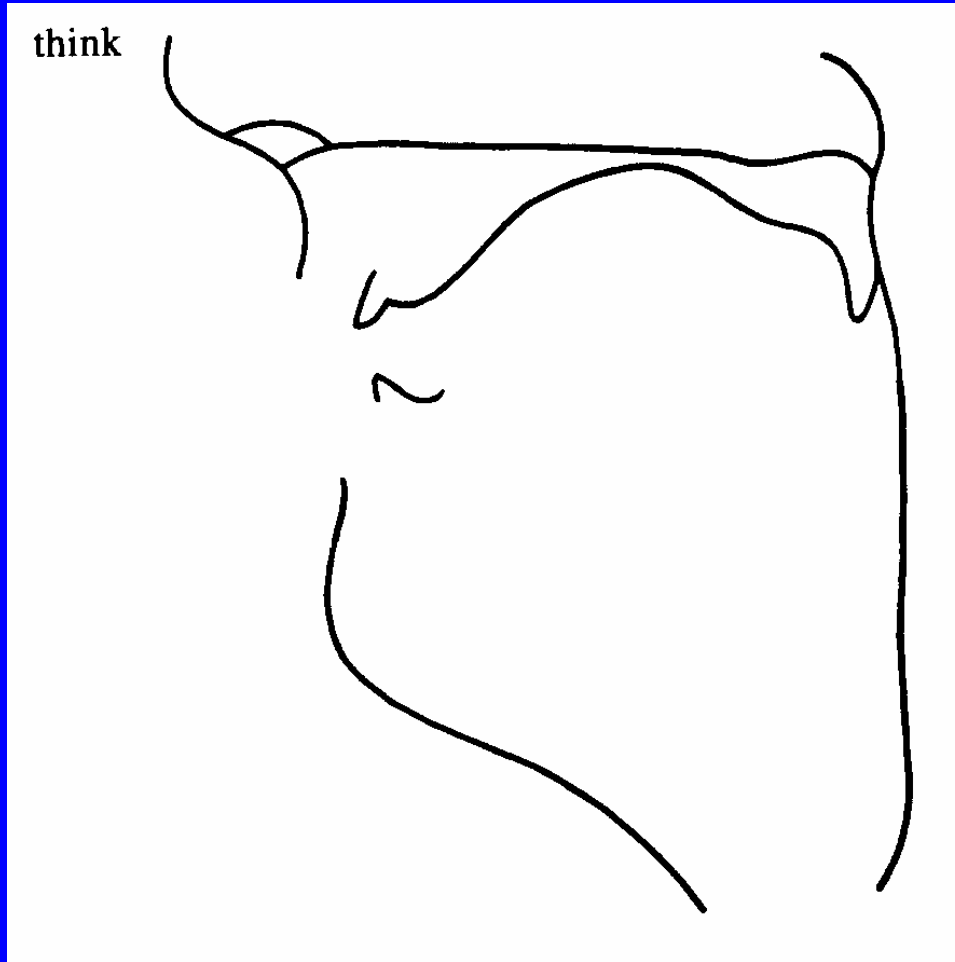
21. Practice the following items (1)



22. Practice the following items (2)



23. Practice the following items (3)



24. Practice the following items (4)

