# **BA ENGLISH: PHONETICS 1**

### SOUNDS, SPELLINGS ... AND MORE

Dafydd Gibbon

**Bielefeld University, Germany** 

JNU, Guangzhou, 2022-02-28

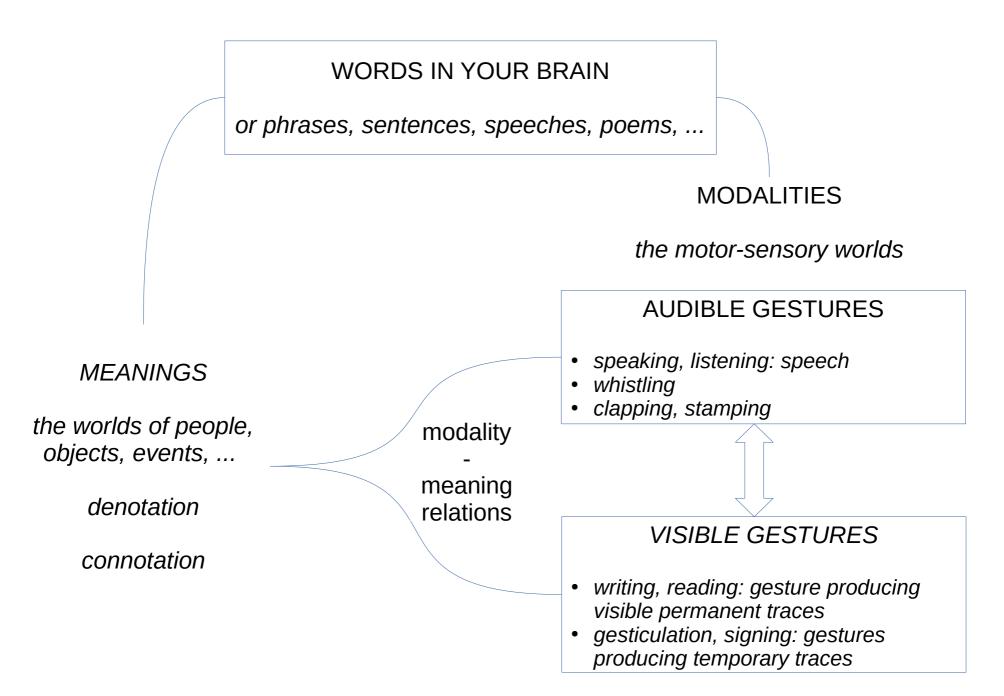
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D. Gibbon: Phonetics in Translation Studies

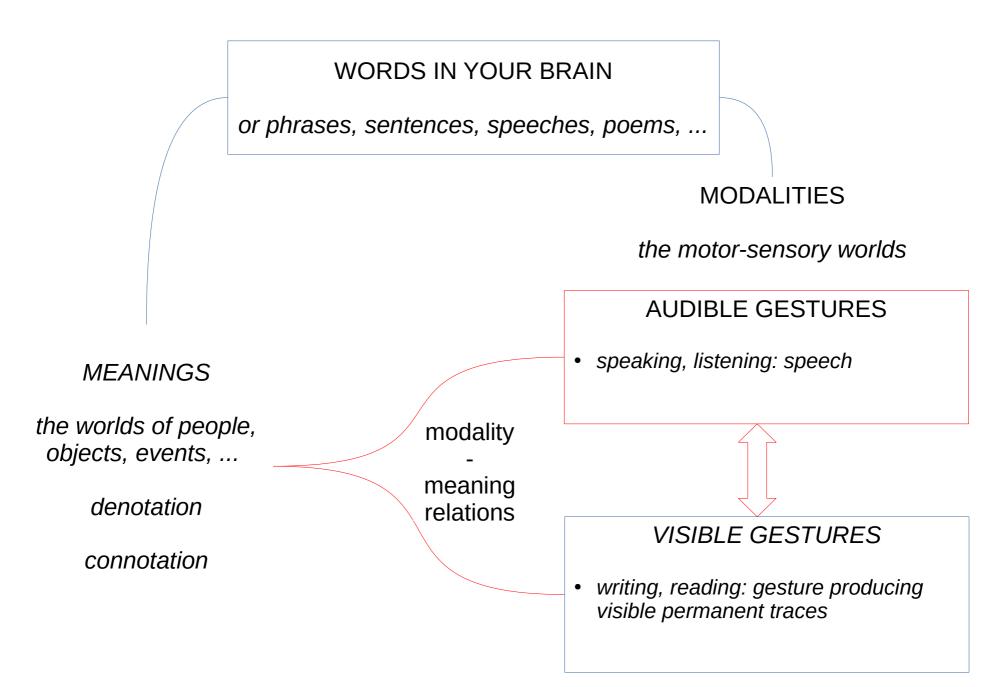
# WHAT IS PHONETICS ABOUT?

- Phonetics: sounds and meanings, sounds and spellings
- Translation: why is phonetics so important?
  - Phonetic ranks from sounds and tones to intonations
  - How do you translate news, instructions, stories, poetry?
- English sounds and spellings:
  - Sounds to spellings, spellings to sounds
  - Homophones and homographs: phonetic false friends
  - Why is English spelling so confusing?
- How do we speak?
  - sound production transmission perception
  - The International Phonetic Alphabet (IPA)
  - World Englishes and their sounds

### AUDIBLE AND VISIBLE COMMUNICATION



### AUDIBLE AND VISIBLE COMMUNICATION



### SOUNDS AND SPELLINGS

### HOMOPHONES AND HOMOGRAPHS AND MORE

## THE CHAOS - Gerard Nolst Trenité

Dearest creature in creation, Study English pronunciation. I will teach you in my verse Sounds like corpse, corps, horse, and worse. I will keep you, Suzy, busy, Make your head with heat grow dizzy. Tear in eye, your dress will tear. So shall I! Oh hear my prayer.

Just compare heart, beard, and heard, Dies and diet, lord and word, Sword and sward, retain and Britain. (Mind the latter, how it's written.) Now I surely will not plague you With such words as plaque and ague. But be careful how you speak: Say break and steak, but bleak and streak; Cloven, oven, how and low, Script, receipt, show, poem, and toe.

Hear me say, devoid of trickery, Daughter, laughter, and Terpsichore, Typhoid, measles, topsails, aisles, Exiles, similes, and reviles; Scholar, vicar, and cigar, Solar, mica, war and far; One, anemone, Balmoral, Kitchen, lichen, laundry, laurel; Gertrude, German, wind and mind, Scene, Melpomene, mankind. Billet does not rhyme with ballet, Bouquet, wallet, mallet, chalet. Blood and flood are not like food, Nor is mould like should and would. Viscous, viscount, load and broad, Toward, to forward, to reward. And your pronunciation's OK When you correctly say croquet, Rounded, wounded, grieve and sieve, Friend and fiend, alive and live.

lvy, privy, famous; clamour And enamour rhymes with hammer. River, rival, tomb, bomb, comb, Doll and roll and some and home. Stranger does not rhyme with anger, Neither does devour with clangour. Souls but foul, haunt but aunt, Font, front, wont, want, grand, and grant, Shoes, goes, does. Now first say finger, And then singer, ginger, linger, Real, zeal, mauve, gauze, gouge and gauge, Marriage, foliage, mirage, and age.

Query does not rhyme with very, Nor does fury sound like bury. Dost, lost, post and doth, cloth, loth. Job, nob, bosom, transom, oath. Though the differences seem little, We say actual but victual. Refer does not rhyme with deafer. Foeffer does, and zephyr, heifer. Mint, pint, senate and sedate; Dull, bull, and George ate late. Scenic, Arabic, Pacific, Science, conscience, scientific. Liberty, library, heave and heaven, Rachel, ache, moustache, eleven. We say hallowed, but allowed, People, leopard, towed, but vowed. Mark the differences, moreover, Between mover, cover, clover; Leeches, breeches, wise, precise, Chalice, but police and lice; Camel, constable, unstable, Principle, disciple, label.

Petal, panel, and canal, Wait, surprise, plait, promise, pal. Worm and storm, chaise, chaos, chair, Senator, spectator, mayor. Tour, but our and succour, four. Gas, alas, and Arkansas. Sea, idea, Korea, area, Psalm, Maria, but malaria. Youth, south, southern, cleanse and clean. Doctrine, turpentine, marine.

Compare alien with Italian, Dandelion and battalion. Sally with ally, yea, ye, Eye, I, ay, aye, whey, and key. Say aver, but ever, fever, Neither, leisure, skein, deceiver. Heron, granary, canary. Crevice and device and aerie.

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Face, but preface, not efface. Phlegm, phlegmatic, ass, glass, bass. Large, but target, gin, give, verging, Ought, out, joust and scour, scourging. Ear, but earn and wear and tear Do not rhyme with here but ere. Seven is right, but so is even, Hyphen, roughen, nephew Stephen, Monkey, donkey, Turk and jerk, Ask, grasp, wasp, and cork and work.

Pronunciation -- think of Psyche! Is a paling stout and spikey? Won't it make you lose your wits, Writing groats and saying grits? It's a dark abyss or tunnel: Strewn with stones, stowed, solace, gunwale, Islington and Isle of Wight, Housewife, verdict and indict.

Finally, which rhymes with enough? Though, through, plough, or dough, or cough? Hiccough has the sound of cup. My advice is give it up!

> Dull, bull, and George ate late. Scenic, Arabic, Pacific, Science, conscience, scientific.

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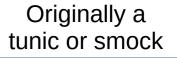
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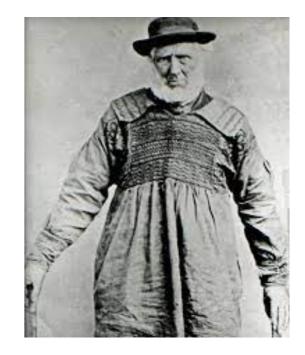
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SEVERAL REASONS ...

One reason – invasions in the first millennium (and semantic change):

- shirt: Saxon origin (Southern England)
  - Old English scyrte "skirt, tunic," from Proto-Germanic \*skurtjon "a short garment" (source also of Old Norse skyrta, Swedish skjorta "skirt, kirtle;" Middle Dutch scorte, Dutch schort "apron;" Middle High German schurz, German Schurz "apron"), perhaps related to Old English scort, sceort "short," etc., from PIE root \*sker- (1) "to cut," on the notion of "a cut piece."
  - cf. German: Schürze (apron)
- skirt: Scandinavian origin (Northern England)
  - "lower part of a woman's dress," from Old Norse skyrta "shirt, a kind of kirtle;" see shirt. Sense development from "shirt" to "skirt" is possibly related to the long shirts of peasant garb

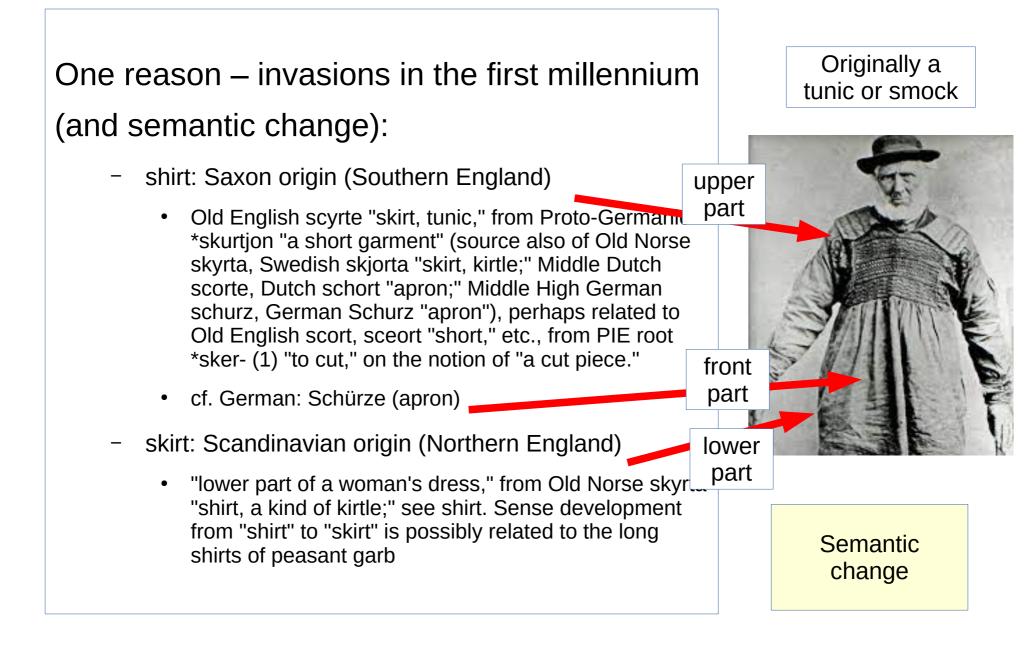




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Why?



Another reason ...

- homographs:
  - **lead**: The roof and pipes are made of <u>lead</u>. Please <u>lead</u> me to your leader.
  - ruler: I measured the edges with a <u>ruler</u>. Caesar was a Roman <u>ruler</u>.
- homophones:
  - led lead: past tense of to lead, a heavy metal
  - **meet meat**: to get together food made of part of an animal

Yet another reason – sound change:

- cough bough hiccough slough though through thorough
- Which spelling did George Bernard Shaw, the dramatist, suggest for the word "fish"?

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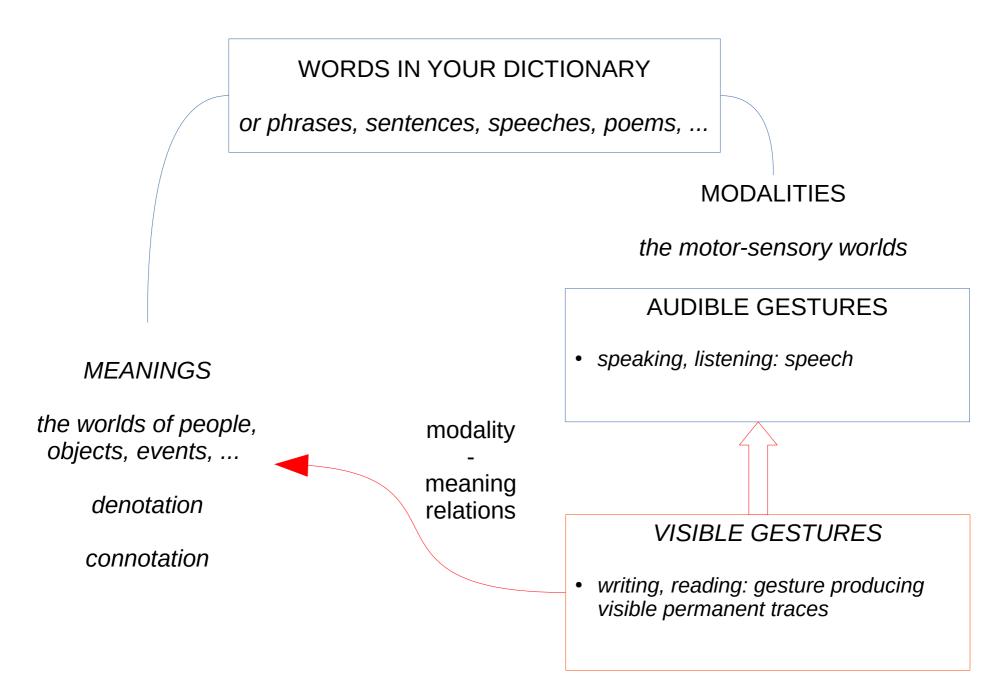
- homographs:
  - lead: The roof and pipes are made of lead. Please lead me to your leader.
  - ruler: I m Suggested exercises:
    - Find the reasons for the spellings of cough, etc.
- homophones:
  - Learn the poem Dearest creature in creation...".
  - meet m Make full lists of <u>homographs</u> and <u>homophones</u>.

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an <u>ruler</u>.

### HOMOGRAPHS: sounds, meanings, but one spelling



## HOMOGRAPHS: sounds, meanings, but one spelling

#### WORDS IN YOUR BRAIN

**brilliant**: She is both brilliant and beautiful. - I was blinded by a brilliant light. **bass**: He has a deep bass voice. - He caught a bass and a herring.

bow: He bowed to the queen. - He hit the target with his bow and arrow.

**close**: Please close the window! - He was close to the explosion.

does: She does her shopping on Saturdays. - I saw the does and stags.

down: She fell down the stairs. - The pillow is filled with goose down.TURES

lead: The roof and the pipes are made of lead. - Please lead me to your leader.

ruler: I measured the edges with a ruler. - Caesar was a Roman ruler.

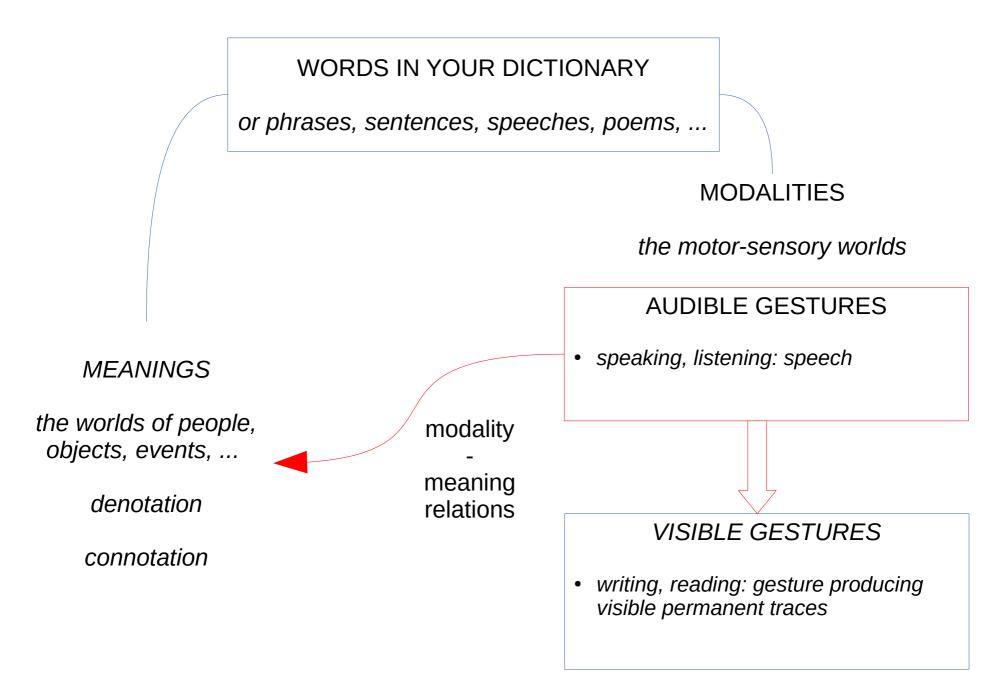
the seal: I saw a seal and a seagull. - The letter had an official seal on it.

**sink**: Did you see the boat sink? After the meal I put the dishes in the sink. *denotation* **tear**: She said goodby with a tear in her eye. The thorns tore my shirt, IRES

wind: There's a strong wind today. - Don't forget to wind your watch!

writing, réading: gesture producing visible permanent traces

### HOMOPHONES: spellings, meanings, but one sound



## HOMOPHONES: spellings, meanings, but one sound

```
MODDS IN VOLID RDAIN
    braise, brays, braze: cooking – donkey's sound – brass welding
    close – close: near – cui de sac / dead end
    deer – dear: a wild horse-like animal which lives in forests – costly, loved
    discreet, discrete: avoiding embarrassment – separate units
                                                         ne motor-sensorv worlds
    dough - doe: first stage of making a cake - a female deer
                                                        AUDIBLE GESTURES
    led – lead: past tense of to lead, – a heavy metal
    meet - meat: to get together - food made of part of an animaling: speech
    principal, principle: the main person – a guideline
the right, rite, wright, write: correct – ritual – smith – create a text
    there, their, they're: adverb – possessive pronoun – subject pronoun + are
     denotation
   tier – tear: layer (bed, wedding cake) – salty liquid flowing from the eyes
    toad - toed - towed: like a big frog - followed accurately - pulled by a truck :
                                                   visible permanent traces
```

the study of sound types which encode and distinguish words in the mental lexicon or in a dictionary

and

### PHONETICS

the study of actual physical and physiological properties of speech sounds

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#### PHONOLOGY:

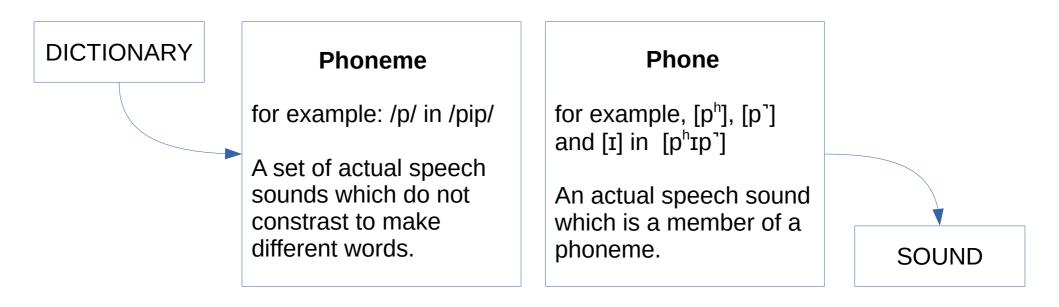
the linguistic study of abstract sounds in your mental lexicon or in the dictionary, which

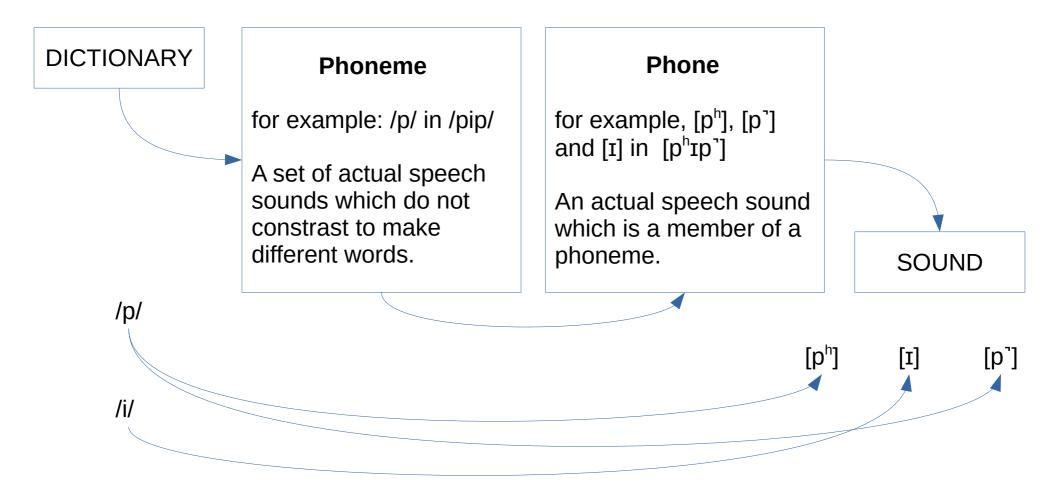
make syllable and word segments of speech by **syntagmatic relations (construction)** make sets of contrasting sounds in the syntagmatic relations by **paradigmatic relations (classification**)

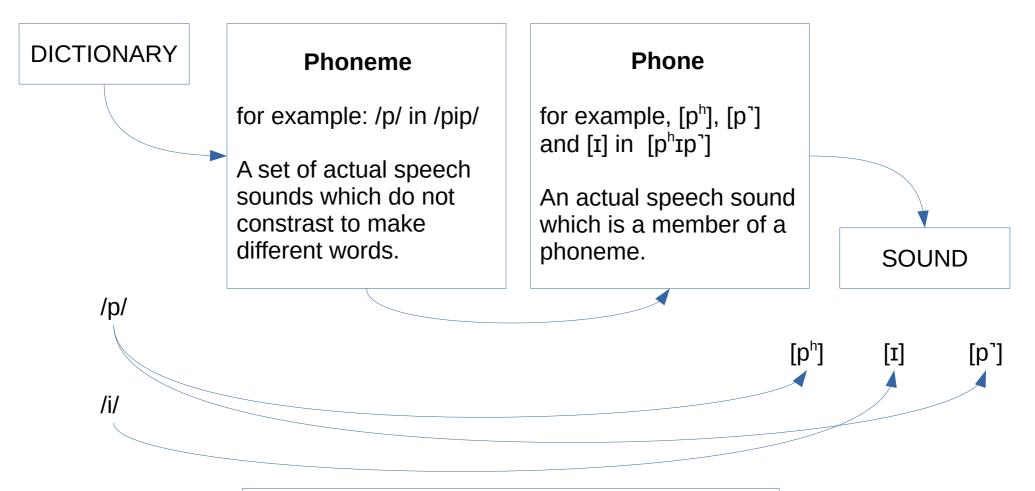
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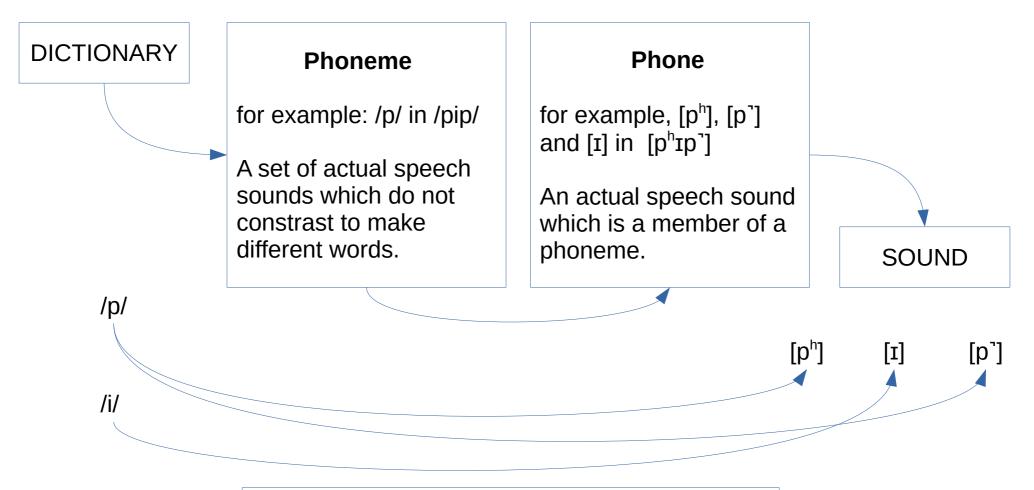






The **phones** [p<sup>h</sup>] and [p<sup>¬</sup>] are **allophones** of /p/. The **phone** [I] is an **allophone** of /i/.

An allophone of a phoneme is either in complementary distribution or in free variation with other allophones of the phoneme.



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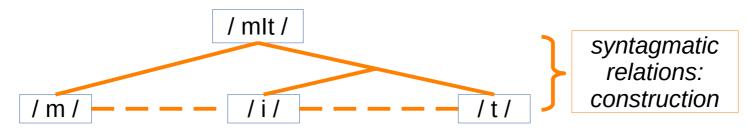
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# PHONOLOGY: SYLLABLE STRUCTURE - PHONOTACTICS

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the linguistic study of abstract sounds in your mental lexicon or in the dictionary, which

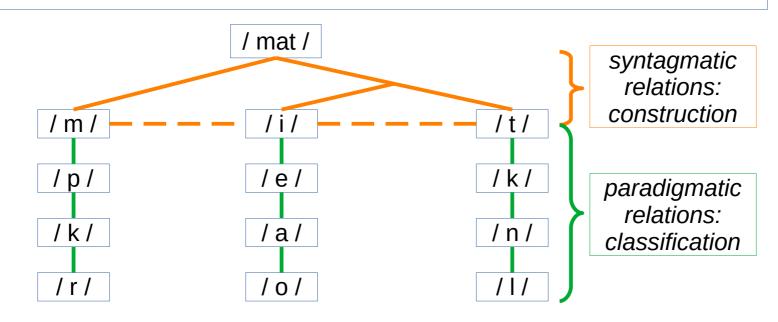
make syllable and word segments of speech by **syntagmatic relations (construction)** make sets of contrasting sounds in the syntagmatic relations by **paradigmatic relations (classification**)



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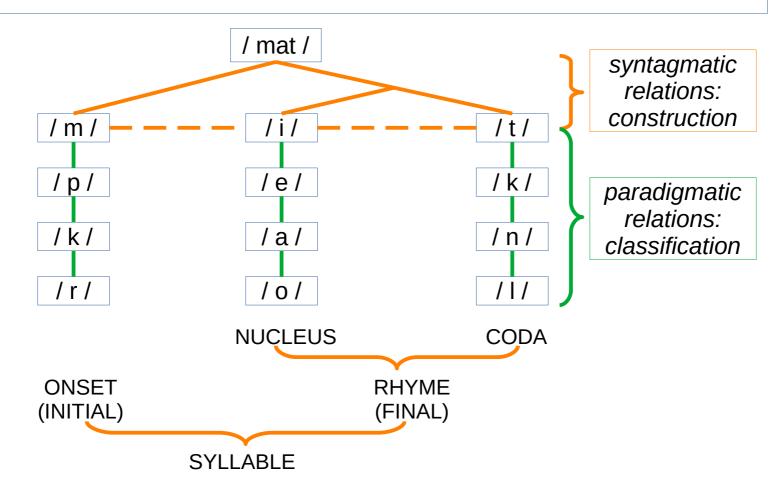
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### PHONOTACTICS: ENGLISH SYLLABLE MAP

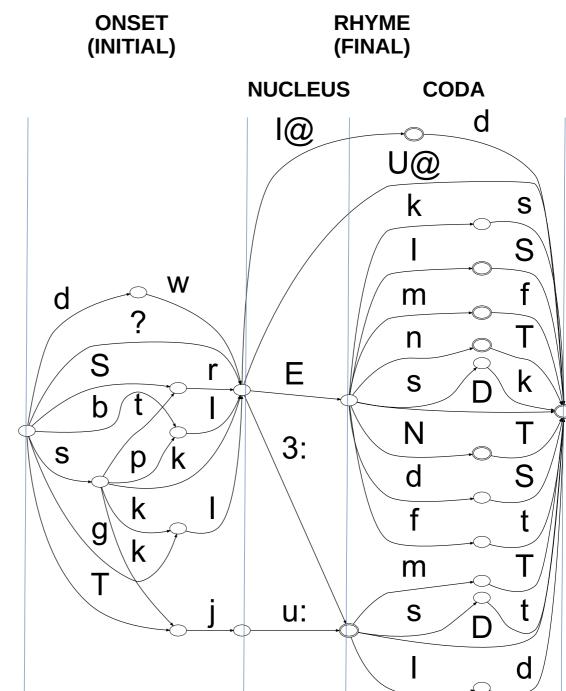
English syllable structure is often described as

> CCCVCC or (C)(C)(C)V(C)(C)

3 optional consonants, vowel, two optional consonants, as in: *sprint* 

But the combinations are not so simple

(one phoneme per transition set)



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# PHONOTACTICS: PUTONGHUA SYLLABLE MAP

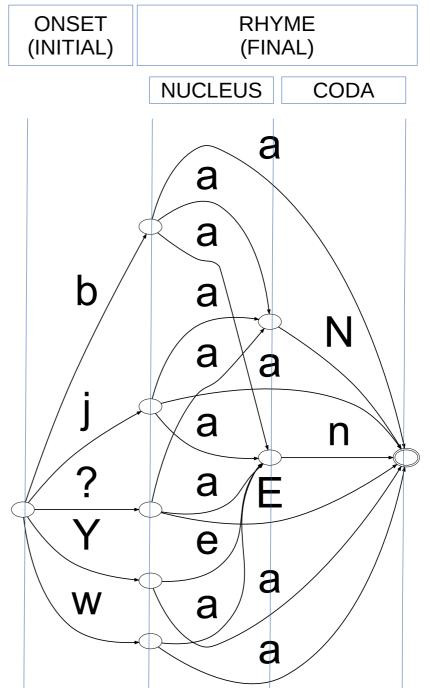
Putonghua syllable structure is often described as

Initial Final

That is, one optional consonants followed by a mandatory vowel with optional consonant: *sprint* 

But the combinations are not so simple ...

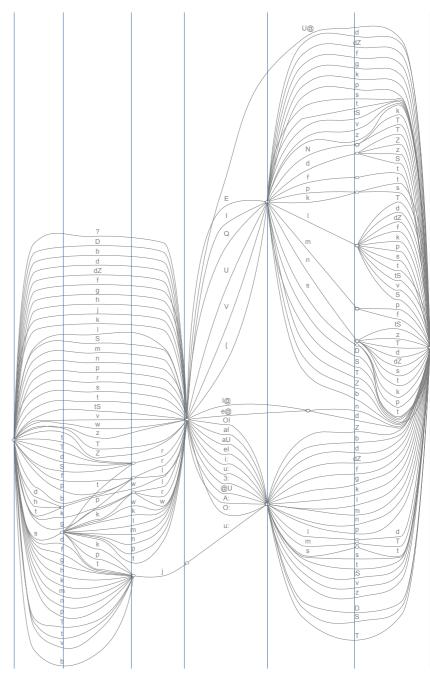
(one example per set)



### PHONOTACTICS: ENGLISH SYLLABLE MAP

### **31761 possible syllables**

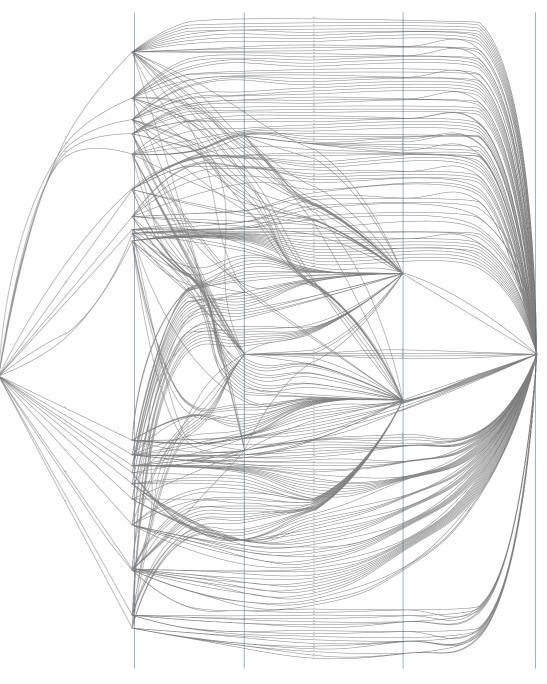
The number of syllables actually used is smaller, but more can be 'legally' invented and also represented by alphabetic characters sequences.



## PHONOTACTICS: PUTONGHUA SYLLABLE MAP

### 464 possible syllables

The number of syllables actually used and represented by characters is smaller, but more can be 'legally' invented and represented by alphabetic Pinyin character sequences.



# ENGLISH PHONOLOGY: LEXICAL SETS FOR VOWELS

Wells (1982) illustrates paradigmatic relations between vowels with *lexical sets* of typical words which contain these vowels, for two main English accents:

"RP" (Received Pronunciation), standard accent of South-East England educated upper class.

"GenAm" (General American, geographically "neutral" or widespread accent in the USA.

Wells (1982:123):

The keywords have been chosen in such a way that clarity is maximized: whatever accent of English they are spoken in, they can hardly be mistaken for other words. Although "fleece" is not the commonest of words, it cannot be mistaken for a word with some other vowel...

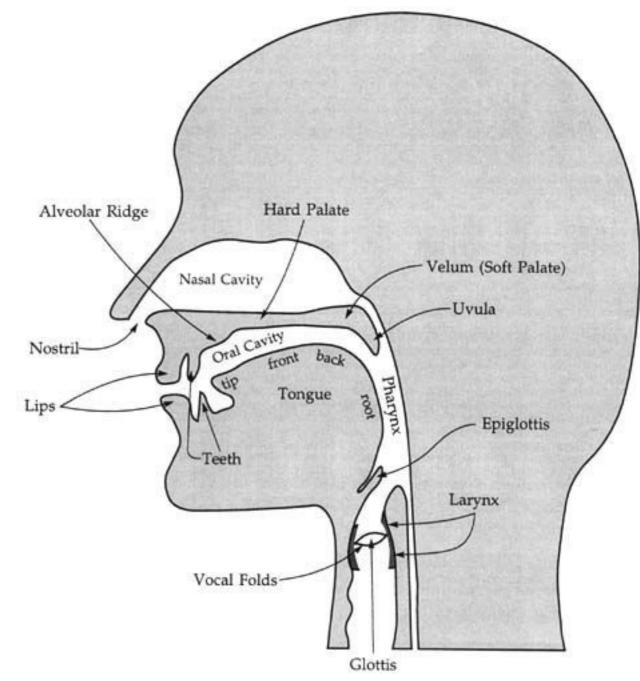
Wells, John C. (1982). Accents of English. Volume 1: An Introduction (pp. i–xx, 1– 278), Volume 2: The British Isles, Volume 3: Beyond the British Isles. Cambridge University Press.

# ENGLISH PHONOLOGY: LEXICAL SETS FOR VOWELS

Keyword	RP	GenAm	Example words	Keyword	RP	GenAm	Example words
КІТ	I	I	ship, sick, bridge, milk, myth, busy	GOOSE	uː	u	loop, shoot, tomb, mute, huge, view
DRESS	е	3	step, neck, edge, shelf, friend, ready	PRICE	аі	аі	ripe, write, arrive, high, try, buy
TRAP	æ	æ	tap, back, badge, scalp, hand, cancel	CHOICE	ы	JI	adroit, noise, join, toy, royal
LOT	α	α	stop, sock, dodge, romp, possible, quality	MOUTH	aʊ	aʊ	out, house, loud, count, crowd, cow
STRUT	٨	٨	cup, suck, budge, pulse, trunk, blood	NEAR	īЭ	IL	beer, sincere, fear, beard, serum
FOOT	ឋ	ប	put, bush, full, good, look, wolf	SQUARE	EЭ	٤r	care, fair, pear, where, scarce, vary
BATH	a:	æ	staff, brass, ask, dance, sample, calf	START	a:	ar	far, sharp, bark, carve, farm, heart
CLOTH	α	Э	cough, broth, cross, long, Boston	NORTH	c.	or	for, war, short, scorch, born, warm
NURSE	<b>3</b> ]	зr	hurt, lurk, urge, burst, jerk, term	FORCE	c.	or	four, wore, sport, porch, borne, story
FLEECE	i:	i	creep, speak, leave, feel, key, people	CURE	ບອ	បr	poor, tourist, pure, plural, jury
FACE	еі	еі	tape, cake, raid, veil, steak, day	happY	I	I	copy, scampi, taxi, sortie, committee, hockey, Chelsea
PALM	a:	α	psalm, father, bra, spa, lager	lettER	ə	ər	paper, metre, calendar, stupor, succo(u)r, martyr, figure
THOUGHT	<b>o</b> :	Э	taught, sauce, hawk, jaw, broad	commA	ə	Ð	catalpa, quota, vodka
GOAT	ວເອ	0	soap, joke, home, know, so, roll		1		1

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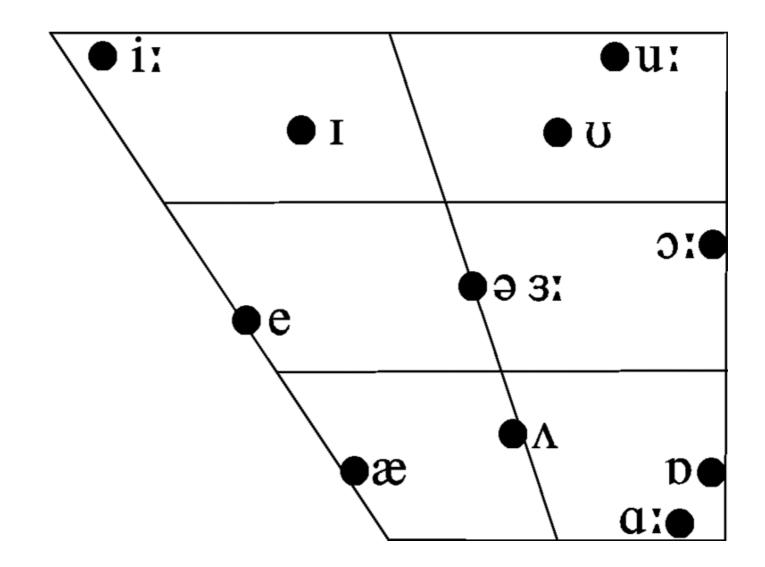
### SPEECH PRODUCTION



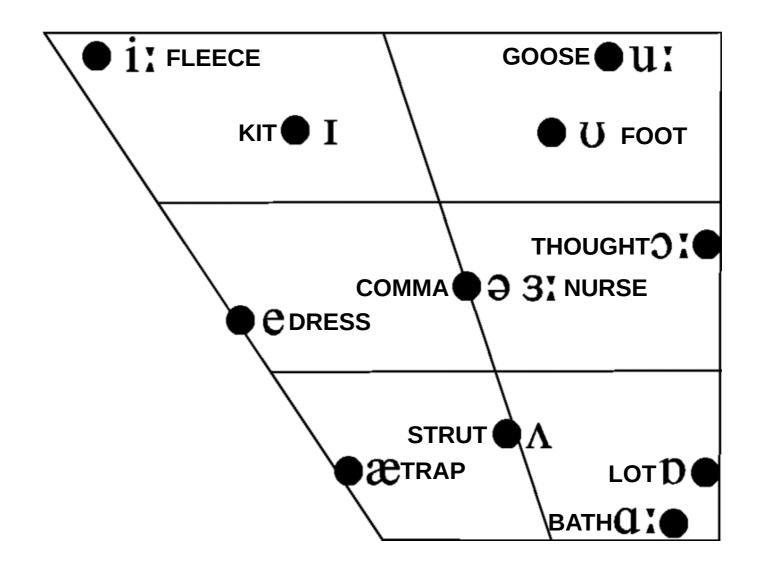
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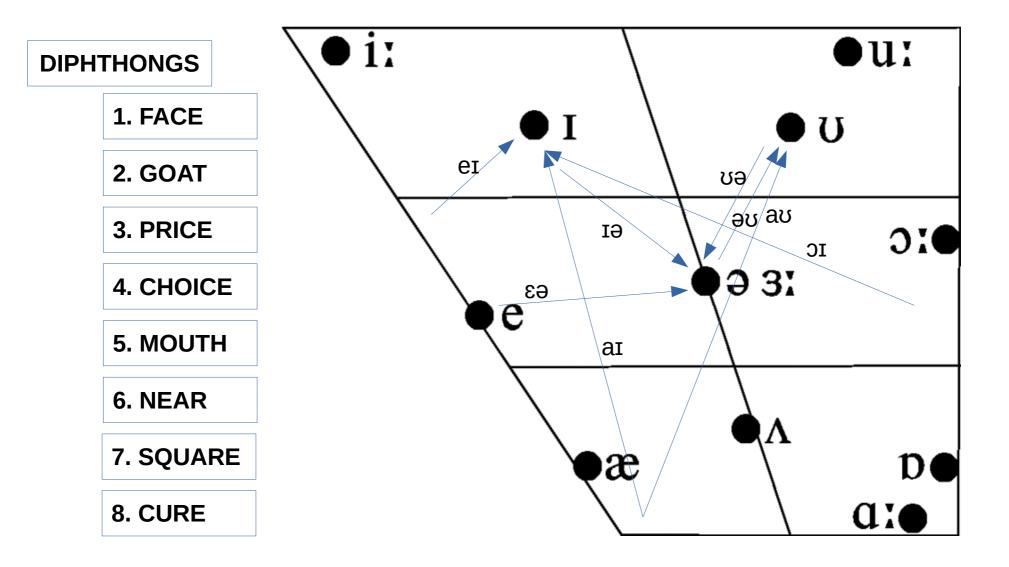
# SPEECH PRODUCTION: ENGLISH VOWELS (UK)



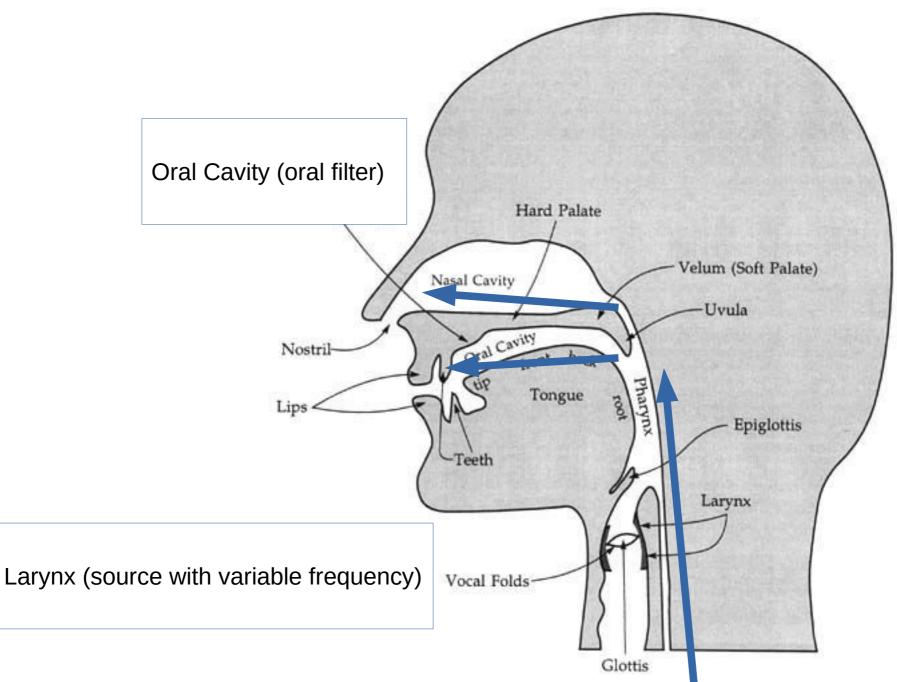
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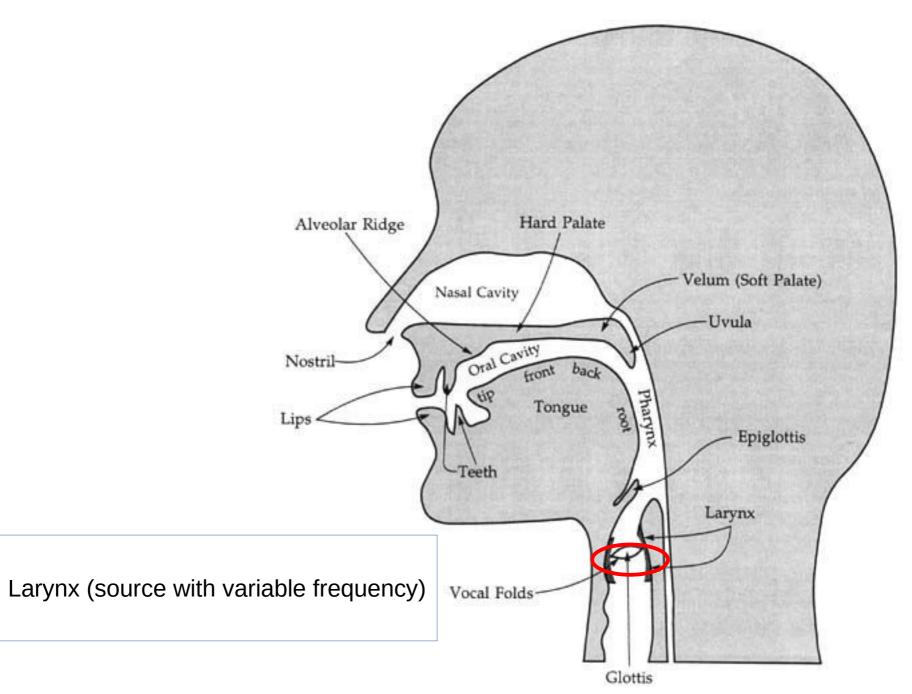


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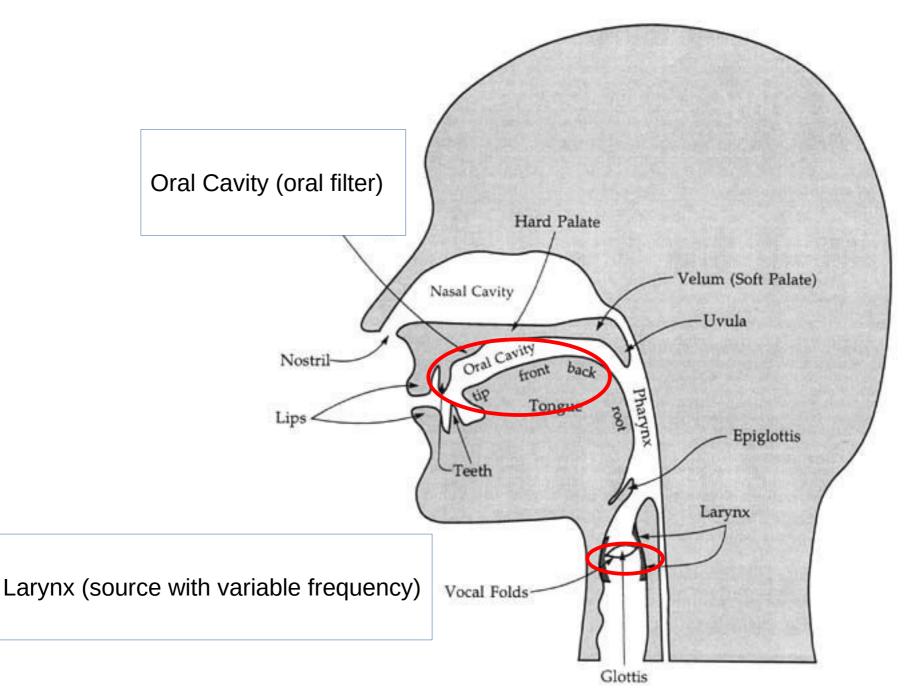
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## SPEECH PRODUCTION: VARIABLE FREQUENCY SOURCE



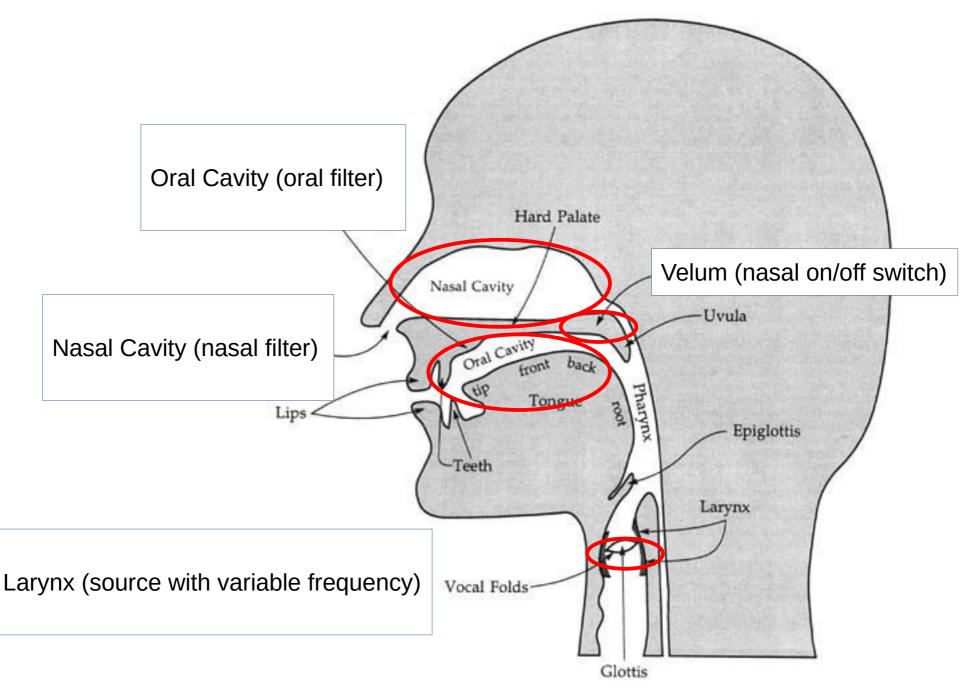
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## SPEECH PRODUCTION: ORAL SOUNDS, ORAL FILTER



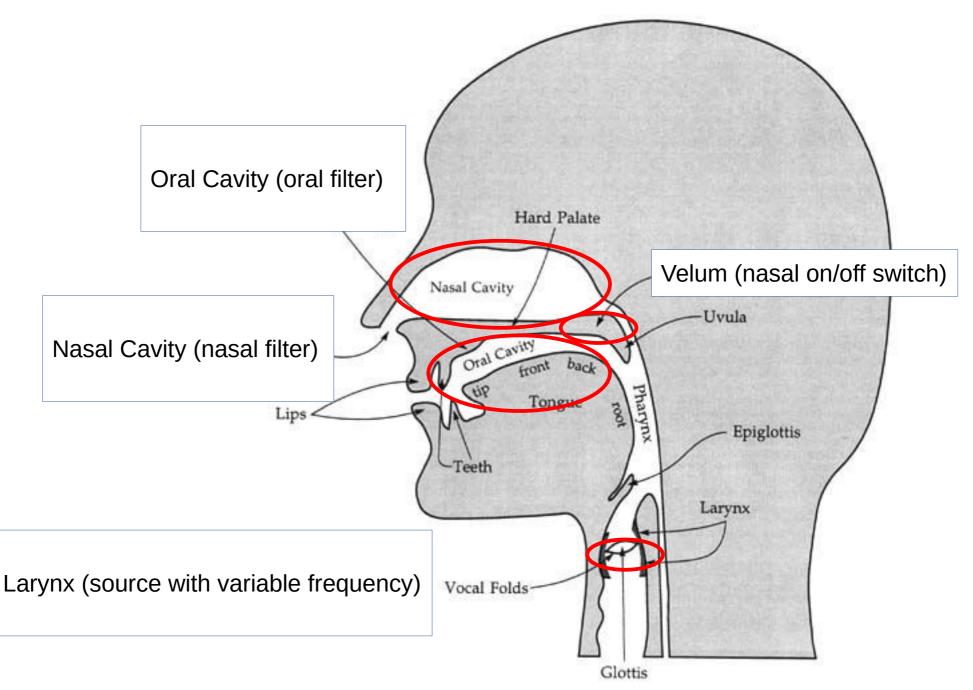
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## SPEECH PRODUCTION: NASAL SOUNDS, NASAL FILTER



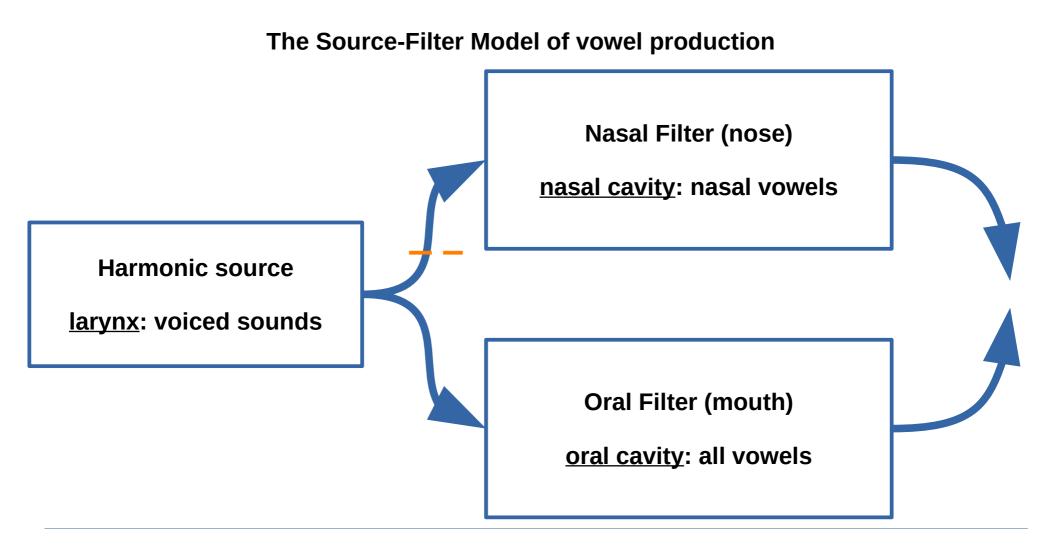
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## SPEECH PRODUCTION: NASAL SOUNDS, NASAL FILTER



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# SPEECH PRODUCTION: THE SOURCE-FILTER MODEL





Consonants are different kinds of obstruction of the airflow.

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### PROSODY: RHYTHM AND INTONATION

### PROSODY: METALOCUTIONARY POINTERS

#### STRUCTURAL FUNCTIONS:

#### METALOCUTIONARY POINTERS

pitch accents ~ pointers to contrast, emphasis

pitch accents ~ pointers to new information

final pitch accent ~ pointer to new information AND utterance type

global intonation, accent sequence, boundary tones: pointer to utterance type and scope

## INTONATION: METALOCUTIONARY POINTERS

#### STRUCTURAL FUNCTIONS:

#### METALOCUTIONARY POINTERS

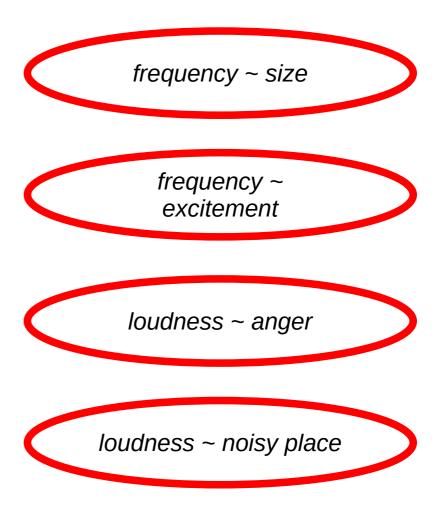
pitch accents ~ pointers to contrast, emphasis

pitch accents ~ pointers to new information

final pitch accent ~ pointer to new information AND utterance type

global intonation, accent sequence, boundary tones: pointer to utterance type and scope **EMOTIONAL FUNCTIONS:** 

**ICONS AND INDICES** 



# INTONATION: METALOCUTIONARY POINTERS

#### STRUCTURAL FUNCTIONS:

METALOCUTIONARY POINTERS

pitch accents ~ pointers to contrast, emphasis

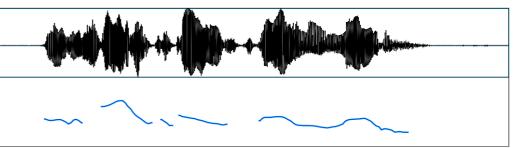
pitch accents ~ pointers to new information

final pitch accent ~ pointer to new information AND utterance type

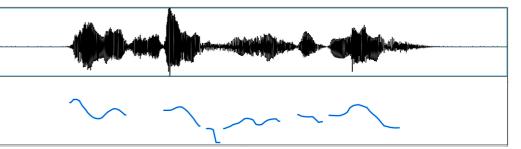
global pitch contour, accent sequence, boundary tones: pointer to utterance type and scope

#### Imagine part of a telephone conversation...

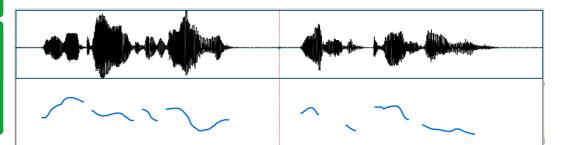
I de'cided to 'go into 'town on 'Monday.



No, not SUNday, I said "MONday".



#### Will you go into town? Yes, of course I will.

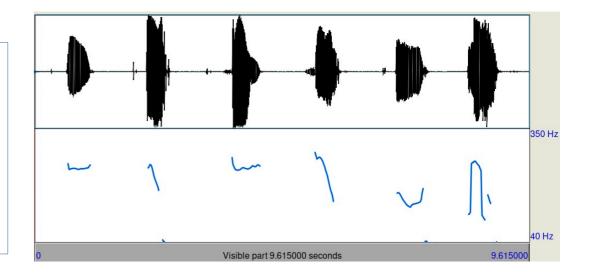


### **PROSODY: ENGLISH AND CHINESE**

# FREQUENCY MODULATION: ENGLISH PITCH ACCENTS

Chinese lexical tones:

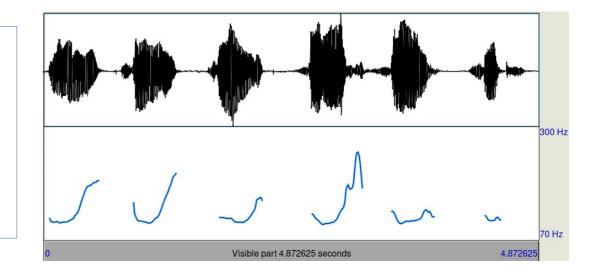
function – phonemic lexical contrast



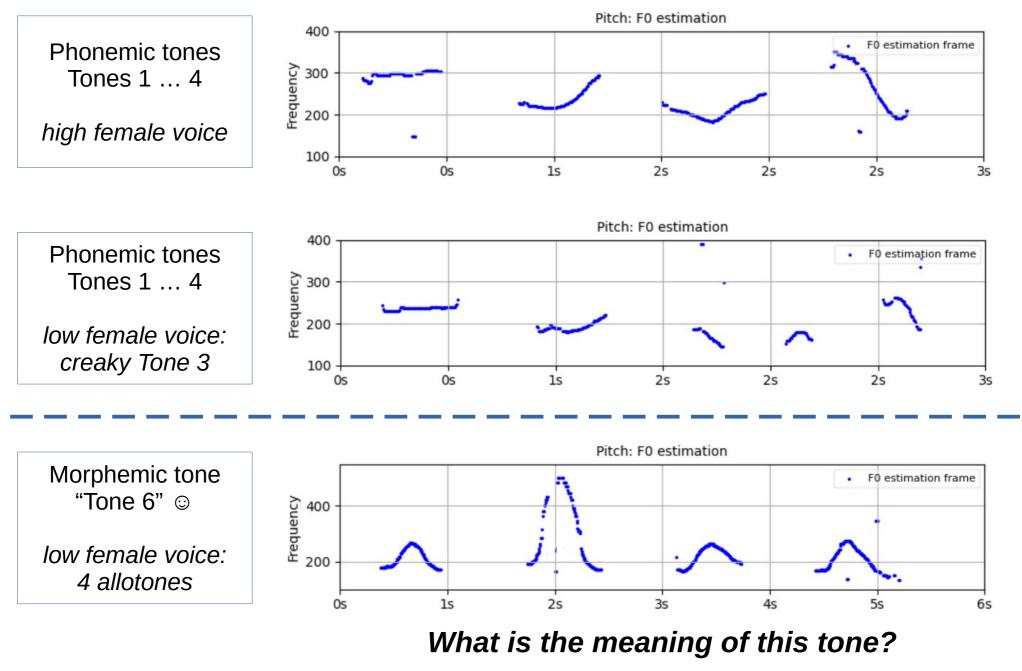
English pitch accents:

function –

metalocutionary morphemic pointing to positions in utterances



# FREQUENCY MODULATION: CHINESE LEXICAL TONES



2022-02-28, JNU, Guangzhou

### THANKS – NOW PLEASE PRACTICE !

