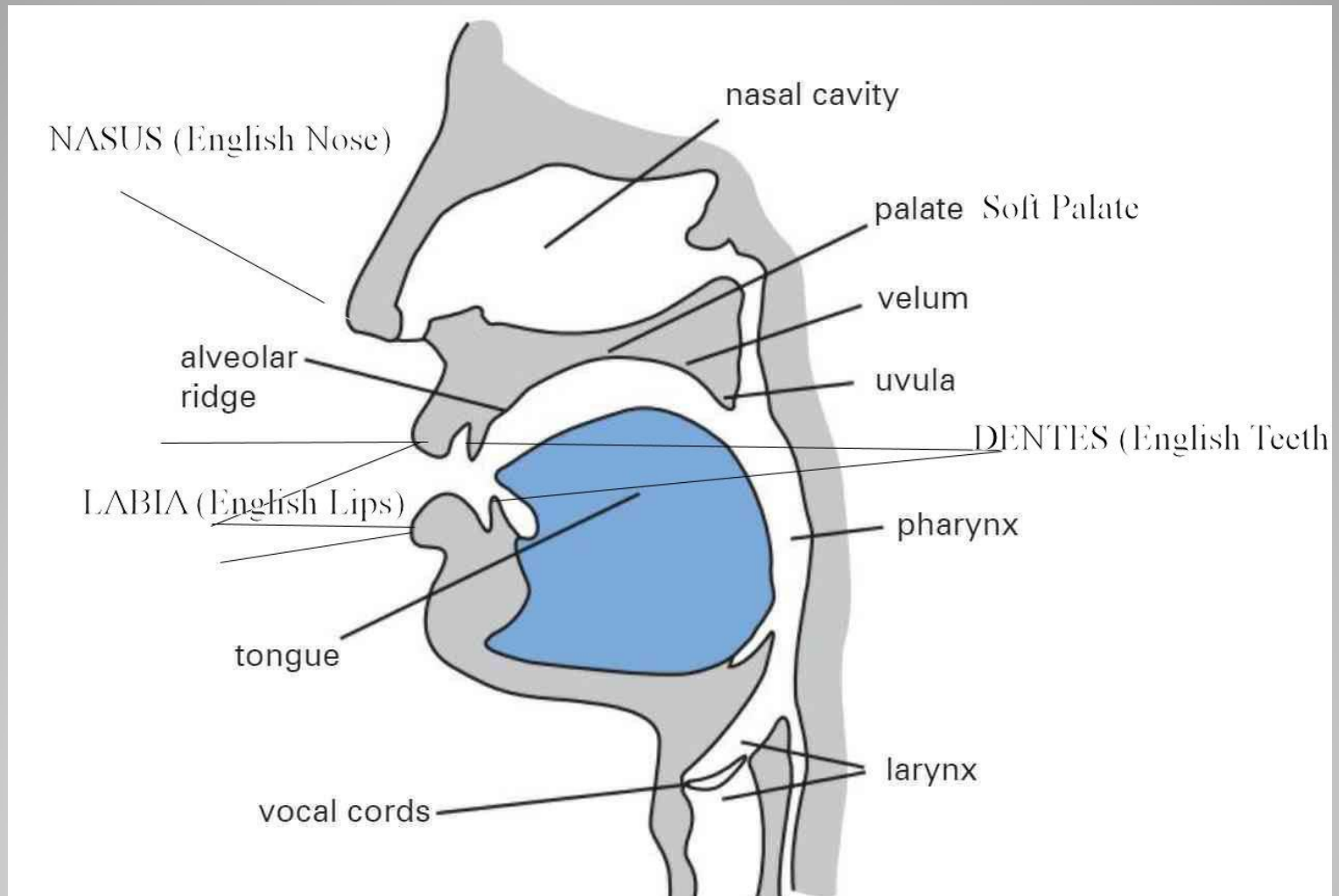


Sounds of Human Language

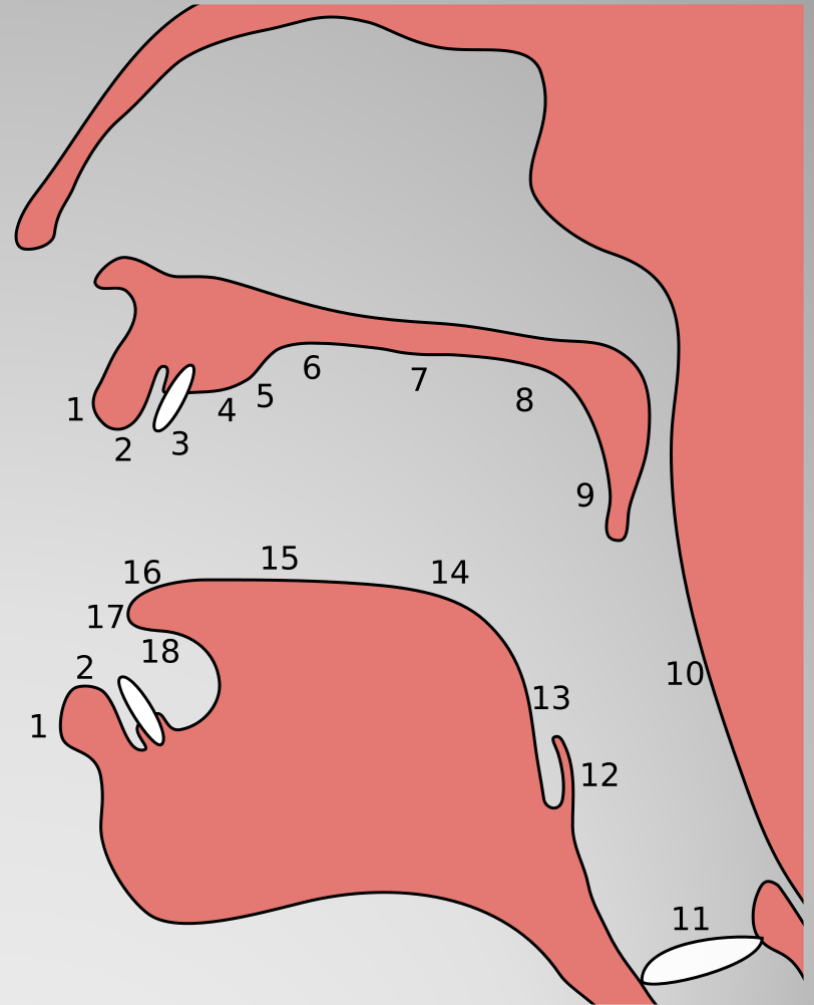
05-11-2019



and where do they come from...

Passive and active places of articulation:

- (1) *Exo-labial*;
- (2) *Endo-labial*;
- (3) *Dental*;
- (4) *Alveolar*;
- (5) *Post-alveolar*;
- (6) *Pre-palatal*;
- (7) *Palatal*;
- (8) *Velar*;
- (9) *Uvular*;
- (10) *Pharyngeal*; (11) *Glottal*;
- (12) *Epiglottal*; (13) *Radical*;
- (14) *Postero-dorsal*;
- (15) *Antero-dorsal*;
- (16) *Laminal*; (17) *Apical*;
- (18) *Sub-apical* or *sub-laminal*.



and where do they come from...

What Is The International Phonetic Alphabet?

- The International Phonetic Alphabet (IPA) is an academic standard created by the International Phonetic Association.
- IPA is a phonetic notation system that uses a set of symbols to represent each distinct sound that exists in human spoken language.
- It encompasses all languages spoken on earth.

What Is The International Phonetic Alphabet?

- The system was created in 1886 and was last updated in 2005.

It consists of

107 letters,

52 diacritics,

and four prosodic marks.

What Is The International Phonetic Alphabet?

- A “diacritical mark” or “diacritical point”, “diacritical signis” is a glyph added to a letter, or basic glyph.
- **Diacritical marks** are added above, under or within a letter. They sometimes can also be placed in between two letters.

What Is The International Phonetic Alphabet?

- **Prosody** is a representation of the rhythm, stress, and intonation of speech.

↓ Downstep

↑ Upstep

↗ Global rise

↘ Global fall



International Phonetic Alphabet

Promoting The Study Of Phonetics



<u>Phonetics</u>		
<u>Phone</u>	<u>Phonology</u>	<u>Orthoepy</u>
<u>Articulatory</u>	<u>Sibilant</u>	<u>Cacoepy</u> ;
<u>Alveolar</u>	<u>Plosive</u>	<u>Diphthong</u> /'dif.θɒŋ/ /'dɪp.θɒŋ/
<u>Palatal</u>	<u>Apophony</u>	<u>Assimilation</u>
<u>Nasalization</u>	<u>Trill</u>	<u>Syllabic Consonant</u>
<u>Aspiration</u>	<u>Schwa</u> /ʃwɑ:/	<u>Onomatopoeic</u>
<u>Approximant</u>	<u>Flap</u>	<u>Unstressed</u>
<u>Palato-alveolar</u>	<u>Tap</u>	<u>Weak Form</u>
<u>Uvular</u>	<u>Vocal Fry</u>	<u>Suprasegmental</u>
<u>Velar</u>	<u>Twang</u>	<u>Inflection</u>

(a) What do you call a substitution of a sound which requires less muscular effort to articulate?

(b) What do you call a consonant sound made when the tongue moves forward and down, and quickly touches the alveolar ridge?

(c) What do you call a quality of voice heard in some speakers that is related to the passing of air through the nose as they speak?

(d) What do you call a consonant sound that is made by stopping air flowing out of the mouth, and then suddenly releasing it?

(e) What do you call a consonant sound made when there is a little puff of air produced after the key sound?

(f) What do you call a phoneme which combines a plosive with an immediately following fricative or spirant sharing the same place of articulation?

(g) What do you call the fact of a speech sound being influenced by the sound that comes before or after it?

(h) What do you call a quality in someone's speaking voice that makes it sound rough and low?

Phonology versus Phonetics

- Phonology has been argued to relate to phonetics via the set of distinctive features, which map the abstract representations of speech units to articulatory gestures, acoustic signals or perceptual representations.

Phonology versus Phonetics

- **Phonology**, on the other hand, is concerned with the **abstract, grammatical characterization of systems of sounds or signs** and how they pattern in and across languages.

Phonetics is the general study of the characteristics of speech sounds.

 phonetics is the study of how speech sounds are made / articulated.

 phonetics is the study of physical properties of speech as sound waves.

 phonetics
/perceptual phonetics is the study of the perception of [speech] sounds via the ear.

Phonetics is the general study of the characteristics of speech sounds.

Articulatory phonetics is the study of how speech sounds are made / articulated.

Acoustic phonetics is the study of physical properties of speech as sound waves.

Auditory phonetics /perceptual phonetics is the study of the perception of [speech] sounds via the ear.

Phonetics is the general study of the characteristics of speech sounds.

Functional phonetics
/≠phonology!/ studies the functions of sounds in the language as a phonemes based system.

Phonological units

Phonemes possess the design feature of **discreteness**.

Thus the whole language is built on a finite number of consonants and vowels.

The minimal pairs test

needs a minimal pair in language, when there are two forms or two words with exact same except for one sound.

The minimal pairs test

shows if there are two different phonemes or more specifically two allophones of two different phonemes, belonging to two different words or word forms (with **two different meanings**).

Phonological units

allophone ['æləˌfəʊn]

is any of several speech sounds that are regarded as contextual or environmental variants of the same phoneme.

Phonetic insight is used in several applied linguistic fields such as:

- **Forensic phonetics:** the use of phonetics for legal purposes
- **Speech recognition:** the analysis and transcription of recorded speech by a computer system
- **Speech synthesis:** the production of human speech by a computer system

Consonant Phonemes of English

	Bilabial		Labiodental		Interdental		Alveolar		Palatal		Velar		Glottal	
Stop	p	b					t	d			k	g		
Fricative			f	v	θ	ð	s	z	š	ž				
Affricate									č	ǰ				
Nasal		m						n				ŋ		
Glide	ʍ	w								y				h
Liquid								l						r

= voiceless

= voiced

You may prefer to use the following alternative symbols for the palatal affricates and fricatives: š = ʃ, ž = ʒ, č = tʃ, and ǰ = dʒ.



International Phonetic Alphabet

Promoting The Study Of Phonetics

The International Phonetic Alphabet Keyboard(2005 revised edition)

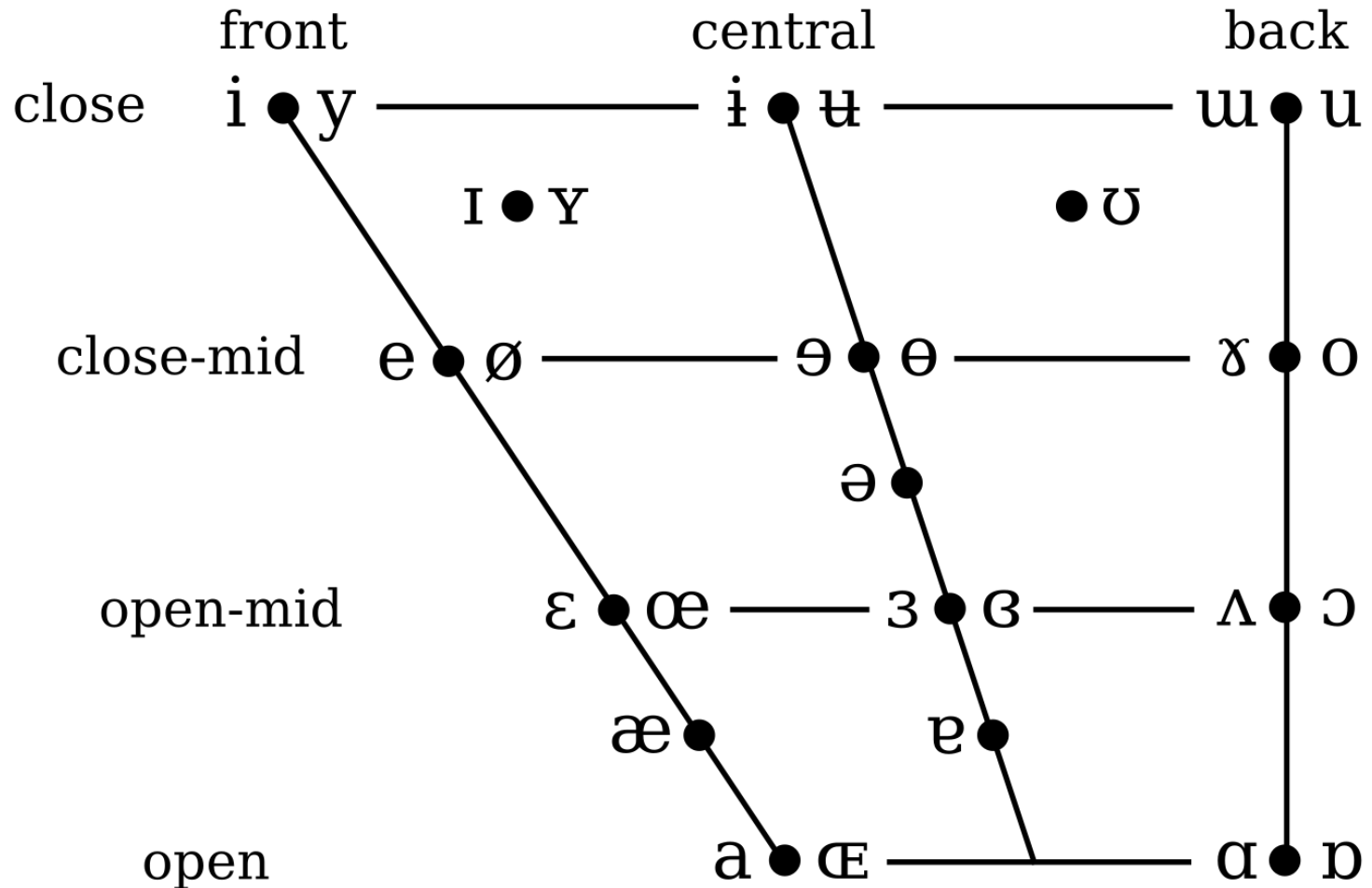
Consonants (Pulmonic)

Missing some symbols? Apply Doulos SIL font

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k ɡ	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill	ʙ			r					ʀ		
Tap or Flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

VOWELS



Symbols represent (unrounded • rounded) vowels.

	Front	Front	Central	Back
High		i		u
		ɪ		ʊ
Mid		e	ə	o
		ɛ	ʌ	ɔ
Low		æ	a	ɑ

Phonemes and phonological systems in simplistic representation

	Language	Consonants	Vowels	Total
1	Russian	36	6	42
2	English	24	20	44
3	French	17	15	32
4	German	22	18	40
5	Abkhazian	68	3	71
6	Finnish	13	8	21

Vocalization in *Arabic Writing*

Arabic vocalization (Ali by Mathieu Réguer)

جَلَسَ الشَّيْخُ نَصْرُ

Phonological units

allophone ['æləˌfəʊn]

In **English** the aspirated initial (p) (in 'pot' or 'pin') and the unaspirated (p) (in 'spot' or 'spin') are *allophones* of the phoneme /p/, as well as /t/ in 'top' and 'stop', whereas in **ancient Greek** the distinction was **phonemic**

Orthoepy ['ɔ:θəʊ, ɛpɪ]

The OED recognizes the variants:

/'ɔ:θəʊ, i:pi/, /'ɔ:θəʊ, ɛpi/, /'ɔ:θəʊpi/,
and /ɔ:'θəʊpi/ for BrE, as well as
/ɔr'θouəpi/ for AmE.

is the study of correct or standard
pronunciation Etymology: from Greek
orthoepeia, from ORTHO- straight + epos
word

**What is the difference
between just animal
sounds and the sounds of
human language?**

Speak out your mind!

Paralinguistics [ˌpærəlɪŋ'gwɪstɪks]

Paralanguage ['pærəˌlæŋgwɪdʒ]

is the non-lexical component of communication by speech, for example **intonation**, **pitch** and **speed of speaking**, **hesitation noises**...

When at large – pieces of **non-verbal semiotics**, such as body language included (e.g. gesture and facial expression).

Inflection, Root, Morphs, regular sound correspondences, morphophonology

- a) CORPUS,
- b) GENUS,
- c) IUS,
- d) CUSTOS,
- e) AETAS,
- f) PLEBS,
- g) LEX,
- h) LUX,

Nominative case

Inflection, Root, Morphs, regular sound correspondences, morphophonology

- a) CORPORIS,
- b) GENERIS,
- c) IURIS,
- d) CUSTODIS,
- e) AETATIS,
- f) PLEBIS,
- g) LEGIS,
- h) LUCIS

Genetive case



**Watch the video
and check yourself!**



Check yourself!

- Q-01

Plosive, Bilabial, Voiceless Consonant

a) /n/

b) /k/

c) /b/

d) /p/

e) /t/

Check yourself!

- Q-02 Transcribe the following English Phoneme: Nasal, Velar(Voiced) Consonant

a) /k/

b) /b/

c) /n/

d) /ŋ/

e) /d/

f) /m/

g) /g/

Check yourself!

- Q-03 Transcribe the following English
Phoneme: Plosive, Velar Voiceless Consonant

a) /k/

b) /b/

c) /n/

d) /ŋ/

e) /d/

f) /m/

g) /g/

Check yourself!

- Q-04 Transcribe the following English Phoneme: Fricative Labiodental Voiceless Consonant

a) /v/

b) /w/

c) /d/

d) /t/

e) /f/

f) /k/

Check yourself!

- Q-05 Transcribe the following English Phoneme: Nasal Bilabial Voiced Consonant

a) /b/

b) /n/

c) /g/

d) /ŋ/

e) /p/

f) /m/

Check yourself!

- Q-06 Transcribe the following English Phoneme: Front Closed-Mid English vowel

a) /i/

b) /ə/

c) /e/

d) /æ/

e) /ʌ/

f) /ɔ/

Check yourself!

- Q-07 Transcribe the following English Phoneme: Back Open (Low)English vowel

a) /ə:/

b) /ɑ:/

c) /ɔ:/

d) /æ/

e) /u:/

f) /ɔ /

Check yourself!

- Q-08 Transcribe the following English Phoneme: Fricative Dental Voiceless Consonant

a) /s/

b) /f/

c) /d/

d) /t/

e) /θ/

f) /z/

g) /ð/

Check yourself!

- Q-09. English I have /aɪ 'hæv/ /aɪv/
(I've) is a sample of
 - a) disfix;
 - b) epenthesis (/ɪ'pɛnθəsis, ɛ-/;
 - c) elision [ɪ'lɪz(ə)n];
 - d) excrescence [ɪks'kres(ə)n(t)s],
[eks-]
 - e) svarabhakti or anaptyxis
(/ ,æɪnəp'tɪksɪs/;

Check yourself!

- Q-1.0. Phonetics [fə'netɪks] is
 - a) the study of sounds;
 - b) a set of sounds of human language;
 - c) the branch of linguistics that deals with systems of sounds;
 - d) the study of the sound system of a language or of languages in general;
 - e) the system of relationships among the speech sounds that constitute the fundamental components of a language.

Check yourself!

- Q-1.1. Phoneme is

- a) a sound

- b) a set of sounds of human language

Check yourself!

- Q-1.2. A morpheme is
 - a) a meaningful morphological unit of a language that can be further divided;
 - b) an indecomposable sign;
 - c) the same thing as morph;
 - d) any of the variant forms of a phoneme as determined by the context in which it is used.

Check yourself!

- Q-1.3. Morphophoneme
[,mɔ:fə(ʊ) 'fəʊni:m] is
 - a) the set of phonemes or sequences of phonemes that constitute the various allomorphs of a morpheme;
 - b) the set of speech sounds in any given language that serve to distinguish one word from another;
 - c) any of the various phonetic realizations of a phoneme in a language, which do not contribute to distinctions of meaning.

Check yourself!

- Q-1.4. T/F Question

Morphophonology

[,mɔ:fə(ʊ)fə'nɒlədʒi] /

morphophonemics

[,mɔ:fəʊfəʊ'ni:miks] is the study of

- a) interaction between morphological, phonological and phonetic processes;
- b) the sound changes that take place in morphemes;
- c) the sound changes that take place in phonemes;

Check yourself!

- Q-1.5. Morphophonology
[ˌmɔːfə(ʊ)fəˈnɒlədʒi] is an attempt
 - a) to give a series of formal rules that successfully predict the regular sound changes in the morphemes of the given language;
 - b) to predict every morphophonological alternation that takes place in the language;
 - c) the sound changes that take place in phonemes;

Check yourself!

Q-1.6. English 'sing, sang, sung'
is an example of ...

- Ablaut /'æblaʊt/ /Apophony/;
- Vowel harmony;
- Sandhi (/ 'sʌndi, 'sæn-, 'sɑ:n-/;
Sanskrit: संधि saṁdhí [səndʰi];

Check yourself!

- alternation [ˌɔːltəˈneɪʃ(ə)n]

is the phenomenon of a morpheme exhibiting variation in its phonological realization.

Each of the various realizations is called an alternant [ɔːlˈtɜːnənt].

The variation may be conditioned by the phonological, morphological, and/or syntactic environment [ɪnˈvaɪər(ə)nmənt], [en-] / in which the morpheme finds itself.

alternation [ˌɔːltəˈneɪʃ(ə)n]

- Sandhi (/ 'sʌndi, 'sæɪn-, 'sɑ:n-/; Sanskrit: संधि saṁdhí [səndʰi] is a cover term for a wide variety of **sound changes** that occur at **morpheme or word boundaries**. Examples include:
 - ✓ Movable nu - v (in Ancient Greek);
 - ✓ Crasis (/ 'kreɪsɪs/ a type of contraction in which two vowels or diphthongs merge into one new vowel or diphthong, making one word out of two.;

Sandhi (/ 'sʌndi, 'sæɪn-, 'sɑ:n-/;
Sanskrit: संधि saṁdhí [səndʰi]

- Sandhi (/ 'sʌndi, 'sæən-, 'sɑ:n-/; Sanskrit: संधि saṁdhí [səndʰi])

is a cover term for a wide variety of **sound changes** that occur at **morpheme or word boundaries**. Examples include:

- ✓ Elision - is the omission of one or more sounds (such as a vowel, a consonant, or a whole syllable) in a word or phrase.
- ✓ Liaison (French: [ljɛ.zɔ̃]) is the pronunciation of a latent word-final consonant immediately before a following vowel sound.
- ✓ Linking and intrusive R.

Sandhi (/ 'sʌndi, 'sæən-, 'sɑ:n-/;
Sanskrit: संधि saṁdhí [səndʰi]