## Sounds of Human Language 30-11-2020



Land 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.


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.
ólt encompasses all languages spoken on earth.


# What Is The International Phonetic Alphabet? 

ó 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?

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

## Phonetic Alphabet? <br> ó Prosody is a representation of the rhythm, stress, and intonation of speech.

$\downarrow$ Downstep<br>$\uparrow$ Upstep<br>$\nearrow$ Global rise<br>$\searrow$ Global fall

## International Phoneicandiand



| Phonetics |  |  |
| :---: | :---: | :---: |
| Phone | Phonology | Orthoepy |
| Articulatory | Sibilant | Cacoepy; |
| Alveolar | Plosive |  |
| Palatal | Apophony | Assimilation |
| Nasalization | Trill | Syllabic Consonant |
| Aspiration | Schwa_ / / wa:/ | Onomatopoeic |
| Approximant | Flap | Unstressed |
| Palato-alveolar | Tap | Weak Form |
| Uvular | Vocal Fry | Suprasegmental |
| Velar | Twang | Inflection |

(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?

|  | (a) Reduction [rI'dAkJ(ə)n] |
| :--- | :--- |
| (b) Flap |  |
| (c) Twang /twæŋn/ |  |
| (d) Plosive ['pləusiv] |  |
| (e) Aspirated |  |
| (f) Affricate ['æfrikət] |  |
| (g) Assimilation |  |
| (h) Vocal Fry |  |

## ionology 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, 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.


## onetics is the general study of 1e characteristics of speech soun

speech sounds are made / articulated.

phonetics is the study of $\bar{p}$ - $\overline{y s}$ ícal properties of speech as sound waves.

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

## ionetics is the general study of he characteristics of speech soun

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

## honological units

Phonemes possess the design feature of discreteness.
Thus the whole language is built on a finite number of consonants and vowels.

## he minimal pairs test

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

## he 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).

## honological units <br> allophone ['ælə,fəun]

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

- 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 |  | b |  |  |  |  | t | d |  |  | k | g |  |
| Fricative |  |  | $f$ | V | $\theta$ | ð | S | Z | Š | ž |  |  |  |
| Affricate |  |  |  |  |  |  |  |  | Č | 〕 |  |  |  |
| Nasal |  | m |  |  |  |  |  | n |  |  |  | $\eta$ |  |
| Glide | M | w |  |  |  |  |  |  |  | y |  |  | h |
| Liquid |  |  |  |  |  |  |  | I |  |  |  |  |  |

= voiceless $\quad$ = voiced
You may prefer to use the following alternative symbols for the palatal affricates and fricatives: $\check{s}=\int, \check{z}=3, \check{c}=t \int$, and $\check{j}=d 3$.

## $\cdots$ $\cdots$ $\cdots$ <br> Internationt Phonetic antianet

The International Phonetic Alphabet Keyboard(2005 revised edition)
Consonants (Pulmonic) Missing some symbols? Apply Doulos SIL font

|  | Bilabal | Labiodenal | Dental | Aveolar | Postaveoles | Retronex | Pabatar | Vear | Unver | Phanngeal | Giotal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Prosine | $p$ b |  |  | t d |  | t d | C ! | k g |  |  | ? |
| Nsasal | m | m |  | n |  | $\eta$ | n | $\eta$ | N |  |  |
| Tiil | B |  |  | $r$ |  |  |  |  | R |  |  |
| Tapor flige |  | $\checkmark$ |  | r |  | [ |  |  |  |  |  |
| Firative | $\phi \beta$ | $f$ v | $\theta$ ð | s Z | $\int 3$ | s z | ç j | X $\gamma$ |  | ち $\uparrow$ | h h |
| Leltater |  |  |  | $+3$ |  |  |  |  |  |  |  |
| Appoxinant |  | U |  | 1 |  | $l$ | j | щ |  |  |  |
| Leterem |  |  |  | 1 |  | 1 | $\kappa$ | L |  |  |  |

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.


# Phonemes and phonological systems in simplistic and wrong representation 

|  | Language | Consonants | Vowels | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Russian | 36 | 6 | 42 |
| 3 | English French | 24 ${ }_{17}{ }^{2}$ | $\begin{aligned} & 20 \\ & 15 \end{aligned}$ | 44 eme? 32 |
| 4 | German | 22 | 18 | 40 |
| 5 | Abkhazian | 68 | 3 | 71 |
| 6 | Finnish | 13 | 8 | 21 |

Arabic vocalization (Ali by Mathieu Réguer)


## honological units <br> allophone ['ælə,fəun]

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 ['э:Өəu, єpı] The OED recognizes the variants:  and /o:'日әvipi/ for BrE, as well as lor' 'ovapi/ 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!

## https://learningapps.org/display?v=pimh7u47319



Watch the video
check yourself!


Approximant (noun) is a consonant produced by bringing one articulator (the tongue or lips) close to another without actually touching it, as in English/r/ and/w/ Approximants are speech sounds that involve the articulators approaching each other but not narrowly enough nor with enough articulatory precision to create turbulent airflow. Therefore,
fall between fricatives, which do produce a turbulent airstream, and vowels, which produce no turbulence.

## óalternation [, o: Itə'nerf(ə)n

is the phenomenon of a morpheme exhibiting variation in its phonological realization.
Each of the various realizations is called an alternant [Ј:I'tz:nənt].
The variation may be conditioned by the phonological, morphological, and/or syntactic environment [in'vaiər(ə)nmənt ], [en-] / in which the morpheme finds itself.

## alternation [, э:Itə'nex((ə) n

# óSandhi (/'sandi, 'sæen-, 'sa:n-/; 

 Sanskrit: संधि samdhí [sendhi] isis 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 (/ 'kreisis/ a type of contraction in which two vowels or diphthongs merge into one new vowel or diphthong, making one word out of two.;

## Sal <br> Sanskrit: संधि samdlhí [sendhi]

## óSandhi (/'sandi, 'sæn-, 'sa:n-/; Sanskrit: संधि samdhí [sendhi]

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: [|je.zõ] is the pronunciation of a latent word-final consonant immediately before a following vowel sound.
Linking and intrusive R.
Sanlhi (/'SAndi, saen--, sa:n-
Sanskrit: संधि samdlhí [sendfi]

## ó Q-01. English I have /ai 'hæv/ /aiv/

 (I've) is a sample ofa) disfix;
b) epenthesis (/I'p\&nӨəsis, $\varepsilon$-/;
c) elsion [I'lı3(ə)n];
d) excrescence [Iks'kres(ə)n(t)s ], [eks-]
e) svarabhakti or anaptyxis (/, ænəp'tiksis/;

## Check yourself!

## ó Q-01. Ablaut grades

ó In Proto-Indo-European, the basic, inherent vowel of most syllables was a short e.
ó Ablaut is the name of the process whereby this short e changed, becoming short o, long é, long or sometimes disappearing entirely to leave nowel at all.
ó Q-01. Ablaut grades

Thus, ablaut turned short e into the following sounds:

| zero | short | long |
| :--- | :--- | :--- |
| $\varnothing$ | e | $\overline{\mathrm{e}}$ |
|  | 0 | $\overline{\mathrm{o}}$ |

## ó Ablaut grades

ó If a syllable had a short e, it is said to be in the "e-grade" or "full grade". When it had no vowel, it is said to be in the "zero grade". Syllables with long vowels are said to be in "lengthened grade". (When the e-grade or the onade is referred to, the short vowel forms are meant.)

## Ablaut grades in Greek

| Ablaut grade | PIE <br> (reconstructi <br> on) | Greek | (Greek transliterated) | Translation |
| :---: | :---: | :---: | :---: | :---: |
| e-grade or full grade | * $\mathrm{ph}_{2}-\mathbf{t}$ r-m | m $\alpha-\mathbf{T} \boldsymbol{\rho}-\alpha$ | pa-t r-a | "father" (noun, accusative) |
| lengthened egrade | * $\mathrm{ph}_{2}$-tér |  | pa-ter | "father" (noun, nominative) |
| zero-grade | * $\mathrm{ph}_{2}$ - ${ }^{\text {- }}$-és | ma-ip-ós | pa-ti-ós | "father's" (noun, genitive) |
| o-grade | * n -pé $\mathrm{h}_{2}$-tor-m |  | a-pá-tor-a | "fatherless" (adjective, accusative) |
| lengthened ograde | * n -péh ${ }_{2}$-tōr |  | a-pá-tōr | "fatherless" (adjective, nominative |

ó Ablaut grades
In this unusually neat example, the following can be seen:
of A switch to the zero-grade when the word stress moves to the following syllable.
ó A switch to the o-grade when the word stress moves to the preceding syllable.
ó A lengthening of the vowel when the syllable is in word-final position.

## ó Ablaut grades

In , there were already ablaut differences within the paradigms of verbs and nouns.
These were not the main markers of grammatical form, since the inflection system served this purpose, but they must have been significant secondary markers.

In the daughter languages, these came to be important markers of grammatical distinctions. The vowel change in the Germanic strong verb, for example, is the direct descendant of that seen in the Indo-European verb paradigm.
ó Ablaut grades: Examples in modern English are the following:

| Infinitive | Preterit | Past participle |
| :--- | :--- | :--- |
| sing | sang | sung |
| give | gave | given |
| strive | strove | striven |
| break | broke | broken |

## GRIMM'S LAW

Grimm's law concerns the correspondence of consonants between the ancestral Proto-IndoEuropean language and its Germanic descendants, Low Saxon and High German, and was first fully stated by Grimm in the second edition of the first part of his Grammar.
The correspondence of single consonants had been more or less clearly recognized by several of his predecessors, including Friedrich von Schlegel, Rasmus Christian Rask and Johan Ihre, the last having established a considerable number of literarum permutationes, such as $b$ for $f$, with the examples bœra = ferre ("to bear"), befwer = fibra ("fiber").

Rask, in his essay on the origin of the I celandic language, gave the same comparisons, with a few additions and corrections, and even the same examples in most cases. As Grimm in the preface to his first edition expressly mentioned Rask's essay, there is every probability that it inspired his own investigations. But there is a wide difference between the isolated permutations described by his predecessors and his own comprehensive generalizations. The extension of the law to High German in any case is entirely Grimm's work.

The idea that Grimm wished to deprive Rask of his claims to priority is based on the fact that he does not expressly mention Rask's results in his second edition, but it was always his plan to refrain from all controversy or reference to the works of others. In his first edition, he calls attention to Rask's essay, and praises it ungrudgingly. Nevertheless, a certain bitterness of feeling afterwards sprang up between Grimm and Rask, after Rask refused to consider the value of Grimm's views when they clashed with his own. Jacob is recognized for enunciating Grimm's law, the Germanic Sound Shift, which was first observed by the Danish philologist Rasmus Christian Rask.


## Mechanics of Grimm's Law

It establishes clearly a set of regular correlations between early Germanic stops and fricatives and the stop consonants of certain other centum Indo-European languages.
There are three parts to Grimm's law, which may be regarded as the three consecutive phases in the phonetic shift that happened in the development of these languages.
i. Proto-I ndo-European voiceless stops change into voiceless fricatives.
ii. Proto-I ndo-European voiced stops become voiceless stops.
iii. Proto-I ndo-European voiced aspirated stops become voiced stops or fricatives.

## Mechanics of Grimm's Law

It establishes clearly a set of regular correlations between early Germanic stops and fricatives and the stop consonants of certain other centum Indo-European languages.
There are three parts to Grimm's law, which may be regarded as the three consecutive phases in the phonetic shift that happened in the development of these languages.

$$
\begin{aligned}
& \mathrm{b}^{\mathrm{h}} \rightarrow \mathrm{~b} \rightarrow \mathrm{p} \rightarrow \phi \\
& \mathrm{~d}^{\mathrm{h}} \rightarrow \mathrm{~d} \rightarrow \mathrm{t} \rightarrow \theta \\
& \mathrm{~g}^{\mathrm{h}} \rightarrow \mathrm{~g} \rightarrow \mathrm{k} \rightarrow \mathrm{x} \\
& \mathrm{~g}^{\mathrm{wh}} \rightarrow \mathrm{~g}^{\mathrm{w}} \rightarrow \mathrm{k}^{\mathrm{w}} \rightarrow \mathrm{x}^{\mathrm{w}}
\end{aligned}
$$

## Mechanics of Grimm's Law

The law was the first systematic and coherent formulation, well supported by examples. It is important for historical linguistics because it clearly demonstrates the principle that sound change is a regular phenomenon and not a random process affecting only some words, as had been thought previously.

$$
\begin{aligned}
& \mathrm{b}^{\mathrm{h}} \rightarrow \mathrm{~b} \rightarrow \mathrm{p} \rightarrow \phi \\
& \mathrm{~d}^{\mathrm{h}} \rightarrow \mathrm{~d} \rightarrow \mathrm{t} \rightarrow \theta \\
& \mathrm{~g}^{\mathrm{h}} \rightarrow \mathrm{~g} \rightarrow \mathrm{k} \rightarrow \mathrm{x} \\
& \mathrm{~g}^{\mathrm{wh}} \rightarrow \mathrm{~g}^{\mathrm{w}} \rightarrow \mathrm{k}^{\mathrm{w}} \rightarrow \mathrm{x}^{\mathrm{w}}
\end{aligned}
$$

## GRIMM'S LAW



| Non-Germanic (unshifted) cognates | Change | Germanic (shifted) English examples |
| :---: | :---: | :---: |
| Latin: pater, piscis | * $p \rightarrow f[\phi]$ | English: |
| Latin: tenuis | * $\mathrm{t} \rightarrow \mathrm{p}[\theta]$ | English: |
| Latin: cord- | * $\mathrm{K} \rightarrow \mathrm{h}[\mathrm{x}$ ] | English: |
| Latin: quod, Irish: cad, Sanskrit: kád, Russian: ко- (ko-), Lithuanian: kas | * $\mathrm{k}^{\mathrm{w}} \rightarrow \mathrm{hw}\left[\mathrm{x}^{\mathrm{w}}\right.$ ] | English: |
| Latin: baculum | * $b \rightarrow p$ [p] | English: |
| Latin: dent- | * $\mathrm{d} \rightarrow \mathrm{t}$ [t] | English: |
| Latin: gelur | * $\mathrm{g} \rightarrow \mathrm{k}$ [k] | English: |
| Lithuaniant gyvas | $* \mathrm{~g}^{\mathrm{w}} \rightarrow \mathrm{kw}\left[\mathrm{k}^{\mathrm{w}}\right]$ | English: |
| Sanskrit: bhrātr | * ${ }^{\text {h }} \rightarrow \mathrm{b}[\mathrm{b}] /[\beta]$ | English: |
| Sanskrit: mádhu 'honey' | * $\mathrm{d}^{\mathrm{h}} \rightarrow \mathrm{d}[\mathrm{d}] /[$ [ $]$ | English: |
| Ancient Greek: xív (khēn) | $* \mathrm{~g}^{\mathrm{h}} \rightarrow \mathrm{g}[\mathrm{g}] /[\mathrm{y}]$ | English: |


| Non-Germanic (unshifted) cognates | Change | Germanic (shifted) examples |
| :---: | :---: | :---: |
| Latin: pater, piscis | * $p \rightarrow f[\phi]$ | English: father, fish |
| Latin: tenuis | * $\mathrm{t} \rightarrow \mathrm{p}[\theta]$ | English: thin |
| Latin: cord- | * $\mathrm{K} \rightarrow \mathrm{h}[\mathrm{x}$ ] | English: heart |
| Latin: quod, Irish: cad, Sanskrith kád, Russian: ко- (ko-), Lithuanian: kas | * ${ }^{\text {w }} \rightarrow \mathrm{hww}\left[\mathrm{x}^{\mathrm{w}}\right.$ ] | English: what, Gothic: ha ("hwa"), Icelandic: hvað, Faroese: hvat, Danish: hvad, Norwegian: hva |
| Latin: baculum | * $\mathrm{b} \rightarrow \mathrm{p}$ [p] | English:peg |
| Latin: dent- <br> atin! duo: | * $\mathrm{d} \rightarrow \mathrm{t}$ [t] | English: teeth Gothic Twai |
| Latin: gelü | * $\mathrm{g} \rightarrow \mathrm{k}$ [k] | English: cold |
| Lithuanian: gyvas | * $\mathrm{g}^{\mathrm{w}} \rightarrow \mathrm{kw}$ [ $\mathrm{k}^{\mathrm{w}}$ ] | English: quick |
| Sanskrit: bhrātr | * ${ }^{\text {h }} \rightarrow \mathrm{b}[\mathrm{b}] /[\beta]$ | English: brother Goth. broPar |
| Sanskrit: mádhu 'honey' | * $\mathrm{d}^{\mathrm{h}} \rightarrow \mathrm{d}[\mathrm{d}] /[$ [ $]$ | English: mead / OE medu |
| Ancient Greek: x fiv (khēn) | * $\mathrm{g}^{\mathrm{h}} \rightarrow \mathrm{g}[\mathrm{g}] /[\mathrm{\gamma}]$ | English: goose, German: Gans, Icelandic: gæs, Faroese: gás, Danish, Norwegian, Swedish: gås |

## Grimm's law contained exceptions Verner found a pattern among the exceptions <br> Verner's Law additionally accounted for the occasional mutation of $* s \neq z$ in the Germanic Languages. <br> The ordering of Verner's Law and Grimm's Law is unclear

## erner's Law

1．Grimm＇s law only applies to initial consonants and consonants following a stressed syllable
2．In all other circumstances voiceless obstruents become
＊ $\mathrm{p} \ddagger$
＊七 $\ddagger$
＊ $\mathrm{K} \ddagger$
＊${ }^{\mathrm{w}}$ キ
＊ S 士

## Verner＇s Law

# Law: What's all about 

The Proto-Germanic voiceless fricatives changed into if they were immediately preceded by an unstressed syllable
q Father ['fa:ðə] (modern English)
q Origin: Old English fæder, of Germanic origin; related to Dutch vader and German Vater, from an Indo-European root shared by Latin pater and Greek patēr

## erner's Law

# Law: What's all about 

The Proto-Germanic voiceless fricatives changed into if they were immediately preceded by an unstressed syllable Brother ['br^ðə] (modern English)
q Origin: Old English brōthor, of Germanic origin; related to Dutch broeder and German Bruder, from an Indo-European root shared by Latin frater

> lerner's Law

Verner realized that all the early ProtoGermanic voiceless fricatives [f, $\theta, h$ ] became between vowels if the preceding vowel was unstressed, otherwise, they remained voiceless.
It is stated that the PIE version of $\mathrm{ph}_{2}$ tér ("father") had the stress on the second syllable, and $b^{h}$ réh ${ }_{2}$ tēr ("brother") did not, this explained the $t \rightarrow$ change.
erner's Law

PIE root * duk (to lead) - inflection stressed $\begin{array}{ll}\text { ducere } & \text { (Latin) } \\ \text { u } & \text { (English) }\end{array}$

Grimm's law predicts / ux/ Verner's law explains the final / /

## Evidence of Verner's Law in English

The term was coined by Otto J espersen (1860-1943)


## Great Vowel Shift in English

Transition of English [0:] into [u:]
óroof [ro:f] -> [ru:f]
ócool [ko:l] -> [ku:l]

## Great Vowel Shift in English



## Great Vowel Shift in English

## Middle English [a:] transformations

$$
\begin{aligned}
& \text { take [ta:k] - [tæ:k] - [tz:k] - [te:k] - [terk] } \\
& \text { shake [fa:k] - [fæ:k] - [f:k] - [fe:k] }-\left[\int e r k\right]
\end{aligned}
$$

## Great Vowel Shift in English

Middle English [i:] transformations

## XIV century XV

five [fi:v] [feiv] [færv] [farv] my [mi:] [mei] [mæI] [mar] Great Vowel Shift in English

Middle English [u:] transformations

## XIV century

## town [tu:n] <br> [toun] <br> [taun]

 out [u:t][out]
[aut]

## Great Vowel Shift in English

Middle English [0 :] transformations
XVi century
XVII
XIII
road [ro:d]
[ro:d]
stone [sto:n] [sto:n]
[roud]
[stoun]

Middle English [ $\varepsilon$ :] transformations
 ete [' $\varepsilon: t e]$ eat [e:t] [i:t] se [sع:] sea [se:] [si:]

## Great Vowel Shift in English

Middle English [e] ->[] before $r$ transformations
earlier
sterre
ferre
now we have it as
far star

Middle English [a] transformation into [æ]

## XIV century

cat [kat] [kæt]

## Great Vowel Shift in English

Middle English [a] transformation before [w] XV century presently ówant [want] [wont] Great Vowel Shift in English

Middle English [u] transformation into [^]
XV century
órun [run] [r^n]

## Great Vowel Shift in English

## Great Vowel Shift

| (1300) | 1400 |  | 1500 | 1600 | 1700 | 1800 | present |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| driven | /i:/ | /ii/ | /ei/ | /8i/ | $/ \mathrm{si} /$ | /ai/ |  |
| house | /u:/ | /uu/ | /ou/ | /ou/ | /nu/ | /au/ |  |
| feet | /e:/ |  | /i:/ |  |  |  |  |
| fool | 10:/ |  | /u:/ |  |  |  |  |
| beat | $1 \mathrm{c} /$ |  |  |  | /e:/ | /i:/ |  |
| foal | $10 \cdot 1$ |  |  |  | $10 \mathrm{~s} /$ |  | /ou/ |
| take | /a/ |  | /æ:/ | /e:/ | le:/ | /ei/ |  |
| sail | /ai/ |  | /æi/ | /ei/ | /e:/ | /ei/ |  |
| law | /au/ |  | /vu/ | /v:/ |  |  |  |


| Middle English |  |  | Early Modern English |  |  | Modern English |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| [a:] | [na:me] 'name' | $\rightarrow$ | [ $\varepsilon$ :] | [ n ¢:m] | $\rightarrow$ | [er] | [nem] |
| [ $\varepsilon$ :] | [me:t] 'meat' | $\rightarrow$ | [e:] | [me:t] | $\rightarrow$ | [i:] | [mi.t] |
| [e:] | [me:t] 'meet' | $\rightarrow$ | [i]] | [mitt] | $\rightarrow$ | [i:] | [mitt] |
| [ii] | [ri:d] 'ride' | $\rightarrow$ | [2i] | [raid] | $\rightarrow$ | [ai] | [raid] |
| [ 5 ] | [bost] 'boat' | $\rightarrow$ | [o:] | [bott] | $\rightarrow$ | [əข] | [bout ] |
| [o:] | [bott] 'boot' | $\rightarrow$ | [u:] | [bu:t] | $\rightarrow$ | [u:] | [bu:t] |
| [ $\mathrm{u}:$ ] | [mu: $\theta$ ] 'mouth' | $\rightarrow$ | [əข] | [məve] | $\rightarrow$ | [av] | [mave] |

The term coined by Otto J espersen (1860-1943)


## Great Vowel Shift in English

## APPENDICES <br> Self-test exercices

ó Q-01.
ó umlaut [ umlaut] (esp in Germanic languages) the change of a vowel within a word brought about by the assimilating ó influence of a vowel on semivowel in a preceding
a) disfix;
b) epenthesis (/I'penӨəsis, $\varepsilon$-/;
c) elision [I'II3(ə) n];
d) excrescence [Iks'kres(ə)n(t)s ],
[eks-]
e) svarabhakti or anaptyxis
(/ ænəp'tiksis/;

## Check yourself!

## ó Q-01. English I have /ai 'hæv/ /aiv/

 (I've) is a sample ofa) disfix;
b) epenthesis (/I'p\&nӨəsis, $\varepsilon$-/;
c) elision [I'lı3(ə)n];
d) excrescence [Iks'kres(ə)n(t)s ], [eks-]
e) svarabhakti or anaptyxis (/, ænəp'tiksis/;

## Check yourself!

o Q-1.0. Phonetics [fo'netiks] is
a) the study of sounds;
b) a set of sound's 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 <br> b) a set of sounds of human language

Q-01. In phonology, vowel harmony is an assimilatory process (featured e.g. in Turkic and Uralic laneumenc) in which the vowels of a word have to be members of the same class (thus "in harmony
a) disfix;
b) epenthesis (/I'penӨəsis, $\varepsilon$-/;
c) elision [I'liz(ə) n];
d) excrescence [Iks'kres(ə)n(t)s ], [eks-]
e) svarabhakti or anaptyxis /, ænəр'tiksis/;

## Check yourself!

## ó Q-01.

ó umlaut [IUmlaut] (esp in Germanic languages) the chance of a vowel within a word brought about by the assimilating ó influence of a wasel in a preceding
a) ablaut;
b) reduction;
c) umlaut;
d) elision $\left[\mathrm{I}^{\prime} \operatorname{II} 3(\partial) \mathrm{n}\right]$;
e) anaptyxis /, ænəp'tiksis/;

## Check yourself!

ó Q-01.
ó sandhi ['s^ndi] san!dhi noun [mass noun] the process whereby the form of a word changes as a result of its position in an utterance (e.g. the change from English a to an before a (an initial) vowel) ablaut;
a) reduction;
b) umlaut;
c) elision [I'lı3(ə)n];
d) anaptyxis /,ænəp'tiksis/;

## Check yourself!

## ó Q-09. English I have /ai 'hæv/ /aiv/

 (I've) is a sample ofa) disfix;
b) epenthesis (/I'p\&nӨəsis, $\varepsilon$-/;
c) elsion [I'lı3(ə)n];
d) excrescence [Iks'kres(ə)n(t)s ], [eks-]
e) svarabhakti or anaptyxis (/, ænəp'tiksis/;

## Check yourself!

o Q-1.0. Phonetics [fo'netiks] is
a) the study of sounds;
b) a set of sound's 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 <br> b) a set of sounds of human language

## o 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!
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!

ó Q-1.4. T/F Question Morphophonology [. mo:fe(v)fe noledzi] morphophonemics mofeura he 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!

## THANK YOU FOR ATTENTION!

