# شكر لكل من قام عطي المحتّوي <br> Heart story ~Queen~ <br> تجميع أسئلة اختبار اللغويات أخوكم أبو إبراهيم <br> الفصل الثاني IErr 

## The origins of language

We simply don't know how language originated.
We suspect that some type of spoken language developed between 100,000 and 50,000 years ago, well before written language (about 5,000 years ago).
Absence of direct physical evidence to the origin of language.
All attempts to find out about the origin of language are mere speculations.
In most religions, there appears to be a divine source who provides humans with language.
In an attempt to rediscover this original divine language, a few experiments have been carried out, with rather conflicting results.
If human infants were allowed to grow up without hearing any language around them, then they would spontaneously begin using the original God-given language.

## The divine source

Two famous experiments:
$>1^{\text {st }}$ by an Egyptian pharaoh named Psammetichus $\rightarrow$ children were said to utter the word "bekos"(that means bread in Phrygian language).
$>2^{\text {nd }}$ by King James the Fourth of Scotland $\rightarrow$ children were reported to have spoken Hebrew.

- All other cases of children who have been discovered living in isolation, without coming into contact with human speech, tend not to confirm the results of these types of 'divine-source' experiments.
- Very young children living without access to human language in their early years grow up with no language at all.


## The natural sound source

## A/ 'Bow-wow’ Theory

Primitive words could have been imitations of the natural sounds. This type of view has been called the 'bow-wow' theory of language origin. it is true that a number of words in any language are onomatopoeic (echoing natural sounds), it is hard to see how most of the soundless as well as abstract things in our world could have been referred to in a language that simply echoed natural sounds.

## B/ Natural Cries of Emotion Theory

Original sounds of language may have come from natural cries of emotion such as pain, anger and joy. Interjections such as Ah!, Ooh!, Wow! or Yuck!, are usually produced with sudden intakes of breath, which is the opposite of ordinary talk. We normally produce spoken language on exhaled breath.

C/ 'Yo-he-ho' Theory
It says that the sounds of a person involved in physical effort could be the source of our language, especially when that physical effort involved several people and had to be coordinated. The appeal of this theory is that it places the development of human language in some social context. It does not, however, answer our question regarding the origins of the sounds produced.
Instead of looking at types of sounds as the source of human speech, we can look at the types of physical features humans possess, especially those that are distinct from other creatures, which may have been able to support speech production. We can start with the observation that, at some early stage, our ancestors made a very significant transition to an upright posture, with bi-pedal (on two feet) locomotion, and a revised role for the front limbs.
Some effects of this type of change can be seen in physical differences between The skull of a gorilla and that of a Neanderthal /ni:'ændərta:I/ man from around 60,000 years ago.

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## The physical adaptation source

Human teeth are upright, not slanting outwards like those of apes, and they are roughly even in height. They are also very helpful in making sounds such as $f$ or $v$. Human lips are much more flexible than those of other primates. This helps in making sounds like $p$ or $b$.

The human mouth is relatively small compared to other primates, can be opened and closed rapidly, and contains a smaller, thicker and more muscular tongue which can be used to shape a wide variety of sounds inside the oral cavity.

## Teeth, lips, mouth, larynx and pharynx

The human larynx or 'voice box' (containing the vocal cords) differs significantly in position from the larynx
of other primates such as monkeys.
The pharynx, which is above the vocal cords, acts as a resonator for increased range and clarity of the sounds produced via the larynx.

There must have been a big advantage in getting this extra vocal power (i.e. a larger range of sound distinctions) to outweigh the potential disadvantage from an increased risk of choking to death.

The human brain controls all the complex physical parts used for sound production.
The human brain is lateralized, that is, it has specialized functions in each of the two hemispheres.

Those functions that control motor movements involved in things like speaking and object manipulation (making or using tools) are largely confined to the left hemisphere of the brain for most humans.

## The human brain

In terms of language structure, the human may have first developed a naming ability by producing a specific and consistent noise (e.g. pEn) for a specific object. The crucial additional step was to bring another specific noise (e.g. BIEU) into combination with the first to build a complex message (pEn bIEU). $\rightarrow$ Several thousand years of evolution later, humans were able to produce: "This pen is bleu".
The physical changes of human beings can be compared to the physical changes of babies.

This almost automatic set of developments and the complexity of the young child's language have led some scholars to look for something more powerful than small physical adaptations of the species over time as the source of language.

This seems to indicate that human descendants are born with a special capacity for language.

## The genetic source

It is innate, no other creature seems to have it this innateness hypothesis would seem to point to something in human genetics
The investigation of the origins of language then turns into a search for the special 'language gene' that only umans possess.

## $1^{\text {st }} \boldsymbol{\&} 2^{\text {nd }}$ Lecture

## ANLMALS AND HUMAN LANGUAGE

## Lecture Elements

> Introduction
$>$ Communicative and informative signals
> Displacement
> Arbitrariness
$>$ Productivity
> Cultural transmission

## $>$ Duality

> Talking to animals

## Introduction

We all heard about animals imitating human voices thinking that they really talk. We know that animals communicate with other members of their own species, but is it possible that any creature could talk to us in our language? Or does human language have properties that make it so unique that it is quite unlike any other communication system and hence unlearn able by any other creature?

## Communicative and informative signals

Informative signals is a behavior that provides information, usually unintentionally
Communicative signals is a behavior used intentionally to provide information
So, when we talk about distinctions between human language and animal communication, we are considering both in terms of their potential as a means of intentional communication.

## Displacement

Displacement is a property of language that allows users to talk about things and events not present in the immediate environment. Animal communication is generally considered to lack this property.
It has been proposed that bee communication may have the property of displacement. Bee communication has displacement in an extremely limited form.

## Arbitrariness

Arbitrariness is a property of language describing the fact that there is no natural connection between a linguistic form and its meaning. The aspect of the relationship between linguistic signs and objects in the world is described as arbitrariness.

There are some words in language with sounds that seem to 'echo' the sounds of objects or activities and hence seem to have a less arbitrary connection (onomatopoeic words).

## Productivity

Productivity is a property of language that allows users to create new expressions, also called 'creativity' or 'open-endedness'. It is linked to the fact that the potential number of utterances in any human language is infinite.
The communication systems of other creatures do not appear to have this type of flexibility. Nor does it seem possible for creatures to produce new signals to communicate novel experiences or events.

This limiting feature of animal communication is described in terms of fixed reference (a property of a communication system whereby each signal is fixed as relating to one particular object or occasion).

## Cultural transmission

Cultural transmission is the process whereby knowledge of a language is passed from one generation to the next. We acquire a language in a culture with other speakers and not from parental genes. It is clear that humans are born with some kind of predisposition to acquire language in a general sense. The general pattern in animal communication is that creatures are born with a set of specific signals that are produced instinctively. Unlike animals, human infants, growing up in isolation, produce no 'instinctive' language.

## Duality

Duality is a property of language whereby linguistic forms have two simultaneous levels of sound production and meaning, also called 'double articulation'. Sounds, like $r$, $a$ and $c$ as individual
sounds have no meanings. In a particular combination such as car, we have another level producing a meaning that is different from the meaning of the combination in arc. So, at one level, we have distinct sounds, and, at another level, we have distinct meanings.

This duality of levels is, in fact, one of the most economical features of human language because, with a limited set of discrete sounds, we are capable of producing a very large number of sound combinations (e.g. words) which are distinct in meaning.
Among other creatures, each communicative signal appears to be a single fixed form that cannot be broken down into separate parts.

## Talking to animals

If these five properties of human language make it such a unique communication system, quite different from the communication systems of other creatures, then it would seem extremely unlikely that other creatures would be able to understand it. Some humans, however, do not behave as if this is the case. There is, after all, a lot of spoken language directed by humans to animals, apparently under the impression that the animal follows what is being said.

If it seems difficult to conceive of animals understanding human language, then it appears to be even less likely that an animal would be capable of producing human language. After all, we do not generally observe animals of one species learning to produce the signals of another species.

So many experiments have been conducted in order to teach chimpanzees human language, sign language, or even a system of communication (using plastic shapes), but the results were so poor, proving that even the most close creatures to us are unable to acquire or learn our language.

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## $3^{\text {rd }}$ Lecture <br> THE DEVELOPMENT OF WRITING

## Lecture Elements

> Pictograms and ideograms
> Logograms
> Rebus writing
> Syllabic writing
> Alphabetic writing
> Written English

## Introduction

It is important, when we consider the development of writing, to keep in mind that a large number of the languages in the world today are
used only in the spoken form. We may be able to trace human attempts to represent information visually back to cave drawings made at least 20,000 years ago, or to clay tokens from about 10,000 years ago, which appear to have been an early attempt at bookkeeping, but these artifacts are best described as ancient precursors of writing.

The earliest writing for which we have clear evidence is the kind that Geoffrey Nunberg is referring to as 'cuneiform' marked on clay tablets about 5,000 years ago. An ancient script that has a more obvious connection to writing systems in use today can be identified in inscriptions dated around 3,000 years ago.

## Pictograms and ideograms

Pictogram (pictographic writing) is a way of writing in which a picture/drawing of an object is used to represent the object. A conventional relationship must exist between the symbol and its interpretation.
Ideogram (ideographic writing) is a way of writing in which each symbol represents a concept/an idea.
The distinction between pictograms and ideograms is essentially a difference in the relationship between the symbol and the entity it represents. The more 'picture-like' forms are pictograms and the more abstract derived forms are ideograms.

When the relationship between the symbol and the entity or idea becomes sufficiently abstract, we can be more confident that the symbol is probably being used to represent words in a language.

When symbols are used to represent words in a language, they are described as examples of wordwriting, or 'logograms'.

## Logograms

Logogram (logographic writing) is a way of writing in which each symbol represents a word.
A good example of logographic writing is the system used by the Sumerians, in the southern part of modern Iraq, around 5,000 years ago. Because of the particular shapes used in their symbols, these inscriptions are more generally described as cuneiform writing, which is a way of writing created by pressing a wedge-shaped implement into soft clay tablets.
The relationship between the written form and the object it represents has become arbitrary so we have a clear example of wordwriting or a logogram.
A modern writing system that is based, to a certain extent, on the use of logograms can be found in China. Many Chinese written symbols, or characters, are used as representations of the meaning of words, or parts of words, and not of the sounds of spoken language.

Quite a large number of different written symbols are required within this type of writing system (i.e. official list of modern Chinese characters has 2,500 characters and other lists contain up to 50,000 characters). This presents a substantial memory load.
To solve this problem a method is needed to go from symbols representing words (i.e. a logographic system) to a set of symbols that represent sounds (i.e. a phonographic system).

## Rebus writing

Rebus writing is a way of writing in which a pictorial representation of an object is used to indicate the sound of the word for that object. In this process, the symbol for one entity is taken over as the symbol for the sound of the spoken word used to refer to the entity. That symbol then comes to be used whenever that sound occurs in any words.

A similar process is taking place in contemporary English texting where the symbol " 2 " is used, not only as a number, but as the
sound of other words or parts of words, in messages such as "nd2spk2u2nite" ("(I) need to speak to you tonight"). In this message, the letter "u" also illustrates the process of rebus writing, having become the symbol for the sound of the spoken word "you."

## Syllabic writing

Syllabic writing (syllabary) is a way of writing in which each symbol represents a syllable (a unit of sound consisting of a vowel and optional consonants before or after the vowel). That is when a writing system employs a set of symbols each one representing the pronunciation of a syllable, it is described as syllabic writing. There are no purely syllabic writing systems in use today.

Both the ancient Egyptian and the Sumerian writing systems evolved to the point where some of the earlier logographic symbols were used to represent spoken syllables. However, it is not until the time of the Phoenicians, inhabiting what is modern Lebanon between 3,000 and 4,000 years ago, that we find the full use of a syllabic writing system. By about 3,000 years ago, the Phoenicians had stopped using logograms and had a fully developed syllabic writing system.

## Alphabetic writing

Alphabetic writing (alphabet) is a way of writing in which one symbol represents one sound segment. This seems to have occurred in the development of the writing systems of Semitic languages such as Arabic and Hebrew. This type of writing system is sometimes called a consonantal alphabet. The early version of Semitic alphabetic script, originating in the writing system of the Phoenicians, is the basic source of most other alphabets to be found in the world.

The early Greeks took the alphabetizing process a stage further by also using separate symbols to represent the vowel sounds as distinct entities, and so created a remodeled system that included vowels. This change produced a distinct symbol for a vowel sound such as
a (called 'alpha') to go with existing symbols for consonant sounds such as $b$ (called 'beta'), giving us single-sound writing or an 'alphabet'

## Written English

If indeed the origins of the alphabetic writing system were based on a correspondence between a single symbol and a single sound type, then one might reasonably ask why there is such a frequent mismatch between the forms of written English (you know) and the sounds of spoken English (yu no).

The answer to that question must be sought in a number of historical influences on the form of written English.
There were words derived from forms used in writing other languages, notably Latin and French.
Many of the early printers were native Dutch speakers and could not make consistently accurate decisions about English pronunciations.
Since the fifteenth century, the pronunciation of spoken English has undergone substantial changes

A large number of older written English words were actually 'recreated' by sixteenth-century spelling reformers to bring their written forms more into line with what were supposed, sometimes erroneously, to be their Latin origins (e.g. dette became debt, iland became island)

## $4^{\text {th }}$ Lecture THE SOUNDS OF LANGUAGE

## Lecture Elements

$>$ Introduction
$>$ Phonetics
> Voiced and voiceless sounds
> Place of articulation: Bilabials / Labiodentals / Dentals / Alveolars / Palatals / Velars / Glottals
> Charting consonant sounds
> Manner of articulation: Stops / Fricatives / Affricates / Nasals / Liquids / Glides / Vowels / Diphthongs
> Subtle individual variation

## Introduction

The sounds of spoken English do not match up, a lot of the time, with letters of written English.
If we cannot use the letters of the alphabet in a consistent way to represent the sounds we make, how do we go about describing the sounds of a language like English? One solution is to produce a
separate alphabet with symbols that represent sounds. Such a set of symbols does exist and is called the phonetic alphabet (a set of symbols, each one representing a distinct sound segment)

## Phonetics

Phonetics is the study of the characteristics of speech sounds.

Articulatory phonetics is the study of how speech sounds are produced.
Acoustic phonetics is the study of the physical properties of speech as sound waves.
Auditory phonetics is the study of the perception of speech sounds by the ear, also called "perceptual phonetics".

## Voiced and voiceless sounds

In articulatory phonetics, we investigate how speech sounds are produced using the fairly complex oral equipment we have. We start with the air pushed out by the lungs up through the trachea /'treikiə/ (or 'windpipe') to the larynx. Inside the larynx are your vocal cords, which take two basic positions.

1 When the vocal cords are spread apart, the air from the lungs passes between them unimpeded. Sounds produced in this way are described as voiceless.

2 When the vocal cords are drawn together, the air from the lungs repeatedly pushes them apart as it passes through, creating a vibration effect. Sounds produced in this way are described as voiced.
أعطانا سو الين كل واحد مثل الواجب يعني لازم تحفظ الجدول
Place of articulation


## Place of articulation

Once the air leave the lungs and passes through the larynx, it comes up and out through the mouth and/or the nose. Most consonant sounds are produced by using the tongue and other parts of the mouth to limit, in some way, the shape of the oral cavity through which the air is passing. The terms used to describe many sounds are those which denote the place of articulation of the sound: that is, the location inside the mouth at which the constriction takes place.

The following links are very helpful to learn about different places and manners of articulation

## http://www.uiowa.edu/~acadtech/phonetics/anatomy.htm

and
http://www.uiowa.edu/~acadtech/phonetics/english/frameset.html

Bilabials: are sounds formed using both upper and lower lips. The lower lip articulates against the upper lip. [p] is voiceless, and [b], [m] and [w] are voiced.

Labiodentals: are sounds formed with the upper teeth and the lower lip. The lower lip articulates against the upper teeth. [f] is voiceless, and [v] is voiced.

Dentals: are sounds formed with the tongue tip behind the upper front teeth (also referred to as interdentals). The tongue tip articulates against the upper teeth. [ $\theta$ ] is voiceless, and [ $\varnothing$ ] is voiced.
Alveolars: are sounds formed with the front part of the tongue on the alveolar ridge, which is the rough, bony ridge immediately behind and above the upper teeth. The tongue tip and/or blade articulates against the teeth ridge. [ t ] and [ s ] are voiceless whereas [d], [z] and [n] are voiced. Other alveolars are [l] and [r].

Palatals (Alveopalatals): are sounds produced with the tongue and the palate. The tongue front articulates against the hard palate. [J] and [ t$]$ ] ] are voiceless whereas [3], [d3] and [j] are voiced.

Velars: are sounds produced with the back of the tongue against the velum. The tongue back articulates against the soft palate. $[\mathrm{k}]$ is voiceless whereas [g] and [ y ] are voiced.

Glottals: In fact there is only one sound that is produced without the active use of the tongue and other parts of the mouth. It is the voiceless sound [h]. The vocal folds themselves are the place of articulation.

## Charting consonant sounds

Having described in some detail the place of articulation of English consonant sounds, we can summarize the basic information in the accompanying chart. Along the top of the chart are the different labels for places of articulation and, under each, the labels -V (= voiceless) and +V (= voiced). Also included in this chart, on the left-hand side, is a set of terms used to describe 'manner of articulation' which we will discuss in the following section

The links below may be of great help to practice the consonant sounds http://www.antimoon.com/misc/phonchart2C
http://www.stuff.co.uk/calcul nd.htm و الجدول مهم

|  | Bilabial |  | Labiedental |  | Dental |  | Alveolar |  | Palatal |  | Velar |  | Glottal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | -V | +V | -V | +V | -V | +V | -V | +V | -V | +V | -V | +V | -V | +V |
| Stops | $p$ | b |  |  |  |  | t | d |  |  | k | g |  |  |
| Fricatives |  |  | f | v | $\theta$ | б | 5 | $z$ | 5 | 3 |  |  |  |  |
| Affricates |  |  |  |  |  |  |  |  | t] | d3 |  |  |  |  |
| Nasals |  | m |  |  |  |  |  | $n$ |  |  |  | $\eta$ |  |  |
| Liquids |  |  |  |  |  |  |  | I, r |  |  |  |  |  |  |
| Glides |  | w |  |  |  |  |  |  |  | j |  |  | h |  |

## Manner of articulation

So far, we have concentrated on describing consonant sounds in terms of where they are articulated. We can also describe the same sounds in terms of how they are articulated. Such a description is necessary if we want to be able to differentiate between some sounds which, in the preceding discussion, we have placed in the same category. For example, we can say that [ t ] and [ s ] are both voiceless alveolar sounds. How do they differ? They differ in their manner of articulation, that is, in the way they are pronounced. The [ t ] sound is one of a set of sounds called stops and the [s] sound is one of a set called fricatives

Stops: Of the sounds we have already mentioned, the set [p], [b], [ t ], [d], [k], [g] are all produced by some form of 'stopping' of the airstream (very briefly) then letting it go abruptly. This type of consonant sound, resulting from a blocking or stopping effect on the airstream, is called a stop (or a 'plosive').

Fricatives: The manner of articulation used in producing the set of sounds [f], [v], [ $\theta$ ], [d], [s], [z], [ [], [3] involves almost blocking the airstream and having the air push through the very narrow opening. As the air is pushed through, a type of friction is produced and the resulting sounds are called fricatives.

Affricates: If you combine a brief stopping of the airstream with an obstructed release which causes some friction, you will be able to produce the sounds $[\mathrm{t}]$ ] and $[\mathrm{d} 3]$. These are called affricates.

Nasals: Most sounds are produced orally, with the velum raised, preventing airflow from entering the nasal cavity. However, when the velum is lowered and the airstream is allowed to flow out through the nose to produce [m], [ n ], and [ n$]$, the sounds are described as nasals.

Liquids: The initial sounds in led and red are described as liquids. They are both voiced. The [I] sound is called a lateral liquid and is formed by letting the airstream flow around the sides of the tongue as the tip of the tongue makes contact with the middle of the alveolar ridge. The [r] sound at the beginning of red is formed with the tongue tip raised and curled back near the alveolar ridge.
وجانا تـعريف أخر بس مـاني ذاكره
Glides: The sounds [w] and [j] are described as glides. They are both voiced and occur at the beginning of we, wet, you and yes. These sounds are typically produced with the tongue in motion (or 'gliding') to or from the position of a vowel and are sometimes called semi-vowels or approximants.
The sound [h], as in Hi or hello, is voiceless and can be classified as a glide because of the way it combines with other sounds. In some descriptions, it is treated as a fricative.

Vowels: While the consonant sounds are mostly articulated via closure or obstruction in the vocal tract, vowel sounds are
produced with a relatively free flow of air. They are all typically voiced. To describe vowel sounds, we consider the way in which the tongue influences the 'shape' through which the airflow must pass. To talk about a place of articulation, we think of the space inside the mouth as having a front versus a back and a high versus a low area.

The vowel chart (Figure A below) fits into the middle of the mouth as shown in the simple cross-section of the head (Figure B).

Figure $\mathbf{A}$


Foel your tongue move to these points to form vomel sounds

Figure B


## Below is a chart with a list of the sounds with some examples of familiar words

## vowels

[i] eat, key, see
[1] hit, myth, women
[e] great, tail, weight
$[\varepsilon]$ dead, pet, said
[æ] ban, laugh, sat
[ə] above, sofa, support
[ A ] blood, putt, tough
[u] move, two, too
[U] could, foot, put
[o] no, road, toe
[2] ball, caught, raw
[a] bomb, cot, swan

## $5^{\text {th }}$ Lecture

## Lecture Elements

## THE SOUND PATTERNS OF LANGUAGE

$>$ Introduction
$>$ Phonology
> Phonemes
> Phones and allophones
> Minimal pairs and sets
$>$ Phonotactics
> Syllables and clusters
> Co-articulation effects
> Assimilation
> Elision
> Normal speech

## Introduction

In the preceding chapter, we investigated the physical production of speech sounds in terms of the articulatory mechanisms of the human vocal tract. Every individual has a physically different vocal tract. Consequently, in purely physical terms, every individual will pronounce sounds differently. In addition, each individual will not pronounce the word " $m e$ " in a physically identical manner on every occasion. How do we manage consistently to recognize all those versions of me? The answer to that question is provided to a large extent by the study of phonology.

Phonology is the study of the systems and patterns of speech sounds in languages. Phonology is concerned with the abstract set of sounds in a language that allows us to distinguish meaning in the actual physical sounds we say and hear.

Phoneme is the smallest meaning-distinguishing sound unit in the abstract representation of the sounds of a language. An essential property of a phoneme is that it functions contrastively. If we substitute one sound for another in a word and there is a change of meaning, then the two sounds represent different phonemes. The basic phonemes of English are listed in the consonant and vowel charts in lecture 4.

## Phones and allophones

While the phoneme is the abstract unit or sound type ('in the mind'), there are many different versions of that sound type regularly produced in actual speech ('in the mouth'). We can describe those different versions as phones. Phones are phonetic units and appear in square brackets. A phone is a physically produced speech sound, representing one version of a phoneme

When we have a group of several phones, all of which are versions of one phoneme, we add the prefix 'allo-' (=one of a closely related set) and refer to them as allophones of that phoneme. An allophone is one of a closely related set of speech sounds or phones. For example, the [t] sound in the word tar is normally pronounced with a stronger puff of air (aspiration) than is present in the [ t ] sound in the word star.

## Minimal pairs and sets

When two words such as "pat" and "bat" are identical in form except for a contrast in one phoneme, occurring in the same position, the two words are described as a minimal pair (fan-van, bet-bat, site-side).
When a group of words can be differentiated, each one from the others, by changing one phoneme (always in the same position in the word), then we have a minimal set (big, pig, rig, fig, dig, wig).

Phonotactics are constraints (restrictions) on the permissible combination of sounds in a language.
If we look at last minimal set, we can notice that it does not include forms such as lig or vig. According to the dictionary, these are not English words, but they could be viewed as possible English words.

It is, however, no accident that forms such as [fsig] or [rnıg] do not exist or are unlikely ever to exist. They have been formed without obeying some constraints on the sequence or position of English phonemes. Such constraints are called the phonotactics (i.e. permitted arrangements of sounds) in a language and are obviously part of every speaker's phonological knowledge.

## Syllables and clusters

A syllable is a unit of sound consisting of a vowel (V) and optional consonant(s) (C) before or after the vowel.

Coda is the part of a syllable after the vowel.

Nucleus is the vowel in a syllable.

Onset is the part of the syllable before the vowel.

Rhyme is the part of the syllable containing the vowel plus any following consonant(s), also called "rime"

A consonant cluster is two or more consonants in sequence.


## Co-articulation effects

Mostly our talk is fast and spontaneous, and it requires our articulators to move from one sound to the next without stopping. The process of making one sound almost at the same time as the next sound is called co-articulation. There are two well-known coarticulation effects, described as assimilation and elision.

Assimilation is the process whereby a feature of one sound becomes part of another during speech production. when we say words like pin and pan in everyday speech, the anticipation of forming the final nasal consonant will make it easier to go into the nasalized articulation in advance and consequently the vowel sounds in these words will be nasalized.
We may, for example, pronounce and as [ænd] by itself, but in the normal use of the phrase you and me, we usually say [ən], as in [yuənmi].

Elision is the process of leaving out a sound segment in the pronunciation of a word. In the last example, illustrating the normal pronunciation of you and me, the [d] sound of the word and was not included in the transcription. That's because it isn't usually pronounced in this phrase. In the environment of a preceding nasal [ n ] and a following nasal [m], we simply don't devote speech energy to including the stop sound [d].

Normal speech :These two processes of assimilation and elision occur in everyone's normal speech and should not be regarded as some type of carelessness or laziness in speaking. In fact, consistently avoiding
the regular patterns of assimilation and elision used in a language would result in extremely artificial-sounding talk. The point of investigating these phonological processes is not to arrive at a set of rules about how a language should be pronounced, but to try to come to an understanding of the regularities and patterns which underlie the actual use of sounds in language.

## $6^{\text {th }}$ Lecture

## Lecture Elements

WORDS AND WORD-FORMATION PROCESSES
$\rightarrow$ Introduction
> Etymology
> Coinage
$>$ Borrowing
> Compounding
> Blending
> Clipping
> Backformation
> Conversion
$>$ Acronyms
$>$ Derivation
> Prefixes and suffixes
> Infixes
> Multiple processes

## Introduction

A lot of people use words in their first language without knowing that it is not originally part of their first language. People really had no difficulty coping with the new words. That is, they can very quickly understand a new word in their language (a neologism) and accept the use of different forms of that new word. This ability must derive in part from the fact that there is a lot of regularity in the word-formation processes in our language. In this lecture, we
will explore some of the basic processes by which new words are created.

## Etymology

The study of the origin and history of a word is known as its etymology, a term which, like many of our technical words, comes to us through Latin, but has its origins in Greek ('etymon 'original form' + logia 'study of'), and is not to be confused with entomology, also from Greek ('entomon 'insect').
There are many ways in which new words can enter a language.

Many new words can cause objections as they come into use today, that is, people do not easily accept the use of new words at first and reject them. Instead of looking at these innovated words as an offense against language, it is better to see the constant evolution of new words and new uses of old words as a reassuring sign of vitality and creativeness in the way a language is shaped by the needs of its users.

## Coinage

One of the least common processes of word formation in English is coinage, that is, the invention of totally new terms. The most typical sources are invented trade names for commercial products that become general terms (usually without capital letters) for any version of that product (e.g. kleenex, xerox).
New words based on the name of a person or a place are called eponyms (e.g. sandwich., jeans, fahrenheit)

Borrowing is the process of taking words from other languages. English language has adopted a vast number of words from other languages, including croissant (French), piano (Italian), sofa (Arabic). Other languages, of course, borrow terms from English, as in the Japanese use of suupaamaaketto ('supermarket') or the French discussing problems of le stress, during le weekend.

A special type of borrowing is described as loan translation or calque. In this process, there is a direct translation of the elements of a word into the borrowing language. Interesting examples are the French term gratte-ciel, which literally translates as 'scrape-sky', the Dutch wolkenkrabber ('cloud scratcher'), the Arabic expression ناطحات السحاب, or the German Wolkenkratzer ('cloud scraper'), all of which were calques for the English skyscraper.

Compounding is the process of combining two (or more) words to form a new word. This combining process, technically known as compounding, is very common in languages such as German and English, but much less common in languages such as French, Arabic and Spanish.
In English, for example, we may find different types of compounding: Compound nouns (housewife, classroom), Compound adjectives (part-time, 20-year-old) and Compound verbs (download, upgrade

| Modifier | Head | Compound |
| :--- | :--- | :--- |
| noun | noun | football |
| adjective | noun | blackboard |
| verb | noun | breakwater |
| preposition | adjective | underworld |
| noun | adjective | snowwhite |
| adjective | adjective | blue-green |
| verb | adjective | turnbledown |
| preposition | Head | over-ripe |
| Modifier | verb | Compound |
| noun | verb | browbeat |
| adjective | verb | highlight |
| verb | verb | freeze-dry |
| preposition | preposition | Undercut |
| noun | preposition | love-in |
| adjective | preposition | Forthwith |
| verb | preposition | Takeout |
| preposition |  | Without |

Blending is the process of combining the beginning of one word and the end of another word to form a new word (e.g. brunch from breakfast and lunch).

Most blends are formed by one of the following methods:
1- The beginning of one word is added to the end of the other (e.g. breakfast + lunch = brunch, smoke + fog $=$ smog).

2- The beginnings of two words are combined (e.g. cybernetic + organism = cyborg).

2- Two words are blended around a common sequence of sounds (e.g. California + fornication $=$ Californication, motor + hotel $=$ motel).

3- Multiple sounds from two component words are blended, while mostly preserving the sounds' order (e.g. slimy + lithe $=$ slithy)

Clipping is the process of reducing a word of more than one syllable to a shorter form.
1- Back clipping retains the beginning of a word: ad (advertisement), doc (doctor), exam (examination), fax (facsimile), gas (gasoline), gym (gymnastics, gymnasium).
2- Fore-clipping retains the final part: chute (parachute), coon (raccoon), gator (alligator), phone (telephone), varsity (university).
4- Middle clipping retains the middle of the word: flu (influenza), jams or jammies (pajamas / pyjamas ), tec (detective).

Backformation is the process of reducing a word such as a noun to a shorter version and using it as a new word such as a verb (e.g. burgle -19th century- is a back-formation from burglar -which is six centuries older- and sculpt -19th century- from sculptor -17th century).
Back-formation is different from clipping - back-formation may change the part of speech or the word's meaning, whereas clipping
creates shortened words from longer words, but does not change the part of speech or the meaning of the word.

Conversion is the process of changing the function of a word, such as a noun to a verb, as a way of forming new words, also known as "category change" or "functional shift" (e.g. vacation in They're vacationing in Florida).

- Conversion from noun to verb: bottle, butter, chair ...
- Conversion from verb to noun: guess, must, spy ...
- Conversion from phrasal verb to noun: print out, take over ... $\rightarrow$ (a printout, a takeover).
- Conversion from verb to adjective: see through, stand up ...
- Conversion from adjective to verb: empty, clean ...
- Conversion from adjective to noun: crazy, nasty ...
- Conversion from compound nouns to adjective : the ball park ... $\rightarrow$ (a ball-park figure)
- Conversion from compound nouns to verb: carpool, microwave..
- Conversion from preposition to verb: up, down ...

The conversion process is particularly productive in modern English, with new uses occurring frequently.
It is worth noting that some words can shift substantially in meaning when they change category through conversion.

- An acronym is a short form of a word, name or phrase formed from the first letters of the series of words.
- An abbreviation is also a condensed form of a word and an articulated form of the original word.
- An acronym is pronounced as a new word signifying some concept.
- An abbreviation is pronounced as the original word letter by letter.


## Acronyms

An acronym is formed from the first letters of a series of words.

For example: AIDS; it is formed from the words Acquired Immune Deficiency Syndrome whereas, an abbreviation may not include only the first letter from the words.
For example: Dr.; it is formed
from Doctor. Another difference between an abbreviation and acronym is that an acronym is pronounced as a word.
For example: NATO, it is formed from the word North Atlantic Treaty
Organization, but is pronounced as a new word whereas an abbreviation is pronounced as a separate letter.
For example: BBC; British Broadcasting Corporation. It is spoken as $B, B, C$ letter by letter.

Another difference between an abbreviation and an acronym is that an abbreviation contains periods in between for example I.D, Mr., I.Q etc. Whereas an acronym has no periods in between, it is a short description.
All acronyms can be abbreviations, but all abbreviations cannot be acronyms.

Derivation is the process of forming new words by adding affixes. It is the most common word formation process to be found in the production of new English words.
Some familiar examples are the elements un-, mis-, pre-, -ful, -less, ish, -ism and -ness which appear in words like unhappy, misrepresent, prejudge, joyful, careless, boyish, terrorism and sadness.

## Prefixes and suffixes

Looking more closely at the preceding group of words, we can see that some affixes have to be added to the beginning of the word (e.g. un-). These are called prefixes. Other affixes have to be added to the end of the word (e.g. -ish) and are called suffixes.

## Infixes

There is a third type of affix, not normally used in English, but found in some other languages. This is called an infix and, as the term suggests, it is an affix that is incorporated inside another word.

Arabic is very well known using infixes.


## Multiple processes

In the process of word formation, more than one of the techniques or processes mentioned earlier can be used to form a new word. Forms that begin as acronyms can also go through other processes, as in the use of lase as a verb, the result of backformation from laser.
Some of the formed words lasted for a long time and became part of the language, but others were resisted and disappeared after a period.

## $7^{\text {th }}$ Lecture

## Lecture Elements

## MORPHOLOGY

> Morphology
> Morphemes
> Free and bound morphemes
$>$ Lexical and functional morphemes
$>$ Derivational and inflectional morphemes
> Morphological description
$>$ Problems in morphological description

## Morphology

In many languages, what appear to be single forms actually turn out to contain a large number of 'word-like' elements. (the Swahili example in the text book will be replaced by an Arabic one). What seems to be one word in Arabic سَأْقِّكَكَ conveys what, in English, would have to be represented as something like I will rescue you.

Now, is the Arabic form a single word? If it is a 'word', then it seems to consist of a number of elements which, in English, turn up as separate 'words'. A rough correspondence can be presented in the following way:

will-I - save - you
The type of exercise we have just performed is an example of investigating basic forms in language, generally known as morphology.

The term morphology, which literally means 'the study of forms', was originally used in biology, but, since the middle of the nineteenth century, has also been used to describe the type of investigation that analyzes all those basic 'elements' used in a language. What we have been describing as 'elements' in the form of a linguistic message are technically known as 'morphemes'.

## Morphemes

The comparison we made between the Arabic utterance and its English equivalent made it clear that there are elements in what may seem only one entity. But we still can recognize that English word forms such as talks, talker, talked and talking must consist of one element talk, and a number of other elements such as -s, -er, ed and -ing. All these elements are described as morphemes. The definition of a morpheme is "a minimal unit of meaning or grammatical function".

Units of grammatical function include forms used to indicate past tense or plural, for example.
The word reopened consists of three morphemes. One minimal unit of meaning is open, another minimal unit of meaning is re- (meaning 'again') and a minimal unit of grammatical function is -ed (indicating past tense). The word tourists also contains three morphemes. There is one minimal unit of meaning tour, another minimal unit of meaning -ist (marking 'person who does something'), and a minimal unit of grammatical function -s (indicating plural).

## Free and bound morphemes

From these examples, we can make a broad distinction between two types of morphemes. There are free morphemes, that is, morphemes that can stand by themselves as single words, for example, open and tour. There are also bound morphemes, which are those forms that cannot normally stand alone and are typically attached to another form, exemplified as re-, -ist, -ed, -s .
all affixes (prefixes and suffixes) in English are bound morphemes. The free morphemes can generally be identified as the set of separate English word forms such as basic nouns, adjectives, verbs, etc. When they are used with bound morphemes attached, the basic word forms are technically known as stems. For example:


In words such as receive, reduce and repeat, we can identify the bound morpheme re- at the beginning, but the elements -ceive, -duce and -peat are not separate word forms and hence cannot be free morphemes. These types of forms are sometimes described as
'bound stems' to keep them distinct from 'free stems' such as dress and care.

## Lexical and functional morphemes

There are two types of free morphemes. The first is that set of ordinary nouns, adjectives and verbs that we think of as the words that carry the 'content' of the messages we convey. These free morphemes are called lexical morphemes. The second is what is called functional morphemes. Examples are and, but, when, because, on, near, above, in, the, that, it, them.

This set consists largely of the functional words in the language such as conjunctions, prepositions, articles and pronouns. Because we almost never add new functional morphemes to the language, they are described as a 'closed' class of words.

## Derivational and inflectional morphemes

The set of affixes that make up the category of bound morphemes can also be divided into two types. One type we have already considered in chapter 6 when we looked at the derivation of words. These are the derivational morphemes. We use these bound morphemes to make new words or to make words of a different grammatical category from the stem. For example, the addition of the derivational morpheme -ness changes the adjective good to the noun goodness, and the addition of the prefix re-changes the meaning of the word pay when added to it.

The second set of bound morphemes contains what are called inflectional morphemes. These are not used to produce new words in the language, but rather to indicate aspects of the grammatical function of a word. Inflectional morphemes are used to show if a word is plural or singular, if it is past tense or not, and if it is a comparative or possessive form.

English has only eight8 inflectional morphemes (or 'inflections'), illustrated below:
Noun + -'s, -s: (teacher's book/teachers)
Verb +-s, -ing, -ed, -en : (teaches / teaching / played / taken)
Adjective +-est, -er: (younger/youngest)

## Morphological description

The difference between derivational and inflectional morphemes is worth emphasizing. An inflectional morpheme never changes the grammatical category of a word. For example, both old and older are adjectives. However, a derivational morpheme can change the grammatical category of a word. The verb teach becomes the noun teacher if we add the derivational morpheme -er.

So, the suffix -er in modern English can be an inflectional morpheme as part of an adjective and also a distinct derivational morpheme as part of a noun. Just because they look the same (-er) doesn't mean they do the same kind of work

A useful way to remember all these different types of morphemes is in the following chart.



## Problems in morphological description

The rather neat chart presented here hides a number of outstanding problems in the analysis of English morphology. So far, we have only considered examples of English words in which the different morphemes are easily identifiable as separate elements. The inflectional morpheme -s is added to car and we get the plural cars. What is the inflectional morpheme that makes sheep the plural of sheep, or men the
plural of man?
And if -al is the derivational suffix added to the stem institution to give us institutional, then can we take -al off the word legal to get the stem leg? Unfortunately, the answer is "No".
It has been pointed out that an extremely large number of English words owe their morphological patterning to languages like Latin and Greek. Consequently, a full description of English morphology will have to take account of both historical influences and the effect of borrowed elements.

## Morphs and allomorphs

Using some processes already noted in phonology (chapter 5: phones and allophones), we may treat differences in inflectional
morphemes by proposing variation in morphological realization rules.
Just as we treated 'phones' as the actual phonetic realization of 'phonemes', so we can propose morphs as the actual forms used to realize morphemes.

For example, the form cars consists of two morphs, car $+-s$, realizing a lexical morpheme and an inflectional morpheme ('plural'). The form buses also consists of two morphs (bus + -es), realizing a lexical morpheme and an inflectional morpheme ('plural'). So there are at least two morphs (-s and -es) used to realize the inflectional morpheme 'plural'. Just as we noted that there were 'allophones' of a particular phoneme, so we can recognize the existence of allomorphs of a particular morpheme.

Take the morpheme 'plural'. Note that it can be attached to a number of lexical morphemes to produce structures like 'cat + plural', 'bus +plural' 'sheep + plural' and 'man + plural'. In each of these examples, the actual forms of the morphs that result from the morpheme 'plural' are different. Yet they are all allomorphs of the one morpheme. So, in addition to -s and -es, another allomorph of 'plural' in English seems to be a zero-morph because the plural form of sheep is actually 'sheep + $\emptyset$ '. When we look at 'man + plural', we have a vowel change in the word ( $a \rightarrow \varepsilon$ ) as the morph that produces the so-called 'irregular' plural form men.

## Lecture Elements

## PHRASES AND SENTENCES: GRAMMAR

$>$ Introduction
$>$ Grammar
> Traditional grammar
> The parts of speech
> Agreement
> Grammatical gender
> Traditional analysis
> The prescriptive approach
> Captain Kirk's infinitive
> The descriptive approach
> Structural analysis
> Immediate constituent analysis
> Labeled and bracketed sentences

## Introduction

We have already considered two levels of description used in the study of language. We have described linguistic expressions as sequences of sounds that can be represented in the phonetic alphabet and described in terms of their features.


We can take the same expression and describe it as a sequence of morphemes.
The luck -y boy -s
functional lexical derivational lexical inflectional

## Grammar

With these descriptions, we could characterize all the words and phrases of a language in terms of their phonology and morphology.
However, we have not accounted for the fact that these words can only be combined in a limited number of patterns.
The English phrase the lucky boys is well-formed, while the two following phrases *boys the lucky *lucky boys the are not.
(We use an asterisk * to indicate that a form is unacceptable or ungrammatical.)

The process of describing the structure of phrases and sentences in such away that we account for all the grammatical sequences in a language and rule out all the ungrammatical sequences is one way of defining grammar.

Traditional grammar is the description of the structure of phrases and sentences based on established categories used in the analysis of Latin and Greek. Since there were well-established grammatical descriptions of these languages, it seemed appropriate to adopt the existing categories from these descriptions and apply them in the analysis of 'newer' languages such as English.

## The parts of speech

The technical terms used to describe each part of speech are illustrated in the following sentence and simple definitions of each term are listed below.

| The | lucky | boys | found | a | backpack | in |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| article | adjective | noun | verb | article | noun | preposition |
| the | park | and | they | opened | it | carefully. |
| article | noun | conjunction pronoun | verb | pronoun | adverb |  |

Noun (N): a word such as boy, bicycle or freedom used to describe a person, thing or idea.

Article (Art): a word such as $a$, an or the used with a noun.
Adjective (Adj): a word such as happy or strange used with a noun to provide more information.

Verb (V): a word such as go, drown or know used to describe an action, event or state.

Adverb (Adv): a word such as slowly or really used with a verb or adjective to provide more information

Preposition (Prep): a word such as in or with used with a noun phrase.

Pronoun (Pro): a word such as it or them used in place of a noun or noun phrase.

Conjunction: a word such as and or because used to make connections between words, phrases and sentences

Interjections are words that show emotion. They are not grammatically related to the rest of the sentence (Wow/Oh/Uhoh).
جان سؤ ال بس مـاني ذاكر هو فعل و لا اسم بس مـادة القو اعد
و المنظو مات النحوي ر اح تفبدك كثير في هذي الأسئلة
Agreement: the grammatical connection between two parts of a sentence, as in the connection between a subject (Cathy) and the form of a verb (loves chocolate).
Agreement can be dealt with in terms of number (singular or plural), person ( $1^{\text {st }}, 2^{\text {nd }}$, or $3^{\text {rd }}$ person), tense, active or passive voice, or gender (male, female, or neuter).

## grammatical gender.

The type of biological distinction used in English is quite different from the more common distinction found in languages that use grammatical gender. Whereas natural gender is based on sex (male and female), grammatical gender is based on the type of noun (masculine and feminine) and is not tied to sex. In this latter sense, nouns are classified according to their gender class and, typically, articles and adjectives have different forms to 'agree with' the gender of the noun.

Traditional analysis / grammar: the description of the structure of phrases and sentences based on established categories used in the analysis of Latin and Greek. Such is the case of describing the way to conjugate the verb love comparing Latin and English languages (p.77).

The Prescriptive approach: an approach to grammar that has rules for the proper use of the language, traditionally based on Latin grammar, in contrast to the descriptive approach. It is one thing to adopt the grammatical labels (e.g. 'noun', 'verb') to categorize words in English sentences; it is quite another thing to go on to
claim that the structure of English sentences should be like the structure of sentences in Latin.

This view of grammar as a set of rules for the 'proper' use of a language is still to be found today and may be best characterized as the prescriptive approach. Some familiar examples of prescriptive rules for English sentences are:

- You must not split an infinitive.
- You must not end a sentence with a preposition.


## Captain Kirk's infinitive

The infinitive in English has the form to +the base form of the verb, as in to go, and can be used with an adverb such as boldly. At the beginning of each televised Star Trek episode, one of the main characters, Captain Kirk, always used the expression To boldly go. . . . This is an example of a split infinitive. Captain Kirk’s teacher might have expected him to say To go boldly or Boldly to go, so that the adverb didn't split the infinitive.

The descriptive approach: an approach to grammar that is based on a description of the structures actually used in a language, not what should be used, in contrast to the prescriptive approach. Two famous approaches are:

- structural analysis
- immediate constituent analysis = labeled and bracketed sentences

Structural analysis: the investigation of the distribution of grammatical forms in a language. The method involves the use of 'test-frames' that can be sentences with empty slots in them. For example:
The $\qquad$ makes a lot of noise.
I heard a $\qquad$ yesterday.

There are a lot of forms that can fit into these slots to produce good grammatical sentences of English (e.g. car, child, donkey, dog, radio).

As a result, we can propose that because all these forms fit in the same test-frame, they are likely to be examples of the same grammatical category. The label we give to this grammatical category is, of course, 'noun'.

## Immediate constituent analysis

Constituent analysis: a grammatical analysis of how small constituents (or components) go together to form larger constituents in sentences. One basic step is determining how words go together to form phrases. In the following sentence, we can identify eight constituents at the word level: Her father brought a shotgun to the wedding.
her father / a shotgun / the wedding = noun phrases.
to the wedding = a prepositional phrase. brought a shotgun = a verb phrase.


Labeled and bracketed sentences: a type of analysis in which constituents in a sentence are marked off by brackets with labels describing each type of constituent


We can then label each constituent using abbreviated grammatical terms such as 'Art' (=article), ' N ' (=noun), 'NP’ (=noun phrase), 'V' (=verb), 'VP' (=verb phrase) and 'S' (=sentence).


## $9^{\text {th }}$ Lecture

سؤال في تعرفي بناء الجملةّة والجواب

## Syntax

In the preceding chapter, we moved from the general categories and concepts of traditional grammar to more specific methods of describing the structure of phrases and sentences. When we concentrate on the structure and ordering of components within a sentence, we are studying the syntax of a language.

