## UNIT - III

## MORPHOLOGY

### 3.1 SCOPE AND NATURE

Morphology is a study of words. It basically deals with 'word formation', examines the relationship between words, and analyzes their constituent elements. Morphology focuses on the various morphemes that make up a word. The concepts such as 'morphemes', 'morphs' and 'allomorphs' are basic to the study of morphology.

## MORPHEME

'Morpheme is the smallest indivisible unit of semantic content and grammatical function'. In other words we can say that morpheme is the minimal unit of a language which has a meaning, lexical or grammatical, and cannot be divided into further smaller units. For Example- the word "unjustifiable" consists of 3 morphemes - Un + justify + able Where, 'un-' is a prefix which means "not" and in this example it is used to negate the adjective "justifiable". The suffix 'able', is used to form adjective that is usually placed at the end of a verb such as- 'useable', 'lovable', 'deniable' etc. All the three morphemes ('un', 'justify' and 'able') in the word "unjustifiable" are indivisible if we divide them further they will lose their meaning. Thus we find that a morpheme is defined as the smallest unit of a language that still has a meaning. Morphemes are said to be the parts of words, such as prefixes, suffixes and roots. For example in the same word "unjustifiable", "un-" - prefix "Justify" - root "-able" - suffix Morphemes can immediately be divided into two

1- Free Morphemes
2- 2-Bound Morphemes

### 3.2 CONCEPT OF MORPHEME

To start with a working definition, which we will make more precise later, we can say that morphemes are the smallest meaningful units of language, which cannot be subdivided without losing their meaning. They are abstract units, indicated between braces: \{ \}. Lexemes and syntactic words are composed of one or more than one morpheme. For instance, the lexeme TEACHER consists of two morphemes: \{teach\}\{-er\}, the lexeme ALBATROSS consists of one: $\{$ albatross \}. 1 When we realise morphemes, we produce morphs. Morphs are the physical
realisations of morphemes. The billions of actual morphs realising an abstract morpheme by actual speakers in actual situations can be grouped into a few phonologically different shapes, so called allomorphs. Allomorphs are the positional alternants of a morpheme: they have the same meaning and are in complementary distribution. (The latter means that they occur in mutually exclusive environments, cf. Unit 3.) There is a perfect parallel between the morph allomorph - morpheme series on the one hand, and the phone - allophone - phoneme series on the other. Just like the phone (speech sound) and the allophone are the concern of the etic approach and the phoneme of the emic approach, the morph and the allomorph are the concern of the etic approach and the morpheme of the emic approach, cf. Unit 4. The phonological differences between the allomorphs of a morpheme are often due to the phonological environment, i.e. the phonological differences are often phonologically conditioned. For instance, $\{-\mathrm{s}\}$, the abstract plural morpheme in English has three regular allomorphs. When the last sound of the noun is a sibilant (i.e. /s, z, S, Z, tS, dZ/), the allomorph will be /Iz/, as in e.g. boxes, bushes. When the last sound of the noun is a voiceless non-sibilant, the allomorph will be $/ \mathrm{s} /$, as in books, plates. And elsewhere, i.e. where the last sound of the noun is a voiced nonsibilant, the plural morpheme will be realised as / $\mathrm{z} /$, as in bags, apples, potatoes. In other cases the phonological differences of the allomorphs can be due to lexical conditioning. For instance, the plural morpheme is realised as /'n/ when it is attached to the noun ox. Here it is not the last sound of the noun that is responsible for the alternation but the entire lexeme OX. The phonological difference of the allomorphs can also be caused by morphological conditioning. This happens e.g. in the plural noun houses, i.e. $\{$ house $\}\{-\mathrm{s}\}$, where the first morpheme is realised as /haUz/ before the plural morpheme, although it is realised as /haUs/ when it stands alone as a singular noun. Here one morpheme affects the realisation of another. Morphemes can be grouped into two types on the basis of whether or not they can form monomorphemic words. • If they can occur by themselves as whole words, (i.e. if they can form monomorphemic words), then we call them free morphemes. For instance, \{house\}, \{albatross \}, \{kangaroo\}, \{lullaby\}, \{table\}, etc. are free morphemes. • But there are also morphemes which must be attached to other morphemes within words, these are called bound morphemes. For example, the plural morpheme $\{-\mathrm{s}\}$, or the adverb-forming morpheme $\{-\mathrm{ly}\}$ are bound morphemes. Most bound morphemes are affixes. In English, these are either suffixes (following stems) or prefixes (preceding stems). Suffixes in English are either inflectional or derivational. If you add an inflectional suffix to a stem, you do not create a new lexeme, you only produce another inflected variant (i.e. another syntactic word) of the same lexeme. For example, $\{$-s $\}$ is an inflectional suffix, because by adding it to the stem \{boy\}, we get boys, which is just another
syntactic word belonging to the paradigm of BOY. However, if you add a derivational suffix to a stem, you create another lexeme. For example, $\{-$ hood $\}$ is a derivational suffix, because by adding it to the stem \{boy\}, you produce a new lexeme BOYHOOD, which is the starting point of a new paradigm. Prefixes in Present-Day English are always derivational, e.g. \{en-\}, added to the stem \{joy\} gives rise to a new lexeme ENJOY. 2 A stem is that part of a word which remains if we remove the suffix or prefix that has entered the word last. The stem is not necessarily a single morpheme, e.g. the stem of unfriendliness is unfriendly, the stem of unfriendly is friendly, and the stem of friendly is friend, cf. (2). If we remove all affixes, we arrive at the absolute stem, called root (also known as base), which is always a single morpheme. Thus, the root of unfriendliness is \{friend\}.

The root is usually a free morpheme (as in e.g. unfriendliness), but there are also roots which are bound. For example, in words like include, conclude, preclude, exclude, etc. the prefix \{in$\},\{$ con- $\},\{$ pre- $\},\{$ ex- $\}$, etc. is followed by the root $\{$-clude $\}$, which is not a free form since it never occurs alone as a monomorphemic word. Moreover, the meaning of $\{$-clude $\}$ is unclear, in fact it is dubious whether it has any meaning at all. (If you know Latin you may think that \{-clude\} means 'to close', but this can hardly be felt in e.g. conclude. Besides, native speakers of English do not think of Latin when they use such words.) Although we do not know if \{clude \} has a meaning or what that meaning is, we still regard it as a morpheme, because its pronunciation/klu:d/ systematically varies with/klu:s/ when it is followed by the suffix \{-ive \}, as in inclusive or conclusive, and with $/ k l u Z Z /$ when followed by the suffix $\{$-ion $\}$, as in inclusion, conclusion. To put it in another way, $\{$-clude $\}$ has allomorphic variants: /klu $\mathrm{d} /$, /klu $\breve{\mathrm{s}} /$ and $/ \mathrm{klu} \mathrm{Z} /$, which shows that it is a morpheme.

Since, as we have just seen, the criterion of meaning cannot always be used, we shall revise our original definition, which we gave at the beginning of this section, in the following way: Morphemes are the smallest meaningful units of language or the units of allomorphic variation, which cannot be subdivided without losing their meaning or losing their allomorphic variability. To put it more informally, morphemes are recurring word-parts which have some constant variants, and which are typically but not necessarily meaningful. This definition will cover all morphemes that we have considered so far.

## Word Segmentability

There are words which are easy to segment into morphemes, e.g \{un-\}\{friend\}\{-li\}\{-ness\}, \{girl\} $\{-\mathrm{s}\}$, $\{$ smoke $\}\{$-ed \}, etc. Languages in which most words are of this kind (i.e. in which most words are sequences of separable morphemes) are called agglutinating languages. For instance, Hungarian is a typical agglutinating language, cf. e.g. \{pénz\}\{-telen\}\{-ség\}\{-em\}\{től $\}$ ('money-less-ness-my-from' i.e. 'from my not having money'). There are also many words which are monomorphemic, i.e. which are composed of single morphemes. In these, morphemes coincide with words, e.g. go, coffee, elephant. Languages in which most words consist of single morphemes are called isolating languages. Classical Chinese is one of them. Finally, there are words in which the constituent abstract morphemes are fused together in an inseparable way, e.g. the English words took and mice consist of $\{$ take $\}\{$-ed $\}$ and $\{$ mouse $\}\{-$ s\}, respectively. Also, there are words in which some morphs represent inseparable fusions of abstract morphemes, e.g. the Russian nominal inflectional suffix -u, as in e.g. lampu ('lampAcc.'), simultaneously realises \{Feminine\}, \{Singular\}, \{Accusative\}. Languages in which the fusion of morphemes is typical are called fusional (= inflecting) languages. Latin is a typical fusional language. Of course, these language types, established on the basis of the morphological make-up of the majority of their words, are not pure types. English, for instance, is a mixture of all three, but it is predominantly (statistically) isolating because a large part of its words are monomorphemic. By contrast, Hungarian is predominantly agglutinating.

### 3.3 MORPH

Morphs are the actual shape or the realization of a morpheme. They are defined as "an element of speech or writing that represents and expresses one or more morpheme. Langendoen defines morph as "a specific pronunciation associated with a specific meaning such that the pronunciation cannot be broken down into meaningful parts whose meanings combine to form the meaning of the whole". For example-1) the word 'man' is carrying- 1 morph, 1 morpheme while the word 'men' is carrying- 1 morph and 2 morphemes (man + plural), because the form 'men' cannot be divided so it is the actual form of the word means the 'the morph' but this single form is carrying two different meanings (man + plural) means "the two morphemes" 2) the word "students" is carrying two morphs (student +- s) as well as two morphemes (student + plural marker). Thus, a morph can be defined as a physical form representing some
morpheme in a language. It is a recurrent distinctive sound (phoneme) or sequence of sounds (phonemes).

### 3.4 ALLOMORPH

Allomorphs are the variants of the same morpheme. They are said to be the different realizations of one morpheme. Allomorphs are the positional variants of a morpheme; they are in complementary distribution means 'where one occurs the other cannot occur'. For examplethe plural marker /-s/ has three allomorphs /-s, -z, -iz / which occur in three different environments such ascats, dogs and buses where we find that $1-/-s /$ after voiceless sounds such as $/ \mathrm{p}, \mathrm{t}, \mathrm{k} /$ etc. except affricates and sibilants. 2-/-z/ after voiced sounds such as $/ \mathrm{b}, \mathrm{d}, \mathrm{g} /$ etc. except affricates and sibilants. $3-/-\mathrm{iz} /$ after affricates and sibilants. Similarly, $/-\mathrm{t},-\mathrm{d}$, -id/ are the positional variants (allomorphs) of the same morpheme /-ed/ the past tense marker. Thus, we can say that if the different morphs represent the same morpheme, they are grouped together and are called the allomorphs of that morpheme.

### 3.5 WORD

The term word can be used in different senses. On the one hand, vocabulary items, i.e. entries in the dictionary (e.g. take), are called words, but on the other hand the different inflected forms of a word (e.g. take, takes, taking, took, taken) are also called words. Moreover, some words, e.g. (life insurance), are said to be written in two "words". To avoid confusion, we shall use the following terms: lexeme, syntactic word, and orthographic word. - A lexeme is a unit of the lexicon (an entry in the dictionary, a vocabulary item), which is an uninflected abstract form that underlies all its inflected variants. To distinguish lexemes from their inflected variants it is customary to use capital letters to indicate lexemes. For instance, the lexeme TAKE underlies the inflected variants take, takes, taking, took, taken. • A syntactic word is an inflected variant of a lexeme (including the zero-inflection), so take, takes, taking, took, taken are syntactic words. Inflection means varying the shape of a lexeme in such a way that its grammatical relation to other lexemes within the phrase or sentence becomes clear. Consider e.g. the sentence in (1): (1) He takes them. In this sentence the verb takes is a predicate in the 3rd person singular present tense, preceded by he (the subject pronoun in the nominative case), and followed by them (the object pronoun in the accusative case). All three words are inflected,
even the apparently uninflected he can be regarded as zeroinflected. (Compare Hungarian kapok, kap-sz, kap- 0 , where the last form is not uninflected but zero-inflected.) The whole set of inflected variants of a lexeme is called a paradigm. The forms take, takes, taking, took, taken constitute the paradigm of TAKE. The members of such a paradigm are syntactic words. $\cdot$ The third sense in which the word word is popularly used is a unit of writing: it is a stretch of graphic symbols with a space on either side and no space within. This will be called orthographic word. For example, the lexeme.

### 3.6 LEXEMES AND WORD FORMS

LIFE INSURANCE is two orthographic words, but the two lexemes in I'm are just one orthographic word. The three senses of the word word are not equally important. In our linguistic studies it is only the lexemes and syntactic words that have to be taken into consideration, and orthographic words are irrelevant. Lexemes can be likened to types, syntactic words to tokens, i.e. particular instances of the abstract types. Lexemes (and their inflected variants, the syntactic words) belong to different syntactic categories (= word classes, parts of speech). Nouns, verbs, adjectives, adverbs and prepositions are content words, others, e.g. conjunctions, pronouns, auxiliaries are function words. Traditional grammarians (see Unit 2) tried to define the syntactic categories of lexemes on the basis of meaning. (Just to remind you, e.g. a noun was said to be "the name of a person, place or thing", which, however, is blatantly false in the case of many words that native speakers use as nouns.) American structuralists (see Unit 3) defined the syntactic categories of lexemes not on the basis of meaning but on the basis of form. This involved an examination of word endings (e.g. any word ending in -ness is a noun), and of the ways in which the words enter into larger constructions (e.g. any word that fits the dash in the frame The - is there. is a noun).

### 3.7 MORPHOPHONEMIC PROCESS

Sound structure (phonology) and word structure (morphology) are two of the main components of a language system. However, many a times, these systems interact and affect each other in some interesting ways and give rise to a phenomenon which is known as 'morphophonemics' Sometimes, due to this interaction, pronunciation of a morpheme may get modified or completely changed. These changes may be regular or irregular and usually are context
sensitive in nature. In 'morphophonemics', we specifically study the changes which occur at the margins/boundaries of morphemes. There are many glossaries, lectures, notes and other reference materials available over the internet for further studies in this area. Some of the pioneer reference works are also listed in the reference section.

In his book titled 'A Manual Of Phonology’ Charles F. Hockett, Professor of linguistics and anthropology, says that language is nothing but a complex system of habits and this system can be broken down and categorized into five principle subsystems: 1 . The phonological system: refers to the stock of phonemes and the systematic arrangements in which these phonemes occur in a language; 2. The grammatical system: refers to the stock of morphemes, the systematic arrangements in which these morphemes occur in a language; 3. The morphophonemic system: refers to the relational code that ties phonological and grammatical system together. 4. The semantic system: refers to the association of morphemes, combinations of morphemes, and the systematic arrangements in which morphemes can be put, with things and situations, or kinds of things and situations. 5. The phonetic system: refers to the process in which phonemes, sequences of phonemes of are converted into sound waves/speech signals by a speaker, and these sound waves/speech are then decoded from by a hearer. Of these five principle subsystems, 1 to 3 are central, while $4-5$ seem to be peripheral in nature to the language as a system. In this chapter, our main focus will be on 3 'The morphophonemic system' and this focus will further be limited to scope in that examples and discussions will be revolve around morphophonemic system of English language.

Morphophonemics may be defined as analysis and classification of the phonological factors which affect the pronunciation of morphemes or, correspondingly, the morphological factors which affect the appearance of phonemes. In morphophonemics, we basically study interaction between morphological and phonological processes and how they these factors affect each other. Morphophonemic change usually occurs at morpheme boundaries and it involves sounds that are associated with separate phonemes. One very obvious example to morphophonemics would be the use of indefinite in English language. Indefinite article in English has two manifestations: a and an. If a word begins with a consonantal sound then indefinite article is manifested as ' $a$ ' (a mango or a cat), while it is manifested as 'an' (an apple or an idiot) if following word starts with a vowel sound. Note: The term 'sound' refers to the way a phone (consonant or vowel) is pronounced, not necessarily written, in English. Therefore, an hour is a correct phrase not *a hour and a university is the correct phrase not *an university.

### 3.8 WORD FORMATION PROCESS

In addition to the borrowing of loanwords from other languges, e.g. ALCOHOL from Arabic) or the introduction of coinages (lexemes artificially invented, e.g. XEROX), there are also ways in which we can produce new lexemes, making use of old ones. These ways are called word formation processes. We shall now briefly discuss the most common word formation processes. - One of the major word-forming processes is derivation (= affixation), i.e. creating a new lexeme by means of adding a derivational prefix or suffix to an old lexeme. For instance, the lexeme KINGDOM is derived from the stem \{king\}, to which the derivational suffix $\{$-dom $\}$ has been added, or the lexeme IMPOLITE is derived from the stem \{polite\}, with the derivational prefix \{in-\}, or the lexeme UNHAPPINESS is derived from the stem UNHAPPY (itself derived from HAPPY), by adding the derivational suffix $\{-$ ness $\}$. The lexemes produced by affixation can be called derivative words, or simply just derivatives. • It can happen that a lexeme is assigned to another word class (part of speech) without changing its form. This is called conversion (also known as zero affixation), which is extremely common in English, see e.g. BOTTLEN $\rightarrow$ BOTTLEV, DAILYA $\rightarrow$ DAILYN, MILKN $\rightarrow$ MILKV. A special subtype of conversion is called approximate conversion, in which lexemes undergo a small but systematic change in pronunciation and are thereby assigned to a different word class. Sometimes this "small change" is a stress shift (with some concomitant changes in vowel quality), as in e.g. SUS»PECTV and »SUSPECTN, PER»MITV and »PERMITN, CON»VICTV and »CONVICTN, »ENVELOPEN and EN»VELOPV, etc. Another kind of approximate conversion is changing the voice value of the final fricative in some lexemes, having a voiceless final fricative in nouns and a voiced one in verbs, e.g. HALFN $/ h^{-} f / \rightarrow$ HALVEV /hA`v/, USEN /ju`s/ $\rightarrow$ USEV /jǔz/, WREATHN /ri`T/ \(\rightarrow\) WREATHEV /ri`D/. Changing the voice value of the final fricative is sometimes accompanied by vowel change, too, e.g. GLASSN /glA`s/ $\rightarrow$ GLAZEV /gleIz/. The next major word-forming process is compounding. This means bringing together two roots or two lexemes to produce a new lexeme, called a compound, as in e.g. »BLACKMAIL, »GOLDFISH, »WHITE HOUSE (where the president of the US lives), »HAY FEVER, »CHRISTMAS-TREE, «CHRISTMAS »PUDDING, etc. Members of a compound may be compounds themselves, cf. e.g. »RAILWAY-«STATION AT«TENDANT, etc. Typically (but not always) compounds bear the main stress on their initial member. They are usually (but not always) written in one orthographic word. Other word-formation processes include clipping, blending, backformation and the formation of acronyms. - Clipping means shortening a lexeme and thus producing a
more informal variant, e.g. PHOTOGRAPH $\rightarrow$ PHOTO, INFLUENZA $\rightarrow$ FLU, EXAMINATION $\rightarrow$ EXAM, etc.

- Blending is putting together lexemes but at least one of these lexemes is present only in a fragmentary form, as in e.g. FOG + SMOKE $\rightarrow$ SMOG, BREAKFAST + LUNCH $\rightarrow$ BRUNCH, etc. The lexemes so produced are blends. • A kind of reverse affixation takes place in backformation, which means establishing, on the basis of analogy with derivatives, the apparently existing stem of a lexeme which looks like a derivative, although it is not a real derivative. For instance, pairs like SUPERVISIONN and SUPERVISEV suggest that if there is a word TELEVISIONN, there should also be a word TELEVISEV, although the former was not derived from the latter. We say that TELEVISE has been backformed from TELEVISION. Similarly, DONATE has been backformed from DONATION (by analogy with pairs such as CREATION and CREATE). • Finally, acronym formation means forming a lexeme from the initial letters or larger parts of words; the lexemes so created are acronyms. Many of these are pronounced as words, e.g. RADAR for 'radio detecting and ranging', NATO for 'North Atlantic Treaty Organization'. In many cases, however, they are pronounced as sequences of letters, e.g. BBC, YMCA, etc.


## EXERCISES, PROBLEMS, AND OTHER TASKS

1. Enumerate the syntactic words belonging to the lexemes BE and HAPPY.
2. Identify the syntactic category of each of the lexemes in The camel-driver smoked the cheapest cigars.
3. Identify the morphemes in: The camel-driver smoked the cheapest cigars.
4. When two syntactic words are pronounced differently and spelt identically, they are homographs, e.g. read /ri`d/ - read /red/; when they are spelt differently and pronounced identically, they are homophones, e.g. raise /reIz/ - rays /reIz/ ; when they are both pronounced and spelt identically, they are homonyms, e.g. bear /be'/ 'medve' - bear /be'/ 'hord'. Pick out the homographs, homophones and homonyms from: bow, scent, sent, rain, reign, rein, fair, fare, lead (V), lead (N), sun, son, one, won.
5. Transcribe the words in (4) phonemically.
6. What are the regular allomorphs of the English past tense suffix $\{$-ed $\}$ (as in ended, laughed, begged)? Explain this dependence phonologically.
7. What can condition the shape of an allomorph? Think of the past tense form of skip, shut, keep.
8. Enumerate the inflectional suffixes of Present-Day English.
