Unit Three
MORPHOLOGY
# UNIT CONTENT

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Dear learner,

Welcome to the THIRD UNIT. In this unit, you will learn about speech sounds characteristics in phonetics and sounds’ patterns. In this unit, you will come across morphology, where we study ‘word structure’. Conscientious application by stating the general rules that govern word-structure and the principle of proper processes will result in accurate written work. The exercises and self-assessment questions (SAQs) are necessary to practice and reinforce the planned material.

Please, note that there are three sections in this unit: section one deals with (1) Types of Morphemes, (1.1) Grammatical Classification, (1.2) Morphological Classification, (1.3) Morph, Morpheme and Allomorph, (2) Morphology and Word-formation, (2.1) Inflection, (2.2) Word-formation, (2.2.1) Derivation, (2.2.2) Compounding, (2.2.3) Other Processes of Word-formation, and (3) Word Classes and Sentence Functions.

Welcome, Dear learner, I think you know that in Morphology words are put together from their smaller parts and the rules governing this process. The elements that are combining to form words are called morphemes. A morpheme is the smallest unit of meaning you can have.

So, let’s before going deeply in this course, ask this question: ‘What is morphology?’ Morphology is the study of word formation and structure. Now let’s compare morphology to phonology:
Whereas phonology studies the *smallest distinctive* elements of a language, morphology is the study of the smallest meaning units of a language. This smallest meaning unit is also called a morpheme.

**UNIT OBJECTIVES**

Dear learner, upon completing this unit, you are expected to be able to:

1. compare morphology to phonology.
2. discover that any word should consist of a nucleus.
3. define the terms morph, morpheme, and allomorph.
4. write and identify the rules of forming English words.
5. and finally, classify word classes and sentence functions.
1. Types of Morphemes

Dear learner, the first question that we have to ask is: what is morpheme? The answer for this question is that a smallest meaningful unit. We can distinguish different types of morphemes when analyzing a text body. The process of sorting out which morpheme is which is called distributional analysis.

Dear Learner, please, make sure that we will concentrate on the following subchapters of types of morpheme: (1.1) Grammatical Classification, (1.2) Morphological Classification, (1.3) Morph, morpheme and allomorph.

EXERCISE (1)

What types of word?

SAQs

Pick out the bound morphemes in the following words and say whether they are derivational morphemes (D) or inflectional morphemes (I).

1. Inflectional.
2. terrifying.
3. hospitalized.
4. regularizes.
5. reviewers.
6. Respectably.
7. represent.
8. stifles.
9. Previewed.
10. submariners
1.1 Grammatical classification

Grammatically speaking, there are two classes of morphemes: *Free morphemes*: these may occur on their own, they can be used freely according to the rules of sentence structure, for example "boy, tree, church, go, leave, love." *Bound morphemes*: These are an exception to the rule that a morpheme must be able to stand alone; they have no meaning of their own, but add substantial meaning to other morphemes to which they are attached. They are used for various purposes, such as inflection. Example: "-ing, -er" in "working, worker.", where "work" is a free morpheme accompanied by various bound morphemes, namely suffixes.

1.2 Morphological Classification

What is the role of morphological classification?
Morphological classification will help you to understand exceptions and different occurrences of morphemes.

- **Homophonous morphemes** sound the same, although their morphological function and visual realization may be different, for example the "in" in "inn", and the "in" in "incongruous".

- **Discontinuous morphemes**. A morpheme of this type does not appear in one continuous string in a word, but is split up into fragments. For example, the morpheme "ge- and -t" in the German word "ge-reis-t". Still, both parts belong together.

- **A portmanteau morpheme** is the result of a fusion of two other morphemes. For example, the French "au" is a fusion of the former morphemes "à" and "le".

- **Unique or residual morphemes**. These are a further exception to the rule that a morpheme must be able to stand alone. Representing bound morphemes, unique or residual morphemes are, by themselves, meaningless and gain meaning
only in combination with other morphemes. Examples for this kind of morpheme are the "cran" in "cranberry", or the "mit" in "transmit", "commit", and so on.

- **Zero morphemes.** As already mentioned above, there do exist meaningful grammatical features that are not materialized, neither in writing nor in sound waves, in a consistent manner. The plural of a noun, for instance, is not always formed by adding a bound morpheme 's' to the word. Some words are not changed at all when meaning the plural. We usually simply understand which case the speaker meant from the context of the conversation. One such example is the word 'sheep', designating singular as well as plural sheep. The zero morpheme 'plural' would, in this case, designate the abstract concept of the plurality. It then means the plural sheep as opposed to the singular sheep.

**EXERCISE (2)**

What do we call the roles that relate words?
Give examples.

**SAQs**

How many (a) orthographic, (b) morphological, (c) lexical and (d) semantic words have we in each of the following lists?

1. make, makes, making, made, maiden.
2. fire, fires, fir, firs, fur.
3. take, taken, took, taking, takings.
4. bass (fish), bass (singing voice), bass (tree bark).
5. royal, regal, kingly (in the context 'royal/ regal/ kingly bearing').
1.3 Morph, morpheme, and allomorph

Note that any language has a register of morphemes, the physical realizations of which are called morphs. While morphemes remain ideal abstract units, the corresponding morphs may show some variation. In the case of the plural morpheme, various realizations are possible. These variations sound and look differently:
/z/ in "dogs, beds";
/s/ in "cats";
/iz/ in "garages"

All three morphs are different representations of the same morpheme of plurality. Several morphs that belong to the same morpheme are also called allomorphs: variants of one morpheme. In morphological transcription, morphs are commonly put in-between braces. The plural morph in "cats" thus becomes {cat} +{s} in morphological transcription.

EXERCISE (3)

What are the morphemes of the word doors?
2. Morphology and Word-formation

We have already seen that the term word is highly ambiguous. Commonly, various grammatical forms of linguistic units such as "sing", "sang", "sung" are referred to as various words. In all three words of our example, however, we are confronted with various forms of the same unit, namely "sing". We will use a more specific term for these "pure" linguistic units than word. We thus refer to the more abstract units, regardless of their representation as phonological or orthographic units in various inflectional forms, not as words, but lexemes; in linguistic transcription they are distinguished by capitals. Hence the word "cut" can offer three forms of the lexeme CUT: present, past, and participle. The sum of the lexemes of a language is called the lexicon. The lexicon of a language is not fixed. New entries may occur, or old ones might become extinct. New entries are
called **neologisms**, if they are created from existing resources of the language. New entries can also be **borrowed** from other languages. As for the process in the former case, we are able to create new words by applying the **morphological rules** of our language. Morphological rules apply to both **inflection** and **word formation**.

**EXERCISE (4)**

<table>
<thead>
<tr>
<th>What are the kinds of affixes?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give examples.</td>
</tr>
</tbody>
</table>

**SAQs**

1. We have already seen that the term word is highly ambiguous. Explain this statement in an essay type answer.
2. Commonly, various grammatical forms of linguistic units such as "sing", "sang", "sung" are referred to as various **words**. What is meant by various words?
3. What are **lexemes**; in linguistics?
4. The sum of the lexemes of a language is called the **lexicon**. Give more details.
5. The lexicon of a language is not fixed. What does that mean?
6. New entries may occur, or old ones might become extinct. What do we call new entries?
2.1 Inflection

There are two kinds of inflection: The **declension** of nouns, adjectives, and pronouns, and the **conjugation** of verbs. There is a set of morphological rules which we apply in order to form the correct tenses or cases. We combine free morphemes with bound morphemes, the latter marking tense, gender, number, case, and so forth. Bound morphemes like {to}, which appears as a marker of the infinitive, are also used in order to form correct sentences. These **markers** help to create sentences that are correct according to the syntactic rules of a language. We see here that **morphology** and **syntax** cannot be regarded as entirely different disciplines.

**SAQs**

1. What are the main allomorphs of each of the following morphemes? Provide examples to illustrate each of the allomorphs.
   A. s (as in the verb ‘looks’).
   B. ed (as in the verb ‘looked’).
   C. in – (as in words where the morpheme means ‘not’. For example ‘in + eligible’).

2. Segment the following words into free and bound morpheme changes the word class of the free morpheme.
   A. unbearable.
   B. Specialized.
   C. Transquilised.
   D. Impatiently.
   E. Width.
2.2 Word formation

Word formation can be divided into three sections,
2.2.1 Derivation,
2.2.2 Compounding,
2.2.3. Other processes of word-formation

2.2.1 Derivation.

There are morphemes in English that allow us to change words. These are **derivational morphemes**: new words are **derived** in the process. Derivational morphemes are **affixes**. If affixes are added to the front of a word, we speak of **prefixes** like in-, a-. If they are attached to the end of the word, they are called **suffixes** such as -able, -ish. Derivational morphemes may or may not cause a change of the grammatical class of the word. In any event, the following morphological rules apply to most cases cover the main changes brought about by affixes. We speak of word formation as the **productive** feature of a language. By changing one element, new classes of words can be produced.

<table>
<thead>
<tr>
<th>Noun to adjective</th>
<th>Verb to noun</th>
<th>Adjective to adverb</th>
<th>Noun to verb</th>
<th>No change in classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>{boy}+{ish}</td>
<td>{acquitt}+{al}</td>
<td>{exact}+{ly}</td>
<td>{moral}+{ize}</td>
<td>{a}+{moral}</td>
</tr>
<tr>
<td>{virtu}+{ous}</td>
<td>{clear}+{ ance}</td>
<td>{quiet}+{ly}</td>
<td>{vaccin}+{ate}</td>
<td>{mono}+{theism}</td>
</tr>
<tr>
<td>{Elizabeth}+{an}</td>
<td>{confer}+{ence}</td>
<td>{brand}+{ish}</td>
<td>{ex}+{wife}</td>
<td></td>
</tr>
<tr>
<td>{alcohol}+{ic}</td>
<td>{predict}+{ion}</td>
<td></td>
<td></td>
<td>{sub}+{minimal}</td>
</tr>
</tbody>
</table>
2.2.2 Compounding

Dear learner, we may also create new words by combining two free morphemes. The product of such a process is called a compound. While German is notorious for compounding a multitude of units (e.g., Weihnachtsbaumschmuckvertriebsorganisationshandbuchverkäufer), compounds in English usually don't exceed two units. In a compound, the two morphemes always serve two different purposes.

The initial morpheme is called the head of the compound, the following is the body. The head of the compound always determines the body semantically, e.g., {black} + {bird} -> a black bird, whereas the body usually determines the grammatical class of the whole compound.

Identify the morphemes in the following words, indicating where spelling change may be necessary when one breaks the word down into its constituents.

1. Equaliser.
2. inclination.
3. befriending.
4. Transportation.
5. endearment.
6. predetermination.
7. dangerously.
8. Unbelievable.
9. protection.
10. dehumanize.
There are various possible combinations of English compounds:

<table>
<thead>
<tr>
<th></th>
<th>-ADJECTIVE</th>
<th>-NOUN</th>
<th>-VERB</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJECTIVE-</td>
<td>{bitter}+{sweet}</td>
<td>{poor}+{house}</td>
<td>{high}+{born}</td>
</tr>
<tr>
<td>NOUN-</td>
<td>{head}+{strong}</td>
<td>{rain}+{bow}</td>
<td>{spoon}+{feed}</td>
</tr>
<tr>
<td>VERB</td>
<td>{carry}+{all}</td>
<td>-{pick}+{pocket}</td>
<td>{sleep}+{walk}</td>
</tr>
</tbody>
</table>
### 2.2.3 Other processes of word-formation

Apart from the above mentioned morphological processes, there are also other ways of creating new words:

- **Invention**: Xerox, Exxon, Kleenex, hover
- **Acronymy**: NATO, Unicef.
- **Reduplication**: zigzag, chitchat.
- **Blending**: smog, brunch.
- **Clipping**: bus, auto, flu.

### EXERCISE (5)

1. Write what you know about forming some English words.
2. what do we mean by unicef, auto, chitchat?
3. Word classes and sentence functions

Traditional grammars often begin with a classification of word classes. There are the following eight classes (including typical examples):

- **Nouns** (communicator, starship, captain)
- **Pronouns** (I, you, he, which)
- **Adjectives** (fast, deep, many)
- **Verbs** (see, retire, laugh)
- **Prepositions** (on, in, at)
- **Conjunctions** (and, but, because)
- **Adverbs** (much, deservedly, partly)
- **Interjections** (alas, oh)
- **Articles** (the, a)
- **Numerals** (one, two, three)
Some difficulties remain, such as with adverbs: one cannot, for example, exchange the adverbs "very" and "quickly" freely in a sentence: *he ran very versus he ran quickly. To avoid this problem, the sub-category of the intensifiers is used to distinguish adverbs such as 'very', from the common adverbs. The classing of words gives us overall categorical information about those words. Note that words from the same class can take on different functions depending upon their use in a sentence. Nouns, for example, may appear as subjects or objects in sentences. This additional specification of the function of words within the context of a sentence, such as subject, object, etc., is called functional information.

EXERCISE (6)

EXERCISE (6)

What do we call the combination of two morphes?

SAQs

SAQs

Identify the inflectional (I) and derivational (D) affixes in the following words and assess their productivity (that is, say whether they can be used in the modification of many, some or few morphemes in English).

1. non – event.
2. Assamese.
3. examination.
4. happenings.
5. multivitamin.
6. interdenominational.
7. delighted.
8. John’s.
9. midsummer.
10. featureless.
OVERVIEW

Dear learner, no doubt in this unit, you have become able to compare the term morphology to phonology, discovered that any word should consist of a nucleus, defined the terms morph, morpheme, and allomorph, written and identified the rules of forming English words, and finally, classified word classes and sentence functions. At the end, we wish you all the best.

PREVIEW

Dear learner, after having completed learning word structure, you are going to study ENGLISH SYNTAX and be able to:

1- define the term ‘syntax’,
2- form an English phrase,
3- differentiate between a phrase and a clause,
4- form correct English sentence,
5- analyse the level of English sentence, and
6- express your self using the rules of standard language.

Please, make sure that you have mastered unit three, which is the base of unit four.
EXERCISE (1)
We can divide words into two broad types: content words versus function words.

**Content Words**
- Nouns
- Verbs
- Adjectives
- Adverbs

Speakers can add new Content Words to the language, and so they are also called the "open class" vocabulary, because it is open to additions.

**Function Words**
- Pronouns
- Conjunctions
- Auxiliaries
- etc.

EXERCISE (2)
Words can be related to other words, e.g. "happy" — "unhappy".

The rules that relate such sets of words are called Word Formation Rules. Thus, the morphology contains
- fundamental elements -- morphemes
- rules of combination -- Word Formation Rules

EXERCISE (3)
In the word "doors" there are two morphemes: "door" and "-s".

The morpheme "door" can be used by itself, so it is called a FREE morpheme.
But the morpheme "s" cannot be used by itself:
"How many doors did you shut?"
"More than one." OK
"s" Not OK
Therefore, "-s" is called a BOUND morpheme.

**EXERCISE (4)**

Morphemes added to free forms to make other free forms are called affixes. There are four principle kinds of affixes:

1. prefixes (at beginning) — "un-" in "unable"
2. suffixes (at end) — "-ed" in "walked"
3. circumfixes (at both ends) — "en--en" in "enlighten"
   (These always seem to consist of otherwise attested independent prefixes and suffixes.)
4. infixes (in the middle) -- "-bloody-" in "in-bloody-credible"
   (These are not used very much in English but occur frequently in other languages. For infixes it is necessary to say WHERE inside the word it goes. The "-bloody-" expletive infix goes before the stressed syllable, thus *"incred-bloody-ible". How did we learn this?)

Infixes in other languages can go in different places, such as after the first consonant. Consider the data from Bontoc:

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Meaning</th>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kilad</td>
<td>'red'</td>
<td>kumilad</td>
<td>'to be red'</td>
</tr>
<tr>
<td>fikas</td>
<td>'strong'</td>
<td>fumikas</td>
<td>'to be strong'</td>
</tr>
</tbody>
</table>

We need to state the form, meaning and rule of combination for the morpheme:

- the form of the infix is -um-
- the meaning of the infix is "to be Adjective" where Adjective is the meaning of the stem
- the rule of combination is:
  - it combines with Adjectives to make Verbs
  - it is an infix which goes after the first consonant
EXERCISE (5)

Consider the following pairs of English words:

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>dark</td>
<td>darken</td>
</tr>
<tr>
<td>black</td>
<td>blacken</td>
</tr>
<tr>
<td>red</td>
<td>redden</td>
</tr>
<tr>
<td>steep</td>
<td>steepen</td>
</tr>
</tbody>
</table>

What generalization (rule) can we make?

- Form: "en"
- Combination: At the end of Adjectives (suffix) to make Verbs
- Meaning: "to make (more) Adjective"

We can draw a diagram to show the internal structure of one of the words:

```
Verb
/ \
Adjective -en
  |
black
```

Meaning: "to make (more) black"

Likewise we can draw, a partial structure (tree diagram) which shows the three properties of rule of combination for the affix:

```
Verb
/ \
Adjective -en
  |
black
```

Meaning: "to make (more) Adjective"

The morpheme "black" as an adjective also has the trivial tree diagram

```
Adjective
  |
black
```

And the two trees are combined by joining them at the common overlapping part (Adjective).
**Another Rule for Forming some English Words**

Consider the following pairs of English words:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>sing</td>
<td>singer</td>
</tr>
<tr>
<td>dance</td>
<td>dancer</td>
</tr>
<tr>
<td>write</td>
<td>writer</td>
</tr>
<tr>
<td>compute</td>
<td>computer</td>
</tr>
</tbody>
</table>

What generalization (rule) can we make?
Add "-er" to the end of Verbs to make Nouns with the meaning "someone (or something) that Verbs"

Noun / \ 
| Verb -er |
Meaning: "someone (or something) that Verbs"

Want are the **Rules that don't change category**
Some affixes create the same kinds of words that they attach to, such as making nouns out of other nouns:

Noun / \ 
| Noun -ian |
| Boston |
Meaning: "someone from Boston"

**Zero Morphemes**
Some affixes consist of no sounds at all. The textbook (FRH 102-103) takes a different position on this question, denying the existence of zero morphemes. **THIS IS INCORRECT.** Zero morphemes DO exist, and we'll see why, and illustrate another concept, **allomorphy** at the same time.
Consider the following words:

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>yellow</td>
<td>yellow</td>
</tr>
<tr>
<td>brown</td>
<td>brown</td>
</tr>
<tr>
<td>green</td>
<td>green</td>
</tr>
<tr>
<td>purple</td>
<td>purple</td>
</tr>
</tbody>
</table>

The relation between "yellow" (adjective) and "yellow" (verb) is exactly the same as that between "white" and "whiten", which we just considered. But the form of "yellow" doesn't change. So we say that we added a zero suffix:

\[
\text{Verb} \\
/ \ \\
\text{Adjective} -\emptyset \\
| \\
yellow
\]

Meaning: "to make (more) yellow"

Zero morphemes are obviously hard to spot because you can't hear them! In these cases you have to notice what ISN'T there. (Sherlock Holmes solves one of his cases by noticing that a dog DIDN'T bark. This was important because there was a situation where any dog would have barked. This is the kind of thinking you have to do to find zero morphemes.)

**EXERCISE (6)**

The combination of two free forms is called a COMPOUND.

\[
\text{Noun} \\
/ \ \\
\text{Adjective} \quad \text{Noun} \\
| \ | \\
black \quad bird
\]

Meaning: a particular kind of bird
In English the HEAD of a compound is usually the right-hand member (bird).
The head supplies the category (Noun) and basic meaning (bird-ness) for the whole compound.
Compounds can be used with affixation to produce larger words:

```
Noun
  / \
Verb  -er
  / \
Verb Verb
  |   |
sleep  walk
Meaning: Someone who walks and sleeps at the same time
```

```
Noun
  / \
Noun  Noun
  |   |
window Verb  -er
  |   |
       painter
Meaning: Someone who paints windows
**Terms**

**Morpheme**
The smallest meaningful unit in a language.
A free morpheme can be used by its own, eg Ali, cat, love, speak.
A bound morpheme is a form which is never used alone but must be used with another morpheme, the suffix –ing must be used with a verb stem, loving, speaking, etc.

**Homophonous morphemes**
*sound* the same, although their morphological function and visual realization may be different, for example the "in" in "inn", and the "in" in "incorrect".

**Affixes**
A letter or sound, or group of letters or sounds which is added to a word, and which changes the meaning or function of the word.
Affixes are bound morphemes that can be added:
(a) to the beginning of a word (prefix), eg kind unkind.
(b) To the end of a word (suffix) eg kind kindness.
(c) Within a word (infix).
REFERENCES


