

TUTORIAL
5.10

Morphology 1

This tutorial introduces the study of morphemes, the internal structure of words, and the rules by which words are formed. This is called morphology.

Introduction

Words are the smallest independent meaningful units in language. But words can be divided into even smaller meaningful pieces. These smaller meaningful units are called *morphemes*.

Words have an internal structure of one or more morphemes. For example, *pigs* has an internal structure of two morphemes:

- pig**, a noun,
- s**, a morpheme meaning 'more than one'.

The word *undesirability* has an internal structure of four morphemes:

- desire**, a verb,
- un-**, a morpheme meaning 'not',
- able**, a morpheme meaning 'able to be',
- ity**, a morpheme meaning something like 'the idea of'.

The morpheme is the minimal combination of sound and meaning which cannot be further divided. The study of morphemes, the internal structure of words, and the rules by which words are formed is called *morphology*. Traditionally this is referred to as 'word formation'.

We say that words that consist of just one morpheme are *monomorphemic*. Words that consist of more than one morpheme are *polymorphemic*.

Free and Bound morphemes

Some morphemes can be words on their own (e.g. **cat**, **desire**). These are called *free* morphemes. Some morphemes can't occur by themselves. They can only occur when they are attached to another morpheme (e.g. **-s**, **un-**,

-able, -ity). These are called *bound* morphemes.

So in **cats** there are two morphemes: **cat**, which is free, and **-s**, which is bound. The part of a word that is a free morpheme is in a sense the core of the word, to which the bound morphemes attach. Usually it carries the central meaning of the word. This is called the word *root*. Sometimes word roots are bound morphemes, but most often they are free.

Affixes

Most bound morphemes are *affixes* - we call them that because they are affixed or attached to the root of a word.

Morphemes can't just be put together in any order. Some affixes have to go before the root and some after it, for example:

cat-s (not **s-cat**)

un-desir-able (not **desir-able-un**)

The morpheme **un-** has to go *before* the root. An affix that has to go before the root is called a *prefix*. Other affixes have to follow the root, like the **-s** in *cats*. An affix that has to follow the root is called a *suffix*.

So, in a word like *mistrustful* we have two bound morphemes, the prefix **mis-** and the suffix **-ful**, surrounding the root, **trust**, so we get **mis-trust-ful**. Or in a word like **friendliness**, we have a root followed by two suffixes: **friend-li-ness**.

In any language with affixes there are also rules about what *order* the suffixes and prefixes occur in. For example:

We can add the suffix **-ly** to the root **right** and get **rightly**.

Or we could add the suffix **-ful** and get **rightful**.

We can also add both suffixes, and get **rightfully**, but they have to be in that order, the reverse order is not possible: (**rightlyful**).

In some languages, there are a few other types of morphemes. One is the *infix*. Infixes are placed inside the root, rather than before or after it. For example, in Tagalog there is an infix (**-in-**) that is inserted after the first consonant of a root verb:

sulat 'write' → **s-in-ulat** 'was written'

Another type of morpheme is the *circumfix*. A circumfix goes on both sides of a root – one part goes before it, and one goes after it. It's a bit like a prefix and a suffix at the same time, but they have to both be attached together. For example, in German the past tense is formed using the circumfix (**ge- -t**):

machen 'to make' → **ge-mach-t** 'made'

Compounding

Another way that words are formed is *compounding*. Instead of adding affixes to a root, it joins two separate roots to form a new word. English has the word **green** and the word **house**. We also have a compound word **greenhouse**, which is one word formed out of these two component words.

With compound words, the meanings are not entirely predictable from the roots that make up the compound. So a **green house** (two words) is a house which is green, while a **greenhouse** (one word) is a special kind of building for growing plants in. The building is not a house in the normal sense, and the building itself is not green. The compound word has quite a different meaning to the original words that make it up. In English many compounds are written as one word, like **greenhouse**, while others are written with a hyphen, as in **icy-cold**, or are even written as if it was two words, like **light year**. These are all still *compounds* though.

Other ways of forming words

Compounding is just one way that new words are formed. Here are a few more:

- An **acronym** is formed out of the first letter of each word of a phrase. It's not uncommon to hear someone *lol* at a good joke (from LOL — laugh out loud). *Scuba* (Self-Contained Underwater Breathing Apparatus) and *radar* (Radio Detection And Ranging) are examples of older acronyms that we don't necessarily recognise as such anymore.
- A **backformation** removes a part of the word that resembles a morpheme in order to coin a new word. For example, in the word *burglar*, English speakers misanalysed the *-r* as a suffix, similar to the *-r* in *writer*. They wanted to create a verb meaning 'steal', so they removed the *-r* and we ended up with the verb *burgle*. The International Airport in Milwaukee has a lounge area just beyond security called the *recombobulation area* — formed by backformation from the word *discombobulate* where the *dis-* was mistakenly taken to be a prefix and then replaced with the common prefix *re-*. The "recombobulation area" is a place where you can get yourself organised: put your shoes back on, put your laptop back into your bag, etc.
- A **blend** combines two words to create a new word. *Smog* is a blend of *smoke* plus *fog*. *Mockumentary* combines *mock* and *documentary*. *Jeggings* are snug-fitting *leggings* that look like *jeans*.
- **Clipping** is the reduction of a word into one of its component parts. The recently coined word *app* meaning 'application for a mobile device' was clipped from *application*.

Examples such as these illustrate the creative capacity of language. It is our knowledge of *morphology* - the rules of how we can combine the smallest meaningful units in language - that allows us to combine the pieces of old words to create something new.

How morphemes work

Different morphemes have different functions - they *do* different things. Look at the following English words:

walk, walked, walker

When the morpheme **-ed** is added to *walk*, it creates a different form of the same word. But when the morpheme **-er** is added to *walk*, it creates a whole new word with a new meaning. This is because the morphemes **-ed** and **-er** are different kinds of suffixes: we say that **-ed** is an *inflectional* suffix, while **-er** is a *derivational* suffix. We will explain *derivation* and *inflection* below.

Derivation

Derivation changes the *meaning* of words. Derivational morphemes create a new word with a new meaning. In the examples below, the derivational morphemes **un-** and **re-** are added:

true → untrue

paint → repaint

Notice that in both of these cases the meaning of the word changes - *untrue* means the opposite of *true*, and *repaint* means to *paint*, but specifically to do it again.

In these examples, although the meaning changes, the *type* of word (word class) stays the same. *True* and *untrue* are both adjectives, and *paint* and *repaint* are both verbs. The important thing is that derivation always changes *meaning*.

As well as changing meaning, derivation *can* also change the type of word (word class). We saw that in our first example - *walk* is a verb, referring to an action. *Walker* is a noun referring to a kind of person. You can see this in these examples:

write → writ-er

slow → slow-ly

sleep → sleep-y → sleep-i-ness.

In English, morphemes that change word class are usually suffixes. But there are some exceptions, like **en-** (**en-rage**, **en-circle**).

In other languages morphemes that change word class are usually prefixes. For example, in Fijian **vaka-** which means 'in the manner of'. It turns an adjective or noun into an adverb:

totolo 'fast' → **vaka-totolo** 'quickly'

marama 'lady' → **vaka-marama** 'in a ladylike way'

Inflection

Inflection creates a *different form* of the same word, with the same basic meaning. It affects the way a word relates to other words in the grammar of the language. So, while derivation adds meaning, inflection adds grammatical information.

Inflection can't change word class. For example, the suffix **-s** on English verbs, as in **he shows**. The event is exactly the same as the event in *I show* or *you show*. The action performed is exactly the same. The difference between *show* and *shows* is that with *shows* the action has to be done by *he*, *she* or *it* (it must have a third person singular subject), while *show* can't. So this suffix interacts with other grammatical features of the sentence - it makes the sentence work according to the grammatical rules - but it doesn't change the meaning of the word.

Some other examples of inflectional morphemes are:

The ending **-ed** adds grammatical information (*tense*) -

he showed me the paper

The ending **-ing** adds grammatical information (*aspect* - basically that the event is ongoing):

he was showing me the paper

The endings **-ed /-en /-n** add grammatical information (*aspect* - that the event is completed):

he has shown me the paper

Show, shows, showed, showing and *shown* are not different words with different meanings, they are different forms of the same word – the verb 'to show'.

Some examples of inflectional morphemes on other types of word classes in English are:

Nouns: **a cat → two cats**

book → books

Verbs: **-s John read-s books**

-ing They are work-ing

-ed They work-ed

-en They have eat-en

Adjectives: **-er the small-er one**

-est the small-est one

Children learning English, as well as adult second language learners, have a strong tendency to make irregular forms regular, making amusing errors such as *goed* for *went*, or *foots* for *feet*. These errors show that what's being learned is a *rule*, something like our brain thinking "just add *-ed* to make the past tense", rather than having to learn past-tense verbs one at a time. The errors that children make show that children don't just imitate their parents - they assume that language has regular morphological rules. All languages *do* have morphological rules and we will be looking at some more examples of different languages in the next tutorial.



ACTIVITIES

Morphology 1

1. Find five new words that have entered the English language over the last 5 - 10 years. What word formation process did they rely on?

Do the following practice exercises (the answers are at the end, but try to do them on your own first).

2. Divide the following words into morphemes. (Example: *barefoot* - morphemes: bare-foot)
 - a. research
 - b. butterfly
 - c. holiday
 - d. plants
 - e. blackboard
 - f. living
 - g. wording

3. Some of the words in this list contain suffixes. Identify the suffixes by underlining them.
- happiness
 - unkind
 - freedom
 - flowers
 - loneliness
 - blackboard
4. Some of the words in this list contain prefixes. Identify the prefixes by underlining them.
- unable
 - discourage
 - establish
 - receive
 - strawberry
 - amoral
5. Identify the root in the words in this list by underlining it.
(Example: friendly)
- lamps
 - kindness
 - hinted
 - players
 - editors
 - grandfathers
6. For each of the following bound morphemes, determine whether it is derivational or inflectional and give two words in which it appears. Remember some can be both derivational and inflectional, if so, give examples of the suffix being used both ways. (Example: –able: derivational. *eatable; readable*)
- ity
 - s
 - un–
 - ing
 - er
 - ed
7. From the following list of words, select **four** words with inflectional morphology and then select **four** words with derivational morphology.

| | | |
|----------|---------------|--------|
| elements | have | killed |
| gain | linked | such |
| and | Indo-European | cram |

| | | |
|---------|------------|---------|
| unkind | speech | tend |
| as | egg | the |
| some | off | these |
| case | ordering | thought |
| example | one | within |
| feature | morphology | great |

Answers:

2.
 - a. re-search
 - b. butter-fly
 - c. holi-day (the root word is *holy*)
 - d. plant-s
 - e. black-board
 - f. liv-ing (the root word is *live*)
 - g. word-ing

3.
 - a. happiness
 - b. unkind (no suffix, *-un* is a prefix and *kind* is the root)
 - c. freedom
 - d. flowers
 - e. loneli-ness (two suffixes)
 - f. blackboard (no suffix, this is a compound)

4.
 - a. unable
 - b. discourage
 - c. establish
 - d. receive (based on Latin *recipere*, from *re-* 'back' + *capere* 'take.')
 - e. strawberry (no prefix, this is a compound)
 - f. amoral

5.
 - a. lamps
 - b. kindness
 - c. hinted
 - d. players
 - e. editors
 - f. grandfathers

- 6.

- a. -ity: derivational (stupid → stupidity, fluid → fluidity)
- b. -s: inflectional (smells, dogs)
- c. un-: derivational (wise → unwise, kind → unkind)
- d. -ing: inflectional (working, eating) and derivational (build → building, nourish → nourishing)
- e. -er: inflectional (smaller, nicer) and derivational (work → worker, write → writer)
- f. -ed: inflectional (sorted, minced)

inflectional (grammatical) e.g. **-ed, -'s, -s, -er, -ed, -es, -est** and **-ing** (if it is used to turn a verb into e.g. present participle - example: break → breaking, eat → eating)

derivational (lexical - changes meaning): words formed by the attachment of derivational affixes are *derived* from other words, but have a different meaning, e.g. **dis-, re-, in-, be-, en-, -ly, -ance, -able, -ize, -ish, -like,**

-ment and **-ing** (if it is used to turn the verb into a noun: example: build → a building, two buildings, nourish → nourishing)

7.

Inflectional: elements, linked, ordering, killed

Derivational: unkind, Indo-European, morphology, within