Morphology

Morphology is the study of word formation, of the structure of words.

Some observations about words and their structure:

1. some words can be divided into parts which still have meaning

2. many words have meaning by themselves. But some words have meaning only when used with other words

3. some of the parts into which words can be divided can stand alone as words. But others cannot

4. these word-parts that can occur only in combination must be combined in the correct way

5. languages create new words systematically

What linguists infer from these observations:

• The meaningful parts into which words can be divided—e.g., boldest can be divided into bold+*est*--are called the **morphemes** of the language**.** These are considered the basic units of meaning in a particular language.

• Words that have meaning by themselves—*boy, food, door*—are called **lexical morphemes**. Those words that function to specify the relationship between one lexical morpheme and another—words like *at, in, on, -ed, -s*—are called **grammatical morphemes**.

• Those morphemes that can stand alone as words are called **free morphemes** (e.g., *boy, food, in, on*). The morphemes that occur only in combination are called **bound morphemes** (e.g., *-ed, -s, -ing*).

• Bound grammatical morphemes can be further divided into two types: **inflectional morphemes** (e.g., *-s, -est, -ing*) and **derivational morphemes** (e.g., *-ful, -like, -ly, un-, dis-*).

• Processes **of word-formation** can be described.

Morphemes
A morpheme can be defined as a minimal unit having more or less constant meaning and more of less constant form. ('More or less' because… see below.)

For example, linguists say that the word *buyers* is made up of three morphemes {buy}+{er}+{s}. The evidence for this is that each can occur in other combinations

of morphemes without changing its meaning. We can find {buy} in *buying, buys,* and {er} in *seller, fisher,* as well as *buyer.* And {s} can be found in *boys, girls,* and *dogs.*

The more combinations a morpheme is found in, the more **productive** it is said to be.

Note the terminology: Braces, { } indicate a morpheme. Square brackets, [ ] indicate a semantic characterization. Italics indicate a lexical item.

1. Morphemes can vary in size: neither the number of syllables nor the length of a word can indicate what is a morpheme and what isn't. For example, *Albatross* is a long word but a single morpheme, *-y* (as in *dreamy*) is also a single morpheme.

2. Just as linguists have had success dissecting phonemes into combinations of distinctive features, so they have viewed morphemes as made up of combinations of **semantic features**. For example, we can analyze a word like *girls* in terms of both its morphological and its semantic structure:

Morphological: *girls* = {girl} + {s}

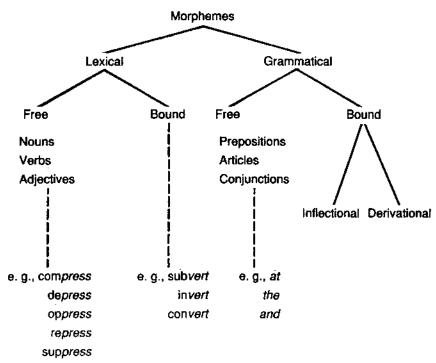Semantic: {girl} = [-adult; -male; +human, ...] + {s} = {PLU} = [plural]

[More on this when we get to the topic of Semantics.]

3. Two different morphemes may be pronounced (and even sometimes spelled) the same way. For example, the *–er* in *buyer* means something like 'the one who,' while the *–er* in *shorter* means something like 'to a greater degree than.' The first *–er* always attaches to a verb, while the second *–er* always attaches to an adjective. It makes sense to consider these two different morphemes that just happen to sound the same. (The first is called the agentive morpheme {AG} since it indicates the agent of an action; the second is called the comparative morpheme {COMP} since it indicates the comparative degree of an adjective.)

4. We can't always hold to the definition of a morpheme as having unchanging form. For example, when we consider words like *boys, girls, shirts, books,* we conclude that *–s* is the plural morpheme (symbolized {PLU}.) But what about words such as *men* or *women*? Here plurality is indicated not by adding *–s* but by changing the vowel in the stem. Yet we still want to say that *men* is, morphologically, {man} + {PLU}, even though the form of {PLU} is quite different in this case.

In the same way, it seems sensible to say that *went* = {go} + {PAST}, just as *walked* = {walk} + {PAST}, even though in the first case {PAST} involves a morphological change in form quite different from the usual adding of *–ed*.

5. Sometimes it is very difficult to identify morpheme boundaries. For example, the word *hamburger* originally meant {Hamburg} = 'a city in Germany' + {er} =

'originating from.' But probably most people now understand the word as meaning {ham} = 'ham' + {burger} = 'hot patty served on a round bun.'

Division of Morphemes into Various Types

Lexical and Grammatical Morphemes

Lexical morphemes are those that having meaning by themselves (more accurately, they have **sense**). Grammatical morphemes specify a relationship between other morphemes. But the distinction is not all that well defined.

Nouns, verbs, adjectives ({boy}, {buy}, {big}) are typical lexical morphemes.

Prepositions, articles, conjunctions ({of}, {the}, {but}) are grammatical morphemes.

Free and Bound Morphemes

Free morphemes are those that can stand alone as words. They may be lexical morphemes ({serve}, {press}), or grammatical morphemes ({at}, {and}).

Bound morphemes can occur only in combination—they are parts of a word. They may be lexical morphemes (such as {clude} as in *include, exclude, preclude*) or they may be grammatical (such as {PLU} = plural as in *boys, girls,* and *cats*).

Inflectional and Derivational Morphemes

We can make a further distinction within the set of morphemes that are both bound and grammatical. Bound grammatical morphemes (those that don't have a sense by themselves and, additionally, always occur in combinations) are commonly known as **affixes**. They can be further divided into **inflectional affixes** and **derivational affixes**.

Here is some of the evidence for the distinction between inflectional and derivational affixes (the book has more):

Inflectional Affixes	Derivational Affixes
All are suffixes	May be either suffixes or prefixes
Have a wide range of application. E.g. most English nouns can be made plural, with {PLU}	May have a wide or narrow range
All native to English (since Old English was spoken around 500-1000 AD)	Many were adopted from Latin, Greek, or other languages. (Though others, especially the suffixes, are native, including {ful}, {like}, {ly}, and {AG})

Inflectional Affixes

English has only eight inflectional affixes:

{PLU} = plural	Noun	*-s*	*boys*
{POSS} = possessive	Noun	*-'s*	*boy's*
{COMP} = comparative	Adj	*-er*	*older*
{SUP} = superlative	Adj	*-est*	*oldest*
{PRES} = present	Verb	*-s*	*walks*
{PAST} past	Verb	*-ed*	*walked*
{PAST PART} = past participle	Verb	*-en*	*driven*
{PRES PART} = present participle	Verb	*-ing*	*driving*

Notice that, as noted above, even irregular forms can be represented morphologically using these morphemes. E.g. the irregular plural *sheep* is written as {sheep} + {PLU}, even though the typically form of {PLU} is not used here.

Similarly, *better* = {good} + {COMP}; *drove* = {drive} + {PAST}.

Derivational Affixes

There are an indefinite number of derivational morphemes.

For example, the following are some **derivational suffixes**:

{ize} attaches to a noun and turns it into a verb: *rubberize*

{ize} also attaches to an adjective and turns it into a verb: *normalize*

{ful} attaches to a noun and turns it into an adjective: *playful, helpful*

{ly} attaches to an adjective and turns it into an adverb: *grandly, proudly*

A different {ly} attaches to a noun and changes it into an adjective: *manly, friendly*

English also has **derivational prefixes**, such as:

{un}, {dis}, {a}, {anti}, all of which indicate some kind of negation: *unhappy, dislike, atypical, anti-aircraft.*

Inflectional Affixes Again

{**PLU**}   plural nounds are repsented as root + {PLU}, whether or not {-s} is actually added to the root.

{**POSS**} possessive nounds are root + {poss}, whether or not {-s} is added. It's a historical accident that both these affixes sound the same.

{**COMP**} and {**SUP**}. comparative and superlative adjtectives. *happier* = {happy} + {COMP}; *happiest* = {happy} + {SUP}. Arguably, *most beautiful* = {beautiful} + {SUP}

The remaining inflectional affixes are attached to verb stems, forming **present** and **past tenses**, and **present** and **past participles**:

Webster's dictionary defines a **participle** as "a word having the characteristics of both verb and adjective; especially an English verbal form that has the function of an adjective and at the same time shows such verbal features as tense and voice and capacity to take an object."

Our examination of inflectional affixes thus leads us into a discussion of the various morphological forms that **verbs** can take, though this topic can't be fully explored until we deal with the topic of Syntax.

Present Tense

{**PRES**} present tense forms are root + {PRES}. But there is only a surface affix when there is a 3rd person singular subject. That's to say:

John loves Mary = {love} + {PRES} = {love} + {-s}

You love Mary = {love} + {PRES} = {love} + {Ø}

However, **modal verbs** – *can/could, shall.should, will/would, may/might* and *must*—show an absense of this third person singular –*s*.

John may love Mary.

When a modal verb occurs in a sentence, it is always ther first verb form and is always followed by an uninflected verb form.

Past Tense

{**PAST**} past tense verb forms. *John walked* = {walk} + {PAST}.

drove ={drive} + {PAST}

In English, only the first verb form is inflected for tense. For example:

I think; but *I have thought;* and *I am thinking* [??]

Past Participle

{**PAST PART**} *driven* = {drive} + {PAST PART}

A past participle always follows a form of the auxiliary verb *have* (in a simple active sentence). (And if both a modal and the auxiliary *have* occur in the same sentence, *have* follows the modal: *We may have gone.*

They have walked home, but not *They walked home.* [past tense]

Gone, come, hit, walked are all past participles.

Present Participle

{**PRES PART**} *drinking* = {drive} + {PRES PART}

Present participles always occur with an *-ing* suffix. In a simple active sentence, the present participle always follows a form of the auxiliary verb *to be*, as in *They were laughing*.

If both the auxiliary *have* and the auxiliary *be* occur in the same sentence, the form of *be* always follows the form of *have*: *We have been eating*, not **We are have eating*.

Verb Forms

Believe it or not, verbs in English are perfectly systematic. Consider:

Someone may have been knocking at the door

1. *knocking* is the main verb, since it is the right-most verb.

2. It is a present participle, because it immediately follows a form of *be.*

3. *been* is an auxiliary verb, because it is not right-most.

4. It is a past participle, because it immediately follows a form of *have*.

5. *have* is an auxiliary verb, because it is not right-most.

6. It is also uninflected, since it follows a modal (*may*).

7. *may* is a modal, because it lacks the third person singular –*s.*

8. It is inflected for present tense, since the first and only the first verb in a simple sentence in English is inflected for tense.

Word Formation Processes

Obviously words don't make words, people make words! But study of historical change in languages shows that people do so in ways that are systematic. Since children often make words too, the study of historical language change has potential relevance to study of child language.

derivation: adding a derivational affix, thus changing the syntactic category. *orient > orientation*

category extension: extending a morpheme from one syntactic category to another. *chair* (N) > *chair* (V)

compound: combining two old words to make one new one: *put-down*

root creation: inventing a brand new word. *Kodak*

clipped form: shortening a word: *brassiere > bra*

blend: two words smooched together: *smoke + fog > smog*

acronym: the letters of a title become a word: *NASA*

abbreviation: a little like clipping: *television > TV*

proper name: *hamburger < Hamburg*

folk etymology: a foreign words is assimilated to native forms: *cucuracha* (Spanish) > *cockroach* (English)

back formation: removing what is mistaken for an affix. *burglar > burgle*

Exercises

Problems facing the child

Where are the word-boundaries in continuous speech?

What affixes are used?

What grammatical morphemes?