

MORPHOLOGY

A Study of the internal structure of words and the relationships among words

Definition of Words:

Word is an arbitrary pairing of sound and meaning

No way to distinguish between words and phrases or sentences

It in *It is raining* has no meaning. *IT* is only a placeholder.

A string of characters (or sequence of letters) having space on either side

Definition of Morpheme:

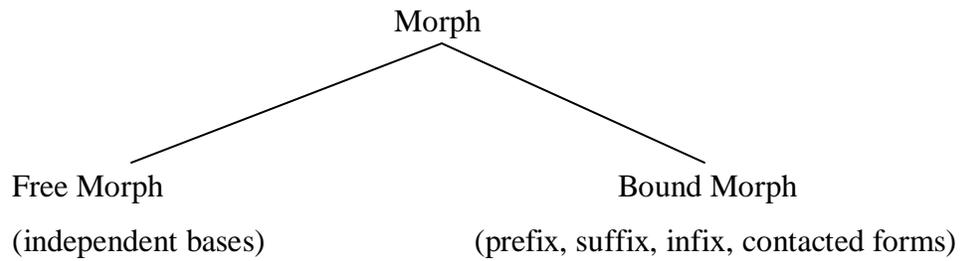
A smallest meaningful unit; a minimal unit that pairs sound and meaning

An abstract concept

Definition of Morph:

Physical representation of morpheme

In English, for example, the PAST TENSE is a morpheme and /-ed/ is the morph, the physical representation of the PAST TENSE morpheme



Independent base: 'boy', 'smart', 'play', 'the'

Prefix: 're-write', 'dis-obey', 'im-patient'

Suffix: 'quick-ly', 'child-ish', 'go-es'

Infix: In Bonto Igorot, a language of the Philippines, the infix *-in-* is used to indicate the product of completed action. Taking the word *kayu*, meaning "wood", one can insert the infix *-in-* immediately after the consonant *k* to form the word *kinayu*, meaning "gathered wood".

Contracted form: The word 'will' in 'they will go' can occur as 'they'll go'. The form 'll' is a bound morph in that it cannot occur independently.

Part of Speech

Each word belongs to a category.

'dog': Noun

'beautiful': Adjective

'sleep': Verb

'of': Preposition

'and': Conjunction

'slowly': Adverb

Principles of Identification of Morpheme

1. Forms which have a common semantic distinctiveness and an identical phonemic form in all their occurrences constitute a single morpheme
2. Forms which have a common semantic distinctiveness but which differ in phonemic form may constitute a morpheme provided the distribution of formal differences is phonologically definable

‘im’- in ‘impossible’ (im-ADJ)
‘in’- in ‘intolerant’ (in-ADJ)
‘ir’- in ‘irresponsible’ (ir-ADJ)
‘il’- in ‘illegal’ (il-ADJ)

- represent one morpheme meaning “negation of X (ADJ)”

3. Forms which have a common semantic distinctiveness but which differ in phonemic form in such a way that their distribution cannot be phonetically defined constitute a single morpheme if the forms are in **complementary distribution**

Complementary distribution: when one allomorph occurs in a position where the other allomorph can never occur.

/-en/ in oxen and /-s ~ -z ~ -<=>z/ stand in allomorphic relation representing the PLURAL morpheme

4. An overt formal difference in a structural series constitutes a morpheme if in any member of such a series the **overt formal difference** and a **zero structural difference** are the only significant features for distinguishing a minimal unit of phonetic-semantic distinctiveness

Overt formal difference: a contrast which is indicated by differences in phoneme or in the order of phoneme.

‘foot’ /fut/ and ‘feet’ /fiyt/ having overt structural difference

Zero structural difference: sheep /Siyp/ as the plural of sheep /Siyp/

What is root

A root is a segment that is not further analyzable into meaningful elements, being morphologically simple and carries the principle portion of meaning of the words in which it functions

The root is common to a set of derived or inflected forms, if any, when all affixes are removed.

Example: 'boy', 'book'

What is affix

An affix is a bound morpheme that is joined before, after or within a root or stem

Example: '-ed', 'pre-'

What is stem

A stem is the root or roots of a word, together with any derivational affixes, to which inflectional affixes are added.

A stem consists minimally of a root, but may be analyzable into a root plus derivational morphemes. A stem may require an inflectional operation in order to make it a fully understandable word. If a stem does not occur by itself in a meaningful way in a language, it is referred to as a bound morpheme.

Example: 'soft', 'soften' (< 'soft' + '-en')

What is derivation

Derivation is the formation of a new word or inflectable stem from another word or stem. It typically occurs by the addition of an affix. The derived word is often a different word class from the original.

Examples:

‘kindness’ is derived from ‘kind’

‘amazement’ is derived from ‘amaze’

Derivational operations

- Tend to be idiosyncratic and non-productive
- Do not occur in well-defined paradigms

Here are some kinds of derivation:

- Operations that change the grammatical category of a root

Nominalization (data from English)

Verb changes to noun: amaze > amazement

Adjective changes to noun: soft > softness

Operations that changes the valence of a root

Causativization (data from Hindi)

pi:na ‘drink’ (intransitive) : *pilana* ‘make one drink’ (transitive)

dekhna ‘see’ (transitive) : *dikhana* ‘show’ (ditransitive)

What is a paradigm

A set of forms having a common root or stem of which one form must be selected in certain grammatical environments

What is inflection

Inflection is a variation in the form of a word, typically by means of an affix, that expresses a grammatical contrast which is obligatory for the stem's word class in some given grammatical context.

Inflectional operations ground the semantic content of a root according to place, time, and participant reference, without substantially affecting the basic content of the root.

In other words, roots can be inflected for such things as:

- Agreement: person, number and gender
- Temporality and event structure: tense, aspect and mode

Comparison between inflection and derivation

Inflection and derivation are the kinds of processes of word formation.

Inflectional operations create forms that can be integrated into discourse, whereas derivational operations create stems that may still require inflectional operations before they can be integrated into discourse.

Inflection	Derivation
Do not change the category of the word	Often change the lexical category of the word
Inflectional affixes tend to occur outside the derivational affixes	Derivational suffixes tend to occur next to the root
Contribute syntactically conditioned information, such as number, gender or aspect	Contribute lexical meaning
An inflectional affix occurs with all or most members of a class of stems	A derivational affix are restricted to some but not all members of a class of stems

Morphological Processes

- What is morphological process?

The different ways in which morphemes combine to form new words are known as morphological processes. Compounding and affixation are two most natural kinds of morphological processes:

Affixation: An affix is attached to a root or stem. Three kinds of affixation: Prefixation, Suffixation and Infixation

Prefixation: A bound morpheme is attached to the front of a root or stem

Suffixation: A bound morpheme is attached to the end of a stem

Infixation: A bound morpheme is attached within a root or stem

Example: Philippines (Tagalog)

bili : root ‘buy’

-um- : infix ‘AGT’

bumili : ‘bought’

Compounding: Compounds are formed by the combination of roots or stems rather than a single stem with an affix.

Example:

‘credit card’ ‘blackboard’, ‘olive oil’

- Compounds are single nouns in the sense that they can substitute in a sentence for a one-word noun:

Example:

I put olive oil on the bread

I put butter on the bread

- Generally the part of speech of the whole compound is the same as the part of speech of the rightmost member of the compound which is called the *head* of the compound.

Example:

The rightmost constituent of the compound ‘armchair’ is ‘chair’ and it is a noun.

The compound is also a noun.

- Compound can be made up of more than two members.

Example:

‘bathroom towel-rack’, ‘technical training institute’

- Meaning of compounds are not always be predicated from the meaning of its parts.

Example:

‘leather shoe’ vs. ‘horseshoe’

- Compounds involving morphologically complex words:

Example:

‘wage earner’, city dweller’

The second word is deverbal noun.

Note,

‘clever sounding’ vs. *‘clever supporting’

‘rapidly rising’ vs. *‘rapidly raising’

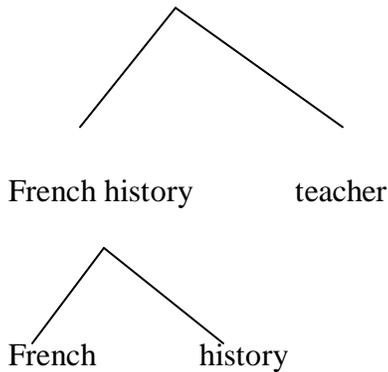
Ambiguity in compounds

‘French history teacher’

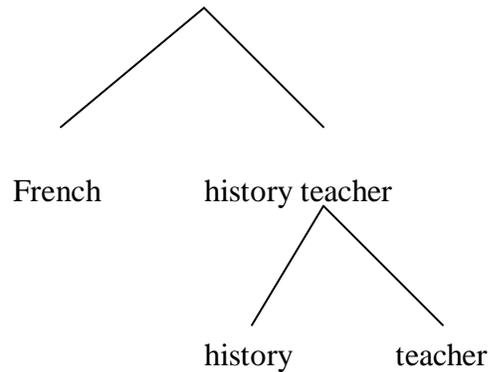
((French history) teacher) : “a teacher of French history”

(French (history teacher)) : “a French teacher of history”

French history teacher



French history teacher



Modification: A morphological process which produces an alternation within stem or root

Example

swim	swam	swum
sit	sat	
win	won	
man	men	

Arabic

kitaab	kutub	‘book’
nafs	nufuus	‘soul’

Reduplication: A morphological process of forming new words by a copying a piece of the existing stem.

Example:

‘hocus-pocus’
‘flip-flop’

Morphological Typology

We are categorizing languages by looking at the similarities and differences between languages in the ways in which they form words.

Isolating/analytic languages	- Chinese
Agglutinating languages	- Turkish
Inflecting/Synthetic/Fusional languages	- Sanskrit, Latin
Incorporating/Polysynthetic languages	- Greenlandic Eskimo
Infixing Languages	- Arabic, Hebrew

Analytic morphology

Taa ba shuu mai le 'He bought the book'
He obj marker book buy Aspect

Bound morphemes are rare. Words are usually bare, unaffixed root morphemes.

Agglutination:

There tends to be a more or less one-to-one matching of morphemes with morphs

Bangla:

kor – l – am 'I did (it)'
do – PAST – 1st
ghumo – l – e 'You slept'
sleep – PAST – 2nd

Telugu:

baTTa – li – ki 'to the clothes'
clothes PL ACCUSATIVE

Turkish:

el – ler – im – de ‘in my hands’
 hand PL 1st POSS in
el – im – de ‘in my hand’
 hand 1st POSS in

What will be the Turkish word for ‘the hand’, ‘my hand’, ‘the hands’ and ‘my hands’?

Fusion:

Words usually consist of several morphemes. But there is seldom a one-to-one matching of morphemes with morphs.

Bangla:

kar – i ‘I do’
 do 3rd PR

Sanskrit:

	Singular	Plural
Accusative	<i>naram</i> ‘to man’	<i>naraan</i> ‘to men’
Genitive	<i>narasya</i> ‘of man’	<i>naraaNaam</i> ‘of men’

Incorporation:

A word may include verb and its object as in Eskimo

Eskimo:

illu – mi – niip – puq ‘he is in his own house’
 house his be-in 3rd SG IND

In incorporating languages, the distinction between morphology, the study of word structure and syntax, the study of sentence structure, is blurred.

Three Models of Grammatical Analysis

Hockett proposed three models of grammatical analysis – three different ‘frames of reference’ within which an analyst might approach the grammatical description of a language and state the results of his investigation.

Item and arrangement is a model in which morphemes are the basic units of meaning and in which they are arranged linearly. Thus this model allows only statements of lists of items and the positions in which the items can be found.

Item and process is one in which the structure of a word is specified by a series of operations. In this model for each item a base form is determined and all other related forms are seen to be derived from this base forms by some morphophonological process.

Word and paradigm is a model in which all related forms are seen to be member of a paradigm.