# Introduction to Linguistics <br> Morphology 

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## 1 Terminology

Morphology -1) The study of the internal structure of words, and of the rules by which words are formed; 2) our internal grammatical knowledge concerning (word) forms.

Word - A complete linguistic unit that is meaningful on its own and can be freely reordered into new phrases and sentences.

Syntax: minimal input to syntactic operations; semantics: 'complete' semantic unit, a non-compositional sign; phonology: phonotactic constraints, stress.

Exercise: Compare the following items. Are they words? Are they all phonologically, syntactically and semantically independent? cat, dog, in, up, not, not dead, wake up, get out, yourself, your dumb self, black death.

Continuum: cf. compound words, clitics, bound forms, particles, etc.
Morpheme vs. Morph - The smallest meaningful linguistic unit.
Exercise: Find morphemes and morphs corresponding to each morpheme.
English: dog dogs cat cats house houses
Russian:

- ruka $=$ 'arm.subject', ruku $=$ 'arm.object', ruki $=$ 'arms'
- noga $=$ 'leg.subject', nogu $=$ 'leg.object', nog $i=$ 'legs'
- ručnoj = 'arm.adjective.masc', nožnoj = 'leg.adjective.masc', ručnaja $=$ 'arm.adjective.fem', nožnaja = 'leg.adjective.fem'

Free morpheme: roots (but not all roots).

## Bound morpheme:

- affix (write - writ-er),
- circumfix (raz-sja in Russian),
- prefix (un-healthy),
- interfix (Russian -o- in parovoz),
- suffix (go-ing),
- suprafix (Import - impOrt, tone + stress),
- infix (inside a root),
- transfix (Arabic)

Infix: Nouns/Adjectives Verbs in Bontoc (Philippines):
fikas 'strong' - fumikas 'to be strong'; kilad 'red' - kumilad 'to be red'; fusul 'enemy' - fumusul 'to be an enemy'

Transfix: transfixes in Arabic:
$k t b=$ 'write': kataba 'he wrote', yaktubu 'he is writing', kātib 'writer', maktūb 'written'
! Do not forget (phonologically) zero morphs: if you can assign a certain fixed meaning to the 'silence' (i.e. the absence of an overt marker) - that is a silent morpheme.

For example, number in English: cat-s - cat- $\emptyset, d o g-s-d o g-\emptyset \leftarrow$ the absence of "s" indicates singular, we are dealing with a silent ( $\emptyset$ ) singular morpheme.

## 2 Allomorphy

## Allomorphy, allomorphs

Morphemes can have several forms that are in complementary distribution (i.e. they do not appear in the same context). Such variants of a morpheme are called morphs. Allomorphs $=$ variants $/$ morphs of the same morpheme.
Example: -s (plural) in English, pronounced differently depending on the preceding sound:
cat /t/ cats /s/
$\operatorname{dog} / \mathrm{g} / \operatorname{dogs} / \mathrm{z} /$
house /s/ houses /i:z/
$\leftarrow$ phonologically conditioned allomorphy, depends on the phonological context.
Variation between allomorphs - usually conditioned: phonologically, lexically/morphologically.
Free variation - independent.
Suppletion: $I$ - me, go - went.
Exercise: Below you can see some words from a Mayan language (spoken in Guatemala) and their translations.

| cion - gun | si - forest |
| :--- | :--- |
| Pinsi - my forest | kab - juice |
| mak - person | lak - cup |
| kPab - hand | Pink?ab - my hand |
| Rincion - my gun | pal - son |
| Pinlak - my cup | Pimbat - my axe |

Translate to this Mayan language: my son, my person, my juice, axe. Explain your decision.
Note: y is a consonant similar to the English 'ng'; ? is a consonant.

## 3 Inflection vs. Derivation

## Inflectional morphemes

- Create new forms of the same word
- Inflectional morpheme - grammatical feature from a grammatical category
- Obligatory to use a word in syntax. For example, if you want to use a noun in English you have to decide whether it's singular (zero inflection) or plural (-s inflection), you cannot leave it ambiguous.
- Example: plural inflection, case inflection, Tense


## Derivational morphemes

- Create new words (often of another category)
- Change the lexical meaning of a word
- In a sense, optional (depend on the lexical meaning that we want to convey).
- Example: un- (unhappy), -er (writer).

Exercise: Derivation or inflection? un-healthy, pig-s, go-ing, writ-er, friend-ly, mother's
Word - (1) lexeme ('neutral' form), (2) syntactic word (a form).
Paradigm - the set of morphologically related forms (syntactic words) corresponding to one lexeme.
Example: paradigms in Hungarian (nouns, verbs)

## 4 Word formation and word formation rules

Word formation rules $\leftarrow$ lexicon oriented rules vs. fully productive rules
Types of word formation:

- Derivation (= affixation)
- Incorporation (syntax or morphology?) fishing in many languages as fish-catching
- Reduplication: so-so, bad-bad
- Conversion (= zero affixation): advise, etc.
- Compounding: baby-sitting, cat-sitting, dog-sitting
- Clipping (photograph $\rightarrow$ photo)
- Blending (breakfast + lunch $\rightarrow$ brunch $)$
- Acronym formation (ELTE, CEU, vuz in Russian)
- Tone and stress change: rEcord - recOrd


## 5 Rules and exceptions

- Always think about your language data
- Order the rules
- Ensure that they are productive

Scenario 1: multiple inflectional morphemes
$\rightarrow$ usually, strict order; language-specific rules.
Example: Hungarian plural/accusative: macskákat, but not * macskátak.
Scenario 2: multiple derivational morphemes
$\rightarrow$ different semantics
Example 1: unlikeable (unlikable)
a. $[[$ un + like $]+$ able $] \rightarrow$ quite unlikeable, it is possible not to like this person
b. [un $+[$ like + able $]] \rightarrow$ completely unlikeable, it is impossible to like this person

Example 2: unhappier $\leftarrow$ a paradox
Based on the meaning of this adjective (more 'not happy'), we expect it to be [[un + happy] + er].
However, we know independently that -er usually combines with adjectives of 1-2 syllables: kinder, cleverer, but not * beautifuler. $\rightarrow$ we expect -er to be unable to combine with the adjective unhappy ( 3 syllables). $\rightarrow$ paradox $\rightarrow$ Usually, morphological restrictions win over semantics. $\rightarrow$ in this case, we assume the derivation $[$ un $+[$ happy + er $]]$.
In fact, this derivation is not that problematic from the semantic point of view. Negation is often interpreted not as expected based on its surface position. Cf. for example I cannot go there. - this sentence means 'It is not possible to go there.' and not 'It is possible not to go there.' even though the negation follows can on the surface.
Scenario 3: derivational and inflectional morphemes
Derivation happens first; derivation feeds inflection (before using the word in syntax we should create it via derivation).

Example: writers $[[$ write +er$]+\mathrm{s}]$ : first, we derive a noun from a verb; after that, we add the plural morpheme.
The plural morpheme cannot combine with verbs in principle; the order [write +s$] \rightarrow$ [writes + er] is impossible and makes no sense.

## 6 Productivity

Constraints on productivity: sometimes a rule does not apply

- Blocking: *stealer is blocked because of thief; -ness is more productive than -ity (no spaciosity, furiosity)
- Phonology: black-en, quiet-en, but not green-en, dry-en (the root must end with a stop/fricative/affricate)
- Morphonological constraint: -hood is prohibited with 'foreign' roots (man-hood but no colonel-hood, judge-hood)
- Semantics: blue-eyed, red-haired but no small-dog $(g)$ ed - this pattern works only with inalienable properties.

Exercise: Divide into morphemes + rules + order.
airsicknesses, bestranged (obsolete), deverbal, unimaginable, grandmother's, unrecoverable, prioritizing, rewriter, denumeration, budgetarily, fancifulness, tastier, softened, decommercialize, transmittable, unicorns, illegally.

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Exercise: Below you can see some Turkish words and their translations.
yazmişim - Probably, I wrote
yazmişsiniz - Probably, you (plural) wrote
yazmişsin - Probably, you (singular) wrote
yazar - (he) writes
yazmiş - Probably, he wrote
yazarlar - (they) write
Translate to Turkish: Probably, they wrote
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