# Introduction to Linguistics 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', nogi = '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*),
- prefix (un-healthy),
- suffix (go-ing),

- circumfix (*raz-sja* in Russian),
- interfix (Russian -o- in parovoz),
- 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:

ktb = 'write': kataba 'he wrote', yaktubu 'he is writing',  $k\bar{a}tib$  'writer',  $makt\bar{u}b$  '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:  $cat-s - cat-\emptyset$ ,  $dog-s - dog-\emptyset \leftarrow$  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/

dog /g / dogs /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.

c?on — gun
?insi? — my forest
$\max - person$
k?ab — hand
?inc?on — my gun
?inlak — my cup

si? — forest kab — juice lak — cup ?iŋk?ab — my hand pal — son ?imbat — my axe

Translate to this Mayan language: my son, my person, my juice, axe. Explain your decision. Note:  $\eta$  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] + 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*, *furios-ity*)
- 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.

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