

Seminar 17312 Introduction to Linguistics

Institute for English Philology Winter Semester 2020/2021

Academic Instructor: Magdalena Borowik Session 5 From phonology to morphology



Recap: Syllabification

Syllabification (!)

- The Maximal Onset Principle: as many consonants as possible in the onset, but nucleaus has to be "the most clearly audible part of the syllable" (Plag et al. 2009: 60);
- "Where two syllables are two be divided, any consonants between them should be attached to the right-hand syllable" (Roach 2009: 61);
- However: this happens "within the restrictions governing syllable onsets and codas" (ibid.);
- Isolated syllables never end in: /1/, /e/, /æ/, /ʌ/, /b/, /u/ ! (Roach 2009: 61);
- SONORITY SEQUENCING PRINCIPLE: "sounds preceding the nucleus (i.e. onsets) must raise in sonority, and sounds "following the nucleus (i.e.) must fall in sonority" (Plag et al. 2009: 61)
- sonority: "clear audability"; measured in relation to other sounds (ibid., p. 60)

(44) Sonority scale

vowels > [w], [j] > [1] > [1] > nasal > fricatives, > plosives consonants affricates

Freie Universität

onset rhyme g nucleus coda 3:

pink

Ι

rhyme

nucleus coda

ŋk

σ

onset

р

onset rhyme h nucleus coda μ μ aυ s

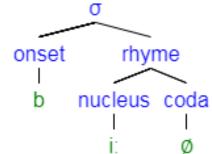
girl





house

Syllabification



Syllabic consonants Freie Universität

- [I], [n], [m] and [r] can occupy the NUCLEUS POSITION
- in weak syllables without vowels

Syllabic /l/:

one or more consonants followed by "-le"

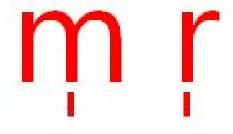
- ✓ <bottle> [ˈbɒtļ]
- ✓ <cattle> [ˈkætļ]
- ✓ couple [ˈkʌpļ]

Syllabic n: in the word-medial and word-final position

- ✓ <button> [ˈbʌtņ]
- ✓ <happen> ['hæpņ]
- Syllabic /m/ and /ŋ/: in the process of assimilation
- ✓ < rhythm> [rɪð(ə)m]
- ✓ <cupboard> /k∧pbrd/ (rhotic dialects, e.g. AmE)

In syllables without vowels, consonants have to take over 'vowel' function

 \rightarrow consonants that are most 'vowel-like' in quality (Roach 2009: 68-71).





Morphology: Types of morphemes



What is morphology?

MORPHOLOGY:

"[...] the study of the internal structure of words, the rules that govern it, as well as the ways of creating new words" (Plag et al 2009: 70).

"[...] examines how words are created, structured and changed" (Bieswanger & Becker 2017: 75); "the grammar of words" (ibid., p. 76).



What is a word?

- Ortographic words (written language);
- Phonological words (spoken language);
- Linguistic signs: arbitrary combination of a sound image and a concept

(Bieswanger & Becker 2017: 76)



Word types and word tokens

Word types: "particular words" Word tokens: "occurences of words"

The students borrowed a red book and a yellow book.

How many types and how many tokens?



Morphemes

- Morphe (Greek) form, shape
- Minimal units of grammatical structure (Carstairs-McCarthy 2002: 144)
- Traditional view: smallest meaningful units (ibid.,16-17; Kortmann 2005: 85. Bieswanger & Becker 2017: 80)
- can carry grammatical and lexical information (ibid.)



Phonemes and morphemes: difference

Recap:

Phoneme is the smallest linguistic unit capable of distinguishing between meaning (Mair 2012: 39).

MORPHEME is the minimal unit **CAPABLE OF EXPRESSING A MEANING** of its own (Mair 2012: 39-40).

Morphemes as **MEANINGFUL UNITS.** A word must consist of at least one morpheme (Plag et al 2009: 71).

The morpheme is placed between **BRACES <higher> {high} {-er}** {-er} expresses a greater degree or the comparative form of adjectives



Morphemes

Words consisting of one morpheme: **MONOMORPHEMIC** or **SIMPLEX WORDS**

Words that contain one or more morpheme: **POLYMORPHEMIC** or **COMPLEX WORDS** (Plag et al. 2009: 72; Bieswanger & Becker 2010: 80)

Unique morphemes (cranberry morphemes): morphemes that occur just in one word in a language (Plag et al. 2009: 73)

*cran*berry strawberry (COMPLEX WORDS) vs blackberry blueberry sustain pertain (SIMPLEX WORDS) custain obtain (ibid.)



Cranberry morphemes (unique morphemes)

Cranberry morphemes do not carry an independent meaning:

- {cran} only occurs in *cranberry*
- From a synchronic perspective, it does not have a lexical meaning, but it distinguishes *cranberry* from *strawberry*, *blackberry*, *blueberry*, etc.
- These kinds of morphemes are called UNIQUE MORPHEMES or CRANBERRY MORPHEMES (Plag et al 2009: 73; Bieswanger & Becker 2017:)



Morphemes

[...] morphemes must:

- 1. be identifiable from one word to another
- 2. contribute in some way to the meaning of the whole word (Carstairs-McCarthy 2002: 17)



Types of morphemes:

FREE MORPHEMES: can stand on their own: {mother}

BOUND MORPHEMES (affixes): morphemes that only appear in combination with other morphemes: {hood}

(Plag et al 2009: 76, Bieswanger & Becker 2017: 81)



Types of morphemes: free morphemes

- The ones which belong to lexical word classes (such as nouns, verbs, adjectives)
- The ones which belong to grammatical or functional word classes (pronouns, prepositions, conjunctions, articles) (Kortmann 2005: 87)



Types of morphemes: bound morphemes

Two kinds of bound morphemes:

- Derivational/lexical morphemes (lexical information): "create new lexemes via affixation" (Kortmann 2005: 87; Bieswanger & Becker 2017: 82).
- **2. Inflectional** morphemes (grammatical information): "produce new word forms" (Kortmann 2005: 87)

Bound morphemes: affixes



AFFIX: "Bound morpheme that is attached to a root or a base" (Plag et al. 2007: 224)

On the basis of the position of the bound morpheme to the modified word, bound affixes can be divided into:

PREFIXES: attach before the base (in English, participate in derivation): *un-happy, dis-honest, dis-courage, ir-responsible*

SUFFIXES: attach after the base (participate in derivation and inflection): *cheer-ful, heart-less, girl-ish, white-ness, structur-al, blend-er* (Plag et al. 2009: 77-78, Kortmann 2005: 87)

INFIXES: are inserted into be base. No infixes in English, but whole words can be inserted into a base: abso-bloody-lutely (Plag et al 2009: 78).



Derivational morphemes: examples

- Suffix {-er}: formation of agentive nouns from verbs (bake -> baker) or inhabitants of a place (London -> Londoner);
- Suffix {-ness} turns adjectives into abstract nouns: (Mair 2012: 41)



Inflectional forms of the same lexeme

do not have to be listed in the dictionary because they are "grammatically conditioned" (Carstairs-McCarthy 2002: 28)

PERFORM
1 t
lexeme
(in small capitals)



Suppletive forms

BE: *am, is, are, were*

→ one lexeme consisting of several unrelated <u>root</u> morphemes

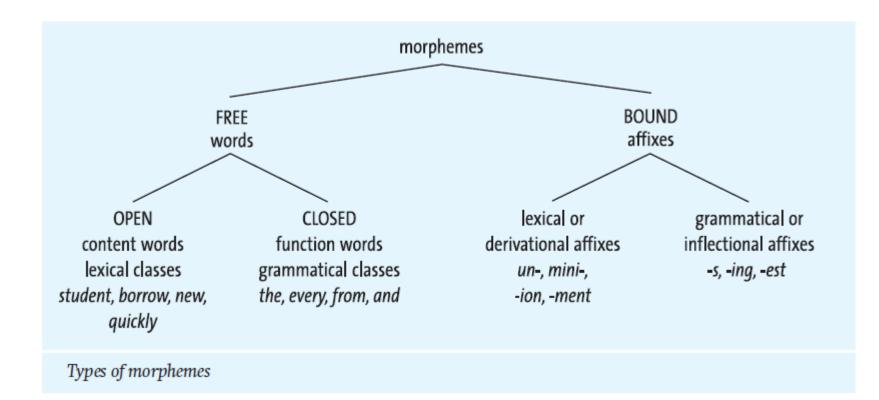
GO: go, went

 \rightarrow grammatically conditioned

"[...] *go* and *went* are said to be distinct roots (and hence distinct morphemes) standing in a suppletive relationship as representatives, in different grammatical contexts, of one lexeme" (Carstairs-McCarthy 2002: 33)



Types of morphemes



Terms: base, stem, root



BASE:

serves "as the basis to attaching other, usually bound, morphemes, such as *-hood* and *-ment* (Plag et al 2009: 76); "word or part of a word viewed as an input to a derivational process or inflectional process, in particular affication" (Carstairs & McCarthy 2002: 141). Bases can be simplex (do not contain any further morphemes) or complex (Plag et al 2009: 77); "any form to which an affix is attached to (...)" (Beiswanger & Becker 2017: 83).

STEM:

"[...] bases to which bound morphemes carrying grammatical meaning attach" (Plag et al. 2009: 76).

ROOT:

"within a non-compound word, the morpheme that makes the most precise and concrete contribution to the word's meaning, and is either the sole morpheme or else the only one that is not a prefix or a suffix" (Carstairs-McCarthy 2002: 145). Most roots are free in English (ibid.); "(...) single morphemes that cannot be morphologically analysed any further" (Bieswanger & Becker 2017: 83).

Stem, base, root: differences



ROOT: "what remains when taking away all affixes [...]" (Kortmann 2005: 89);

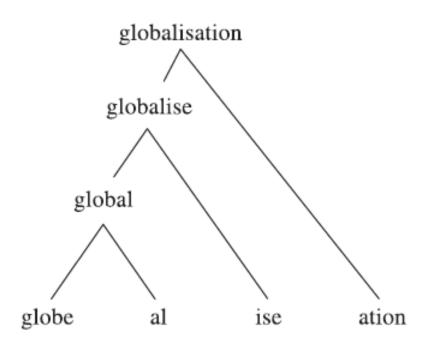
STEM: "what remains once all inflectional suffixes are taken away [...]", a "minimal lexical unit" (ibid.);

BASE: "what remains in each case if the derivational affixes are taken away [...]"(ibid.,).

a. stem: removal-s b. root: re-mov(e)-al-s c. base : remov(e)-als d. base : removal-s, remov(e)-als, re-mov(e)-als

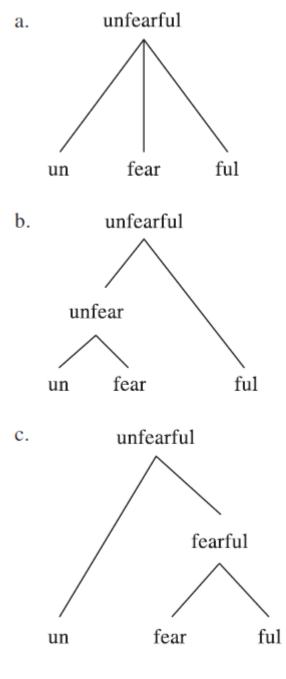
Morphological analysis of words





globe	is the root and the base for the suffix -al
global	is the base for the suffix -ise
globalise	is the base for the suffix -ation
globalisation	is the resulting derivative

Plag et al (2009: 79)



Freie Universität

We need to take into account semantic and formal arguments in order to define the structure of words (Plag et al 2009: 82)

Free roots vs bound roots

- a. read-able hear-ing en-large perform-ance white-ness dark-en seek-er
 - free root + bound morpheme (affix)
 - Carstairs-McCarthy (2002: 19)

leg-ible audi-ence magn-ify rend-ition clar-ity obfusc-ate applic-ant

Ь.

bound root + bound morpheme (affix)



Combining forms



"Bound morpheme, more root-like than affix-like, usually of Greek or Latin origin, that occurs only in compounds, usually with other combining forms. Examples are *poly-* and *-gamy* in *polygamy* (Carstairs-McCarthy 2002: 145)

Other examples:

```
electroscopy (2 bound roots)
```

{electro-}: bound root, combining form (also in electrolysis)

{-scopy}: bound root, combining form (also in *microscopy*)

auditorium

{audi-}: bound morpheme, combining form (also in *audience*)

{-torium}: bound morpheme, combining form (also in sanatorium)

but:

microfilm

```
{micro-} bound root
{film} free root
(Carstairs-McCarthy 2002: 21)
```



Free roots

Words that have more than one root are called compounds

- two free roots: bookcase, motorbike
- two bound roots: electrolysis, microscopy (Carstairs-McCarthy 2002: 21)



Morphological processes

- **DERIVATIONAL MORPHOLOGY**: "Area of morphology concerned with the way in which lexemes are related to one another (or in which one lexeme is derived from another) through processes such as affixation" (Carstairs-McCarthy 2002: 142);
- **INFLECTIONAL MORPHOLOGY**: "Area of morphology concerned with changes in word shape (e.g. through affixation) that are determined by, or potentially affect, the grammatical context in which a word appears (ibid., p. 144);
- **COMPOUNDING**: the process of combining roots (free or bound) (ibid., p. 59).



Morphemes & allomorphs



Terms

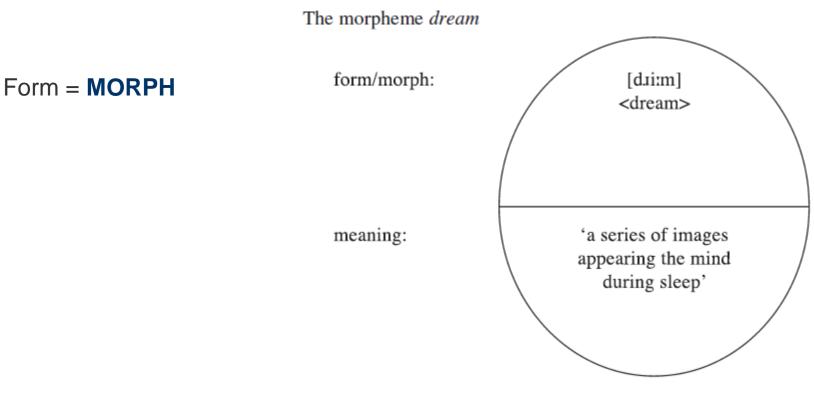
MORPHEME is the mental representation, an abstraction over all the allomorphs of what we consider one morpheme (Kortmann 2009: 83); "[...] an abstract category that exists in our minds" (Plag et al 2009: 83).

MORPH is the physical realisation of a morpheme.

ALLOMORPH is a contextually determined realisation of a morpheme (Kortmann 2005: 90); Allomorphes are different **MORPHS** representing the same **MORPHEME** (Plag et al 2009: 83)



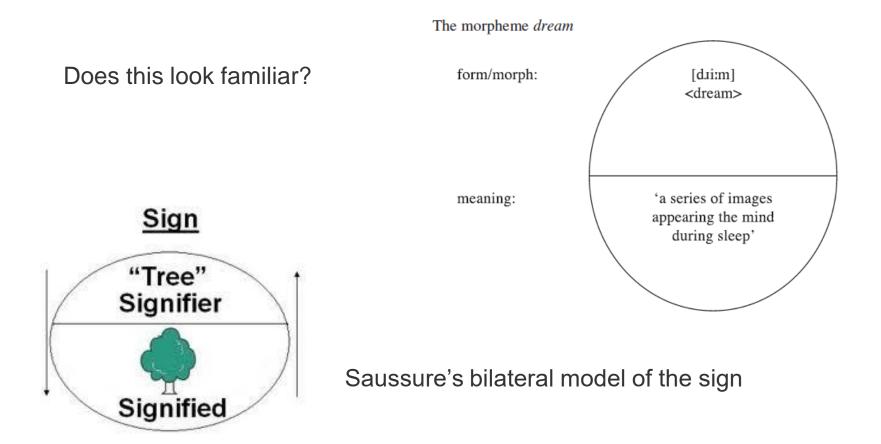
Morphemes



Plag et al. (2009: 75)



Morphemes



(Plag et al 2009: 74)



Similar relations

MORPHEME -> ALLOMORPH PHONEME -> ALLOPHONE

But:

Phonemes: "realisations of an abstract phonological category" Allomorphes: "realisations of an abstract morphological category"

(Plag et al 2009: 83)



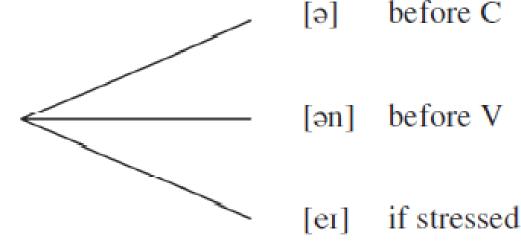
Allomorphs

- "different morphs realising the same morpheme" (Plag et al 2009: 83);
- different "realisation variants" of a morpheme (Mair 2012: 41);
- "pronunciation variants" of a morpheme, "among which the choice is determined by context (phonological, grammatical or lexical)" (Carstairs-McCarthy 2002: 141): phonological conditioning, morphological conditioning, lexical conditioning (Plag et al 2009: 88).



Allomorphs: indefinite article (phonological conditioning)





Plag et al (2009: 84)



Allomorphs – plural and genetive {-s}

The {-s} marking plural or genitive in nouns or third-person singular of the present tense in verbs has three phonetic realisations: **[s]**, **[z]**, **[ɪz/əz]**.

[s] is present after all voiceless consonants (<cats>, <baths>), except [s], [ʃ], [tʃ].

[z] is present after all vowels and voiced consonants (<boys>, <girls>), except [z],
 [3], [d3].

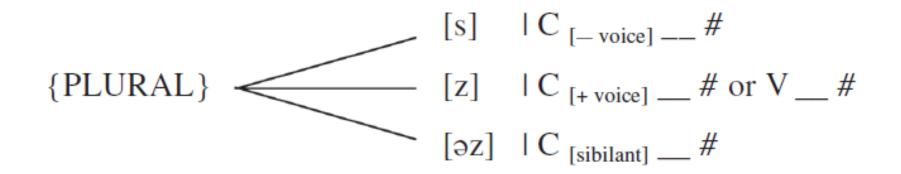
[IZ] is found after sibilants [s], [ʃ], [tʃ], [z], [3], [dʒ] (<roses>, <judges>, <races>).

Different allomorphs stand in **COMPLEMENTARY DISTRIBUTION**.

(Mair 2012:41-42, Plag et al 2009: 86)



Morpheme {PLURAL}: phonological conditioning



Plag et al (2009: 86)



Allomorphs of the suffix <-ed>: phonological conditioning

[Id]: when a preceding sound is [t] or [d]: wanted /wont**Id**/

otherwise:

[t]: when a preceding sound is voiceless: walked /wɔːkt/

[d]: after a vowel or a voiced consonant: played /pleid/ dragged dragged /drægd/

(Carstairs-McCarthy 2002: 27; 125)



Irregular plural forms: lexical conditioning

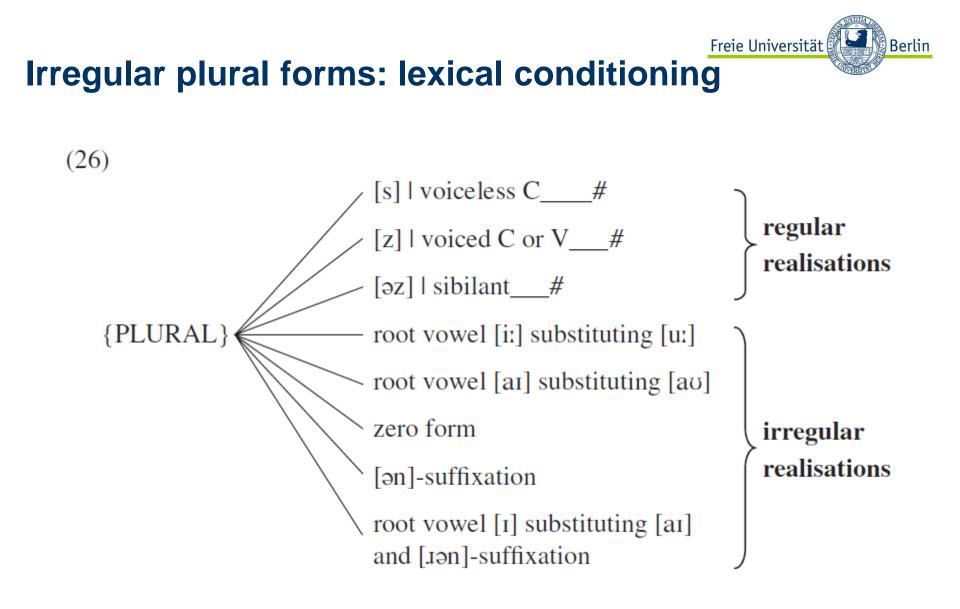
a.	tooth	[tu:0]	teeth	[ti:θ]
	goose	[gu:s]	geese	[gi:s]
	mouse	[maʊs]	mice	[mais]
b.	sheep	[∫iːp]	sheep	[∫iːp]
c.	OX	[ɒks]	oxen	[ˈɒksən]
d.	child	[t∫aıld]	children	['t∫ıldıən]

```
Plag et al (2009: 86)
```

```
tooth – teeth [uː] – [iː]
goose – geese [uː] – [iː]
```

VOWEL ALTERNATION/VOWEL CHANGE (within a stem)

```
mouse – mice [aʊ] – [aɪ]
(ibid., p. 75)
```





Irregular plural forms: morphological conditioning

conclude conclusion conclusive [kənˈkluːd] [kənˈkluːʒ-ən] [kənˈkluːs-ɪv]

Morpheme {CONCLUDE}: [kənˈkluːd] [kənˈkluːʒ] when the suffix [ən] is attached [kənˈkluːs] when the suffix [ɪv] is attached (Plag et al 2009: 88)



Phonological, lexical and morphological conditioning of allophones: summary

Phonological conditioning of allophones: "[...] the distribution of allomorphs is governed by the sound structure" (Plag et al. 2009: 83) that "follows or precedes a given morpheme" (ibid., p. 86).

Lexical conditioning: the shape of morpheme "depends on the individual word" (ibid. p. 86-87).

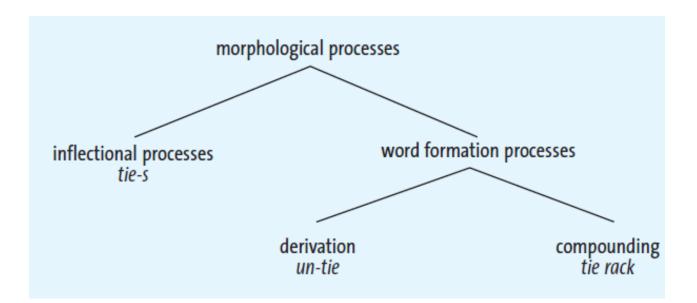
Morphological conditioning: the shape of a morpheme depends on the other adjacent morpheme (ibid., p. 88)



Morphological processes



Morphological processes





Inflection

- NOUNS {-s} plural
 - {-s} plural {-s} genitive

DECLENSION

• VERBS

- {-s} 3. person singular
- {-ed} past
- {-ing} present participle
- {-ed} past participle
- ADJECTIVES {-er} comparative
 {-est} superlative

CONJUGATION

- COMPARISON
 - (Kortmann 2005: 117)

Inflectional suffixes

Freie Universität

affix	function	examples
-S	creates the plural form of nouns	cats, days
's	creates the genitive form of	Peter's, John's
	nouns	
-ed	creates the past tense form of	played, stopped, cared
	verbs	
-5	creates the third person singular	(he/she/it) plays, stops, care
	present tense form of verbs	
-ing	creates the progressive form of	(is/are) playing, going, writ
	verbs	
-er	creates the comparative form of	warmer, colder
	adjectives	
-est	creates the superlative form of	warmest, coldest
	adjectives	

iting



Inflectional forms of the same lexeme

do not have to be listed in the dictionary because they are "grammatically conditioned" (Carstairs-McCarthy 2002: 28)

PERFORM
1 t
lexeme
(in small capitals)



Suppletive forms

BE: am, is, are, were

→ one lexeme consisting of several unrelated <u>root</u> morphemes

GO: go, went

 \rightarrow grammatically conditioned

"[...] *go* and *went* are said to be distinct roots (and hence distinct morphemes) standing in a suppletive relationship as representatives, in different grammatical contexts, of one lexeme" (Carstairs-McCarthy 2002: 33)

Inflection vs. derivation



inflection	derivation
Only suffixes (in English)	Both suffixes and prefixes
Creates WORD-FORMS or grammatical words (e.g. bake – bakes - baked)	Creates new LEXEMES (e.g. bake - baker- bakery)
Grammatical function	Primarily 'lexical'/'content'
NEVER changes WORD-CLASS	CHANGE WORD-CLASS prefix: rarely <i>(e.g. large - enlarge)</i> suffix: often)
can be attached to almost every word of a given class	can be attached to certain words of a given class
have the same meaning in all words they attach to	do not always have the same meaning

Derivation



- combination of at least one free morpheme and at least one bound morpheme resulting in a new lexeme
- through AFFIXATION: process of attaching affixes: prefixes & suffixes = PREFIXATION & SUFFIXATION
- Most prefixes preserve word/class> both happy and unhappy are adjectives
- Most suffixes change word class:
- happy happiness (adjective -> noun)
- forget forgetful (verb -> adjective)
- fiction fictional (noun -> adjective)
- ...but not all of them:
- green greenish (adjective adjective)
- devil devilry (noun noun)
- Derivation creates a new lexeme
- Result of derivation is a **derivative** (Plag et al 2009: 93-95)



Inflectional vs derivational suffixes

example

a.| computerise hospitalise modernise regularise brotherise gutterise

b. cars tables shoes cottages

word meaning

'put into a computer'
'put into a hospital'
'make (more) modern'
'make (more) regular'
'provide with a brother'
'provide with a gutter'
'more than one car'
'more than one table'
'more than one shoe'
'more than one cottage'

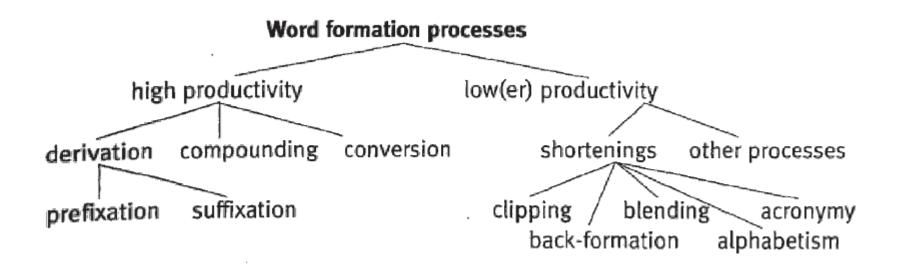
affix meaning/function 'put into X' 'put into X' 'make (more) X' 'make (more) X' 'provide with X' 'provide with X' 'more than one'

'more than one''more than one''more than one'

Plag et al (2009: 91)



Word-formation processes







Compounding is a combination of at least two (or more) **free morphemes** resulting in a new lexeme. It has been a mainstay of the English word-formation system since Old English times. The most common type is **NOUN+NOUN COMPOUNDS**: *apple pie* Result of compounding is a **compound**, in which pie is **the head**, modified by apple.

Other types:

adjective + noun blackboard, medical student adjective + adjective blue-green noun + adjective power-hungry verb + noun pickpocket verb + verb to stir-fry, to kick-start



Compounding

ATTENTION! Spelling is not a reliable indicator of **compound status** in English Words can be spelled as **TWO WORDS**: *apple pie* or **HYPHENATED**: *blue-green* or as **ONE WORD**: *blackboard* Sometimes all orthographic variants are possible: breadbin, bread bin, bread-bin

The **MEANING OF COMPOUNDS** is motivated by, but not always predictable from, the meanings of the individual morphemes. **REMEMBER!** Word stress in compounds is usually on the **MODIFIER**: *bláckbird*, *gréenhouse*

(Plag et al 2009: 99-101)



Compounding

a bláckboard
 'a board for writing on with chalk'

a blúebell 'a plant which has blue flowers in the shape of a bell' *a rédcoat* 'a British soldier in the 18th and 19th centuries' b. a black bóard
'a board which is black in colour'
a blue béll
'a bell which is blue
in colour'
a red cóat
'a coat which is red
in colour'

- a. are nominal compounds
- b. syntactic constructs

(Plag et al 2009: 100)

Compounds



- contain two constituents: left-hand constituent and right-hand constituent
- each of these constituents can be complex in itself: wildlife sanctuary
- compounds have one element that is semantically and grammatically more important, which is called the HEAD, which is usually the right-hand element. The left-hand element is the MODIFIER

law firm 'a kind of a firm'

law firms– inflectional suffix is attached to the right-hand element

law (N) firm (N) - word class of the whole compound (N) (Plag et al. 2009: 100-102)



Types of compounds

Distinguished on the basis of word-classes of their heads:

- NOMINAL: glasshouse
- ADJECTIVAL: colour-blind
- **VERBAL**: *deep-fry*



Types of compounds

Noun Adjective Verb Preposition Noun morning paper fast-food playground overweight Adjective colour-blind dark-blue

Verb to housekeep to deep-fry to crash-land



Semantic types of compounds

- Endocentric compounds (modifier-head compounds): 'A+B denotes a special kind of B': *small talk, medical student, blackboard* (Kortmann 2005: ; Mair 2012: 45);
- **Exocentric compounds**: 'A+B denotes a special kind of an unexpressed semantic head', a metonymic character; none of the components refers to the referent directly: *pickpocket*, *redhead*, *paperback*, *egghead* (Mair 2012: 46);
- **Copulative compounds** (a sum of two qualities): *stir-fry, bitter-sweet, sleep-walk*
- (Kortmann 2005: 101; Mair 2012: 45);
- **Appositional compounds**: 'A + B provide the same descriptions for the same referent': *actor-manager, writer-director, actor-director* (Kortmann 2005: 101).

Conversion



CONVERSION (zero-derivation, zero-affixation, syntactic homonymy) is the creation of a new word without any formal or external change to the base.

The most common types are **NOUN-TO-VERB**, **VERB-TO-NOUN**, **ADJECTIVE-TO-NOUN** and **ADJECTIVE-TO-VERB CONVERSION**.

NOUN TO VERB bottle> to bottle

VERB TO NOUN to coach > a coach

ADJECTIVE TO NOUN heavy > a heavy

Other types include: **ADVERB TO VERB**: down > to down

PREPOSITION TO VERB: up> to up: The kept upping the price.

ADJECTIVE TO VERB: *narrow* > *to narrow*

PREPOSITION TO NOUN: up > up ups and downs

Derivatives have usually more complex meaning than their base and relay on base for their meaning.

This process is **exteremely productive** in present-day English due to few infectional endings.

(Plag et al 2009: 105; Mair 2012: 47-48)



Conversion

Some borderline examples (they do not fully meet the criteria of conversion):

to object (verb) /əb'dʒekt/ to import (verb) /ɪm'pɔːt to record (verb) /rɪ'kɔːd/ object (noun) /'pbdʒɪkt/ import (noun) /'ɪmpɔːt record (noun) /'rekɔːd/

Different prounounciation and word stress for nouns and verbs!

Shortening



- Deleting linguistic material
- **CLIPPINGS** involve the removal of the beginning or end of a longer word:

doctor -> doc

laboratory -> lab

omnibus -> bus

Names - > truncation Patricia -> Pat

• **BLENDS** represent the phonetic merger of two words:

breakfast + lunch -> brunch

smoke + fog -> smog

• ABBREVIATIONS:

ACRONYMS combine the initial letters of multi-word combinations and can be pronounced as regular words: North Atlantic Treaty Organisation -> NATO

If initial letters are pronounced separately, these abbreviations are called INITALISMS/ ALPHABETISMS

- e.g. United Kingdom -> UK
- e.g. televison TV
- e.g. British National Corpus -> BNC

Plag et al (2009: 106-108)



References

- Bieswanger, Markus & Annette Becker. 2017. *Introduction to English linguistics*.
 3rd edition. Tübingen: Francke.
- 2. Carstairs-McCarthy, Andrew. 2002. An introduction to English morphology: words and their structure. Edinburgh: Edinburgh University Press.
- 3. En.wikipedia.org. (2020). *-ing*. https://en.wikipedia.org/wiki/-ing [November 11, 2019].
- 4. Kortmann, Bern. 2010. *Linguistics: Essential.* Berlin: Cornelsen
- 5. Mair, Christian. 2012. English linguistics: An Introduction. Tübingen: Narr.
- 6. Plag, Ingo, Maria Braun, Sabine Lappe & Marelie Schramm. 2009. *Introduction to Linguisitcs.* 2nd ed. Berlin: De Gruyter Mouton.
- Roach, Peter. 2009. English Phonetics and Phonology. A Practical Course.
 4th ed. Cambridge: Cambridge University Press.