Mohamed First University

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Morphology

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Note:

This Document is my accumulation of what we had seen in Morphology with Prof.Chaabani. You may encounter some unintended typos or mistakes; I do apologize for that and your corrections are always welcome.
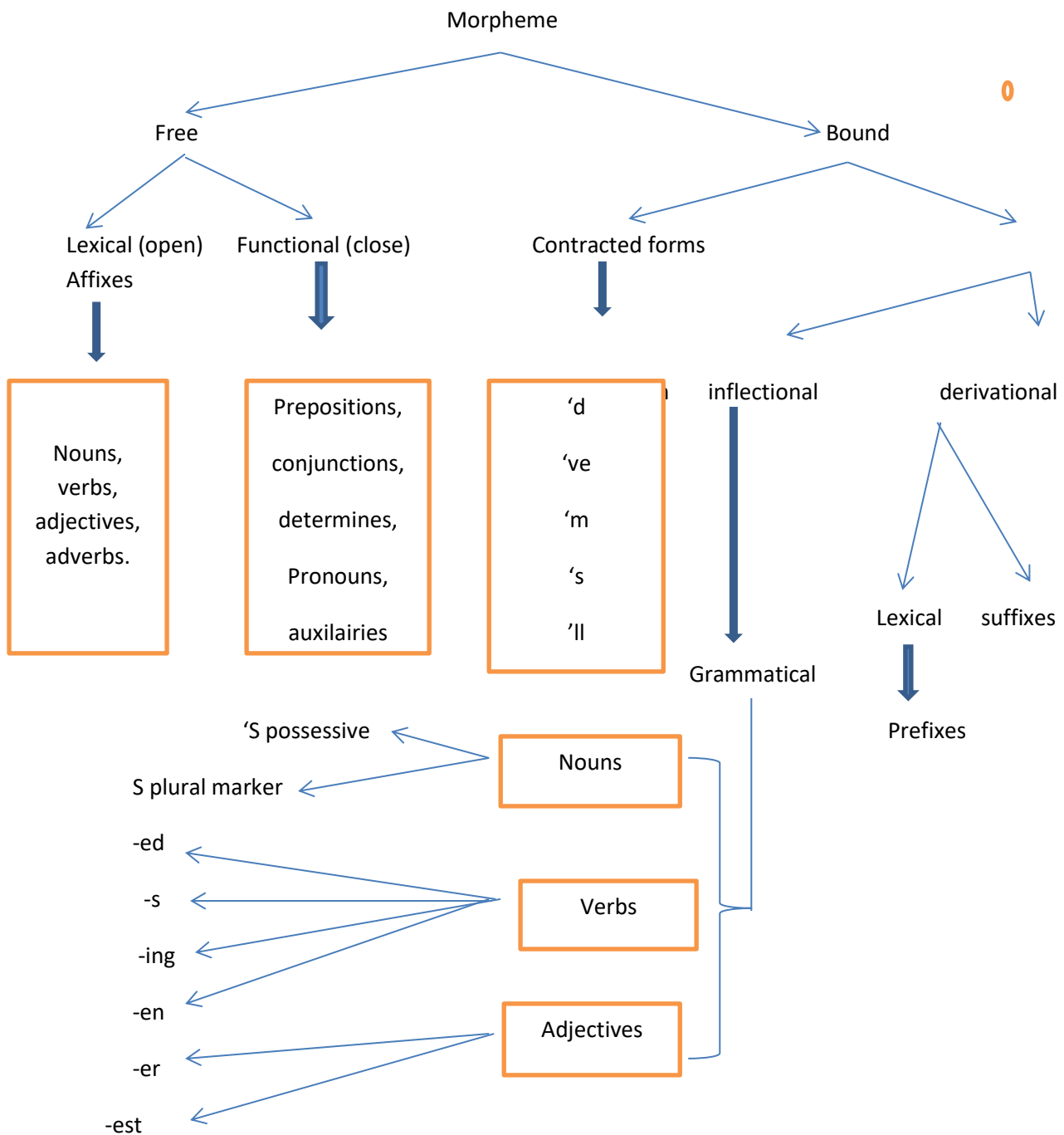
Best of luck.

Fatema Aharchaoy.

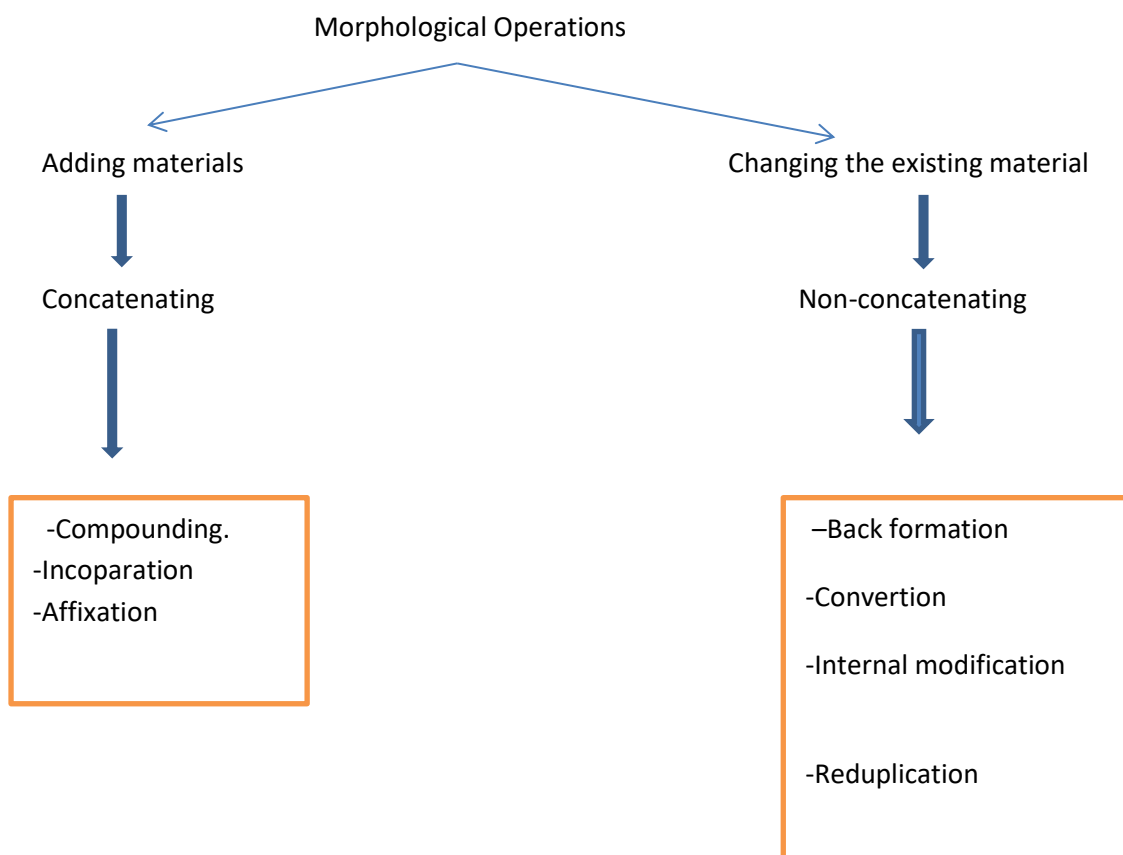# Content

Morphology : General Review

Linguists agreed that grammar includes syntax and morphology. The common feature between those constituents of grammar, syntax and morphology, is that the both study the word; syntax studies the external structure of the word. Whereas, morphology deals with the internal structure of the word. That's to say, it studies the different morphemes that consist a word.

Morpheme: the smallest meaningful unit in a given language.

Morpheme

Free   Bound

Lexical (open) Affixes   Functional (close)   Contracted forms   inflectional   derivational

Nouns, verbs, adjectives, adverbs.	Prepositions, conjunctions, determines, Pronouns, auxilairies	'd 've 'm 's 'll

Grammatical

Lexical   suffixes

Prefixes

'S possessive
S plural marker

Nouns

-ed
-s
-ing
-en
-er
-est

Verbs

Adjectives

N.B :

- Free lexical morphemes are open class because they can receive more morphemes.

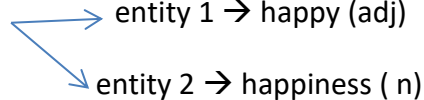-Functional morphemes are called close class since they cannot receive any additional morpheme.

Morphological Operations

Adding materials

Concatenating

-Compounding.
-Incoparation
-Affixation

Changing the existing material

Non-concatenating

–Back formation

-Convertion

-Internal modification

-Reduplication

Inflectional Morphology

1-Inflectional Morphology Vs Derivational Morphology:

-Inflectional Morphology creates new forms of the same words, whereby the meaning stays the same.

e.g.: Lexeme→entity → dog (n) - dogs (n)

-Derivational morphology creates new words from the old lexemes in which the core meaning might change significally.

e.g.: Lexeme ⟶ entity 1 → happy (adj)
                 ↘ entity 2 → happiness (n)

2- Types of inflectional operations:

-Conjugations: we inflect verbs.

-Declensions: we inflect nouns, pronouns, adjectives, and determiners.

3- Regular Inflectional Morphology:

-Inflectional Morphology goes hand in hand with Paradigm.

-Paradigm: regular and predictable set of word forms belonging the same set of lexemes. These word lexemes are arranged into a table by classifying them according to shared features labelled by Inflectional/ Grammatical Categories.

- Inflectional Categories:

1-Person: 1st , 2nd ,3rd .

2-Gender: feminine, masculine.

3-Number: singular, plural, dual (in Arabic).

4-Tense: past, present, future.

5-Aspect: Progressive (continuous form of the verb), perfective(perfect form of the verb).

6- Mood:

①Indicative: forms that make a state.

②Subjunctive: forms of the verb that show wishes and hopes that can not be realized.

③Imperative: used to express commands and requests.

7- Voice: passive, active.

8- Case : nominative (subject), oblique/accusative (direct object), possessive, reflective (pronoun+self), dative (indirect object).

Examples :

Nominative	Who
Oblique/Accusative	Whom
Oblique	Which/That
Possessive	Whose

	Singular	Plural
Sbject nominative	I	We
Possessive pronouns	Mine	Ours
Oblique	Me	Us
Possessive determiner	My	Our
Reflective	Myself	Ourselves

Exercise: Conjugate the verb ' to clean':

Person		Singular			Plural		
		1st pronoun	2nd Pronoun	3rd Pronoun	1st Pronoun	2nd Pronoun	3rd Pronoun
		I	You	She, He, It	We	You	They
Tense	Past	cleaned	cleaned	cleaned	cleaned	cleaned	cleaned
	Present	clean	clean	cleans	clean	clean	Clean
Aspect	Progressive	cleaning	cleaning	cleaning	cleaning	cleaning	Cleaning

4- Irregular Inflectional Morphology:

Type of Irregularity	Plural Noun	Past Tense	Verbs Inflection
Unusual suffixation	Oxen children	---	Driven Taken Broken
Change of Stem Vowel	Foot Mice	Run Drove Swim	Run Sung Swum
Unusual suffixation + change Of stem vowel	Brethren	Feel/felt Kneel/Knelt	Write/written Do/done Fly/flown
Zero Marking	Deer Sheep Fish news	Put Cut Let	Put Cut Let
Change in the base Stem form with an unusual Change sometimes	---	Send/sent Bend/bent Think/thought	Sent Bent thought

Derivational Morphology

1- Definition:

*Derivational process creates new words from already existed words by concatenative and non-concatenative operations. It is less predictable and needs memorization because the lexemic paradigm (see Inflectional process) doesn't work for derivational.

*Affixation and compounding are derivational processes

Examples: The morphemes -ate, -ant, -action.

ATE	communicate - donate - militate
ANT	Communicant - *donant (does not exist) - militant
-ATION	Communication - donation - *militation (does not exist)

⇨ N.B:

As you can see, we can not apply the same morpheme for all roots. So that the lexemic paradigm is very limited in derivational process.

2- Functions of Derivational Processes:

Derivation has two purposes; it may change the grammatical category, or the meaning. It can give us many word forms.

Play	player , playful, replay, playfulness
Teach	teacher, teachable
Love	lover, lovely, lovable
Friend	Friendly, friendless, befriend
Beauty	Beautiful – beautify - beautification
Voice	Voiced – voiceless - voicelessness

⇨ N.B:

 -Inflection is more productive than derivation (formulate rules and applicable on general words).

- In derivational process we can speak about degree of productivity. It means that some derivation affixes are more productive than others (they can be used with more roots and forms). For example:

-ship → friendship, relationship

-ity → security, sincerity   ⎤
                                      ⎥— moving from abstract to concrete.
-hood → manhood, personhood, childhood ⎦

3- output/input system:

How is a derivational process undergone?

Derivation morphology relies on input output system, it means that we have to analyse the basic form (root) then the word classes resulting from derivation.

INPUT: the word class to which the derivation applies, it is the ROOT.
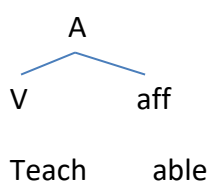OUTPUT: the word class resulting from derivation.

Example: English language is a good example in which nouns marked derivation.

Input	Output	Input	Output	Input	Output
Verb	Noun	Adjective	Verb	Noun	Noun
To derive	Derivation	Large	To enlarge	King	Kingdom
To drive	Driving	Hard	To harden	Governor	Governorship
To govern	Government	Little	To belittle	President	Presidency
To know	Knowledge	Solid	To solidify	Child	Childhood
To remove	Removal			Anarchy	Anarchist

Input	Output	Input	Output
Noun	Verb	Adjective	Noun
Tomb	To entomb	Kind	Kindness
Theory	To theorize	Wide	Width
Class	To classify	Severe	Severity

4- Tree Analysis:

Teachable

```
        A
       / \
      V   aff

   Teach   able
```

Playfulness

```
            N
           / \
          A   aff
         / \
        V   Aff   ness

      Play  full
```
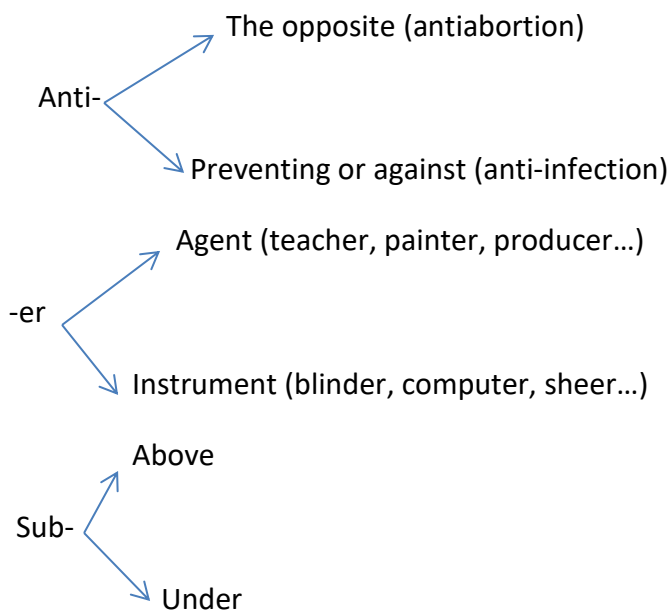
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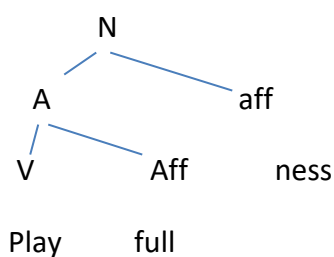
Affixation

1-Definition:

- Affixation is a process that creates new words through adding materials, which are in fact morphemes, in the beginning, middle, end, or around the root or the stem.
- Affixation is widely used in many languages of the world.
- When dealing with affixation in different language, we basically rely on comparison.

2-Semantic Aspects of Affixes:

"Semantically speaking, affixes consist of meaningful meanings". Hence, Leher (2000) classified affixes according to their meaning because, for him, affixes are meaningful as lexemes, and the only difference is that affixes are bound while lexemes are free.

A-Polysemy:

Affixes are polysemistic in many languages. One affix can have many meanings. For example:

Anti-
→ The opposite (antiabortion)
→ Preventing or against (anti-infection)

-er
→ Agent (teacher, painter, producer…)
→ Instrument (blinder, computer, sheer…)

Sub-
→ Above
→ Under

B-Antonymy:

Pre- / Post- : preformation # postformation.

Pro- / Anti- : Pro-authority # Anti-authority.

Micro- / Macro- : Microeconomist # Macro-economist.

Mini- / Maxi- : Mini-dress # Maxi-dress.

In- / ex- : inchange# exchange; inhale # exhale.

Over- / under- : Over-estimated # Under-estimated.

Up- / Down- : Upstairs #Downstairs.

In- / out- : Input# output.

Ful- / less- : Harmful # harmless.

C-Synonymy:

1-Nominalizing Suffixes:

Suffixes, such as , -ity, -al , -ment, - (a)tion and so on turn grammatical categories to nouns.

e.g.: directivity – directiveness.

2-Agentive Affixes:

They are mainly -er, -ist, -eer, and –eur (and –euse for female) in French.

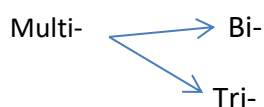e.g.: Provocateur, Provocateuse.

3- Noun to state of quality of being a noun:

 Suffixes, like –hood, -ship, -dom, change nouns from one state to another state.

e.g.:   Relation (noun) → Relationship (noun).

D-Hyponymy:

 The prefix multi- can mean Bi- or Tri-.

Multi- ⟶ Bi-

Tri-

3-Some Affixes and Their Equivalent Lexemes:

Affix	Free Word
Pre	Before
Anti	Against
Un	Not
Ex	Previous
Semi	Half
Inter	Between
Hypo	Under
Vice	Substitute

4- Types of Affixation:

A-Suffixation:

Suffixation is the process of placing the affixes (suffixes) in the end of the root. It is divided into derivational and inflectional. It is more productive and widely used in languages of the world.

Finnish: as- mo-tton - uus.

    House - without. (v)

Japanese: otoks-rasi – sa

    New -ness

b-Predication:

Prefixation is a process in which the affix (prefix) precedes the root. It is also divided into inflectional and derivational, but it is less productive than suffixation.

English: Acknowledge, Account, Enrich, Asleep..

Japanese: mu – skinir

    Neg – responsible

   Ni - ryoku

   Neg – power

   Hu – keizcu

   Neg – economical

** Semantically speaking, mu-, ni- and hu- are synonyms of negation in Japanese language.

C-Infixation:

An infix is a an affix that divides the root and creates discontinuous bases.

Bontoc: kilad (red) → kumilad (to be red)

   Fikas (strong) → fumikas (to be strong)

D-Circumfixation:

A circumfix is a discontinuous affix that divides the root, but it is itself divided into a suffix and a prefix the root. (It is a kind of affix that embraces the root)

Georgian language: Sa – katam – e (hen-s house)

Me – or – e   (second)

English: en - light – en

E- Interfixation:

an interfix precedes one root and follows another. It is used for compound words.

e.g: (pine) neft – e – povod (line)

F- Transfixation:

A transfix is an affixes which both divides the root, but it is itself divided. It is dominant in Arabic, Hebrew and other Semitic languages.
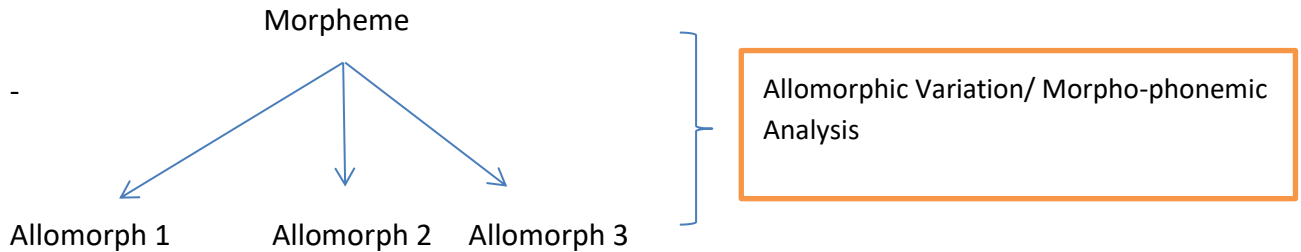
Arabic: Taraqa .

Hebrew: Šlt (power)

Šalat (be in power)

1- *Definition of an Allomorph:*

An Allomorph is any phonological realization of a morpheme.

```
                    Morpheme
-                      /|\
                      / | \
                     /  |  \
                    /   |   \
         Allomorph 1  Allomorph 2  Allomorph 3
```

Allomorphic Variation/ Morpho-phonemic Analysis

** It is called Morpho-phonemic Variation because it is due to the help of phonology that we get this analysis.

Example of allomorphy : The plural marker has three different pronunciation.

```
                  {-S}
                  /|\
                 / | \
                /  |  \
              /s/  /z/  /ɪz,əz/
```
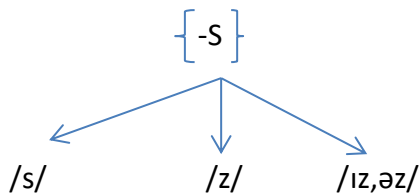
2- *Classes of Allomorphs:*

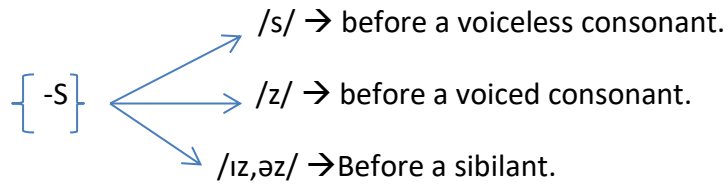Allomorphs are classified according to the role they play within the word.

A- Addictive Allomorph:

It is signified by adding something the word. It is divided into the two following types, with examples;

a-Phonologically Conditioned:

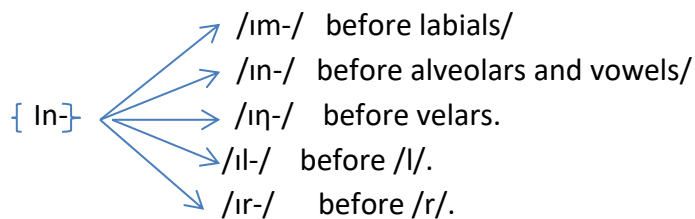Morphemes can be analysing into wo different ways, as in the following examples:

1) The plural marker :

/s/ → before a voiceless consonant.

-S → /z/ → before a voiced consonant.

/ɪz,əz/ → Before a sibilant.

1) Past tense marker:

Morpheme	{-ed} past tense marker
Allomorph	/t/, /d/, /əd,ɪd/
Distribution	-Pronounced as /t/ after voiceless consonants. -Pronounced as /d/ after voiced consonants. -Pronounced as /əd/ or /ɪd/ after /t/ and /d/.

2) Not:

/ɪm-/   before labials/

/ɪn-/   before alveolars and vowels/

{ In-} → /ɪŋ-/   before velars.

/ɪl-/   before /l/.

/ɪr-/   before /r/.

b-Lexical Conditioned:

Child / children
Ox /oxen
Give /given
Fool / foolish
Write /written

- The added parts are not affixes, but lexemes.

B- Replacive Allomorphs:

It is also called vowel modification or ablating in German. There is no rule for vowel changing; the vowels keep changing as in the following examples:

Drink / drunk

Sing /sung

Foot /feet.

Shoot/ shot

C- <u>Suppletive Allomorph (or Pure Allomorpy):</u>

It is used to signify some difference in meaning. It is divided into two types: complete and partial.

Complete suppletion is a total modification of the root. Here, the allomorphs are just arbitrary (no phonetic similarities). Whereas, in partial suppletion, words bear a phonetic similarity, which means one sound is in common. Most of the time, it is the first consonant that is shared.
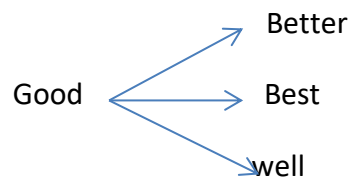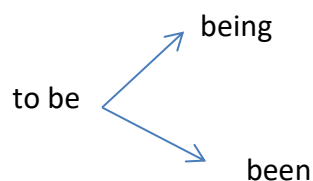
a)<u>Examples of Complete Suppletion:</u>

To be
- Is
- Am
- Are
- Was
- Were
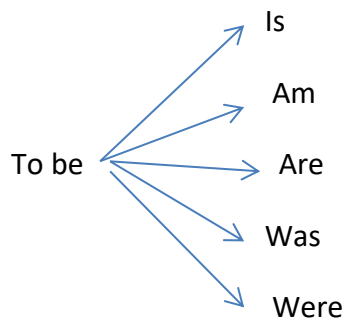
- Depending on tense and person, the conjugation of the verb "to be" changes .

Go → went

Bad → worse

Good
- Better
- Best
- well

b) <u>Examples of Partial Suppletion:</u>

to be
- being
- been

<u>France → French</u>

See → seen

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D- Null Allomorph (or zero allomorph):

There is no change in the shape of the word through there is a change on its meaning, such as;

Hurt → hurt

Put →put

Cut → cut

News → news

Information → information

Must → a must

Yellow (adj) → to yellow (v)

E- Unmotivated Allomorph:

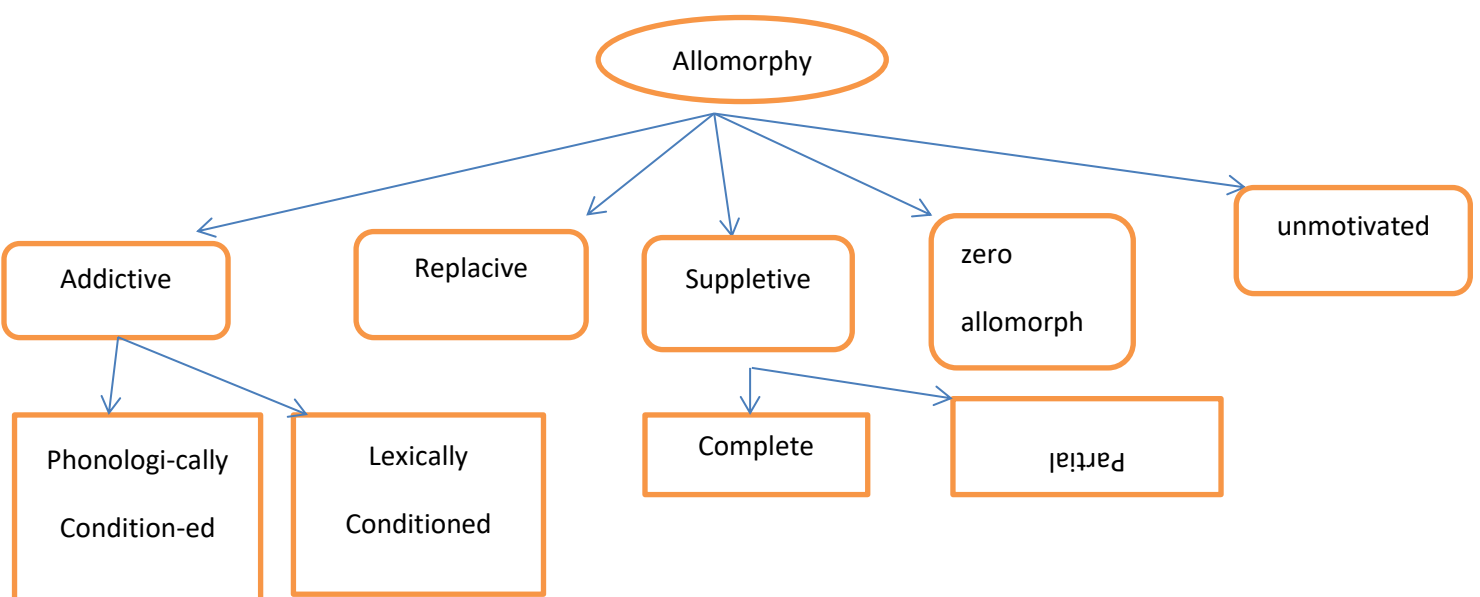*This type of allomorphs should be memorized because it is less predictable.

*it combines between changing a consonant and adding new sounds.

Electric → electricity   (/k/ becomes /s/ and "-ity" is added)

Life → lives   (/f/ changes to /v/ and other sounds are added)

Face → facial   (/s/ becomes /š/ + addition of "-al')

2) Summary:

Compounding

1- Definition:

- Combination of two free morphemes as a long morpheme.
- It is concerned with concatenative morphology.
- It is a productive word formation process.

    Lexeme 1 + lexeme 2 => lexeme 3 (third meaning)

1- The Orthography of Compounding:

There are different ways in which we write compounding words. There are some ways that govern compounding;

A- **Solid Compounding** (closed): we use it when we have short words or mono syllabic words.

Examples: bathroom

B- **Hyphenated Compounding:** connecting words using (-).It is used when;

① Compounds containing a root with an affix:

We compound two roots in which one lexeme contains a bound morpheme (affix).

Example: well-formed, laissez-passer (French).

②Belonging to the same category:

 When we have two lexemes belonging to the same grammatical category.

Example: type-write (V-V) , bitter-sweet (Adj-Adj)

③With particles (prepositions, articles…) :

 When the compound contains an article (short word-article- preposition)

Example: mother-in-low, salt-and-paper.

C- **Open/ Spaced Compounding**: it is used to combine large roots. This combination results some weird and strange new words.

Example: businessman, coffee cup (distance between the words)

2- *Semantic Class:*

Nouns are the most productive elements in compounding; they may be classified according to their semantic class. We have certain compounds that we can identify their meaning from the compound itself, whereby the head determines the meaning of the whole compound word.

For example:

Student-field-<u>society</u>

⤷ The most important within compounding

A- Endocentric Compounds:

They are all the time right-headed

A+B => C   (arm chair)

The meaning is found within the compound itself.

B- Exocentric Compounds:

When it is combined it doesn't give any meaning. It should be joined within a context
The compound is headless:

⇨ A+B#C (e.g.: skin head, lazy bones,)

Neither A nor B will give the meaning of C (usually metaphoric). Thus, they need to be learnt by heart – (exist in our metal lexicon) because we can not generate them freely. Most of them are found as combination of (adj+n) or as phrasal verbs

Example: show off (grammatical category + preposition)

freeze-dry, bitter-sweet,

Bleu- blanc- rouge

C- coordinative compounds

When we coordinate two independent words to one independent meaningful entity, we call them coordinative compounds.

D- Appositional compounds (gender- marking)

They are characterized by the gender of the referred person. Gender is marked at the beginning or at the end.

A or B➜ one of them is gender marker

Example: police men, woman servant

E- Neo- classical compounds:

Combining two bound morphemes. They are originated from Greek or Latin.

Example: Morphology = morph (word) + logo (study)

Theocracy = Theo (God) + cracy (rule)

E- Synthetic compounds:
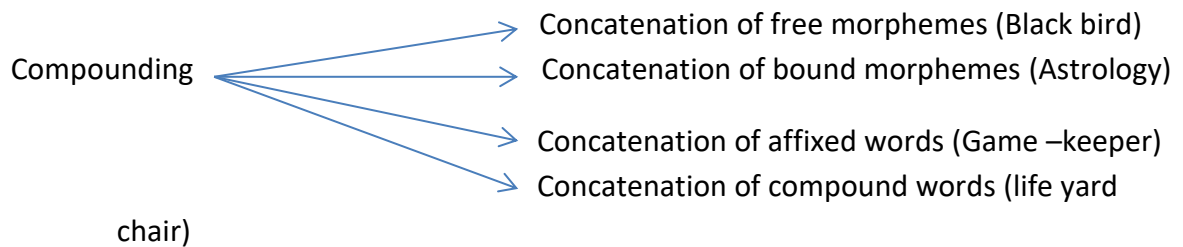
Used in certain manners that contain affixes

Examples : Truck – driving

Money – hander
Hand – writing
Argument+ head derived from a verb

⇨ Compound words can concatenated as free and bound morphemes are concatenated

Compounding → Concatenation of free morphemes (Black bird)
Concatenation of bound morphemes (Astrology)

Concatenation of affixed words (Game –keeper)
Concatenation of compound words (life yard chair)

⇨ *A big Thanks goes for Hanae Yousfi For sharing the notes of this lesson.*

<p style="text-align:center">⬭ **Reduplication** ⬬</p>

1- Definition :

- Reduplication is a morphological process that involves repetition of a part or all of the word.
- It is a productive process in some languages, but it is limited in English.
- It may act derivationally or inflectionally.
- It is an interaction between phonology and morphology. What is been copied is a syllable, many syllables or a whole word (So, we resort to phonology) or an affix, that can be found in the beginning, the middle or in the end (we resort here to some materials of morphology).

2-Complete Reduplication Vs Partial Reduplication

A- Complete reduplication: repetition of a word.

Examples:

<u>Warlpiri language:</u>

Kurdu (child) → kurdukurdu

<u>African language: indicating the intensive meaning of adjectives</u>

Amper (nearly) → amper-amper (very nearly)

Dik (thick)   → dik-dik   (very thick)

B- Partial reduplication: repetition of a morpheme, a syllable or many syllables

Examples:

<u>Ilocano language</u>:

ulo (head)   → ululo

<u>Tagalog language: indicating future</u>

Basa (read) → babasa (will read)

<u>Papago language: moving from singular to plural</u>

Daikud (chair)   →   dadaikud (chairs)

3-Reduplication in English:

A- History of Reduplication in English:

Reduplication is not common in English language. It has appeared only few centuries ago. We have only some recent reduplicated words in English, such as;

Rif-raff (1400 BC)

Bling- bling/ beber-fiver (20 century)

B- Types of Reduplication in English

Linguists have divided Reduplication into three types according to the word's orthography:

①Rhyming:

Culture-vulture

Brain-drain

Walky-talky   Meaningful

Happy-clappy

Flower-power

Namby-pamby → meaningless

Super-duper   → meaningful-meaningless

*It is called rhyming because we play on the rhyme of the word and the remain part are kept; what changed is only the onset of the base.

*It belongs to partial reduplication.

② Exact/ Duplicative:

It is a kid of complete reduplication used for baby-talk. It is more common than Rhyming.

Examples: Bye-bye, Fifty-fifty ,Night-night, Bery-bery, Lunch-lunch, No-no, Tcha-tcha!

③Vocalic/ Alliterative:

Chit-chat

Ding-dong   - Reduplication is achieved by changing the vowel of the base (vowel

                                  Gradation).

Knick-knock   - the words have no meaning

Flim-flam   - the words indicate a thing that is this or that.

Zig-zag

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4- CV Skeleton/ Morpheme Templet:

A- Mapping Principles:

In order to check the reduplicated elements as being prefixes, infixes or suffixes, we resort to mapping principles in reduplication:

①- Associating the copied phonemic melody on the CV-Skeleton/CV-slot one to one, with vowels linked to vowel-slots and consonants linked to consonant-slots

CV-Slot

C   V
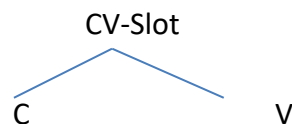
②- In case of a prefix, the association goes from left to right, while in the case of a suffix, it goes from right to left.

B- Examples:

①Prefixation.

T a k k i (leg)   →   T a k t a k k I (legs)

C V C V   C V C C V C V

T a h i: m i k (quiet) →   T a h i: t a h i: m i k (rather quiet)

C V C V C V C   C V C V C V C V C V C

②Suffixation:

A a h u a (appearance)   → A a h u a h u a (resemble)

V   C   V   V C V C   V

M a a k u u (moisture)   → m a a k u u k u u (rather moister

C V C V   C V C V C V

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③ Infixation:

A l o f a (love)   →   a l o l o f a
| | | | | | | | | | | |
V C V C V   V C V C V C V

M a l i u (die)   →   m a l i l i u
| | | | | | | | | | |
C V C V   C V C V C V

5-Functions of Reduplication:

Reduplication is used derivationally or inflectionally for **grammatical purposes**, such as, indicating plural or tense and for **some changes in meaning**, as the following:

① Augmentation/intensification:

Buku → buku-buku (increase quality)

② Diminution/ attenuation:

Anak   → anak-anak (small boy)

Dalawa   → dadalawa (somewhat wet)

③ Frequency/repetition:

Pik   → pipik (touch repeatedly)

1- Clipping :

Shortening long words to gain space while writing or typing. Clipping can take place in front, middle or end of the word. It is common used in daily language.

Examples:
Laboratory → lab
Information → info
Examination → exam
Mathematics → math
Telephone → phone
Photography → photo
Refrigerator → fridge
Airplane →plane

1- Blending:

Combination of two or more words in which the sound patterns overlap. Often parts of either or both words are reduced or lost in the blind, though usually the initial components are recognizable.

Examples:
 Cheese-burger ⌉
Beef-burger   ⌐   Hum-burger
Veg-burger   ⌋

Smoke + Fog → Smog
Motor +Hotel → Motel
Spanish + English → Spanglish
Television + Marathon → Telethon
Hazardous + Materiel → Hazmat

2- Conversion:

A modification of meaning, basically in the grammatical, but the root morpheme remains the same (a word class change without any morphological process)

Examples:

Adjective	Noun	Verb
	A party	To party
	A must	Must (aux)
Yellow		To yellow
Brown		To brown
	A cook	To cook
Empty		To empty
	Fish	To fish
Clean		To clean

⇨ Note that we only speak of conversion when it is clear that a word has been "copied" from one word class to another.

3- Back formation:

Sometimes, speakers of a language will analyse a word as containing affixes where none are present. By removing these assumed prefixes, a lexeme can be back-formation.

Examples:
Baby-sitter → baby-sit
Laser → to lase
Destruction → destroy
Editor → to edit
Beggar → to beg

4- Abbreviation:

Shortening of existing words to create other words, usually informal version of the originals, by lopping off one or more syllables randomly .
Examples:
 Mr, Mrs, Miss
Yard → Yd
Doctor → Dr
April → Apr
Department → dep

6-Acronyms / Initialisms (or Alphabetisms):

A kind of abbreviation that reduce each component word to its initial letter to pronounce it as one word. The difference between the two types lies in how the resulting word is pronounced in spoken language, namely letter by letter or without intermission.

Examples:

Acronyms	Initialisms
UNESCO	TV/CD
NATO	MP3
RAM	UK
	USA

5- Borrowing:

Borrowing words from other languages and adopt them to your language.

Examples:

English has a mixed vocabulary from Latin, French and Arabic.

 Street → strata (Latin word)

Coffee →قهوة

Sugar → سكر

Khalif → خليفة

Limon →ليمون

Best of Luck