

MORPHOLOGY*

Lexical categories (Class of words/Parts of speech):

- **Open lexical categories:** Nouns, verbs, adjectives, adverbs
We can add new words that belong to these categories into the language.
- **Closed lexical categories:** Prepositions, determiners, conjunctions, pronouns
Closed lexical categories rarely acquire new members.

Are you familiar with these words on [Word Spy](#)?

Longest word in English?

antidisestablishmentarianism

pneumonoultramicroscopicsilicovolcanoconiosis

*Homophonous
morphemes:*

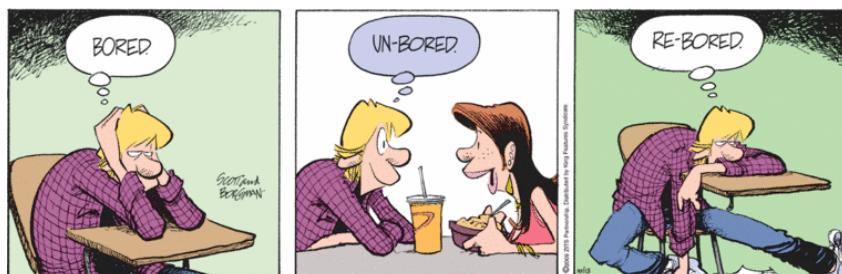
work – worker

vs.

fast – faster

Morpheme: the smallest meaningful unit

Roots and affixes are called morphemes: bird, walk, -s (plural marker)



anti-dis-establish-ment-arian-ism

pneumonoultramicroscopicsilicovolcanoconiosis

pneumono: lung-related

ultra: beyond

micro: small

scopic: looking

silico: like sand

volcano: volcano

konis: dust

osis: condition

Allomorph: A variant form of a morpheme.

imbalance [ɪmbæləns]

inability [ɪnəbɪlɪti]

incomplete [ɪŋkəmplit]

Morphemes can be classified as follows:

- ❖ **Free** → Morphemes that can stand alone.
e.g. walk, on, the
- ❖ **Bound** → Morphemes that cannot stand alone.
e.g. -ed, -s, -ity, cran-
 - **Inflectional** → Inflection takes one word and performs some operations on it, creating different grammatical forms of words rather than entirely new words. e.g., cat vs cats
 - **Derivational** → Derivation takes one word and performs one or more “operations” on it, the result being some other word, often of a different lexical category e.g., do vs. redo

* Examples and data in this handout are mostly adapted from *Language Files 12* and the handouts of Ling104 instructed by Bobaljik (Fall 21).

Recap of everything we discussed so far:

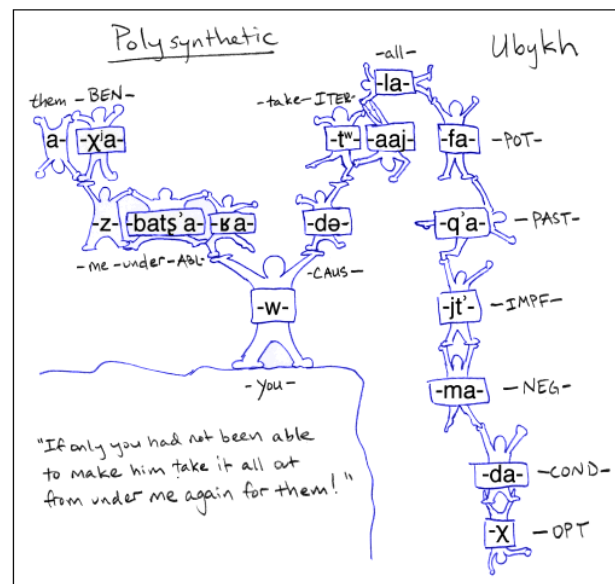
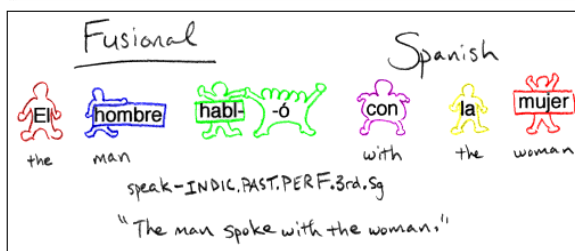
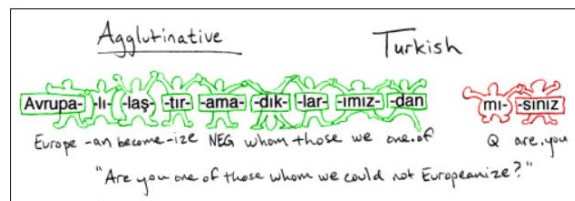
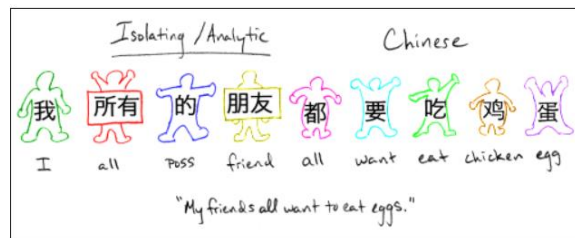
	Content Morphemes	Function Morphemes
Free Morphemes	- Content words: - Nouns - Verbs - Adjectives - Adverbs	- Function words: - Determiners - Prepositions - Pronouns - Conjunctions
Bound Morphemes	- Bound roots - Derivational affixes	Inflectional affixes

Morphological types of languages

The degree of information that is put into one word as opposed to multiple

- Analytic languages → a low ratio of morphemes to words; i.e., English (a moderate example)
Mandarin is another example of analytic languages – another term to refer to languages like Mandarin is ‘isolating languages’
- Synthetic languages → affixation of morphemes to a root morpheme. Here are the subtypes:
 - Agglutinative languages → one-to-one mapping between the meaning/function and the morpheme, i.e., Turkish
 - Fusional languages → one morpheme represents more than one meaning, i.e., Latin
 - Polysynthetic languages → words that are equivalent to whole sentences in other languages, i.e., Inuktitut

Check the amazing illustrations (taken from <https://specgram.com/CLII.3/09.phlogiston.cartoon.3.html>)

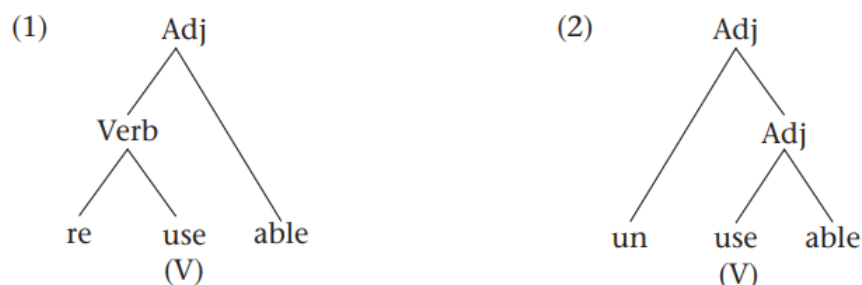


Sad side note: Ubykh is an extinct language. The last speaker of Ubykh lived in the Blacksea region of Turkey.

<https://www.youtube.com/watch?v=iq8gdOh9Q-U>

<https://www.youtube.com/watch?v=ixH22rZTDRg>

Hierarchical structures and trees



Morphological processes

Affixation can be inflectional and derivational.

Prefixes; un-do

Suffixes; cat-s

Infixes; lakad 'walk' lumakad 'to walk' (in Tagalog)

Compounding creates new words not by means of affixes but from two or more independent words.

greenhouse

Reduplication is doubling either an entire free morpheme (**total reduplication**) or part of it (**partial reduplication**)

rumah 'house' rumahrumah 'houses' (in Indonesian)

Alternations are morpheme internal modifications.

man men [æ] ~ [ɛ] ([æ] alternates with [ɛ] in these forms)

Suppletion is when a root will have one or more inflected forms phonetically unrelated to the shape of the root.

good – better – best

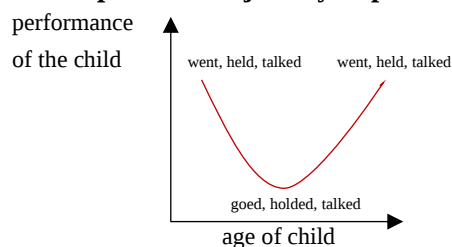
vs.

light – lighter – lightest

Brief acquisition facts:

Irregular past tense in English

Developmental trajectory of past tense rule in English



Overregularization

An example:

Child: You readed some of it too.
She readed all the rest.

Mom: She read the whole thing to you?

Child: No, you read some.

Mom: Oh, right. I readed some.

Child: Readed? Read!

Mom: Oh, you are right, read!

→ U-shaped development

Why does it matter? → Might give information about the content of our mental lexicon

Possibilities: **i.** *Morpheme-based lexicon* - Roots and affixes ‘Morphemes are the lexical items’

We form each word via rules. – What about irregulars?–

- ii. **Strict word-based lexicon** - All words are listed in the lexicon.

There is no rule, we list each word in the lexicon. – Not economic –

iii. *Hybrid lexicon* – Roots and affixes as well as the irregular words in the lexicon.

Combination of the previous approaches – for the time being, sounds plausible –

We are doing morphology!

1. Let's play safe and focus on English. Below you will find a list of words. We will try to segment these words together. If possible, we will try to draw trees for each word. While segmenting, please think about the parts of speech, affixes (suffix/prefix), compounds, inflectional and/or derivational morphemes. What is the common thing shared by these all words? Can you come up with a generalization about the data?

*The important thing to keep in mind is that ‘Morphemes are the smallest **meaningful** units.’*

a. unhappy

b. unfaithful

c. untouched

d. uncle

e. underwear

f. unthinkable

g. unlawful

h. unlockable

g. unpresidential 🌶🌶🌶

2. More trees because *why not!* (Of course, if you wish to have more)

a. nonrefundable

b. irreplaceability

c. dysfunctional

d. reconstruction

e. international

f. misunderstandable

3. Let's analyze the data in Hungarian below. The first column gives us the meaning of the verb used in the other columns. The other columns (2nd, 3rd, and 4th) are structures formed with the relevant verb, i.e., 'I run', 'You run', and 'S/he runs' for the verb 'run'. Try to figure out the morphemes and their meanings, while focusing on the allomorphy if there is any.

Verb	"I verb"	"You verb"	"S/he verbs"
write	i:rek	i:rs	i:r
love	seretek	serets	seret
speak	bese:lek	bese:ls	bese:l
ask	ke:rek	ke:rs	ke:r
beat	verek	vers	ver
buy	vesek	vesel	ves
look	ne:zek	ne:zel	ne:z

4. Another exciting piece of data. This time we are going to the Mexican state of Chiapas. The data below is in Tzeltal, a Mayan language (The data is simplified).

Noun		"my noun"	"your noun"	"his/her noun"
kab	'hand'	hkab	akab	skab
akan	'leg'	kakan	awakan	yakan
lumal	'land'	hlumal	alumal	slumal
inam	'wife'	kinam	awinam	yinam
kop	'language'	hkop	akop	skop
atel	'work'	katel	awatel	yatel

5. Next stop is Philippines and we are analyzing the data from Bontoc, a Malayo-Polynesian language. What kind of affix do we observe here? Can you describe the process going on here?

fikas	‘strong’	fumikas	‘he is becoming strong’
kilad	‘red’	kumilad	‘he is becoming red’
bato	‘stone’	bumato	‘he is becoming stone’
fusul	‘enemy’	fumusul	‘he is becoming an enemy’
nitad	‘dark’		‘he is becoming dark’
.....		pumukaw	‘he is becoming whiter’

6. We are going to try something different now. The data is from Classical Arabic. This language among other Semitic languages (i.e., Hebrew, Amharic) is argued to have *templatic morphology*. Let’s investigate the data.

	‘write’	‘earn’
Meaning	Form	Form
present tense (s/he <i>verbs</i>)	katab	daraj
cause to <i>verb</i>	kattab	darraj
<i>verb</i> for each other	kaatab	daaraj
make <i>verb</i>	?aktab	?adraj

What are the roots for ‘write’ and ‘earn’? Can you identify the morphemes?

Additional data in Classical Arabic since it is fun:

	‘write in Perfect tense’
I	katabtu
you (female)	katabti
you (male)	katabta
she	katabat
he	kataba
we	katabnaa
you (plural, female)	katabtunna
you (plural, male)	kabtum
they (female)	katabna
they (male)	katabuu

What kind of morphemes do we have here?