



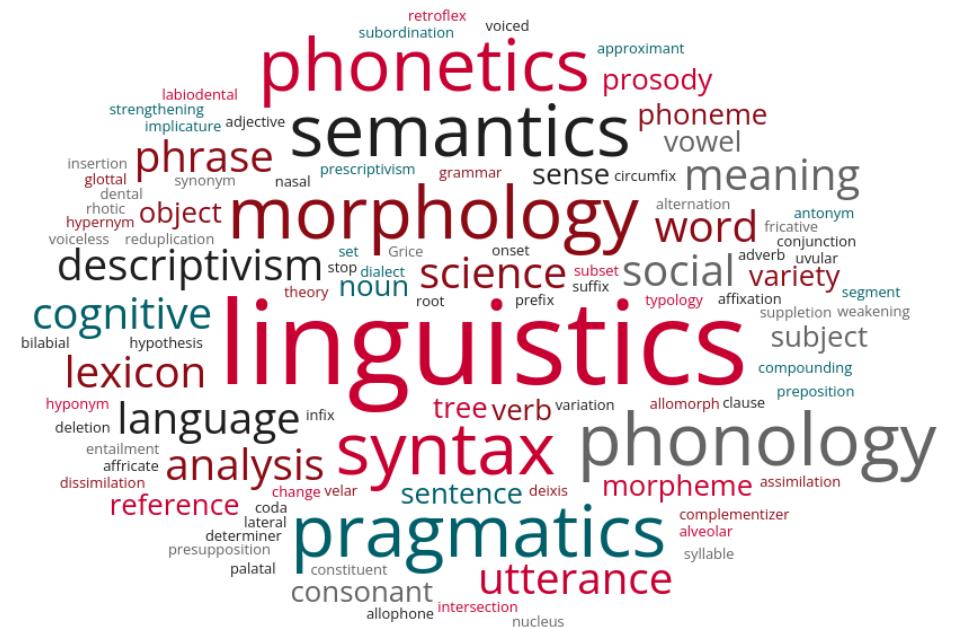
Morphology I

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2026/01/29 (updated: 2026-01-29)

Please pick up your **name card** from the front

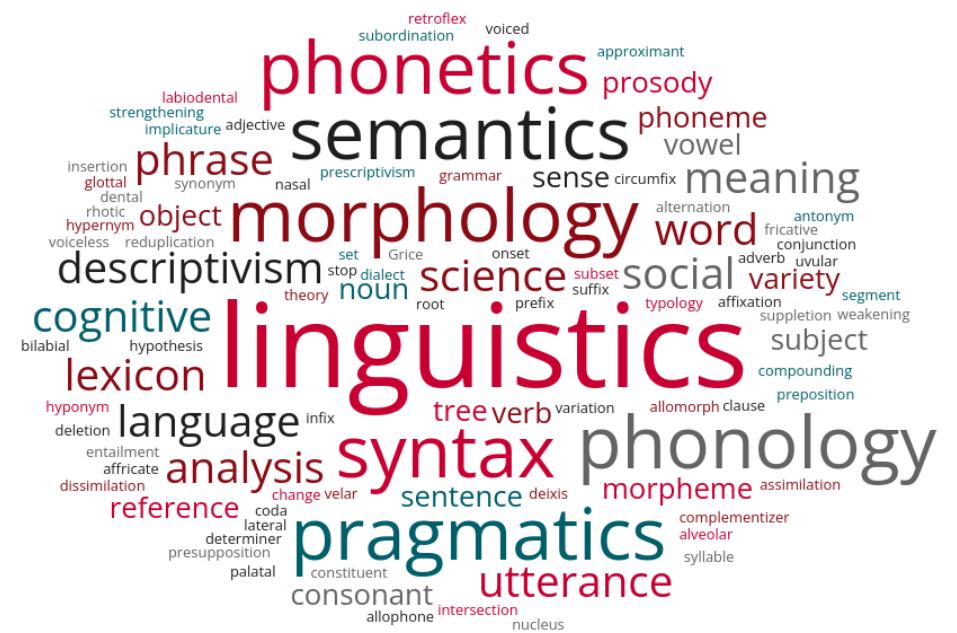
Previously on 201: What is Linguistics

- Linguistics is the _____ study of language
 - linguists use the scientific method to uncover the _____ or knowledge of language users
 - while there are both prescriptive and descriptive rules relating to language, linguists are interested in uncovering the _____ rules of a language
 - often times these rules are ____, hence speakers are not aware that they are following them
 - we can use the scientific method to uncover rules of languages we ourselves speak or

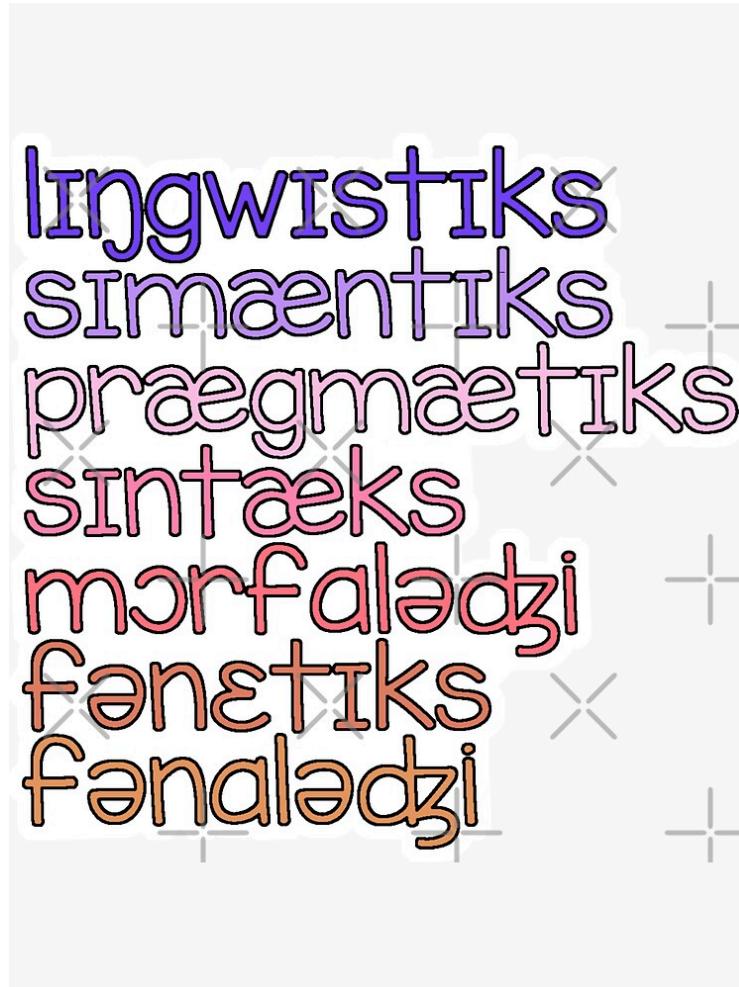


Previously on 201: What is Linguistics

- Linguistics is the **scientific** study of language
 - linguists use the scientific method to uncover the **competence** or knowledge of language users
 - while there are both prescriptive and descriptive rules relating to language, linguists are interested in uncovering the **descriptive** rules of a language
 - often times these rules are **tacit**, hence speakers are not aware that they are following them
 - we can use the scientific method to uncover rules of languages we ourselves speak or languages we are unfamiliar with



Different Parts of Linguistic Competence



- Linguistics is the scientific study of human languages
 - **Morphology** studies **word structure**
 - **Syntax** studies **sentence** structure
 - **Semantics** studies **literal meaning** of words and sentences
 - **Pragmatics** studies **contextual meaning** of words and sentences
 - **Phonetics** studies speech **sounds**
 - **Phonology** studies **sound patterns**

Morphology

What are Words

As we said, Morphology studies **word structure**, but what are words?

word 1 of 2 noun

('wərd ◂)

[Synonyms of word >](#)

1 a (1) : a speech sound or series of speech sounds that symbolizes and communicates a meaning usually without being divisible into smaller units capable of independent use

the order of *words* in a phrase

the meaning of a *word*

a *word* that rhymes with her name

(2) : a gesture or series of gestures that symbolizes and communicates a meaning of an object or concept : [SIGN sense 1c](#)

... signage shows visitors how to sign the *word* "goat"—while a goat pokes his head through the fence.

— Reece Barrett

(3) : the entire set of linguistic forms produced by combining a single base with various inflectional elements without change in the part of speech elements

The *word* *go* also has the forms *goes*, *going*, *went*, and *gone*.

1 b (1) : a written or printed character or combination of characters representing a spoken word

the number of *words* to a line

→ sometimes used with the first letter of a real or pretended taboo word prefixed as an often humorous euphemism

... the first man to utter the *fword* on British TV ...

— Time

we were not afraid to use the *d word* and talk about death

— Erma Bombeck

(2) : any segment of written or printed discourse ordinarily appearing between spaces or between a space and a punctuation mark

definition of '**word**' from *Merriam Webster Dictionary*

What are Words

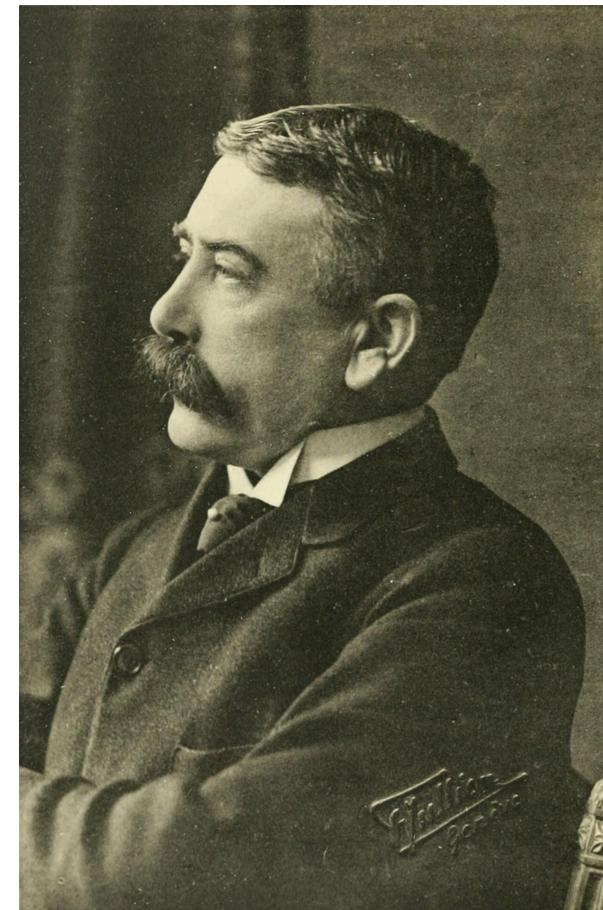
dog

[dag] (Amer.) / [dɒg] (Brit.)



Some Relations are Arbitrary

- as pointed out by **Ferdinand de Saussure** the relationship between sound/sign and meaning appears to be **arbitrary**
- the fact that the sound [dag] has a meaning ‘a domesticated carnivorous mammal’ does NOT appear to rely on special properties of those sounds in that order
- what is ‘a domesticated carnivorous mammal’ in other languages?



Ferdinand Mongin de Saussure (1857-1913)

Looking at Different Languages

- sound-meaning arbitrariness becomes clear when we look at **other languages**
- the **same meaning** associated with **different sounds**
 - inu (Japanese)
 - gae (Korean)
 - aso (Tagalog)
 - hundur (Icelandic)
 - Hund (German)...
- or the **same sound** associated with **different meaning**
 - [q^hurt] in **Kazakh**
‘insect’



Inuyasha

How are words stored in our mind?

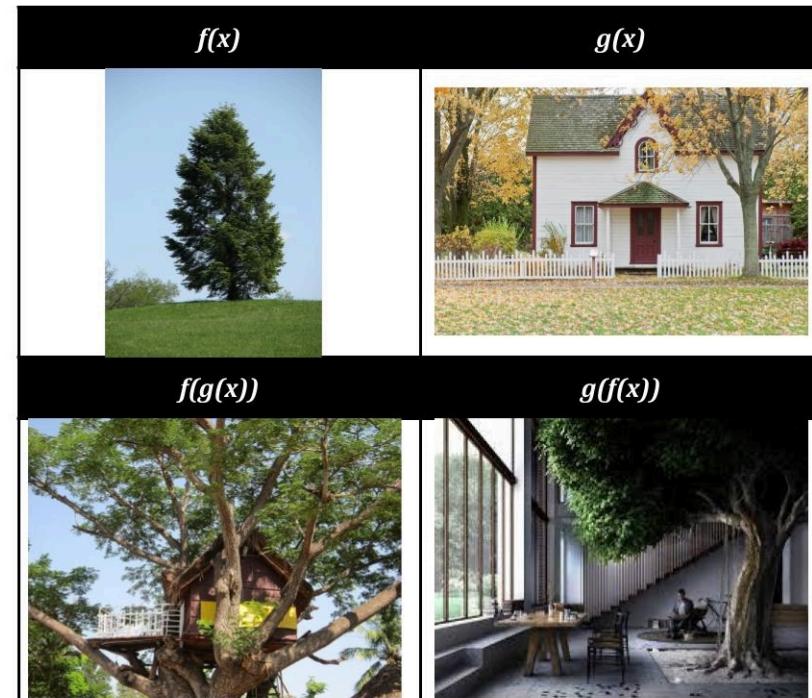
Mental Dictionary (Lexicon)

- part of language learning then is learning and memorizing these **meaning-sound pairs** and storing them in your **mental dictionary** (aka **lexicon**)
- each item in the lexicon is a **lexical entry**
- we know that part of each lexical entry is its *phonological representation* (written in IPA) and its *semantic representation*

label	'dog'	'teach'
phonological representation	/dəg/	/tɪ:tʃ/
semantic representation	{x: x is a dog}	{<x, y>: x teaches y}

Compositionality

- **NOT** all pairs of sounds and meanings are arbitrary (actually most aren't)
- the following string of phones (sounds) has a **predictable** meaning
- and is almost certainly **NOT** stored as a single lexical entry
 - [mɜ:lɪns tɪtʃər wakt kwɪkli]
'Merlin's teacher walked quickly.'
- the meaning of this string is predictable from the meanings of its parts
- it is **COMPOSITIONAL**

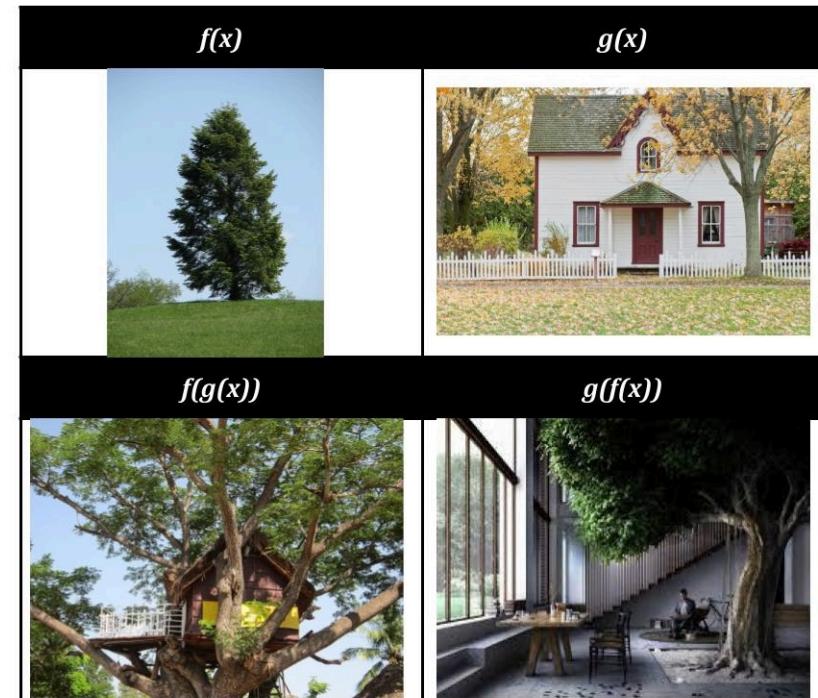


'*compositionality'

Compositionality

- [məlɪns titʃər wakt kwɪkli]
'Merlin's teacher walked quickly.'

How is each word in the sentence **compositional**?



'*compositionality'

Compositionality

- [məlɪns titʃər wakt kwɪkli]
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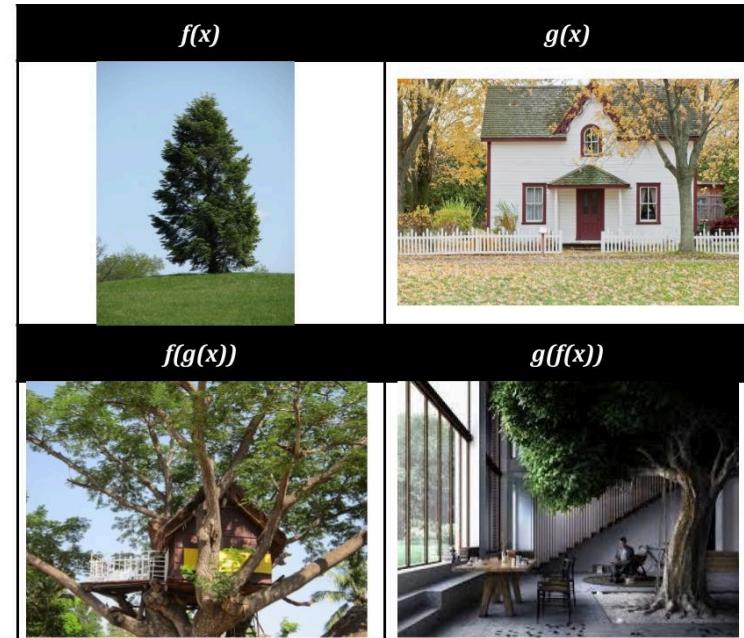
- words like **Merlin's** and **teacher CAN** be broken down
- and their meaning seems to contain the meaning of the pieces
- while a word like **dog, CANNOT** be broken down into smaller meaningful units
- it could be broken down into smaller sounds, but those sounds do not correspond to a meaning on their own

Merlin's and **teacher**

- morphologically complex words

dog and **teach**

- morphologically simple words



How many meaningful units?

teacher

presidential

unlockable

antidisestablishmentarianism

How many meaningful units?

teacher **teach-er**

presidential **president-ial**

unlockable **un-lock-able**

antidisestablishmentarianism
anti-dis-establish-ment-ar(y)-ian-ism

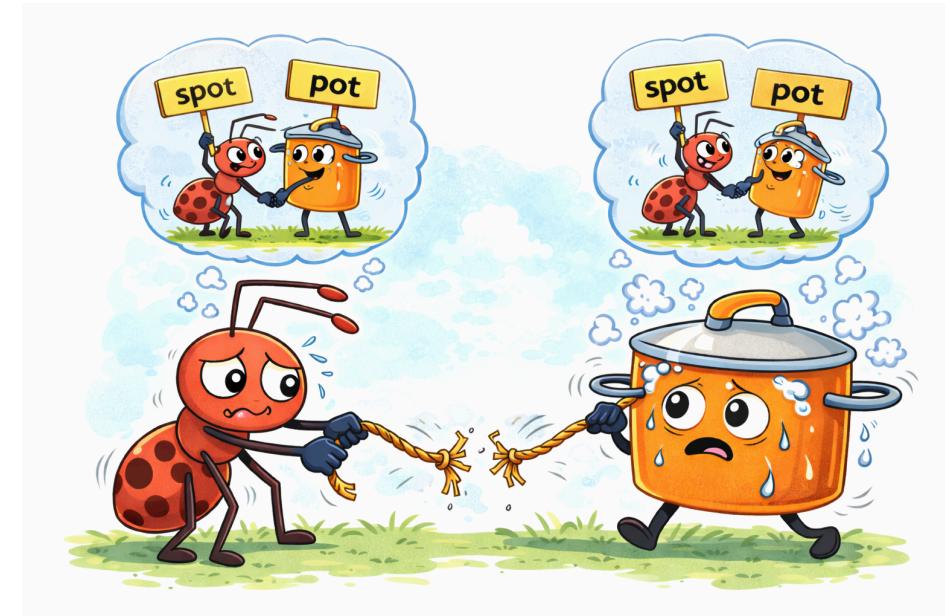
so we see systematic **PATTERNS**
in the meanings of complex words

hospital, hospital**ise**, hospital**isation**

refute, refut**able**, irrefut**able**, irrefut**ability**

Trickier Cases

- is the word **spot** complex because it contains the same sounds as the word **pot**? Why or why not?
- is the word **chef** complex because it appears to contain the meaning of the word **cook**? The pair **cook-chef** appears to be the same relation that holds between **teach-teacher**



Zooming in on -er

- what do these words all have **in common** in terms of their meaning?
 - teach**er**
 - driv**er**
 - lectur**er**
 - read**er**
 - softener**r**
 - whiten**er**
 - blender**r**
 - modernizer**r**
- -er seems to have a **shared and stable meaning**, something like 'one who does X action', where X is a **verb**



Zooming in on -er

- -er is used **productively**
- it can be used to create novel words
- the verb **yeet** is a fairly new verb
- if you know the meaning of **yeet**
- the term **yeeter** is easily understandable
- even if you have never heard it before

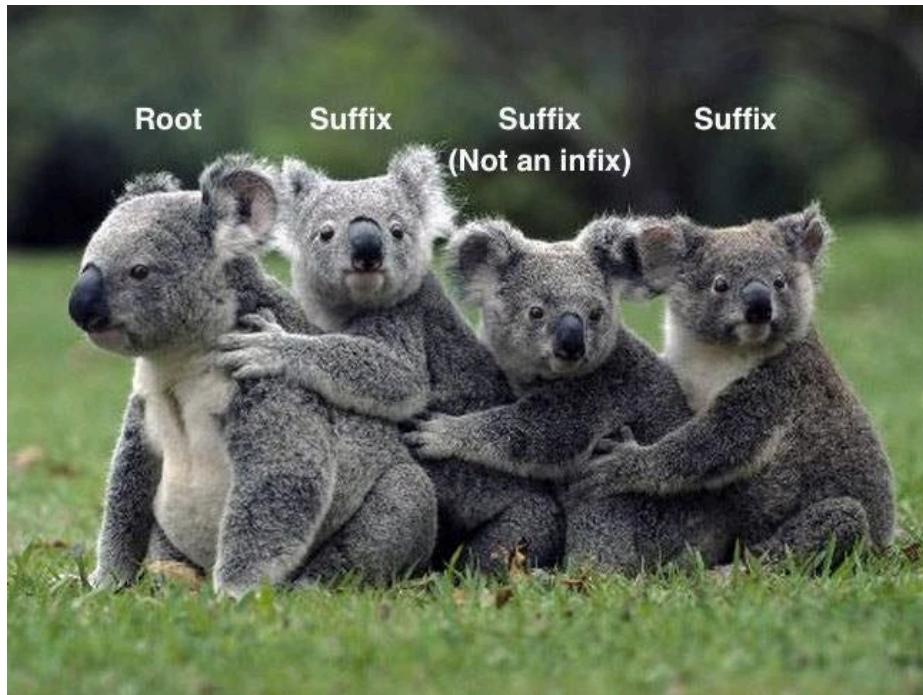


Lexical Entries

label	'-er'	'un-'	'-able'
phonological representation	/ər/	/ʌn/	/ʌbəl/
semantic representation	one who does <i>X</i>	not <i>X</i>	able to be <i>X-ed</i>

Morphemes

teach, dog, fish and -er, un-, -able are all **morphemes**



morpheme

- the minimal unit of phonology-meaning correspondence.
- in other words, a morpheme is a string of sounds whose meaning cannot be broken down into smaller meaningful units

morpheme

smallest linguistic unit with meaning

Smallest Linguistic Unit with Meaning

- **smallest linguistic unit** means shortest sequence of sounds
- what's the **shortest** sequence of sounds with meaning you can **break** these words into?

schoolbus

bee

elephant

opener

silliest

Smallest Linguistic Unit with Meaning

- we use **hyphens** (-) to indicate morpheme boundaries
- morphemes are **NOT** the same as syllables:
 - *elephant* has three syllables, but only **one** morpheme
 - *el, e, phant* don't mean anything – they're syllables, but not morphemes
- morphemes are made of **sounds**, NOT letters:
 - *silly* and *silli-* are two ways of spelling the same morpheme
 - same with *big, bigg-er* and *lie, ly-ing*
 - don't worry about spelling differences

school-*bus*

bee

elephant

open-*er*

silli-*est*

Smallest Linguistic Unit with Meaning

- note that it's OK for a word to have **just one** morpheme
 - every word has at least one morpheme, some have more
- words with one morpheme are called **monomorphemic** or **simplex words**
 - *bee, elephant*
- words with two or more morphemes are **polymorphemic** or **complex words**
 - *school-bus, open-er, sill-i-est*
- sometimes you'll hear terms like **bimorphemic** or **trimorphemic**
 - what do you think they mean?

school-bus

bee

elephant

open-er

silli-est

Smallest Linguistic Unit with Meaning

- morphemes can have two types of **meaning**:

lexical meaning

- This is like a *dictionary definition*. (*lexicon* = mental dictionary)
- Consider these words: *apple-sauce*, *white-water*, *over-think*
- Morphemes like *apple*, *water*, *think* are easy to define:
they have **lexical meaning**.

grammatical function

- Now consider these words: *cat-s*, *laugh-ed*, *happi-ness*, *calm-ly*
- What do the morphemes *-s*, *-ed*, *-ness*, *-ly* mean?
- Rather than a dictionary definition, they have a **grammatical function**.
- Their meaning is related to *how the word behaves in a sentence*:
-s = PLURAL, *-ed* = PAST, *-ness* = NOUN, *-ly* = ADVERB

Exercise: Finding Morphemes 1

Which of the following words contain the morpheme **-un** with the phonological form /ʌn/? And which are not?

unfaithful

unthinkable

untied

underwear

unlawful

unhappy

until

undershirt

untreated

unable

unsuspecting

unprepared

untouched

unclear

unpretentious

underprepared

Exercise: Finding Morphemes 1

Which of the following words contain the morpheme **-un** with the phonological form /ʌn/? And which are not?

unfaithful

unthinkable

untied

underwear **X**

unlawful

unhappy

until **X**

undershirt **X**

untreated

unable

unsuspecting

unprepared

untouched

unclear

unpretentious

underprepared **X**

Exercise: Finding Morphemes 2

Break these words down into morphemes, then discuss with a partner:

- is *-lessness* a morpheme?

1. *sleeps*

- is *un-* a morpheme in both *untied* and *uncle*?

2. *sleepless*

- is *-s* a morpheme in both *sleeps* and *lens*?

3. *sleeplessness*

- does *er-* mean the same thing in both *smaller* and *helper*?

4. *lens*

5. *smaller*

6. *helper*

7. *untied*

8. *uncle*

Exercise: Finding Morphemes 2

Break these words down into morphemes, then discuss with a partner:

- is **-lessness** a morpheme?
 - **no**, it's two morphemes: *-less* and *-ness*
- is **un-** a morpheme in both *untied* and *uncle*?
 - **no**, only in *un-tie-d* because it means something there
- is **-s** a morpheme in both *sleeps* and *lens*?
 - **no**, only in *sleep-s* because it means something there
- does **er-** mean the same thing in both *smaller* and *helper*?
 - **no**, these morphemes are **homophones**

1. *sleeps*
2. *sleepless*
3. *sleeplessness*
4. *lens*
5. *smaller*
6. *helper*
7. *untied*
8. *uncle*

Should complex words get their own lexical entry?

We have seen that both **teach** and **-er** have lexical entries
should **teacher** also have one? Why or why not?

label	'teacher'
phonological representation	/tjtʃər/
semantic representation	one who teaches

Finding morphemes in other languages

(Inuktitut, Eskaleut)

iɣluuya	my house	iɣlumi	in a house	iɣluksdžuaq
iɣluŋa	her house	iɣlutut	like a house	umiaxsdžuaq big boat
uiɣa	my husband	uitut	like a husband	umialik someone with
uiŋa	her husband	tupiqtut	like a tent	a boat
nunaya	my land	paniktut	like a daughter	uilik someone with
qukiutiɣa	my gun	aɣyaktut	like a hand	a husband
nunait	your land	nunakkut	across the land	umilik someone with
		aputikkut	across the snow	a beard

label	'ighloo'
phonological representation	/iɣlu/
semantic representation	HOUSE

Finding morphemes in other languages

(Persian, Iranian)

Try to match the meanings in (a) through (h) with a **morpheme** in the Persian data.

- a prefix is marked with a hyphen **following** the morpheme (X-)
- a suffix is marked with a hyphen **preceding** the morpheme (-X)

(a) [xarid]	'bought'	(e) [mixaridid]	'You (pl) were buying'
(b) [mixarid]	'was buying'	(f) [naxaridam]	'I did not buy'
(c) [xaridam]	'I bought'	(g) [nami xaridand]	'They were not buying'
(d) [xaridi]	'you (sg) bought'	(h) [na xaridim]	'We did not buy'

Finding morphemes in other languages

(Persian, Iranian)

(a) [xarid]	'bought'	(e) [mixaridid]	'You (pl) were buying'
(b) [mi x arid]	'was buying'	(f) [na x aridam]	'I did not buy'
(c) [x aridam]	'I bought'	(g) [na m i x aridand]	'They were not buying'
(d) [x aridi]	'you (sg) bought'	(h) [na x aridim]	'We did not buy'
a. I		e. they	
b. you (sg)		f. not	
c. we		g. PROG	
d. you (pl)		h. bought	

Finding morphemes in other languages

(Persian, Iranian)

(a) [xarid]	'bought'	(e) [mixaridid]	'You (pl) were buying'
(b) [mi xarid]	'was buying'	(f) [na xarid am]	'I did not buy'
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(d) [xarid i]	'you (sg) bought'	(h) [na xarid im]	'We did not buy'
a. I	-am	e. they	-and
b. you (sg)	i	f. not	na-
c. we	im	g. PROG	mi-
d. you (pl)	id	h. bought	xarid

Finding morphemes in other languages

(Persian, Iranian)

(a) [xarid]	'bought'	(e) [mixaridid]	'You (pl) were buying'
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(d) [xarid i]	'you (sg) bought'	(h) [na xarid im]	'We did not buy'
a. I	-am	e. they	-and
b. you (sg)	i	f. not	na-
c. we	im	g. PROG	mi-
d. you (pl)	id	h. bought	xarid

is it possible to split **buy** and **PAST** from these data?

Finding morphemes in other languages

(Persian, Iranian)

(a) [xarid]	'bought'	(e) [mixaridid]	'You (pl) were buying'
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(d) [xaridi]	'you (sg) bought'	(h) [na xaridim]	'We did not buy'

How would you say the following in Persian?

- i. They were buying.
- ii. You (sg) did not buy.
- iii. You (sg) were buying.

Finding morphemes in other languages

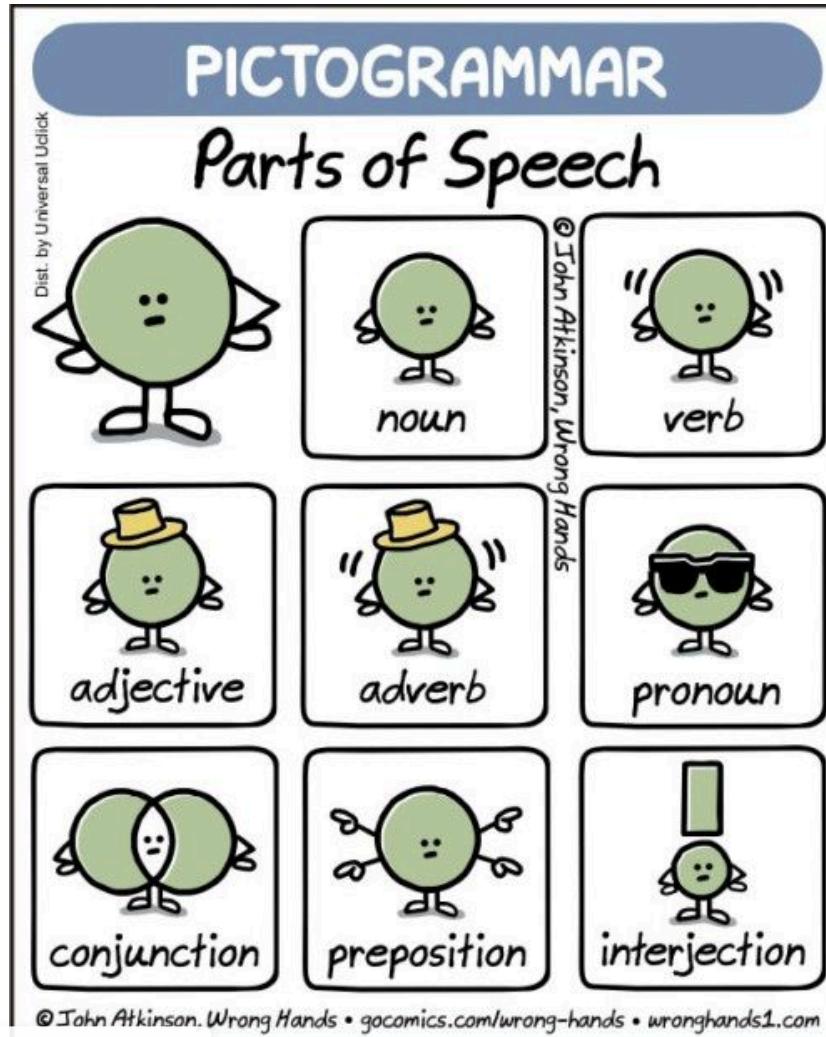
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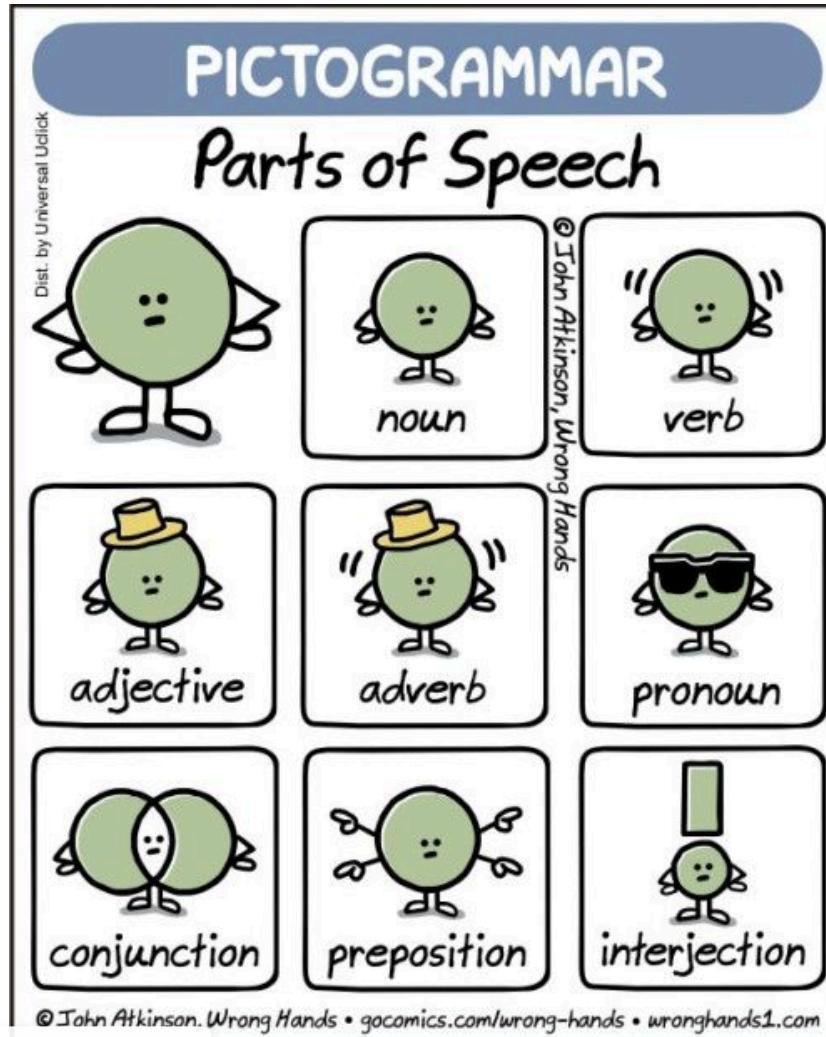
- | | | |
|------|-----------------------|--------------|
| i. | They were buying. | mi-xarid-and |
| ii. | You (sg) did not buy. | na-xarid-i |
| iii. | You (sg) were buying. | mi-xarid-i |

Lexical Category / Parts of Speech



- **Noun (N.)**: to name things, people, places, concepts, etc.
 - *water, sister, sky*
 - combine with plural morpheme -s;
 - often ends with -ion/-ment/...;
 - occur after a determiner, ...
- **Verb (V.)**: to show an action or a state
 - *play, think, hit*
 - combine with past morpheme -d, has combined with -ize, ...
 - follow an auxiliary (does), modal (might), or negation (not), ...

Lexical Category / Parts of Speech



- **Adjective (Adj.):** to describe a noun, a pronoun or part of a sentence
 - *tall, thin, smart*
 - comparative e.g., bigger
 - superlative e.g., biggest
 - combine with un-, has combined with -able, ...
 - occur between a determiner and a noun, ...
- **Adverb (Adv.):**
 - *carefully, intentionally, happily*
 - appear with -ly, ...
 - can't appear between a determiner and a noun, ...

Lexical Category / Parts of Speech

How do we know that **wabe** is a **noun**, and that **slithy** is an **adjective**?

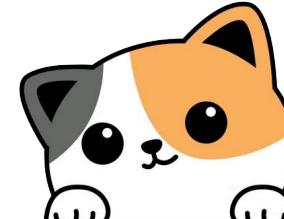
Twas brillig, and the slithy toves

Did gyre and gimble in the wabe;

All mimsy were the borogoves,

And the mome raths outgrabe.

Lewis Carroll, *Jabberwocky* (1871)



Exercise: Parts of Speech and Morphemes

English Example	Morphemes	Parts of Speech
eats		
waited		
sleeping		
eaten		
Leo's		
higher		
smartest		

Exercise: Parts of Speech and Morphemes

English Example	Morphemes	Parts of Speech
eats	<i>eat,-s</i>	verb, 3rd person singular
waited	<i>wait,-ed</i>	verb, past tense
sleeping	<i>sleep,-ing</i>	verb, progressive
eaten	<i>eat,-en</i>	verb, perfect
Leo's	<i>Leo,'s</i>	(proper) noun, possessive
higher	<i>high,-er</i>	adjective, comparative
smartest	<i>smart,-est</i>	adjective, superlative

Exercise: Adapted from *Language Files*

From the examples given for each of the following suffixes, determine:

1. the lexical category (i.e. parts of speech) of the **root**
2. the lexical category (i.e. parts of speech) of the word resulting from the addition of the **suffix**

a. -ive: repressive, active, disruptive, explosive

-ive takes ___, yields ___

b. -ion: invention, narration, expression, pollution

-ion takes ___, yields ___

c. re-: reelect, resubmit, restart, recap, reactivate

re- takes ___, yields ___

Exercise: Adapted from *Language Files*

From the examples given for each of the following suffixes, determine: i) the lexical category (i.e. parts of speech) of the root, and ii) the lexical category (i.e. parts of speech) of the word resulting from the addition of the suffix.

a. -ive: repressive, active, disruptive, explosive

-ive takes verb, yields adjective

b. -ion: invention, narration, expression, pollution

-ion takes verb, yields noun

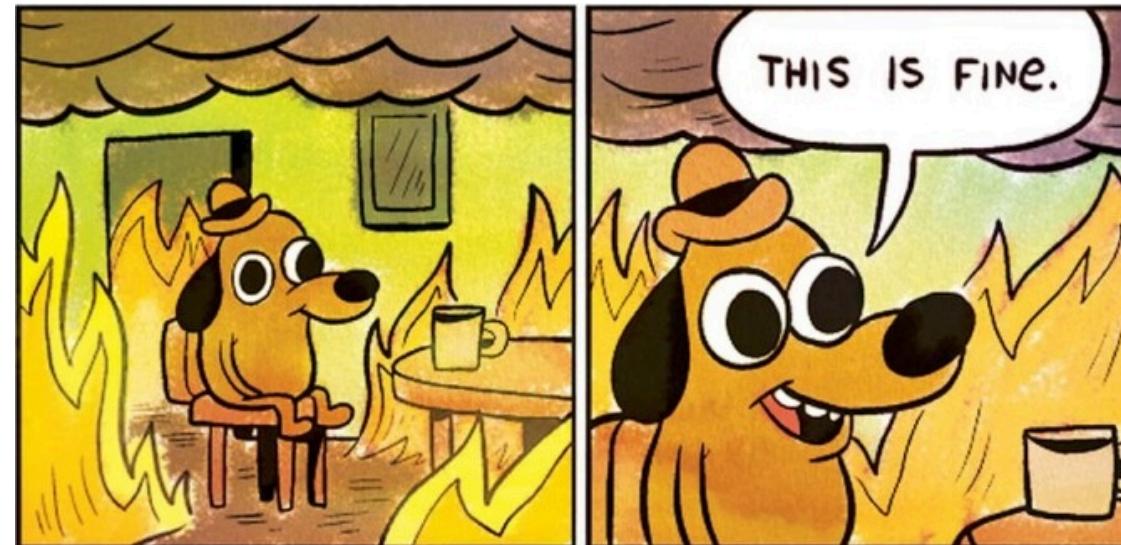
c. re-: reelect, resubmit, restart, recap, reactivate

re- takes verb, yields verb

no homework is due this week

continue **reading** Sections 4.0, 4.1 and 4.2 of Chapter 4: Morphology from *Language Files*

readings Sections 4.3, 4.4 and 4.5 of Chapter 4: Morphology from *Language Files*



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