

Introduction

Morphology: The Internal Structure of Words



“kumilad”



Blushing man: denis_pc/IStock/Thinkstock; Hand: Noedelhap/IStock/Thinkstock

The Unit

Morphology: the morpheme

- Morphemes are the smallest signifier/signified bundles.
- One morpheme can have multiple instantiations called allomorphs.

Example: English plural



cat
[kʰæts]



dog
[da:gz]



bush
{əz} [buʃəz]

Cats/Dogs: colematt/iStock/Thinkstock; Bush: stock_shoppe/iStock/Thinkstock; Hand: Noedelhap/iStock/Thinkstock

The Unit

Morphology: the morpheme

- Morphemes are the smallest signifier/signified bundles.
- One morpheme can have multiple instantiations called allomorphs.

Example: English plural

Signified	Signifiers	
Morpheme	Allomorphs	
PLURAL	Regular	{-s}
		{-z}
		{-ez}
	Irregular	{-i}
		{-a}
		{-e}
		...

Hand: Noedelhap/iStock/Thinkstock

Morph + ology

Morph = shape

- morphine
- Morpheus
- metamorphic
- metamorphosis
- anthropomorphic
- amorphous
- isomorphic
- polymorphic
- morpheme
- allomorph
- (to) morph
- morphology (biological)

ology = to talk

- technology
- biology
- geology
- zoölogy
- theology
- psychology
- astrology
- scientology
- apiantology
- geneology
- logos
- logic

Morphological Examples

Morphemes	Phonetic transcriptions	Example
{un-} Antonym former	[ʌn]	unattractive
{re-} Iterative former	[ri]	replay
{draw} Verb, to make representative marks	[dra]	draw
{-s} Third-singular-present agreement former	[s]	lies
{-ing} Present-participle former	[in]	jumping

Homophony

Homophony

Phonetic transcription

{-ing}

[iŋ]

- Present-participle former:
“Oriana is drawing the cat.”
- Gerund former:
 - “Oriana’s drawing of the cat is beautiful.”
 - “Oriana’s big drawing of the cat is beautiful.”
- Adjective former:
“Oriana’s drawing chalk is the white one.”



Cat drawing: University of Waterloo

Semasiological/Onomasiological Modes of Analysis

Semasiology

Signifier

Morpheme form:

- free (= word)
- bound (= affix)
 - prefix
 - suffix
 - infix
 - circumfix

Onomasiology

Signified

Morpheme function:

- derivational
 - change meaning dramatically, and/or word category
- inflectional
 - never change category, and only change meaning very subtly

Affix Rules

prefix

oldcategory → [prefix – oldcategory]_{newcategory(verb)}

suffix

oldcategory → [oldcategory - suffix]_{newcategory(noun)}

infix

oldcategory → [old – infix - category]_{newcategory}

circumfix

oldcategory → [circum – oldcategory - fix]_{newcategory}

example:

re	{ri-}	re-verb	{ri-} → [ri-VERB] _{VERB}
		replay	{plej} → [re-plej] _{VERB}

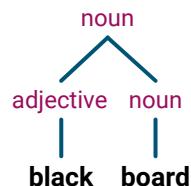
er	{-ər}	verb-er	{-ər} → [VERB-ər] _{NOUN}
		farmer	{farm} → [farm-ər] _{NOUN}

Morphological Analysis

Overview of Word Building Processes

Compounds

free morphemes



blackboard

Blackboard: University of Waterloo

Overview of Word Building Processes

Free morpheme

- Noun?
- Verb?
- Adjective?
- Adverb?
- Preposition?
- Determiner?
- Qualifier?
- Quantifier?

fly



noun



verb



adjective

Fly/Plane: wenchiawang/iStock/Thinkstock; Woman: Yime/iStock/Thinkstock

Overview of Word Building Processes

Bound morpheme

fly ← free morpheme

es ← bound morpheme

flies

flies

flies



She is fly.
~~She is es.~~

Fly/Plane: wenchiawang/iStock/Thinkstock; Woman: Yime/iStock/Thinkstock

Overview of Word Building Processes

Bound morpheme

noun
N Af
flies

verb
V Af
flies

adjective
Adj Af
~~flies~~



pluralized



3rd singular



She is fly.
~~She is es.~~

Fly/Plane: wenchiaiwang/iStock/Thinkstock; Woman: Yime/iStock/Thinkstock

Overview of Word Building Processes

Bound morpheme

fly



She's flier than her. ← comparative

They can be the fliest in the room. ← superlative

Woman: Yime/iStock/Thinkstock; Pilot: wenchiaiwang/iStock/Thinkstock

Overview of Word Building Processes

Bound morpheme

fly

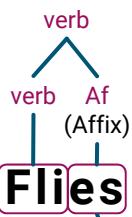


He is a flier ← adjective

Woman: Yime/iStock/Thinkstock; Pilot: wenchiawang/iStock/Thinkstock

Overview of Word Building Processes

Bound morpheme



The **flies** are hanging around...

How do we identify this?

Morphological Examples: Part 1

Ainu (Japan)

- **haparu** = soft
- **ehaparu** = to be unable to endure

- **nijte** = hard
- **enijte** = to be able to endure

- **pirka** = good
- **epirka** = to gain

- **wen** = bad
- **ewen** = to lose



Ainu man: Stillfreed (1880). "Ainu man photographed by Stillfreed". Public Domain via Wikimedia Commons.

Ainu (Japan)

● **haparu** = soft

● **ehaparu** = to be unable to endure

● **nijte** = hard

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● **pirka** = good

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● **wen** = bad

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- All the verbs start with [e]
 - Derivational prefix: changes word from an adjective into a verb.
- Two conceptual functions:
 - Encodes the concept of ability (ehaparu; enijte)
 - Signals a change in state (epirka; ewen)

Ainu man: Stillfreed (1880). "Ainu man photographed by Stillfreed". Public Domain via Wikimedia Commons.

Ainu (Japan)

● **haparu** = soft

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Verb Former

- {e-} → [e-ADJECTIVE]_{VERB}
 - Stative: have adjectival quality
 - Active: change of adjectival state



Case Marking (Russian)

Itchy killed Scratchy.

- Itchia ubila Scratchiu.
- Scratchiu ubila Itchia.
- Ubila Itchia Scratchiu.
- Itchia Scratchiu ubila.
- Scratchiu Itchia ubila.
- Ubila Scratchiu Itchia.

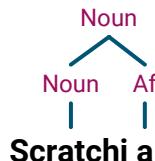
Scratchy killed Itchy.

- Itchiu ubila Scratchia.
- Scratchia ubila Itchiu.
- Ubila Itchiu Scratchia.
- Itchiu Scratchia ubila.
- Scratchia Itchiu ubila.
- Ubila Scratchia Itchiu.

Case Marking (Russian)

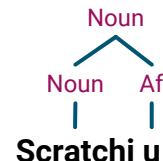
{-a}

Nominative
(subject marker) [FEM]



{-u}

Accusative
(object marker) [FEM]



Bontoc (Philippines)

- kumilad → he is becoming red
- kilad → red
- fikas → strong
- fumikas → he is becoming strong
- fusul → enemy
- fumusul → he is becoming an enemy
- bato → stone
- bumato → he is becoming hard



"kumilad"

{-um-} → infix

Flushed face: Martyshova/iStock/Thinkstock

Bontoc (Philippines)

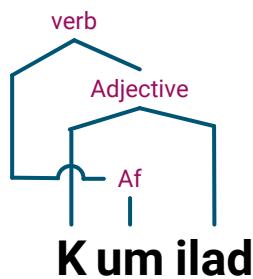
- fikas → strong
adjective
- fumikas → he is becoming strong
 - third-person verb
 - singular
 - masculine
 - verb-former
 - inchoative ('becoming')



Strong/Weak: November_Seventeen/iStock/Thinkstock

Bontoc (Philippines)

kumilad → He is becoming red.



Flushed face: Martyshova/iStock/Thinkstock; Hand: Noedelhap/iStock/Thinkstock

A Little Persian

A Little Persian



Persian English

dana Ø wise

xub Ø good

darost Ø thick

bozorg Ø big

Sirin Ø sweet

Persian English

dana i wisdom

xubi goodness

darost i thickness

bozorg i size

Sirini sweetness

Suffix

Morpheme

{-i}

Noun Former

Persian girl: Hanieh Mohammad Bagher (2011). "Tribe Girl". Retrieved from www.artistsandillustrators.co.uk/Hanieh/artwork/24152.; Finger: Noedelhap/iStock/Thinkstock

A Little Persian



Persian girl: Hanieh Mohammad Bagher (2011). "Tribe Girl". Retrieved from www.artistsandillustrators.co.uk/Hanieh/artwork/24152

Morphological Examples: Part 2

Zoque Possessives



wakas → cow

nwakas → my cow

wjakas → his cow



pama → clothes

mpama → my clothes

pjama → his clothes



buru → donkey

mburu → my donkey

bjuru → his donkey



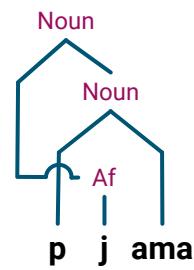
kama → cornfield

ŋkama → my cornfield

kjama → his cornfield

{-j-}

- third-person
- masculine
- singular
- possessive



Corn/Clothes: wenchiawang/iStock/Thinkstock; Cow/Donkey: VectorGift/iStock/Thinkstock

Zoque Possessives



wakas → cow

nwakas → my cow

wjakas → his cow



pama → clothes

mpama → my clothes

pjama → his clothes



buru → donkey

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kama → cornfield

nkama → my cornfield

kjama → his cornfield



Morphophonological patterning

{n-} alveolar nasal

{m-} bilabial nasal

{ŋ-} velar nasal

Allomorphes



Corn/Clothes: wenchiawang/iStock/Thinkstock; Cow/Donkey: VectorGift/iStock/Thinkstock; Nose Pinch: Kharlamova/iStock/Thinkstock; Hand: Noedelhap/iStock/Thinkstock

Zoque Possessives



wakas → cow

nwakas → my cow

wjakas → his cow



Morphophonological patterning

{n-} alveolar nasal

{m-} bilabial nasal

{ŋ-} velar nasal

Allomorphes

- possessive
- first-person
- singular



pama → clothes

mpama → my clothes

pjama → his clothes



buru → donkey

mburu → my donkey

bjuru → his donkey



kama → cornfield

nkama → my cornfield

kjama → his cornfield



Corn/Clothes: wenchiawang/iStock/Thinkstock; Cow/Donkey: VectorGift/iStock/Thinkstock; Nose Pinch: Kharlamova/iStock/Thinkstock; Hand: Noedelhap/iStock/Thinkstock

Chickasaw

Affirmative		Negative	
Word	Translation	Word	Translation
chokma	He is good.	ikchokmo	He isn't good.
lakna	It is yellow.	iklakno	It isn't yellow.
palli	It is hot.	ikpallo	It isn't hot.
tiwwi	He opens it.	iktiwoo	He doesn't open it.

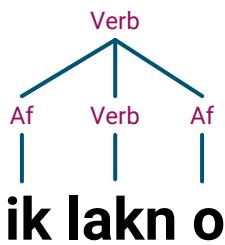
- {-a}, {-i}
 • suffix
 • third-person

- {ik-...-o}
 • circumfix
 • third-person

Chickasaw



Affix Rules and Functional Analysis

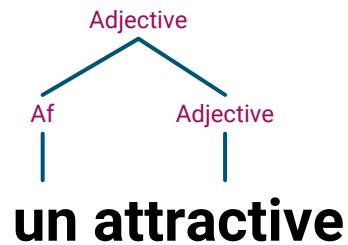
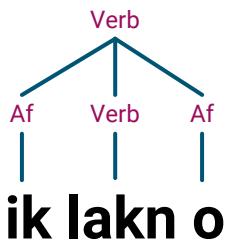


Sketch the rule for the distribution of [ik- ... -o]:

[] → [ik- [] -o] []

Noedelhap/iStock/Thinkstock

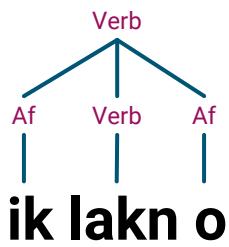
Affix Rules and Functional Analysis



Verb → [ik-verb-o]_{verb}

Adjective → [un-adjective]_{adjective}

Inflectional or Derivational?



Verb → [ik-verb-o]_{verb}

- A) inflectional
- B) derivational

Answer:

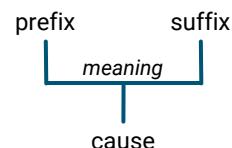
Mostly derivational.
Patterns in relatively the same
way as the English derivational
morpheme {un-}.

Lexo-Morphological Tendencies in English

English 'Circumfixes'

en-large
light-en
ε
ε
i
}

Hypercorrect
Left-overs



These circumfix-like patterns are *not* very productive in English

Hand: Noedelhap/iStock/Thinkstock

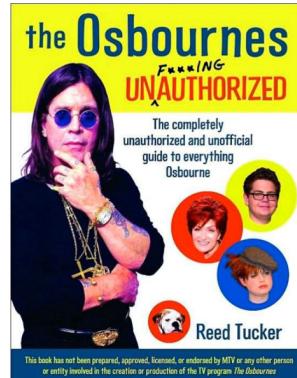
English 'Infixes'

Conceptually, functions as an intensifier.

abso-bloomin'-lutely

in-f###in-credible

abso-f###in-lutely



Tucker, Reed. *Osbourne's Un****ingauthorized: The completely Unauthorized and Unofficial Guide to Everything Osbourne*. San Val, 2002. Print.

English Reduplication

dilly-dally	boy toy
heebie-jeebies	toy boy
chit-chat	pooper scooper
fiddle-faddle	artsy-fartsy
mumbo-jumbo	walkie-talkie
hocus-pocus	
teenie-weenie	
itsy-bitsy	

What is the resulting effect?
Makes things trivial.

English Reduplication

'Gang-bang'

Onomasiology

Extremely serious referent.

Semasiology

Trivializing reduplicative form.

English Morphology

Derivational and Inflectional

We looked at inflectional morphology:

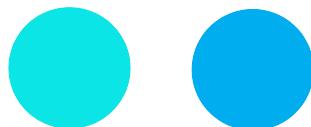
- Nouns
 - Plural
 - Possessive
- Adjectives
 - Comparative
 - Superlative
- Verbs
 - 3rd-sg present agreement maker
 - Past Tense
 - Past Participle Maker
 - Present Participle Marker

English Noun Derivational Suffixes

- ness
 - happiness
- age
 - breakage
- cy
 - decency
- ery
 - robbery
- ism
 - racism

English Noun Derivational Suffixes

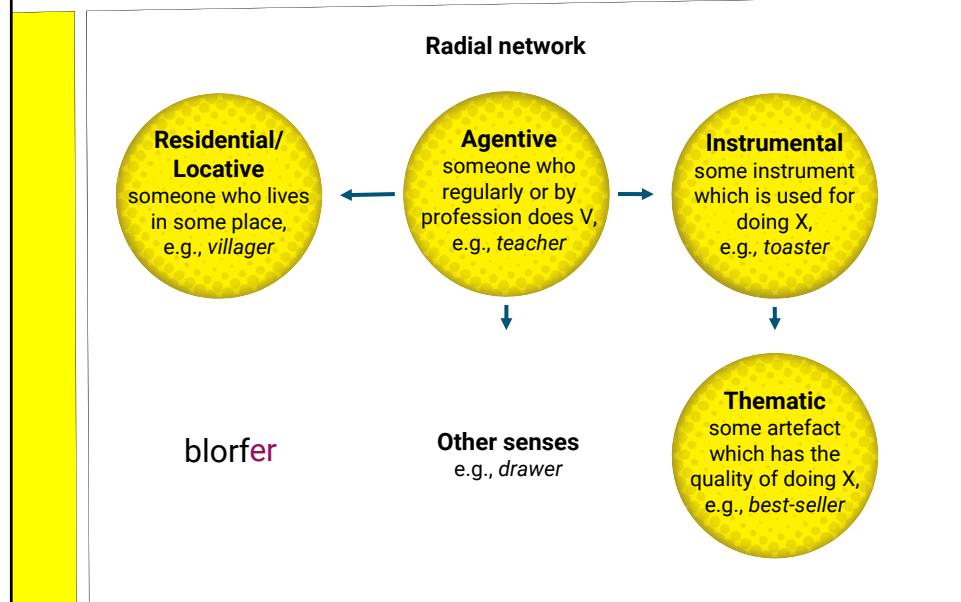
- er { -er }
 - farmer, writer, hiker, reader¹, drawer¹, ... ← agentive
 - Londoner, Winnipeger, villager, foreigner, ... ← residential/locative
 - printer, toaster, heater, freezer, ... ← instrumental
 - page-turner, reader², ... ← thematic
 - drawer², triple-decker, porker, ... ← other



← comparative
(inflectional)

Hand: Noedelhap/iStock/Thinkstock

English Derivational Noun Suffix {-er}



English Verb Derivational Suffixes

- ate
 - activate
- fy
 - liquify
- en
 - widen
- ize
 - rubberize

English Adjective Derivational Prefixes

un-
unattractive
anti-
anti-racist
in-
ineligible

All of these have the general tendency to oppose the original adjective.

English Noun Derivational Prefixes

ex-
ex-husband
anti-
anti-racism
pro-
pro-choice

General Concepts and Examples from English Morphology

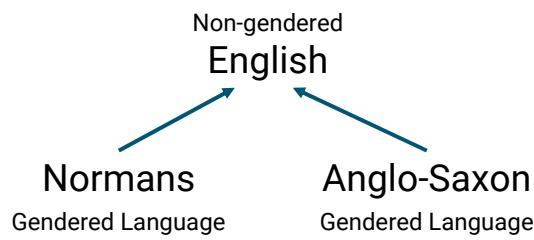
Functional Tendency of English Prefixes vs. Suffixes

English Prefixes

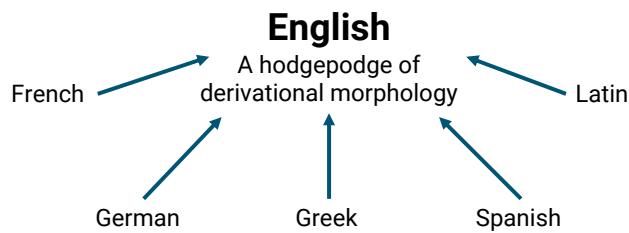
- Tend to change a word's meaning. attractive → **un**attractive

English Suffixes

- Tend to change the category. farm → farmer**er**



Functional Tendency of English Prefixes vs. Suffixes



Productivity

{-fy}:

liquefy, solidify, nullify, electrify, purify, crucify

{-er}:

farmer, writer, lover, reader, helper, believer, subscriber, joiner, hitter, talker, squawker, whiner, seller, buyer, rider, driver, doodler, thrower, shooter, ...

{a-}:

asexual, amoral, ahistorical, achromatic, ...

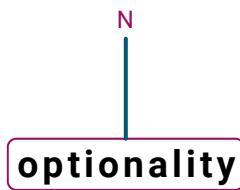
Lately...

{-age}: tunage, stallage

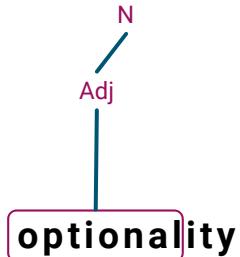
{petro-}: petrochemical, petrodollars, petropolitics, ...

{-cast}: newscast, sportscast, telecast, ...

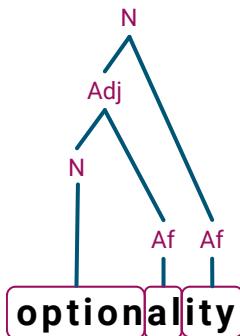
Sketching Morphology Trees



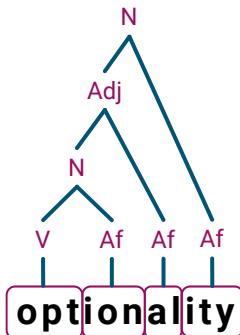
Sketching Morphology Trees



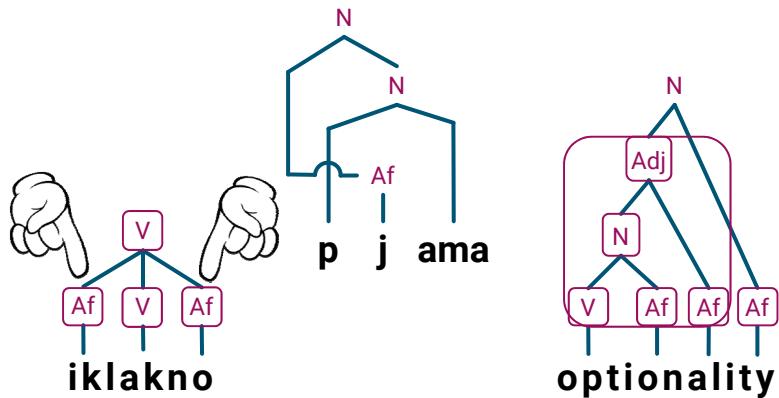
Sketching Morphology Trees



Sketching Morphology Trees

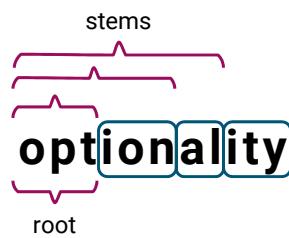


Circumfixes and Suffixes/Prefixes



Hand: Noedelhap/iStock/Thinkstock

Roots and Stems



Review

Review

Semasiological

- free (word)
- bound (affix)

Onomasiological

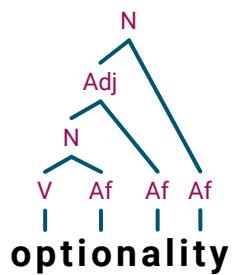
- derivational
- inflectional

Rules

- $\text{oldcategory} \rightarrow [\text{prefix} - \text{oldcategory}]_{\text{newcategory}}$
- $\text{oldcategory} \rightarrow [\text{oldcategory} - \text{suffix}]_{\text{newcategory}}$
- $\text{oldcategory} \rightarrow [\text{old} - \text{infix} - \text{category}]_{\text{newcategory}}$
- $\text{oldcategory} \rightarrow [\text{circum} - \text{oldcategory} - \text{fix}]_{\text{newcategory}}$

Review

Structures



Productivity

- How frequent the morpheme occurs
- How widespread the morpheme is
- How spontaneously the morpheme is used