

# Morphology

## LING 200: Introduction to the Study of Language

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# Outline

- 1 Introducing morphology
- 2 Morphemes
  - Affixes
  - Productive vs. unproductive morphemes
  - Inflectional vs. derivational morphemes
  - Free morphemes

Slides credit: Sabine Iatridou, Rebecca Starr

# Introducing morphology

## Previously in LING 200...

- We have learned about key linguistic units relating to sound:
  - **phone**: speech sound
  - **phoneme**: contrastive sound unit in a language
  - **syllable**: prosodic/rhythmic unit
- This week, we will move on to looking at the level of word structure and meaning.

# Introducing morphology

## What do we know about word structure?

- This is Sam.  
He brinkles flowers all day.  
We could call him a....  
**flower brinkler.**
- Congratulations, we have invented a new word!
- How do we know that a “brinkler” is someone who “brinkles” on a regular basis?
- Conclusion: **-er** has a meaning.



# Introducing morphology

## What do we know about word structure?

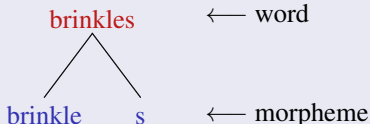
- This is Sam.  
He brinkles flowers all day.  
We could call him a....  
**flower brinkler.**
- Another question: how did we know that to get “brinkler” we had to remove the -s from “brinkles”?
- Conclusion: “brinkle” and “-s” are both part of the word “brinkles,” but they each have their own distinct meaning.



# Introducing morphology

## Conclusions about word structure

- We need at least two levels of units to account for the structure of words:



## Introducing Merge

- We also need some operation for putting morphemes together.
- ▶ Contemporary linguistic theories call this operation **Merge**: the operation that takes two things and puts them together.
  - We'll encounter Merge again when we talk about **syntax**: how words are put together into sentences.

# Introducing morphology

## What is morphology?

- **Morphology** is the study of words and their structure.
- More specifically, the study of **morphemes**.

## What is a morpheme?

- The **morpheme** is the smallest meaningful unit in a language.
- Common confusions:
  - How is that different from a phoneme?
  - How is that different from a syllable?
  - How is that different from a word?

# Introducing morphology

## Morpheme vs. phoneme

- /b/ is a **phoneme** in English.
  - How do we know that?
- Does /b/ mean anything?
  - No.
- **Phonemes** like /b/ are **contrastive units of sound**, which do not carry any meaning on their own.
- A **morpheme** is a **chunk of a word that means something**:
  - **box** = 1 morpheme.
  - **box-es** = 2 morphemes.



# Introducing morphology

## Morpheme vs. syllable

- A **syllable** is a **prosodic unit based on sound**, not meaning:
  - **table** = [tej.bəl] = 2 syllables.
  - **table** = 1 unit of meaning = 1 morpheme.
- Since “ta” and “ble” do not have distinct meanings, they are not separate morphemes.

# Introducing morphology

## Morpheme vs. word

- A **word** must consist of at least one morpheme.
- Morphemes do not need to be able to occur in isolation.
- In contrast, a word must be able to “stand on its own.”
  - tables = **table** + **s** = 2 morphemes.
  - while “table” is a possible word, “-s” is not.

## Simple and complex words

- **Simple word** = contains only one morpheme.
  - e.g., cat, happy, table.
- **Complex word** = contains multiple morphemes.
  - e.g., **cats**, **happiness**, **disarm**, **incredible**.

# Morphemes

## What types of morphemes are there?

- Bound morphemes.
- Free (unbound) morphemes.

## Bound vs. free morphemes

- **Bound:** cannot exist on its own
  - Cats, dogs
- **Free:** stands on its own as a word
  - The cat, the dog



# Affixes

## Types of affixes

- Most bound morphemes in English are **affixes**.
- Affixes are classified by where they attach to a word.
- Prefix:
  - **pre-** preamble, premature
  - **in-** inconceivable, impossible
  - **re-** reorder, rethink

# Affixes

## Types of affixes

- Suffix:
  - **-ist**    artist, lingu**ist**
  - **-ing**    park**ing**, writ**ing**
  - **-s**      cat**s**, dog**s**
  - **-atory**    labor**atory**, observ**atory**

# Affixes

## Types of affixes

- Infix:
  - **-ma-** sax**ma**phone
  - **-freaking-** abso**freaking**lutely
- These are rare in English but common in other languages. For example in Tagalog:
  - *bili* ‘to buy’ *kuha* ‘to get’
  - *binili* ‘bought’ *kinuha* ‘got’
  - **-in-** is a past tense infix, inserted after the first consonant of the ‘to’ form.



# Affixes

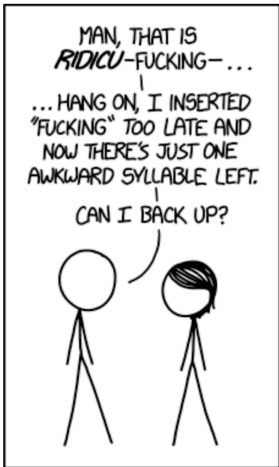
## Types of affixes

- Circumfix:
  - German
    - *spielen* ‘to play’     *gespielt* ‘played’ (past participle)
- Chuj (Mayan)
  - *ulek* ‘came’     *majuleklaj* ‘didn’t come’

# Affixes

## Summary: types of affixes

- Prefix
- Suffix
- Infix
- Circumfix





# Affixes

## Productive vs. unproductive affixes

- As languages change over time, affixes can gradually fall out of use.
- We say that an affix is **productive** if new words are commonly or easily made using this affix.
- Otherwise it is **unproductive**.

# Productive vs. unproductive morphemes

## Some unproductive affixes in English

- **-ile** tactile, mobile
- **-lock** wedlock

## Some productive affixes in English

- **pre-** pre-Google, pre-spray
  - **-able** Googleable, sprayable
- ⇒ Note: the “Google” test is a useful method of testing whether some affix is productive.

# Productive vs. unproductive morphemes

## Some more affixes

- Can you think of English words that use these suffixes? Are they productive or unproductive? What do they mean?
  - (1) -ure
  - (2) -ification
  - (3) -red
  - (4) -age

# Productive vs. unproductive morphemes

## Some more affixes: -ure

(1) **-ure**: composure, exposure, expenditure, seizure, pleasure.

- Unproductive.
- “A process, condition, result of an action, or official function.”

## Some more affixes: -ification

(2) **-ification**: objectification, unification, beautification, Googlification...

- Productive.
- “The process of becoming.”
- Actually several suffixes strung together:  
ify-ic-ation = to become - quality - process

“The Googlification of everything.”

## Productive vs. unproductive morphemes

### Some more affixes: -red

(3) **-red**: hatred, kindred.

- Unproductive.
- Forms nouns describing conditions or states.

### Some more affixes: -age

(4) **-age**: shortage, shrinkage, sewage, blockage, Googlage...

- Productive.
- Forms nouns indicating a collection.

“This subject requires some serious Googlage.”

# Inflectional vs. derivational morphemes

## Two types of affixes

- In the list of suffixes, we saw some like this:
  - dogs
  - barking
- These suffixes do not change the part of speech of the original word.
- They also don't change its core meaning, they just change its tense, number, etc.

# Inflectional vs. derivational morphemes

## Inflectional vs. derivational affixes

- **Inflectional affix**

- Obligatory affix for a certain grammatical context.
- The word stays the same part of speech: walks, walked, walking.

- **Derivational affix**

- Creates a new word with a different meaning, often a different part of speech: walkable.

## Inflectional vs. derivational morphemes

What do we mean by inflectional affixes are obligatory?

- (1) a. \* Anya is tall than Lindsey  
b. Anya is taller than Lindsey
- (2) a. \* Yesterday I walk on the deck  
b. Yesterday I walked on the deck
- (3) a. Her shirt is cool.  
b. Her shirt is **in**descri**ba**ble



# Inflectional vs. derivational morphemes

## Inflectional affixes in English

- (1) Verbs:
  - a. 3<sup>rd</sup> person singular present **-s**: he walks
  - b. progressive **-ing**: walking
  - c. past participle **-en**: eaten
  - d. past tense **-ed**: walked
- (2) Nouns:
  - a. plural **-s**: dogs
  - b. possessive **-'s**: John's
- (3) Adjectives:
  - a. comparative **-er**: taller
  - b. superlative **-est**: tallest

# Inflectional vs. derivational morphemes

## Derivational affixes in English

- Literally every other affix in English that wasn't on that list is a derivational affix.
- Examples:
  - Westernize
  - international
  - creative

## Oh, wait, maybe it's not quite that simple...

- What about the suffix in alumni?
- Is that an inflectional affix or a derivational affix?

# Inflectional vs. derivational morphemes

## Irregular inflectional affixes

- Irregular affixes which express the same grammatical functions indicated on the earlier list are also inflectional:
  - oxen
  - antennae
- Thanks a lot, English.
- You won't have to worry about these irregular affixes for this class.

# Inflectional vs. derivational morphemes

## Class-changing and class-maintaining derivational affixes

- Derivational affixes attach to words of a certain class (part of speech), and produce new words of either the same class or another class.
- **Class-changing:**
  - write (V) + -er = writer (N)
  - slow (ADJ) + -ly = slowly (ADV)
- **Class-maintaining:**
  - un- + wrap (V) = unwrap (V)

# Inflectional vs. derivational morphemes

## Review: derivational or inflectional affixes

- Are these inflectional or derivational affixes? Are they class-changing or class-maintaining:
  - **quickly** **derivational**, class-changing (ADJ → ADV)
  - **greenish** **derivational**, class-maintaining (ADJ → ADJ)
  - **greener** **inflectional**, class-maintaining (ADJ → ADJ)
    - Reminder: All inflectional affixes are class-maintaining.

# Inflectional vs. derivational morphemes

## Note: function over form for morphemes

- In order to identify a morpheme, we need to know how it is being used, not just its form.
- Example: **-er**.
  - We don't have enough information to determine what morpheme this is.
  - It could be a comparative adjective suffix, as in taller**er**, or an agentive marker, as in writer**er**.

# Bound and free morphemes

## Bound morphemes that are not affixes

- Reminder: a bound morpheme is one that cannot occur on its own.
- Affixes are a subset of bound morphemes.
  - **un**believe**able**
  - walk**s**
- What are some examples of bound morphemes that are not affixes?

# Bound and free morphemes

## Bound morphemes that are not affixes

- **“Cranberry morphemes”**: Bound morphemes that aren't affixes because they have no clear meaning of their own.
  - **cran**berry                      what is a “cran”?
  - **twi**light                        what is a “twi”?
- This type of morpheme is most often the result of language change over time, or borrowing words from another language.
  - cran = crane
  - twi = two (old English)





# Summary

## Key points: bound morphemes

- **Bound morphemes** cannot stand alone as independent words.
- Most bound morphemes in English are **affixes**.
- Affix types: prefix, suffix, infix, circumfix.
- Productive vs. unproductive affixes.
- Inflectional vs. derivational affixes.

# Free morphemes

## Free/Unbound morphemes

- In contrast to bound morphemes are **free** morphemes: morphemes that can stand on their own as words.
- Free morphemes can occur with affixes, but they are still free morphemes because they could, theoretically, appear without them:
  - **walks** = **walk** (free) + **-s** (bound)

# Free morphemes

## Arbitrariness of the free vs. bound distinction:

- In English:
  - the “definite article” (**the**) is a separate word
  - but the plural marker (**-s**) is not
- In Hebrew:
  - neither is a separate word:  
    **ha-yelad-im**  
    **the-child-PL**
- In Basque:
  - the definite article and the plural marker are fused into a single element, also not a separate word:  
    **otso-ak**  
    **wolf-the.PL**

# Free morphemes

## Bound or free?

- Are the following morphemes bound or free?

(1) **un**thinkable **bound**

(2) un**think**able **free**

(3) unthink**able** **bound!**

- “-able” is pronounced [əbəl], it is a phonologically reduced form of the free morpheme “able” that has also changed in meaning.
- Thus, it is not the same morpheme as “able.”

# Free morphemes

## From free to bound

- As we just saw, sometimes languages take free morphemes and slowly turn them into bound morphemes.
- This is an example of a process called **grammaticalization**, where a morpheme gradually begins to serve a fixed grammatical function over time.
- As grammaticalization happens, the morpheme undergoes **phonological reduction** and loss of **syntactic freedom**, sometimes turning it from a free morpheme into a bound morpheme.
  - happy-like → happily
  - hope-full → hopeful

## For next time...

- **Assignment 2** is due today at 23:59. Submit on *MyCourses*.
- **Assignment 3** has been posted, will be due next Monday (February 1).
- **My office hours:**  
Mondays, 15:00-16:30, 1085 Dr. Penfield Ave, room 101.
- **TA office hours:**  
Mondays, 16:30-17:30, 1085 Dr. Penfield Ave, room 204.