

Morphology: More on Processes, Finding Morphemes and Allomorphy

Nir Segal – October 31, 2025

Affixes: derivational vs. inflectional

- Membership in the **derivational vs. inflectional** classes is based on various diagnostics:

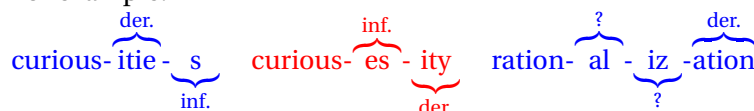
a. **Diagnostic #1:** The Morpheme Ordering Constraint

A derivational affix *can't* be added to a word containing an inflectional one.

- (i) Therefore, *if a derivational affix can be added to a word containing affix X, then X must also be a derivational affix.*

This is our most reliable test

- For example:



b. **Diagnostic #2:** Category change

- (i) *If affix X changed the category of the morpheme to which it attached, then X is derivational.*

(note: derivational affixes *don't need* to change the category, it is just that inflectional ones *can't*)

- For example

[_N cat] ~ [_N cat-s]; [_A happy] ~ [_A happi-est]
[_V walk] ~ [_A walk-able]; [_A red] ~ [_N red-ness]

The dotted boxes represent rules that we can write as $X \rightarrow Y + Z$ (which reads as "X is built from the composition of Y and Z, in this order.")

- In the case of (1), we have

- $N \rightarrow A + \text{ness}$,
- $A \rightarrow V + \text{ing}$,
- $V \rightarrow \text{re} + V$

Note that the order matters! (since there is a difference between prefixes and suffixes)

Practice

- (2) Consider the two uses of the suffix -er: one as in *runner, dealer, kicker*, and the other as in *smaller, cooler, kinder*.
- Write a formal rule for those uses ($X \rightarrow Y + \text{er}$).
 - Which classes do these two suffixes fall under? Use the diagnostics to explain your answer.
- (3) Now consider the suffix /əɪ/ as in *sparkle, crackle, dabble, snuggle*.
- Write a formal rule for it.
 - Given the following words, what can you conclude about the class to which this suffix belongs:
(i) sparkler (ii) crackler (iii) snuggler

Formal Notation - Morphological Rules

Remember those:

- (1) a. /ɛd+nɛs/ b. /bɔɪ+ɪŋ/ c. /ɪɪ+du/
-
- Diagram (a): N → A + /nɛs/ → /ɛd/
- Diagram (b): A → V + /ɪŋ/ → /bɔɪ/
- Diagram (c): V → V + /ɪɪ/ → /du/

Compounds

We introduced a test to determine whether something is a compound: compounds are stressed **on the first word** by default.

- (4) Where were you? (5) What is that?
- at an **open** house a. a **cold** sore
 - at an amazing **house** b. a cold **soup**

The element of the *right* of a compound that, in a sense, determines what the compound means is called the *head* of the compound.

The right hand head rule (RHHR)

The category of a compound is identical to the category of its head, which is always the rightmost element of the compound.

$$X \rightarrow Y + X$$

Practice

(6) For each of the following, please state whether or not it is a compound. If it is a compound, please *also* state what the head of the compound is.

- | | |
|---------------------|-------------------------|
| a. computer screen | e. general-purpose tool |
| b. nitty-gritty | f. red socks fan |
| c. black whiteboard | g. Red Sox fan |
| d. blue-green dress | h. sweet red berry |

Morpho-phonology**Segmentation****The Gist**

Morphological segmentation involves finding **consistent and repeating matches** between the *strings of sounds* present in the words and the *meaning of strings* in the words.

- Let's try it together on the following data from Luiseño (Uto-Aztec; California):

[ʔoki]	'your (sg.) house'	[potaana]	'his blanket'
[ʔohuukapi]	'your (sg.) pipe'	[ʔotaana]	'your (sg.) blanket'
[noki]	'my house'	[ʔomkim]	'your (pl.) houses'
[ʔomtaana]	'your (pl.) blanket'	[tʃamhuukapi]	'our pipe'
[poki]	'his house'	[notaana]	'my blanket'
[pohuukapi]	'his pipe'	[nohuukapi]	'my pipe'
[pomki]	'their house'	[tʃamhuukapim]	'our pipes'
[ʔomtaanam]	'your (pl.) blankets'		

Allomorphy

In the lectures, you analyzed the past tense suffix in English.

[p ^h leɪ]	'play'	[p ^h leɪd]	'played'
[mab]	'mob'	[mabd]	'mobbed'
[jɛl]	'my house'	[jɛld]	'yelled'
[fowld]	'fold'	[fowldɪd]	'folded'
[bowlt]	'bolt'	[bowltɪd]	'bolted'
[p ^h æs]	'pass'	[p ^h æst]	'passed'
[map]	'mop'	[mapt]	'mopped'
[læk]	'lock'	[lakt]	'locked'

- What are the different forms of the suffix? How do we call those 'forms'?
- What are the environments in which each of them appears?
- What is the underlying morpheme? How do we know that?
- What are the morphophonemic rules for the English past-tense?

Practice

(7) Consider the following data from Palestinian Arabic.

[ʔamari]	'my moon'	[ʔalʔamar]	'the moon'
[kalbe:n]	'two dogs'	[ʔalkalb]	'the dog'
[bæ:bi]	'my door'	[ʔalbæ:b]	'the door'
[farase:n]	'two mares'	[ʔalfaras]	'the mare'
[ʃamsak]	'your (m.) sun'	[ʔaʃʃams]	'the sun'
[ze:tha]	'her oil'	[ʔazze:t]	'the oil'
[næ:sha]	'her people'	[ʔannæ:s]	'the people'
[daʔ(ɪ)nak]	'your (m.) chin'	[ʔaddaʔ(ɪ)n]	'the chin'

- What are the free morphemes?
- What is the morpheme for: 'my', 'two Xs' (the dual), 'your (m.)', 'her'.
- What are the allomorphs of the definite article ('the')?
- What is the rule that controls which allomorph of 'the' to use?