Introduction to Linguistics
LIN101

Lecture 10: Morphology I

Fall 2024, University of Toronto, St. George

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Announcements

- Quiz 2 is over - we will review it next week.
- HW4 on phonological rules and derivations is due today at midnight!
- Today we start the unit on morphology
- The morphology unit consists of only two lectures > quiz 3 will come very soon, on November 25th!
- Final exam: December 11th
- If you have a conflict, here's what you can do: https://www.artsci.utoronto.ca/current/faculty-registrar/final-exams/exam-conflicts

What is morphology?

What is morphology?

- Sounds can be combined to form syllables and syllables, into words
  > phonological rules
- Words can be combined into sentences
  > syntactic rules
- Words are at this exciting interface between phonology and syntax

Are sounds real?

ɑr   saʊndz   ril

ɑ   r   s   aʊ   n   dz   r   i   l
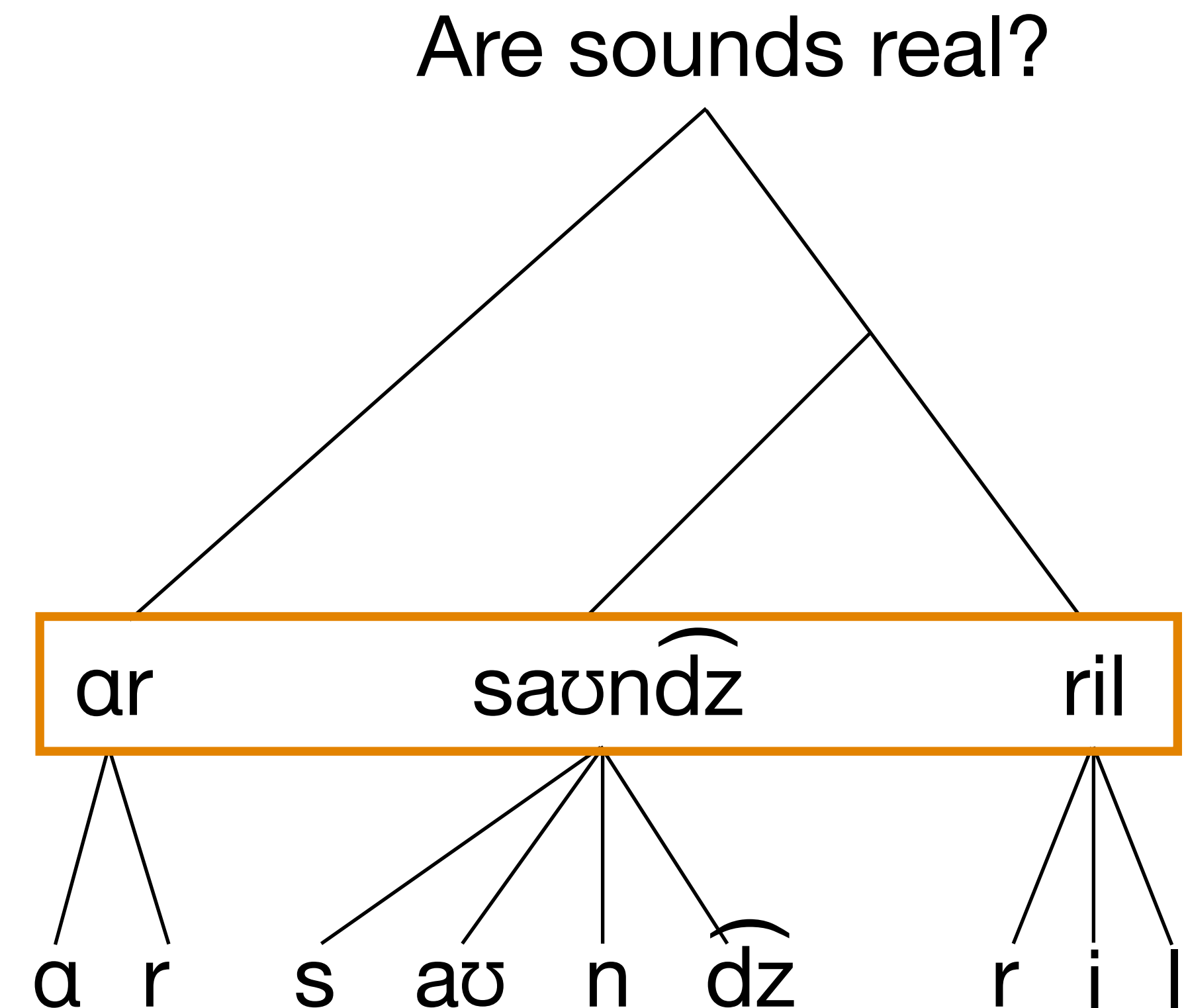
What is morphology?

Words

- The study of words: their inner structure, how they are put together
- And what is a word ?

"whatever is written between two spaces"

- A linguistic definition relying on orthography is always problematic!
- What about languages with no writing system or with a writing system that does not use spaces?

What is morphology?

- It may be surprising but defining words is not straightforward.
- The term "word" means different things for the syntactician, the morphologist and the phonologist.
- Our working definition: the smallest separable unit in language.
- What does it mean to be separable?
- Syntactic independence: it can stand alone as an utterance, and it can appear in different positions in a sentence.
- What do you like to eat? Apples. ← constitutes an utterance
- The word apples consists of two parts: apple and -s
- While you can use apple as an answer, it's hard, if not impossible, to form an utterance of -s!

What is morphology?

Words

- Wait a second: -s is a smaller unit compared to apples. Is -s also a word?
- No! -s is small but not separable from apple, let alone in metalinguistic discourse (when we talk about language)
- Watch out, the separability condition may trick you in metalinguistic discourse!

A: What's the last morpheme in the word "apples"?
B: -s ← It can stand alone, but only because
B is talking _about_ the word "apples"

What is morphology?

- In addition, words have some level of syntactic independence
- They can move somewhat freely in the sentence

(1) I like apples
(2) Apples, I like (pears, I don't).

- But -s in apples has no freedom whatsoever in terms of where in the sentence it can occur.
- -s is bound to the end of apple!
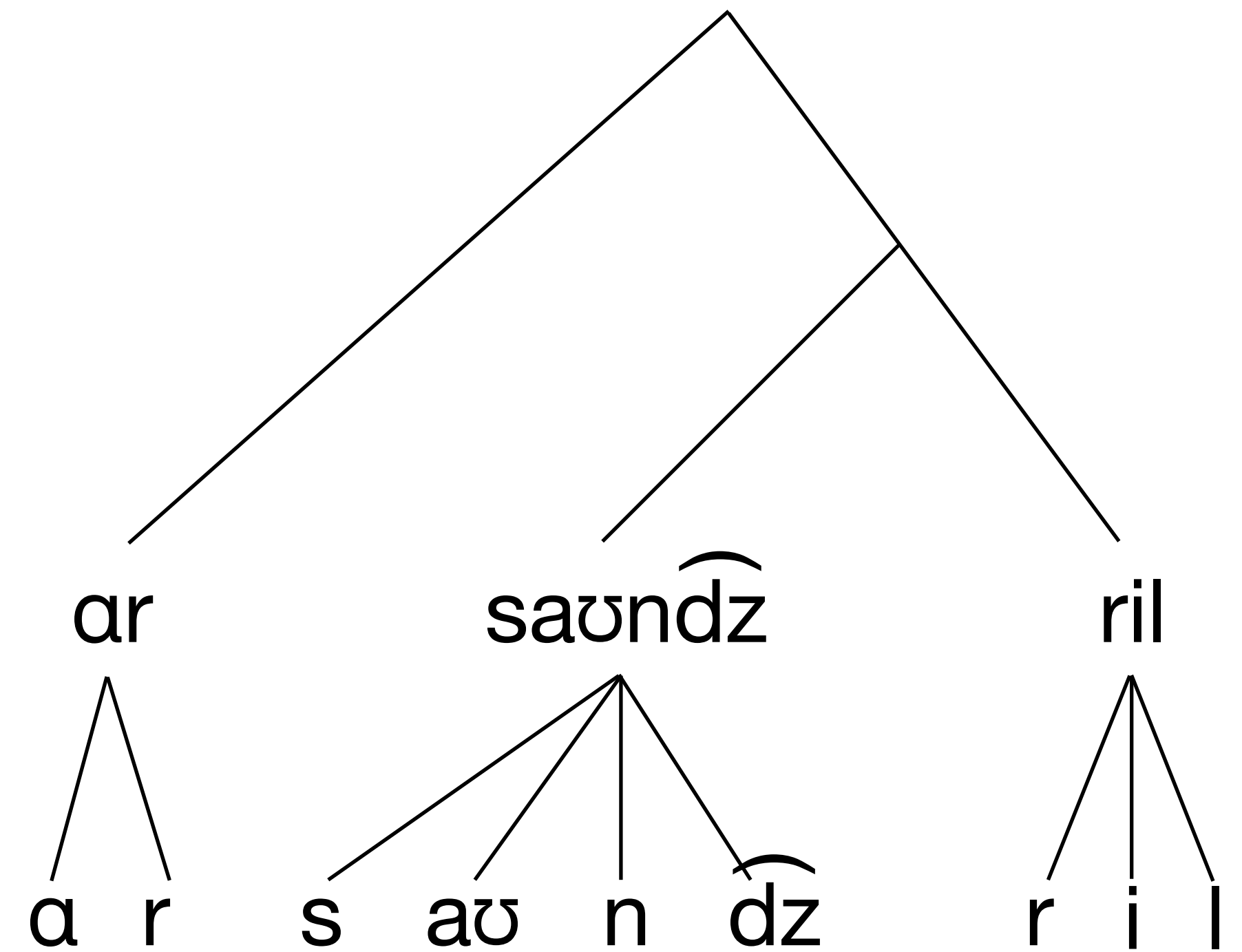
What is morphology?

- If **-s** is not a word, then what is it?

  A morpheme

- The smallest unit in language that can bear meaning or grammatical function

smallest units
with meaning or
grammatical function ⟶ ɑr   saʊndz   ril

smallest units ⟶ ɑ r   s aʊ n dz   r i l

What is morphology?

Morphemes

- Words with just one morpheme are morphologically simple
- More than 1 morpheme: morphologically complex words

iglujjualiualuqtuq   'He or she made
                       a big house'

iglu 'house'
-jjua 'big'
-liu 'make'
-lauq distant past
-tuq declarative

nonrenewability

non-
re-
new
-able
-ity

What is morphology?

Morphemes

- Words with just one morpheme are morphologically simple
- More than 1 morpheme: morphologically complex words

morphology

morph- 'shape'
-ology 'study of'

- What if someone doesn't know Classical Greek?
- Native speakers of English may perceive it as morphologically simple or complex

Roots, bases, and affixes

Roots, bases, and affixes

<mark>Affixes</mark>

- Affixes are morphemes that cannot stand on their own.
- They are <mark>bound morphemes</mark> by definition
- Examples:

    sugar -y   library -ian -s   inter-nation-al

- An affix attaches to a <mark>base</mark>
- The affix -y attaches to sugar, therefore sugar serves as its base.
- The affix -ian attaches to library, so library is the base.
- What about -s? Does it attach to library or to librarian?
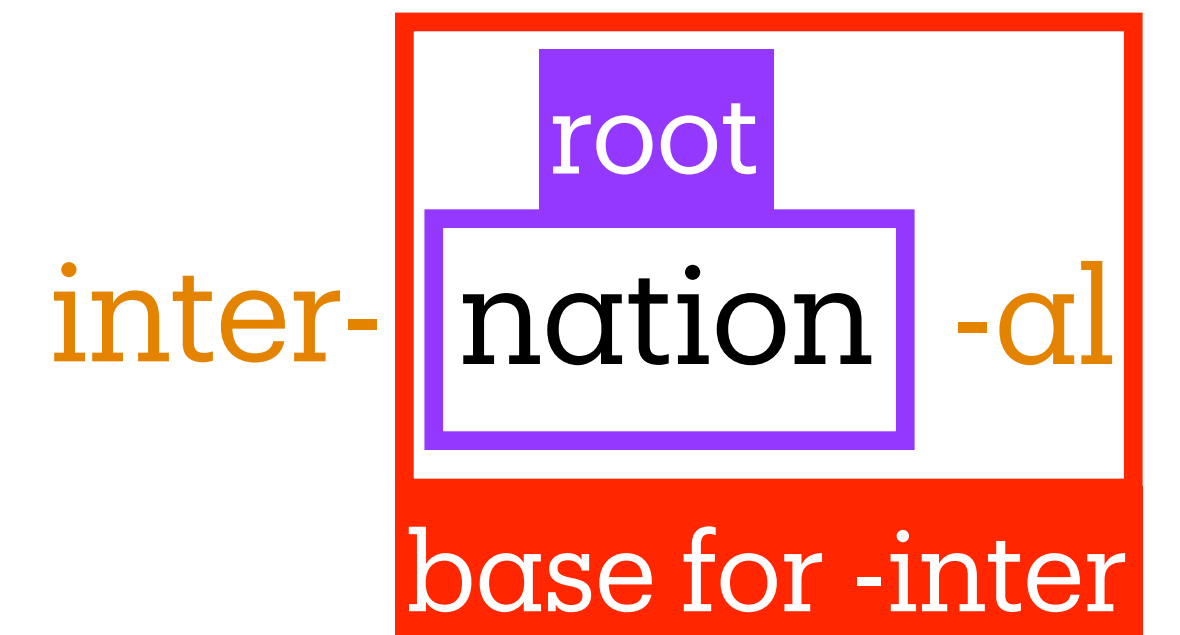- What about inter- and -al? Do they both attach to nation?

Roots, bases, and affixes

Roots

- Bases can be morphologically simple or morphologically complex.
- Simple bases are called roots

root library -ian -s

base for -s

inter- nation -al   root

base for -al

The order matters!

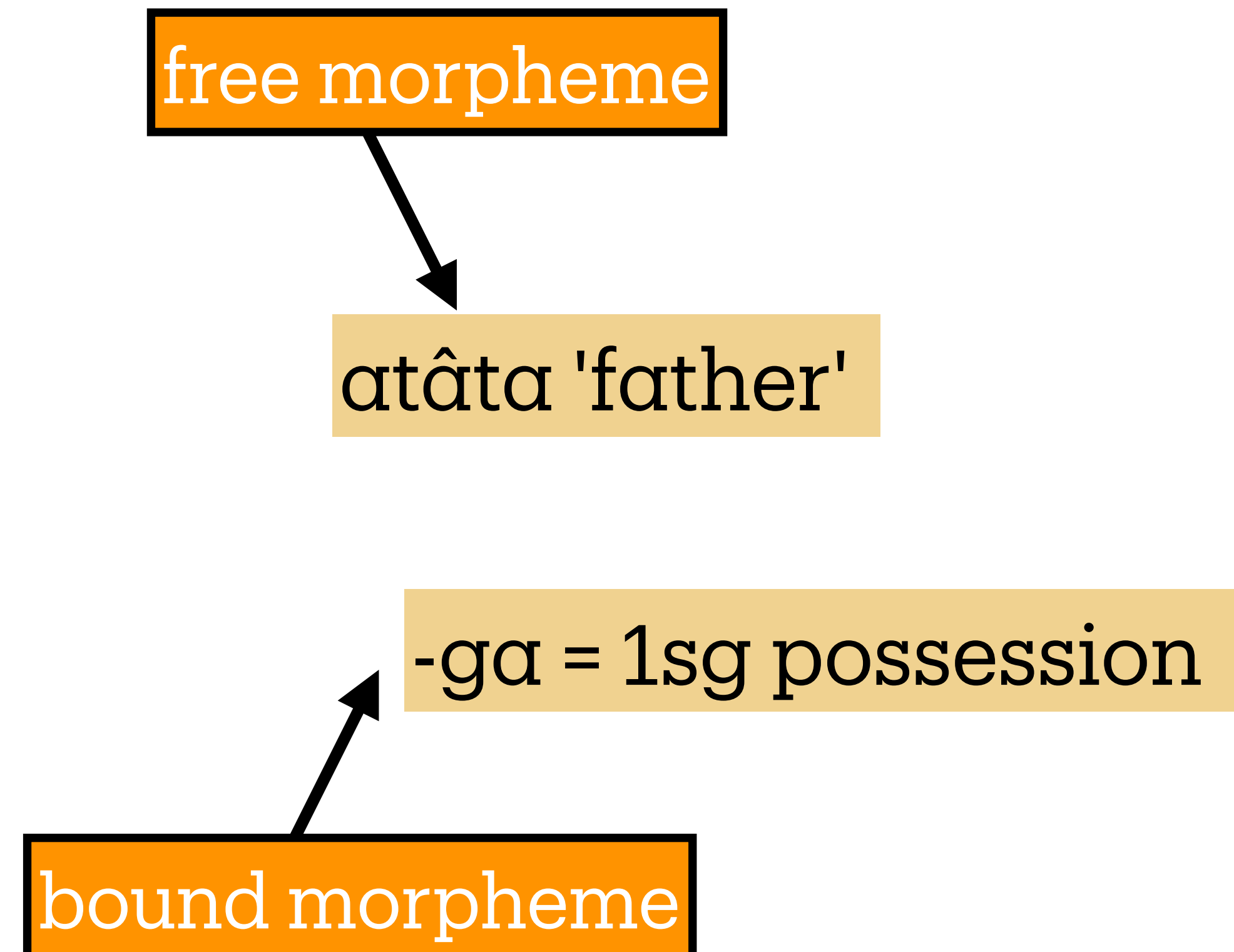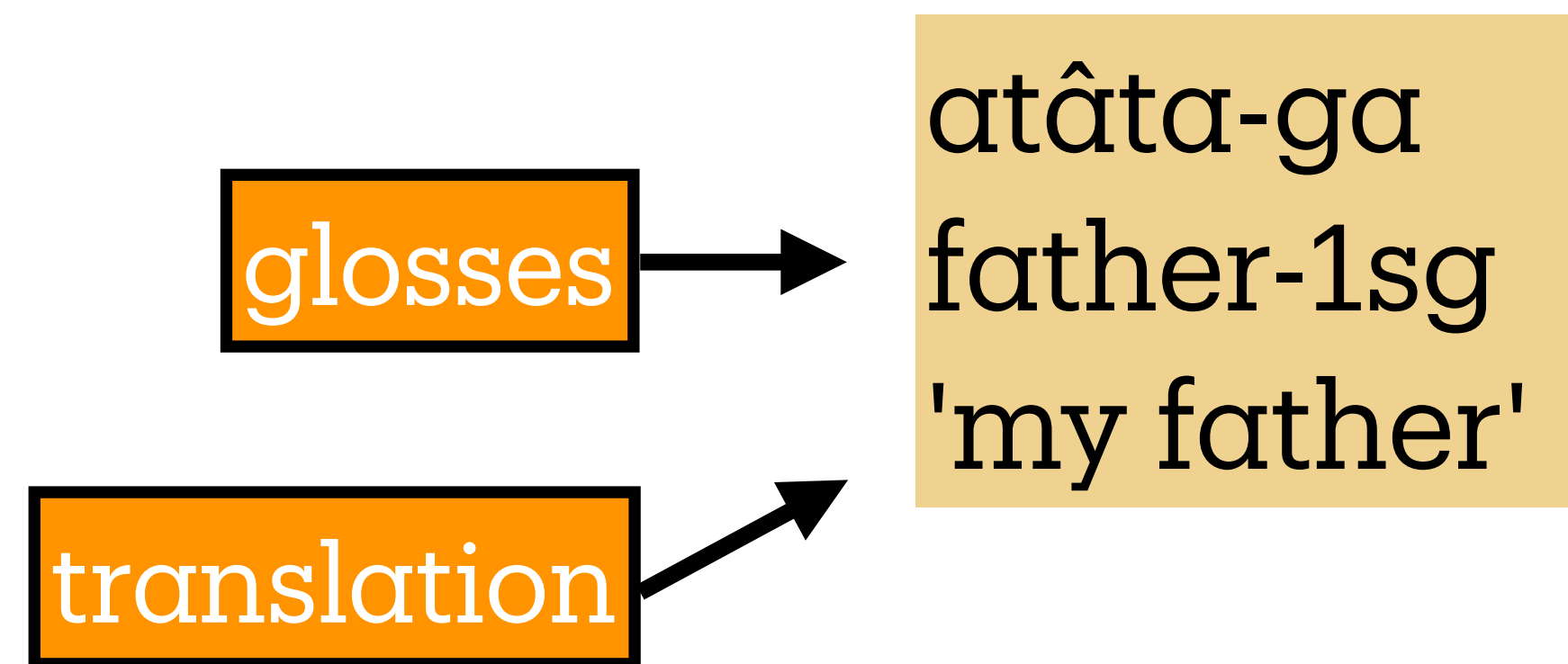inter- nation -al   root

base for -inter

Roots, bases, and affixes

Types of affixes

- Prefixes : affixes that attach before the base   inter-national
- Suffixes : affixes that follow the base   nation-al
- Circumfixes : affixes that attach around the base
- Infixes : affixes that attach inside the base
- Simultaneous affixes : take place at the same time as their base

- Prefixes and suffixes are quite common, circumfixes, infixes and simultaneous affixes: less so.

Roots, bases, and affixes

Suffixes

- Inuttitut (Labrador Inuktitut)

glosses →

translation →

atâta-ga
father-1sg
'my father'

free morpheme →

atâta 'father'

-ga = 1sg possession

← bound morpheme

Roots, bases, and affixes

Prefixes

- Meskwaki (Algonquian language):

format:
morph-morph
gloss-gloss

ne-taꞏnes-aki
1-daughter-AN.PL
'my daughters'

taꞏnes 'daughter'

ne- = 1st person

AN = animate   PL = plural

1sg = 1st person singular
2sg = 2nd person singular
3sg = 3rd person singular
1pl = 1st person plural
2pl = 2nd person plural
3pl = 3rd person plural

Roots, bases, and affixes

- Meskwaki (Algonquian language):

ne-tɑ·nes-ɑki
1-daughter-AN.PL
'my daughters'

tɑ·nes 'daughter'

ne = 1st person

AN = animate   PL = plural

ne-tɑ·nes-enɑ·n-ɑki
1-daughter-**1PL**-AN.PL
'our daughters'

tɑ·nes 'daughter'

ne- -enɑ·n 'our'

Roots, bases, and affixes

Infixes

- Affixes that appear inside another morpheme.
- Tagalog (spoken on the Philippines)

[takbuh] 'run'
[lakad] 'walk'
[bili] 'buy'

-um-

[tumakbuh] 'ran'
[lumakad] 'walked'
[bumili] 'bought'

takbuh

-um-

Roots, bases, and affixes

Infixes

- Affixes that appear inside another morpheme.
- Tagalog (spoken on the Philippines)
- -y in unluckiness is in the middle of a word

un-   luck   -y   -ness

[takbuh] 'run'
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-um-

[tumakbuh] 'ran'
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t um akbuh

Roots, bases, and affixes

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unluck**y**ness

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t **um** akbuh

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✔ t akbuh

-um-

un luckness ✘

-y

Roots, bases, and affixes

Simultaneous affixes

- Affixes that are articulated simultaneously with the base.
- Example: tones in tonal languages make it possible to convey grammatical information while articulating segments
- signed languages, too, make it possible.
- Example: STUDY
- https://www.handspeak.com/learn/189/

Roots, bases, and affixes

- Morphemes can be free or bound.
- This is (should be) seen in the presence of a hyphen on the morpheme
- Bound morpemes such as prefixes, suffixes, infixes, and circumfixes must have a hyphen in the right position
  - -s (suffix)
  - inter- (prefix)
  - -um- (infix)
- most roots are free in English
  - overwhelmed:
  - -whelmed

[takbuh] 'run'
[lakad] 'walk'
[bili] 'buy'

-um-

[tumakbuh] 'ran'
[lumakad] 'walked'
[bumili] 'bought'

Morphology beyond affixes

Morphology beyond affixes

- The plural of certain nouns in German
- mother: internal change only
- house: internal change + suffix
- German can also mark the plural with a zero morpheme!
- Informatiker 'computer scientist(s)'
- One language can have multiple ways of marking the same grammatical function!

singular	plural
eine Mutter one mother	zwei Mütter two mothers
ein Haus one house	zwei Häuser two houses

English:

mouse   mice

Morphology beyond affixes

- Not all of these ways of forming plural are equal.
- Some rules are regular, others are irregular.
- Internal change counts as irregular in German and English:
- regular pattern = phonologically predictable pattern that is productive
- irregular patterns are typically not productive.

	singular	plural
	eine Mutter one mother	zwei Mütter two mothers
	ein Haus one house	zwei Häuser two houses

English:

mouse   mice

Morphology beyond affixes

Suppletion

- A highly irregular pattern whereby a particular form gets replaced entirely by another morpheme.
- German klein 'small' > regular
- German gut 'good' > suppletion!
- Italian buono 'good' > suppletion!
- Hungarian jó 'good' > regular
- Suppletion is a kind of allomorphy!

positive	comparative	superlative
klein 'small'	kleiner 'smaller'	kleinest 'smallest'
gut 'good'	besser 'better'	best 'best'
buono	migliore	il migliore
jó	jobb	legjobb

Morphology beyond affixes

- The repetition of a part or of all of a word
- It can convey a range of meanings
- The repetition of an event
- Likelihood

ki-néz-ett
vm-look-pst.3sg
'looked out (on the window)'

ki-ki-néz-ett
vm-vm-look-pst.3sg
'looked out (on the window) repeatedly'

kw'élh 'to capsize' > kw'élhkw'elh 'likely to capsize'
qwà:l 'to speak' > qwà:lqwa:l 'talkative'

Morphology beyond affixes

Morphological typology

- languages can be classified into various morphological types based on their morphological properties.

isolating/ analytic

all words are morphologically simple

fusional

many inflectional meanings are combined into single affixes

agglutinative

words are built from easily separated affixes

synthetic

no free morphemes, everything is bound

Cantonese English French Hungarian Turkish Inuktitut

Allomorphy

Allomorphy

- **Allomorphs** are morphemes with a consistent meaning/grammatical function but with various forms depending on the environment in which they occur.

- **phonologically conditioned allomorphy**   **lexically conditioned allomorphy**

a phone   an allophone   a / an

child   children

mouse   mice

fish   fish

buꓕ」

不吃 buꓕ」 tʂɨꓶ   falling

不用 bu」ꓶ juŋ」ꓶ   rising

allomorphy determined by the root

Lexical categories

Lexical categories

- categories = parts of speech
- How shall we define them?
- Traditionally: by referring to their semantics
- "A noun is a person, place, or thing"
- "A verb is an action word"
- Think of the words action and event.
- These should be nouns based on the semantic definition…
- It is more promising to refer to the distribution of words

Lexical categories

Nouns

- <u>Syntactic tests for nouns in English</u>:
- Can follow a determiner (a/an/the/these/etc.): a <u>movie</u>
- Can be modified by adjectives: an interesting <u>movie</u>
- Can be the subject or object of a verb: I watched a <u>movie</u>
- Can be replaced by a pronoun: I watched <u>movies</u> / <u>them</u>
- <u>Morphological tests for nouns in English</u>:
- Have singular and plural forms: <u>movie</u> / <u>movies</u>

Lexical categories

Verbs

- <u>Syntactic tests for verbs in English</u>:
- Can combine with auxiliary verbs: can <u>watch</u>, will <u>watch</u>
- Can follow the infinitive marker to: to <u>watch</u>
- Can take an object: watch a <u>movie</u>
- <u>Morphological tests for verbs in English</u>:
- Third person singular present tense form with -s: <u>watches</u>
- Past tense form: <u>watched</u>
- Perfect: <u>has watched</u>
- Progressive form with -ing: <u>watching</u>

Lexical categories

Adjectives

- <u>Syntactic tests for adjectives in English</u>:
- Can modify nouns: an <u>interesting</u> movie
- Can be modified by very: very <u>interesting</u>
- Do not allow noun phrase objects: interesting *(to) me
- <u>Morphological tests for adjectives in English</u>:
- Can be suffixed by -ish: happy-ish
- Comparative and superlative form: happier, happiest

Lexical categories

Adverbs

- Syntactic tests for adverbs in English:
- Can modify verbs: speak quietly
- Can modify adjectives: an increasingly dangerous world
- Can modify other adverbs: increasingly dangerously
- Morphological tests for adverbs in English:
- Typically end in -ly: quietly

Derivational morphology

Derivational morphology

- Derivational morphemes are selective: they select the category of the base they attach to
- But they are also selective in the sense that only certain words in the same category will do
- **selective** vs. **productive**
- **-dom** is very selective: **king** -> kingdom
- **-ing** is highly productive: can attach to anything
- English suffixes mostly change the category as well, prefixes typically don't, but they still change the meaning of the base

English affixes

-ing	V	→	Adj or N
-ment	V	→	N
-ness	Adj	→	N
-ity	Adj	→	N
-ous	N	→	Adj
-hood	N	→	N

English prefixes

non-	N	→	N	*non-issue*
	Adj	→	Adj	*non-distinct*
un-	V	→	V	*undo*
	Adj	→	Adj	*unhappy*
re-	V	→	V	*redo*

Derivational morphology

- Examples of derivational morphemes from other languages:

<u>-ost' (Adj -> N)</u>
špinavý 'dirty' -> špinavost' 'dirtiness'
<u>-ota (Adj -> N)</u>
čistý 'clean' -> čistota 'cleanliness'
istý 'certain' -> istota 'certainty'
<u>ne- (Adj -> Adj)</u>
istý 'certain' -> neistý 'uncertain'
čistý 'clean' -> nečistý 'dirty'

<u>不- [ɸɯ] (Adj -> Adj)</u>
健康[kɛŋko:] 'healthy'->
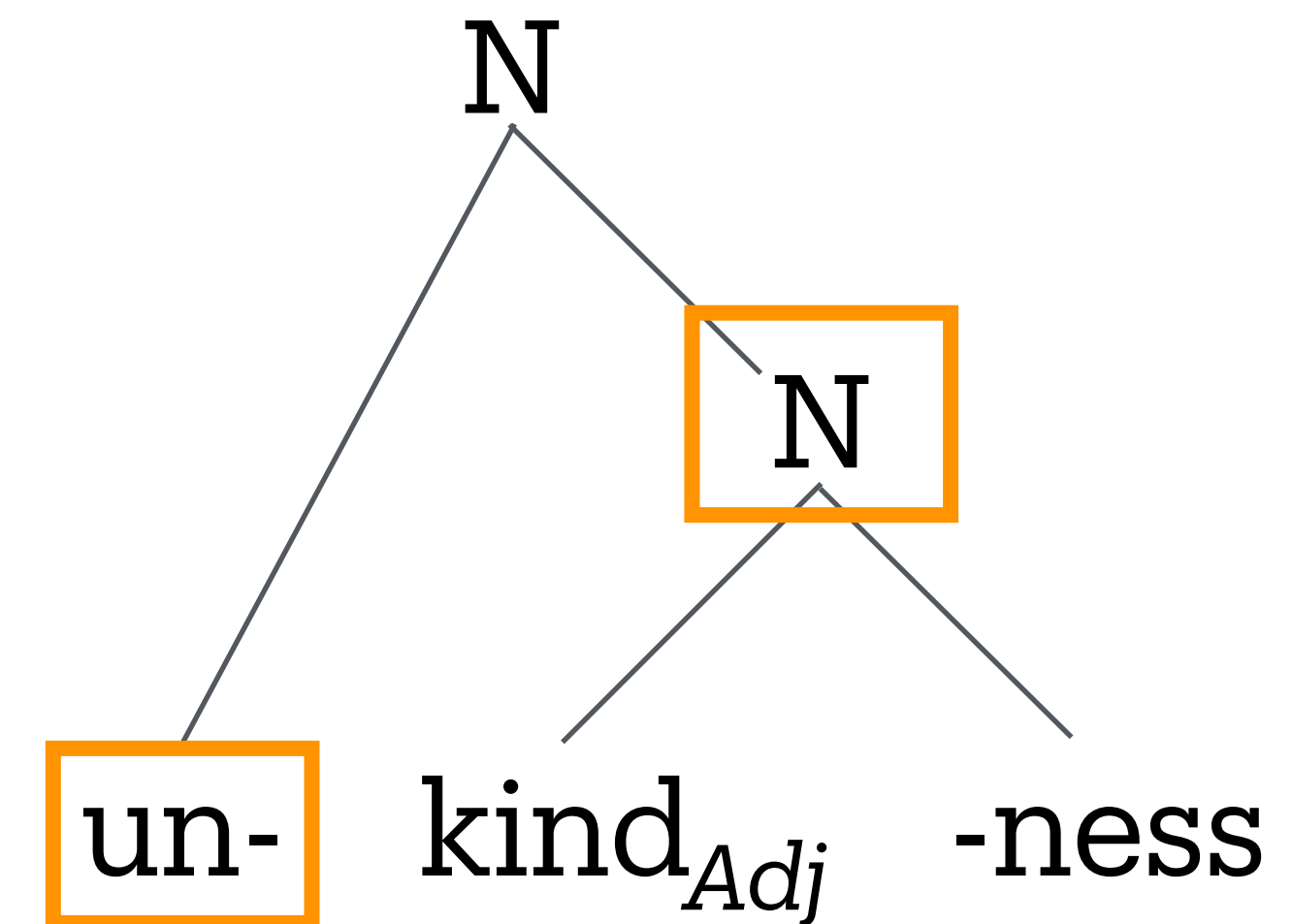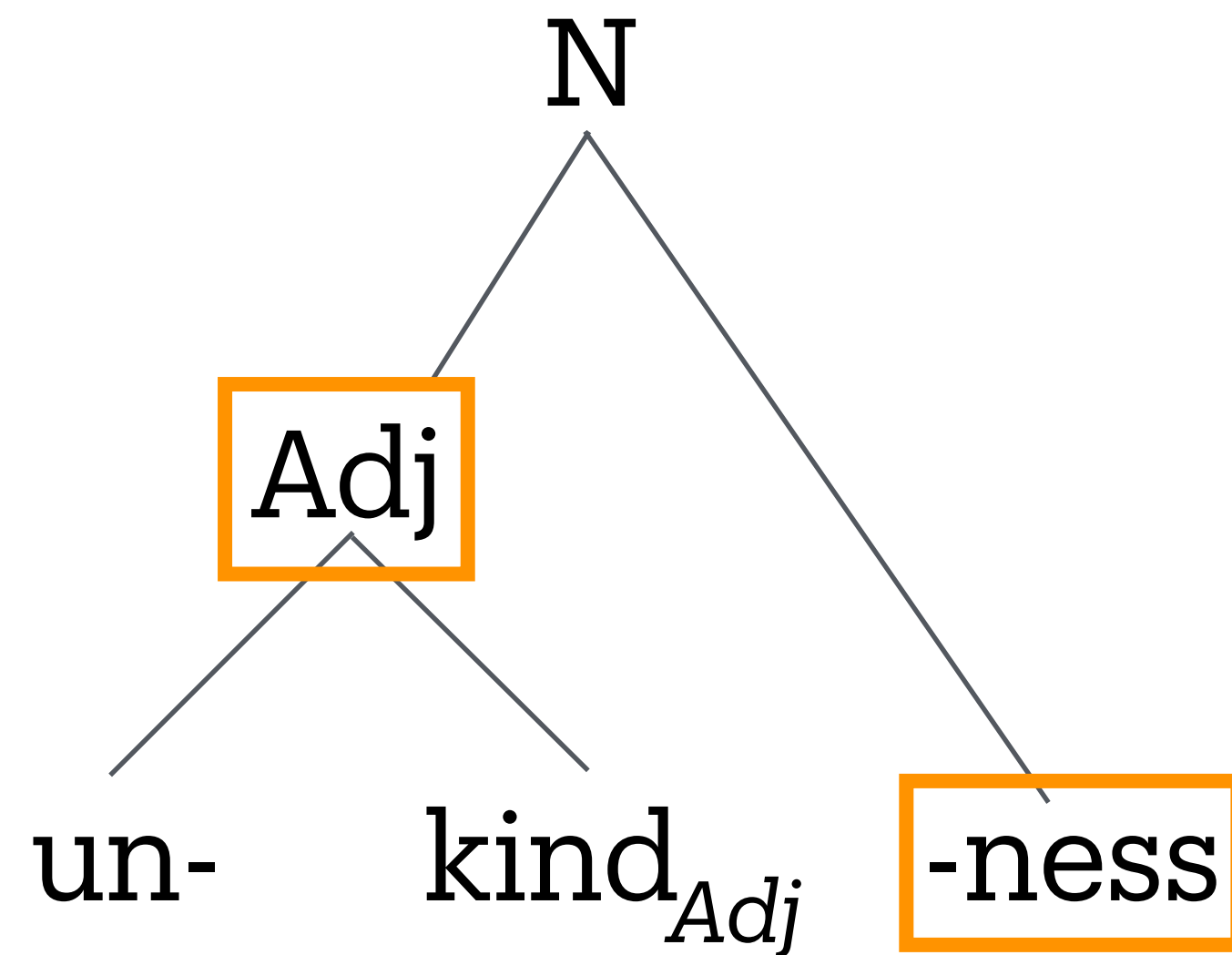不健康 [ɸɯkɛŋko:] 'unhealthy'

Derivational morphology

- A word can contain more than one derivational affixes:

  unkindness: un- kind -ness

- In what order should they attach to the root?
- Assumption: only one attachment can happen at a time
- Two possibilities: un + kind first, then -ness, or kind + ness, then un-

Derivational morphology

N
Adj
un- kind*Adj* -ness

N
N
un- kind*Adj* -ness
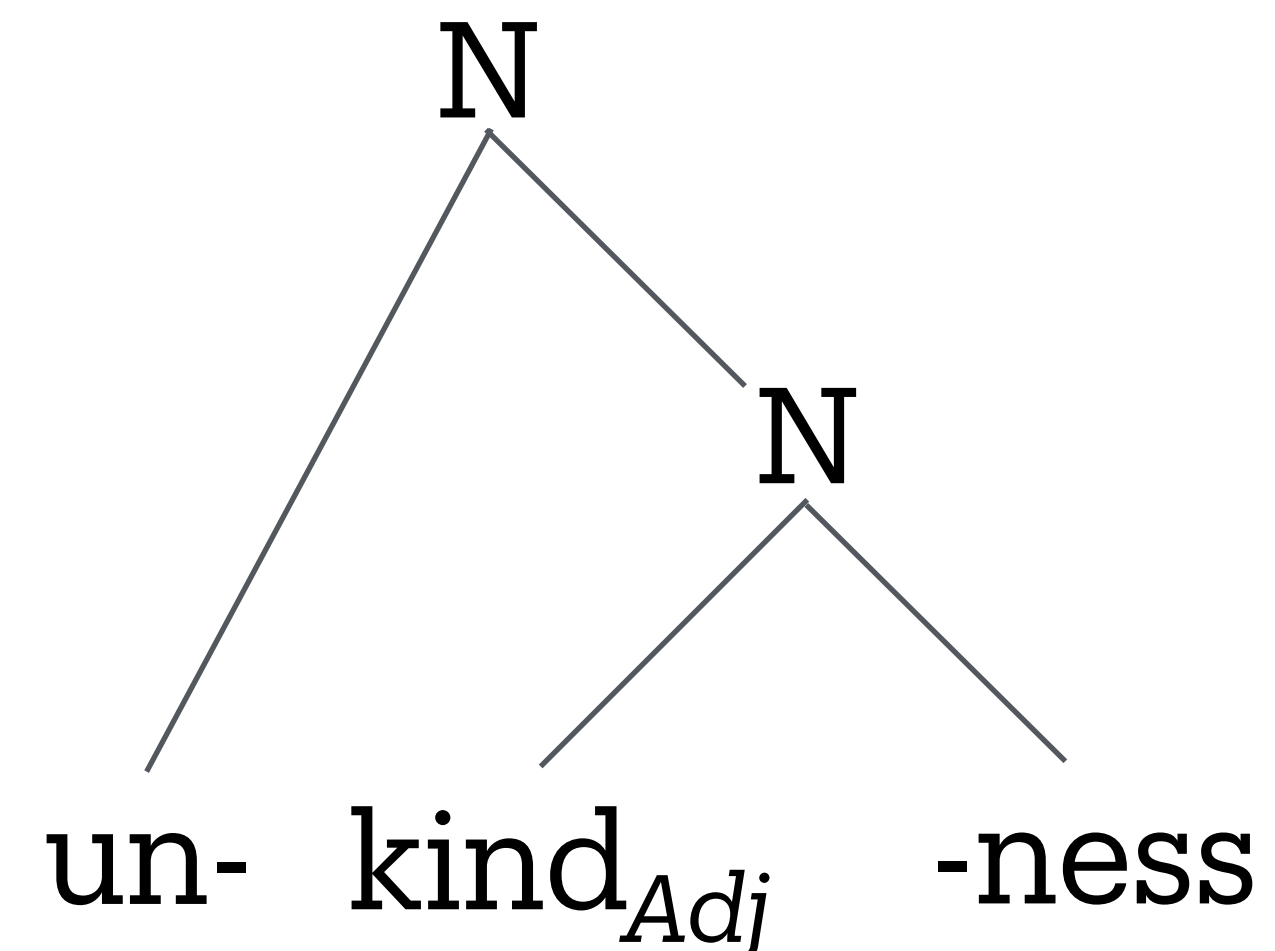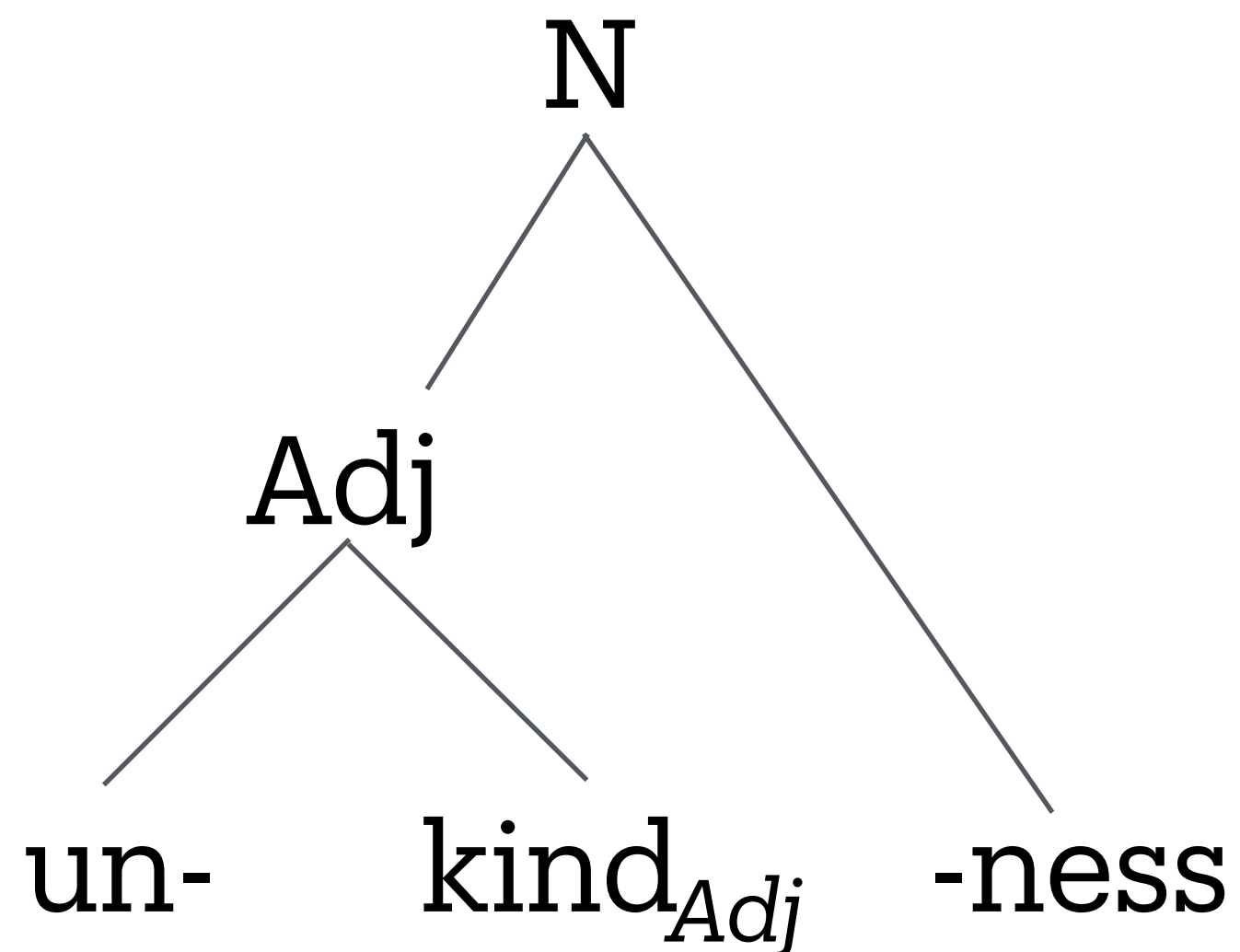
- Since both unkind and kindness are plausible words in English, we could start with both!
- Next questions to ask:
- Can -ness select an adjective?   happy -> happiness
- Can un- select a noun?   beauty -> *unbeauty

End of lecture 10