Morphology
- Ling 105-

Spring 2023

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(she/her)

Week 4, Class 1

Roadmap for today's class

1. Case-studies for reduplication
2. Morphology Lab 7
3. Conversion
4. Morpheme-based approach: advantages and limits
5. Linguistic Atlases

Reduplication

Introducing reduplication; Malagasi

- very common morphological operation
- part of the base or the whole **base** is copied and attached to the base (either preceding or following it)

Example: **Malagasy**

- adjectives with stress on the first syllable copy the entire base
- In the reduplicated form the meaning of the adjective is less intense

be	'big, numerous'	*be-be*	'fairly big, numerous'
fotsy	'white'	*fotsi-fotsy*	'whitish'
maimbo	'stinky'	*maimbo-maimbo*	'somewhat stinky'
hafa	'different'	*hafa-hafa*	'somewhat different'

(Keenan and Polinsky 1998: 571)

Partial reduplication: Ponapean and Mangap-Mbula

- Ponapean and Mangap-Mbula

  -only <u>part</u> of the base is copied and the process shows variation

- in Ponapean a consonant + vowel (CV) sequence is **prefixed** to the stem

Reduplication of a CV sequence before the base: Ponapean

duhp	'dive'	*du-duhp*	'be diving'
mihk	'suck'	*mi-mihk*	'be sucking'
wehk	'confess'	*we-wehk*	'be confessing'

(Rehg 1981: 78)

Partial reduplication: Ponapean and Mangap-Mbula

- Ponapean and Mangap-Mbula

  -only <u>part</u> of the base is copied and the process shows variation

- in Mangap-Mbula a vowel + consonant (VC) sequence is **suffixed** to the stem

Reduplication of a VC sequence after the base: Mangap-Mbula

kuk	'bark'	*kuk-uk*	'be barking'
kel	'dig'	*kel-el*	'be digging'
kan	'eat'	*kan-an*	'be eating'

(Bugenhagen 1995: 53)

Reduplication: the case of Samoan (1)

nofo	'he sits'	nonofo	'they sit'
pese	'he sings'	pepese	'they sing'
savali	'he walks'	savavali	'they walk'
atama?i	'he is wise'	atamama?i	'they are wise'

- We might think of reduplication as a morpheme whose content varies, dependent on the segments that it is copied from.
- We can use a numerical subscript notation to express the Samoan process above unambiguously.

X	C	V	C	V	→	X	C	V	C	V	C	V
1	2	3	4	5		1	2	3	2	3	4	5

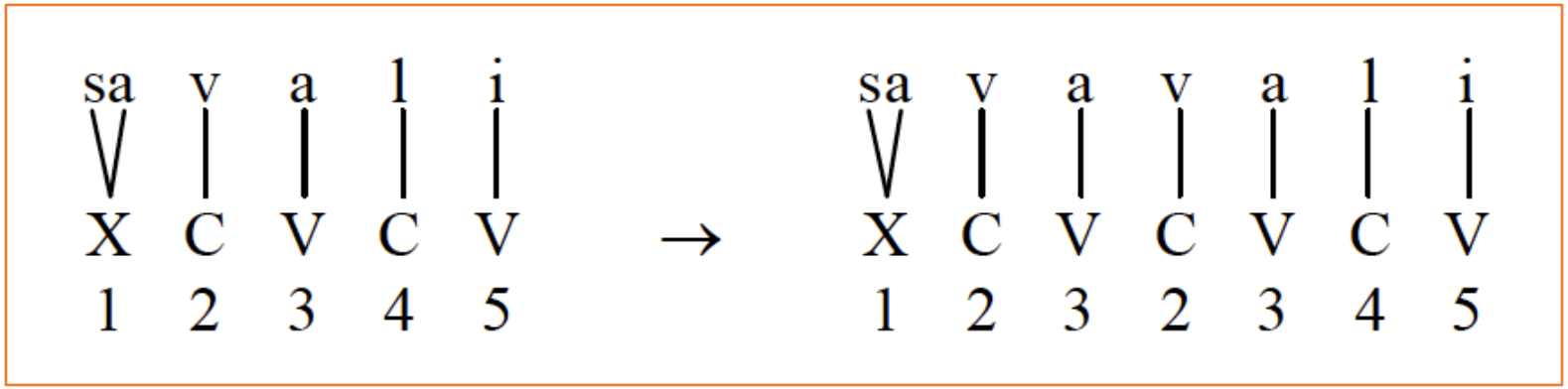
Q: how would you name this rule?

Reduplication: the case of Samoan (2)

- The rule tell us to count off the final CVCV of a word
- and copy its first CV sequence (what is numbered <2> <3> in the numeric rule

- derivation for *savavali*

savali > *savavali* [Number: Plural]



Morphology Lab 7

- Write the rule for forming causatives in Ateso by using the numerical format as well as the brackets if needed:

duk	‘to build’	tuduk	‘to cause to build’
lel	‘to be glad’	telel	‘to gladden’
ɲam	‘eat’	taɲam	‘feed’
wadik	‘write’	tawadik	‘cause to write’
cak	‘throw’	tacak	‘cause to throw’

Qs: -where is Ateso spoken?
-what language family does Ateso belong to?

Morphology Lab 7: answer

In Ateso through the reduplication process:

- /t/ is inserted he beginning of the word
- first available vowel of the word is copied followed by the rest

$$\underset{\quad 1\ \ 2\ \ 3}{[\ C\ \ V\ \ X\ \ ]_{Verb}} \rightarrow \underset{\qquad\qquad 2\ \ 1\ \ 2\ \ 3}{[[\ t\ \ V\ \ C\ \ V\ \ X\ \ ]_{Verb}\ ]_{Verb}}$$

Conversion

Conversion: definition and examples

- an extreme case of a morphological pattern is conversion:

-the form of the base remains unaltered

examples from English:

NOUN	VERB
hammer	*hammer*
plant	*plant*
ship	*ship*
walk	*walk*
drink	*drink*

Morphological Rules: methods and models

- ultimate goal of morphological analysis is to create a system of morphological rules that mimics speakers' linguistic knowledge
- not a a straightforward process!
- rules should be elegant and realistic
- generalizations that we consider important to describe with morphological rules depend in part on the kinds of explanations that we posit

Morphological Rules: methods and models

- for now, two representative formalisms for morphological rules will be presented and contrasted:

1) **morpheme-based model**:
emphasizes commonalities between morphology and syntax and favors a restrictive architecture of description

2) **word-based model**:
minimizes the importance of parallels between syntax and morphology and invests in system-external explanations

Morphological Rules: methods and models

1) **morpheme-based model**:
‘Morphology is the study of the combination of morphemes to yield words’

2) **word-based model**:
‘Morphology is the study of systematic covariation

in the form and meaning of words’

The morpheme-based model

- morphological rules are thought of as combining morphemes in much the same way that syntactic rules combine words
- let's look at the syntactic phrase structure rules:

Phrase-structure rules in syntax

a. sentence = noun phrase + verb phrase

b. noun phrase = (i) determiner (+ adjective) + noun
(ii) sentence

c. verb phrase = verb (+ noun phrase)

d. determiner = *the, a, some, …*

e. noun = *cat, rat, bat, …*

f. verb = *chased, thought, slept, …*

g. adjective = *big, grey, …*

The morpheme-based model

- deriving: *A big cat chased the bat*

sentence → noun phrase + verb phrase
noun phrase → determiner + adjective + noun
verb phrase → verb + noun phrase
noun phrase → determiner + noun
determiner + adjective + noun → *a big cat*
verb → *chased*
determiner + noun → *the bat*
sentence: *A big cat chased the bat.*

comparing phrase structure and word structure

- in order to describe the structure of English words, one could make use of **word-structure rules**

  -they're analogous to the syntactic phrase structure rules

Word-structure rules

a. word-form	=	stem (+ inflectional suffix)
b. stem	= (i)	(deriv. prefix +) root (+ deriv. suffix)
	(ii)	stem+stem
c. inflectional suffix	=	*-s, -er, …*
d. derivational prefix	=	*un-, …*
e. root	=	*bag, event, cheese, board, happy, …*
f. derivational suffix	=	*-ful, -ness, …*

deriving *bags, unhappier, cheeseboard*

'bags'

word-form → stem + inflectional suffix
stem → root → *bag*
inflectional suffix → *-s*
word-form: *bag-s*

'unhappier'

word-form → stem + inflectional suffix
stem → derivational prefix + root
derivational prefix → *un-*
root → *happy*
inflectional suffix → *-er*
stem: *un-happy*
word-form: *un-happi-er*

'cheeseboard'

word-form → stem
stem → stem + stem
stem → root
root → *cheese*
root → *board*
stem: *cheese-board*
word-form: *cheese-board*

Modification to the morpheme-based model

Modification to the general approach:

- many linguists argue that the word-structure rules are *not* needed

  -all the relevant information can be expressed into **lexical entries**

- some syntacticians argue the same for phrase-structure rules:

  -the same information is already contained in words' lexical entries, thus general rules are *redundant*

alternative formalism for word-structure

- lexical entries contain information on the pronunciation, properties, and meaning of the morpheme
- pronunciation = phonetic transcription /X/
- properties = word-class (for roots) or the combinatory potential (for affixes)
- rough indication of the meaning = quotation marks ‘X’

a. *bag*
[/bæg/
N
‘bag’]

b. *-s*
[/z/
N —
‘plural’]

c. *happy*
[/hæpi/
A
‘happy’]

d. *un-*
[/ʌn/
— A
‘not’]

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- based on this morphological description, all the morphological propertied are reduced to the **description of the lexical entries** of **morphemes**
- therefore, concatenation becomes a **property of the lexical entry itself**
- it removes the distinction between rules and morphemes

questions about the morpheme-based model

1) what are the advantages and disadvantages, both empirical and theoretical, of reducing

morphological structure to morpheme concatenation?

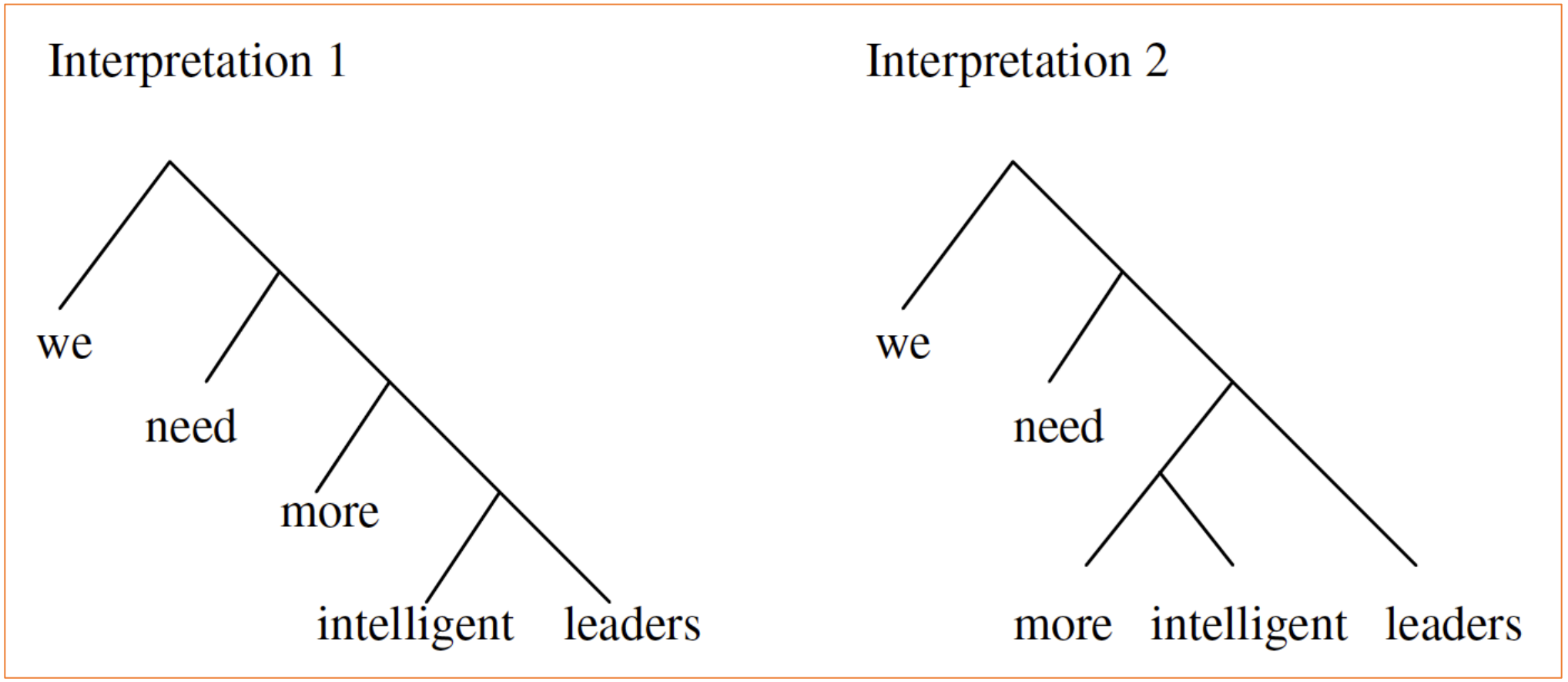
2) can this model account for base modification, reduplication, and if so, how?

The morpheme-based approach is a theory of purely concatenative rules.

3) Why would that be convenient?

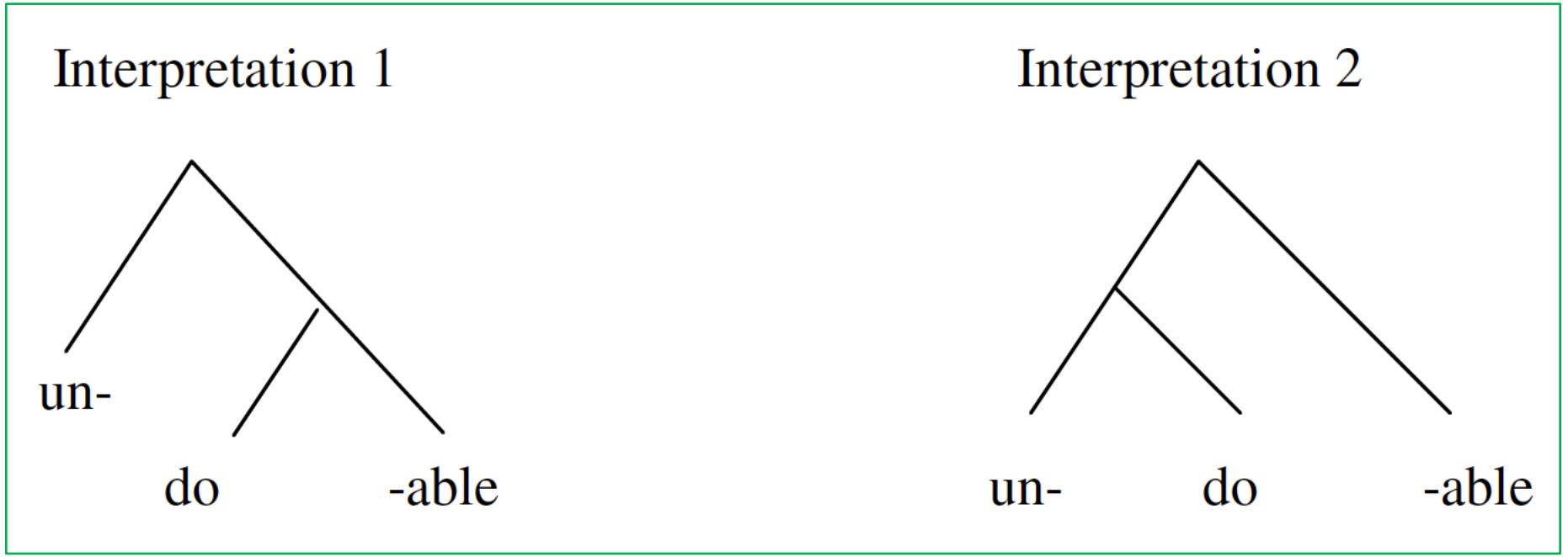
- morpheme concatenation is the most common kind of morphological pattern cross-linguistically and the morpheme-based model provides a natural explanation for this fact
- this approach reveals the similar nature of morphology and syntax
- the most important feature that syntax and morphology share is hierarchical structure

linguistic structures and hierarchies: sentences



Q: what is the paraphrase of the meaning of each of the two tree-like structures above?

linguistic structures and hierarchies: words



Q: what is the paraphrase of the meaning of each of the two tree-like structures above?

Advantages of the morpheme-based approach

- morphology and syntax exhibit fundamental similarities: we can assume that morphology and syntax operate according to shared principles
- perhaps that's the reason that concatenative patterns are more commonly found!
- If so, a model that maximizes the formal similarity between morphology and syntax is *very convenient* and *elegant*
- therefore, the morpheme-based, concatenation-only approach

to morphological analysis has been popular

limits of morpheme-based model

- There are some disadvantages to positing that concatenation is the only rule type:

➢base modification and conversion are difficult to accommodate

-example of plural formation in Albanian: textbook p. 45

-example of plural formation in Romanian (board)

Q: what about conversion? how are we going to derive ‘hammer’ (V) from ‘hammer’ (N) through the morpheme-based approach?

Distributed Morphology

- A recent type of morpheme-based approach
- Theoretical model
- Halle and Marantz (1993, 1994)
- Harley and Noyer (1998) => optional reading

word-based model:
next time

Extra resources for data gathering: two databases

1) **World Atlas of Language Structures** (WALS): https://wals.info

2) **Syntactic Structures of the World's Languages**: https://terraling.com/groups/7

I will see you on Thursday (4/27): what can we do in the meanwhile?

- review the lecture slides

- do reading from the textbook
- optional reading: paper on ‘Distributed Morphology’

- the guidelines for assignment #2 (Midpoint development of the paper) will be ready soon

- in the meanwhile focus on collecting the relevant data

STAY SAFE