Syntactic Typology and Universals
- Ling 105-

Spring 2023

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(she/her)

Week 1, Class 2

Roadmap for today's class

1. How to perform morphological analysis?

1.1 Case-study from Turkish

2. Glossing
3. Lexemes vs Word-forms
4. Morphology Lab 2 (find material on BruinLearn)

Two kinds of Morphology

- Most linguists acknowledge at least a rough distinction between two kinds of morphology:

word formation vs. **inflectional morphology**

- **Word-formation** = system of rules used to to expand the stock of words, by forming new words from old
    - also called **derivational morphology** or **derivation**

- **Inflectional morphology** = system of rules used to encode **grammatical features**

Inflectional Morphology

Examples:

- tense on verbs
    - present tense *love-s*, past tense *jump-ed*)

- number on nouns
    - singular *pie*, plural *pies*

- person and number agreement in verbs
    - She love-s vs. They love

Morphological analysis (1)

- In order to make sense of any newly encountered language, we also need to figure out the structure of the morphology.

- How?

  - gathering data

  - determining what morphemes are present

  - writing the rules that form the words from their constituent morphemes

Morphological analysis (2)

Method for morphological analysis:

- compile a collection of morphologically similar words and their meanings

- scrutinize it to determine which phoneme sequences remain the same whenever the meaning remains the same

- isolate the meaningful chunks, i.e. **morphemes**

Morphological analysis (3): Turkish Case study

➤ fragment of the nominal morphology (=morphology for nouns) in **Turkish**

DATA

1. el — 'hand'
2. eli — 'hand (object)'
3. ele — 'to (a) hand'
4. elde — 'in (a) hand'
5. elim — 'my hand'
6. elimi — 'my hand (object)'
7. elime — 'to my hand'
8. elimde — 'in my hand'
9. elin — 'your hand'
10. elini — 'your hand (object)'
11. eline — 'to your hand'
12. elinde — 'in your hand'
13. elimiz — 'our hand'
14. elimizi — 'our hand (object)'
15. elimize — 'to our hand'
16. elimizde — 'in our hand'
17. eliniz — 'your (plur.) hand'
18. elinizi — 'your (pl.) hand (obj.)'
19. elinize — 'to your (pl.) hand'
20. elinizde — 'in your (pl.) hand'

21. eller — 'hands'
22. elleri — 'hands (object)'
23. ellere — 'to hands'
24. ellerde — 'in hands'
25. ellerim — 'my hands'
26. ellerimi — 'my hands (obj.)'
27. ellerime — 'to my hands'
28. ellerimde — 'in my hands'
29. ellerin — 'your hands'
30. ellerini — 'your hands (obj.)'
31. ellerine — 'to your hands'
32. ellerinde — 'in your hands'
33. ellerimiz — 'our hands'
34. ellerimizi — 'our hands (obj.)'
35. ellerimize — 'to our hands'
36. ellerimizde — 'in our hands'
37. elleriniz — 'your (pl.) hands'
38. ellerinizi — 'your (pl.) hands (obj.)'
39. ellerinize — 'to your (pl.) hands'
40. ellerinizde — 'in your (pl.) hands'

Morphological analysis (3): Turkish Case study

- "plur." or "pl." abbreviate "plural"

- "your (pl.)" is second person plural (possessive, it means "belonging to you", there being more than one of you")

-(object) or (obj.) means that that form would be used as the object of a verb

example
-if one were to say in Turkish something like "I saw my hand"

                 one would use *eli*   WHY?

Morphological analysis (3): Turkish Case study

➢ Breaking up the words into **morphemes**

A. Finding the **stems**

- search for invariant form paired with invariant meaning
  - every single form begins with the sequence el- and has a meaning involving "hands".
  - It seems inconceivable that "hand" could be anything other than … **?** | question for you |

- we can compare:
  1. el 'hand'
  2. eli 'hand (object)'
  3. ele 'to (a) hand'

- Subtracting out **el-** from the second and third forms, it appears that **-i** and **-e** must be suffixes.
- We can confirm this by casting an eye over the remainder of the data:
  -e "goes together" with the English word "to" given in the translations;
  and likewise **-i** with "(object)".

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Morphological analysis (3): Turkish Case study

➢ **Case**

- The **-e** and **-i** suffixes apparently denote the grammatical role that the noun plays in a Turkish sentence, a phenomenon called **case**

- Case is fundamentally an inflectional category of nominals

- Case identifies the basic semantic roles of the participants in a clause.

    - In many languages in a sentence like "Man bites dog"

    man = nominative; *dog* = accusative

    - the two most common cases.

- Case is not the only way to show who is doing what to whom.

- In languages with no case the work done by case is taken over by strict word order and by prepositions

Morphological analysis (3): Turkish Case study

➤**Typical cases in languages**
  (each language is different in its cases and their usage)

-Nominative, usually for subjects of sentences or the citation form of a word

-Accusative, usually for (direct) objects of verbs

-Dative, conveying the notion of "to" in English: *I gave the book to the student*

-Locative, conveying the notion of "at", "in", "on", etc.

<u>In Turkish</u>

  -e is the suffix for the dative case

  -i is the suffix for the accusative case

 -de is the suffix for the locative case

In Ling 105
we become also <u>confident</u>
with analyzing examples from several languages

- We need to know how to **analyze morphosyntactic elements**
- We need to use the **Leipzig Glossing Rules** to gloss our examples

- Example of glossing an English sentence (2-line analysis)

(1) This   morning the   cat   played   with her. (Eng) → example

  DEM.SG N.SG   DEF.DET.SG N.SG play.PST.3SG PREP PRO.3SG.F → glosses

We need to be <u>confident</u> with analyzing examples from many languages

- We need to know how to **analyze morphosyntactic elements**
- We need to use the **Leipzig Glossing Rules** to gloss our examples
- We need to translate examples into English

- Example of glossing an Italian sentence (3-line analysis)

(2) Oggi il   cane   ha   giocato   con me. (Ita) ⟶ 1. example

ADV DEF.DET.MSG dog.MSG have.IND.PRS.3SG play.PST.PTCT PREP PRO.1SG ⟶ 2. glosses

'Today the dog played with me.' ⟶ 3. translation

segmentation

read	read-s	read-er	read-able
wash	wash-es	wash-er	wash-able
write	write-s	writ-er	writ-able
kind	kind-ness	un-kind	
happy	happi-ness	un-happy	
friendly	friendli-ness	un-friendly	

These words are easily segmented and broken up into individually meaningful parts.

Q: *what are these parts are called?*

Morphemes (refining the definition)

- These parts are called morphemes.

- **Morphemes** can be defined as

> **the smallest meaningful constituents of a linguistic expression**

➤ Morphemes are the ultimate elements of morphological analysis; they are morphological "atoms".

➤ Some words <u>cannot</u> be segmented into morphemes.
  - such words are, therefore, **monomorphemic**

Lexemes vs Word-Forms

(but first)

H E L P !

Please help me find
a definition of "word"!

we need further specification:
words as LEXEMEs

LEXEME: **a word in an abstract sense**

- *live* is a **verb lexeme**
  - It represents the **core meaning** shared by forms such as *live, lives, lived* and *living*.

➢dictionaries are organized according to **lexemes**
  - it's useful to think of a lexeme as a 'dictionary word'

➢lexemes are abstract entities that have no phonological form of their own.
  - LIVE is just a convenient label to talk about a particular lexeme.

we need further specification:
words as WORD-FORMs

a word-form is a word in a concrete sense

It is a (concrete) sequence of sounds that expresses the combination of a lexeme (e.g. **LIVE**) and a set of grammatical meanings (or grammatical functions) appropriate to that lexeme

e.g.: -third person singular present tense = *lives*

-past tense = *lived*

➢ *lives* and *lived* are **word-forms**

Word family

❖ Different lexemes may also be related to each other, and a set of related lexemes is sometimes called a word family.

    a.   READ, READABLE, UNREADABLE, READER, READABILITY, REREAD
    b.   LOGIC, LOGICIAN, LOGICAL, ILLOGICAL, ILLOGICALITY

Paradigms

Lexemes can be thought of as sets of word-forms.
The word-forms *live*, *lives*, *lived*, and *living* all belong to the lexeme LIVE.

Word-forms belonging to the same lexeme express **different grammatical functions**, but the same core concept.
In the most interesting case, lexemes consist of a fair number of word-forms.
The set of word-forms that belongs to a lexeme is often called a **PARADIGM**.

Paradigm of the Latin noun *insula* 'island'

nominative	insula	insulae
accusative	insulam	insulās
genitive	insulae	insulārum
dative	insulae	insulīs
ablative	insulā	insulīs

Affixes, Bases, Roots
(reading from textbook!)

Morphology Lab 2

I will see you on next Tuesday (4/11): what can we do in the meanwhile?

- review the slides

- readings from the textbook

- familiarize ourselves with the *Leipzig Glossing Rules:*
  https://www.eva.mpg.de/lingua/pdf/Glossing-Rules.pdf

- attend sections

STAY SAFE