Announcements

- Presentations on Wednesday from Karin Ryding’s book on verb patterns. The book is on reserve at the Davis Library.
- We all read the chapter on Form I.
  - 2 and 5
  - 3 and 6
  - 4 and 7
  - 8
  - 9 and 10
  - 11-15 and quadrilateral

Morphology

- Morphology is the study of word structure and word formation in human language.
- The main unit of analysis in morphology is the morpheme, which is defined as “the minimal unit of meaning or grammatical function in the language”.
- So, ...

Morphology

- How many morphemes are there in “open”? One. That’s a monomorphemic or simple word.
- How about “reopen”? This has two units: “re-” and “open”, forming a multimorphemic or complex word.

Derivational vs. Inflectional morphemes

- Notice that while “re-” and “open” have meanings, “-ed” has the grammatical function of signaling past tense.
- To distinguish between these morphemes, we say that “open” is the root morpheme; “re-” is a derivational morpheme; and “-ed” is an inflectional morpheme.
Not all morphemes are created equal:
  some are free, and some are bound
  • Another distinction between the three morphemes in “reopened” has to do with their ability to occur alone in the language.
  • So, while “open” can stand alone in English (e.g., I want to open the door), “re‐” and “‐ed” are dependent morphemes; they cannot stand alone in English (*I re‐ the door; *I ‐ed the door).
  • We call the former type free morphemes, and the latter type bound morphemes.
  • Compare the status of the root in Arabic!

Root vs. Stem
  • To make a distinction between the indivisible root of the word and other parts of the word that have affixes combine with them, the term “stem” (or “base”) is used.
  • So, in the word “teachers,” while “teach” is the root that combines with the affix ‐er, “teacher” is the base that combines with the plural affix ‐s.

Representing multimorphemic words
  • We can use tree diagrams to represent the internal structure of words such as teachers, where we can see the concatenation of morphemes to form words.

Morphological trees
  • Similarly, for the word ‘unhappiness’:

Types of bound morphemes by position
  • Affixes are classified into four types depending on their position within the word with regard to the base morpheme:
    a. A prefix is a bound morpheme that precedes the base, e.g., “un‐” in unreal.
    b. A suffix is a bound morpheme that follows the base, e.g., “‐ing” in reading.
    c. An infix is a bound morpheme that occurs within the base, e.g., the morpheme “ta” in Akkadian:  
      ifriq “he stole” → ifriq “he stole for himself”
    d. A circumfix is a bound morpheme that occurs on both sides of the base, as in the case of the Egyptian Arabic negation morpheme “ma…ʃ”:  
      katab “wrote” → ma-katab-ʃ “didn’t write”
Lexical vs. Grammatical morphemes

- Morphemes, whether free or bound, can also be categorized as either lexical or grammatical.
- Lexical morphemes have semantic content (e.g., nouns, verbs, adjectives, derivational affixes). They are also called content words.
- Grammatical morphemes serve a grammatical function (e.g., articles, conjunctions, prepositions, and inflectional affixes for plural, tense, case, etc.). These are also called function words.

Derivational morphemes

- Derivation is an affixation process whereby a word with a new meaning and typically a new category is formed.
- The affixes involved in derivation are called derivational morphemes.

Inflectional morphemes

- Inflectional morphemes combine with a base to change the grammatical function of the base, e.g.,

<table>
<thead>
<tr>
<th>Inflectional affix</th>
<th>Example</th>
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<tbody>
<tr>
<td>plural -s</td>
<td>book-s</td>
</tr>
<tr>
<td>3rd third person singular -s</td>
<td>visit-s</td>
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<tr>
<td>comparative -er</td>
<td>young-er</td>
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</tbody>
</table>

Suppletion

- The “go-went” example is an example of suppletion, which is the replacement of a morpheme by an entirely different morpheme to indicate a grammatical contrast.
- Suppletive forms are found in many other languages:
  - French: aller “to go” → ira “he/she will go”
  - Spanish: ir “to go” → fue “he/she went”
  - Russian: xorofo “good” → lutjē “better”
- What is a case of suppletion in Arabic?

Cliticization

- Cliticization is a morphological operation that does not create new words, but still combine two morphemes together in one word.
- English shows cliticization in cases of contraction, e.g.,
  - I am → I’m
  - we have → we’ve
  - want to → wanna
- French and other Romance languages show cliticization with pronouns, e.g.,
  - Je t’aime. Suzanne les voit.
  - I you-like Suzanne them sees
  - “I like you.” “Suzanne sees them.”
- If the clitic follows its host morpheme, it is called an enclitic; if it precedes it, it is called a proclitic.
- What are cases of cliticization in Arabic?

Reduplication

- Reduplication is a grammatical operation that marks a grammatical or semantic contrast by repeating all or part of the base to which it applies.
- Turkish and Indonesian exhibit full reduplication:
  - Turkish: javaf “quickly” → javaf javaf “very quickly”
  - Indonesian: oraj “man” → oraj oraj “all sorts of men”
- Tagalog exhibits partial reduplication (take the initial CV of the stem and repeat it at the beginning of the word):
  - lakad “walk” → lalakad “will walk”
  - takbuh “run” → tatakhuh “will run”
- What are cases of reduplication in Arabic?
Arabic verb morphology

• Arabic verbs inflect for aspect/tense:
  - the perfect aspect/tense
  - the imperfect aspect/tense

• They inflect for subject agreement in
  - person: 1st, 2nd, and 3rd,
  - number (singular, dual, and plural),
  - gender (masculine and feminine).

• They also inflect for mood:
  - indicative
  - subjunctive
  - jussive

• They can also host proclitics (e.g., conjunctions) and enclitics (e.g., object pronouns).

• For examples and conjugations, see class handout.

Where classical morphology fails

• Suppose we try to do a classical morphological analysis of Arabic words, where would that take us?

• How can we draw a morphological tree for كتابة or يكتبون, for example?

A different kind of morphology

• The problem with languages like Arabic and similar Semitic languages is that their morphology is not concatenative for the most part.

• Hence we need a different kind of morphology, a non‐concatenative morphology, which is frequently referred to as root and pattern morphology.

Roots and patterns

• A root is a semantic abstraction, typically consisting of 3 consonants.

• A pattern is a ‘template’ for the root. A pattern typically contains vowels (called the vocalic melody) and may also have prefixes and suffixes.

• The placement of a root into a template leads to word‐formation in Arabic.
Arabic verb morphology

• The fundamental question in Arabic verbal morphology is this:
  How does a root make it all the way from a semantic abstraction to a fully inflected word?

• Prosodic morphology (McCarthy 1979)

Deriving the perfect active: كتب

Root tier: k t b
Skeletal Tier: C V C V C V
Melody Tier: a

Deriving the perfect passive: كتب

(Consonantal) Root Tier: k t b
(CV) Skeletal Tier: C V C V C V
(Vocalic) Melody Tier: u i a

Deriving Pattern II: فعل

• Pattern II verbs are formed when C₂ on the root tier is linked to two C-slots on the skeletal tier.

Root tier: f s l
Skeletal Tier: C V C V C V C V
Melody Tier: a

Deriving quadriliteral verbs: دخَرَج

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Deriving quadriliteral verbs: مغْنَطَت

• magnet = مغناطيس
  BUT:
• magnetize = مغْنَطَت

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Verb classes

- Regular
- Geminate
- Hamzated
- Assimilated
- Hollow
- Defective/weak
- Doubly weak or mixed verb roots
- Quadrilateral

Next class agenda

- Presentations on Verb Patterns from Ryding’s book.

Verb patterns

- On Wednesday, we talk about the verb templates in the language.