LINGUISTICS 105:
Morphology

October 1, 2012:
Basic allomorphy and morphological practice
• **For Today:** *Language Files*, ch. 4

• Sections start tomorrow – go to them!

• **For Monday:**

  • Perlmutter (1988): The Split Morphology Hypothesis: Evidence from Yiddish

  • HW 1 – Esperanto
Can’t Get Enough Matt?

- Right after the course, I am giving a talk at a conference in Brussels (Belgium).
- S-Circle: Fridays, 4:30pm - ??, Location varies.
  - Papers in \{syntax, semantics\}
- My paper: *Person-Case Interaction Effects in Semitic and the Role of Morphology in Syntax.*
  - Short version: why you gotta *se lo* when you wanna *le lo*, except in Arabic and Maltese.
    - *Le lo dio a mi hermano* → *Se lo dio a mi hermano* 
      “He gave it to my brother”
- Friday 30 November 2012, Location TBA
Interlinear Glossing

*Schema:* (#) Source data in IPA
Morpheme-by-morpheme gloss
“Translation”

(1) θίς یر یژ ان ینگلیس گلوس-ت سنتینز.
this is an English gloss-PAST sentence
“This is an English glossed sentence.”
(2) **nou me gusta naða la ɛspənaka.**
NEG 1.SG.DAT like.3.SG nothing the.FEM spinach
“I don’t like spinach at all.”

(3) **al-mu[h]aabaraat yi-hraq-uun baantʕaluuun=ii**
the-secret.police 3.SG-burn.PRES-PL pants=1.SG.POSS
“The secret police are burning my pants.”
Interlinear Glossing, III

- Always provide interlinear glosses for languages other than the language the paper is in (i.e., English).
- Some glossing connectives:
  - - morpheme boundary
    /boɪ̯-z/ /pruð-ɪʃ-nɛʃs/
  - = clitic boundary (later this month)
    /kʊd=ŋt/ /ətʃɛr=z/
  - . logical boundary not in example text
    /muħaabaraat/ /la/
  - Leipzig Glossing Rules
    secret.police DEF.FEM
Morphemes

Easier to find than the Higgs Boson
Proving A Morpheme Exists

- **MORPHEME** =_{def} the smallest unit of indivisible sound and meaning in a given language.
- But morphemes aren’t givens; we must prove that positing one helps us understand a language.
- Morphemes are **ABSTRACT** elements posited by the analyst.
- Concrete version of a morpheme: MORPH.
- This relationship should sound familiar:
  
  \[ \text{MORPH:}\text{MORPHEME} :: \text{PHONE:}\text{PHONEME} \]

- Process for finding a morpheme:
  1. **ISOLATE** recurring morphs and recurring meaning.
  2. **MATCH** recurring morphs to recurring meanings.
Practice: Find the Morphemes, I

List all morphs and morphemes:

(1) I parked the airboat.
(2) We parked the airboats.
(3) I park the airboat.
(4) He parks the airboats.
(5) She parked the airboat.
(6) She parks the airboats.
(7) We park the airboat.
(8) He parked the airboat.
Practice, II

(Lu)ganda [-TONE] (Bantu; Uganda)

(1) tulilaba kitabo  “we will see a book”
(2) tuligula katabo  “we will buy a little book”
(3) baalaba bitabo  “they saw books”
(4) tulilaba butabo  “we will see little books”
(5) balilaba kitabo  “they will see a book”
(6) tulilaba bitabo  “we will see books”
(7) baligula bitabo  “they will buy books”
(8) baligula bitabo  “they bought a little book”
Answers, Luganda

Nouns
- tabo
  "book"

Verbs
- laba
  "see"
- gula
  "buy"

Tense Marking
- li-
  FUTURE
- a-
  PAST

Pronominal Agreement
- tu-
  "we"
- ba-
  "they"

Noun Class | SG | PL
---|---|---
Normal Size | ki- | bi-
Small Size | ka- | bu-
Allomorphy

• The parallels between phonology and morphology don’t stop there!

• Morphemes also have **ALLOMORPHS** =_{def}^{} different morphs of the same morpheme conditioned by some *regular* rule.

```
{ Allomorphy
  Allomorph
  Morpheme
  Morph
\}

{ Allophony
  Allophone
  Phoneme
  Phone
\}
```
A Simple Example

morpheme
‘past tense’ /-ed/

allomorph
morph
[-ɪd]
carted

allomorph
morph
[-d]
marr*ed

allomorph
morph
[-t]
marked
Allomorphy, II

- There are three main kinds of allomorphy, based upon what the regular condition is that determines allomorph selection.
- Proper vocab: _________ CONDITIONED ALLOMORPHY
  - **PHONOLOGICALLY**: allomorph selection conditioned by surrounding phones (only!).
  - **GRAMMATICALLY**: allomorph selection conditioned by surrounding morphs.
- Also sometimes called **CONTEXTUAL ALLOMORPHY**.
Phonologically Conditioned Allomorphy

The condition is *phonological only*.

### Korean Nominative Suffix

<table>
<thead>
<tr>
<th>Allomorph</th>
<th>Env.</th>
<th>Example</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>-i</td>
<td>/C__</td>
<td>pap-i</td>
<td>“rice”</td>
</tr>
<tr>
<td>-ka</td>
<td>/V__</td>
<td>ai-ka</td>
<td>“child”</td>
</tr>
</tbody>
</table>

### English Plural Marker

<table>
<thead>
<tr>
<th>Allomorph</th>
<th>Env.</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>-s</td>
<td>/[-voi]__</td>
<td>stacks</td>
</tr>
<tr>
<td>-z</td>
<td>/ [+voi,-cont]__</td>
<td>birds</td>
</tr>
<tr>
<td>-iz</td>
<td>/ [+cont]__</td>
<td>bushes</td>
</tr>
</tbody>
</table>

(Embick, 2001)
Grammatically Conditioned Allomorphy

The condition is *the presence of a grammatical element.*

**Question:** What governs the choice of the following English past tense allomorphs?

<table>
<thead>
<tr>
<th>Present</th>
<th>Past</th>
<th>Allomorph</th>
</tr>
</thead>
<tbody>
<tr>
<td>walk</td>
<td>walked</td>
<td>[-t]</td>
</tr>
<tr>
<td>kiss</td>
<td>kissed</td>
<td>[-t]</td>
</tr>
<tr>
<td>grasp</td>
<td>grasped</td>
<td>[-t]</td>
</tr>
<tr>
<td>weep</td>
<td>wept</td>
<td>[-t] + V?</td>
</tr>
<tr>
<td>sweep</td>
<td>swept</td>
<td>[-t] + V?</td>
</tr>
<tr>
<td>shake</td>
<td>shook</td>
<td>V?</td>
</tr>
<tr>
<td>take</td>
<td>took</td>
<td>V?</td>
</tr>
</tbody>
</table>
Mixed Cases

- Not always the case that a given instance of allomorphy is totally analyzable as grammatically conditioned or phonologically conditioned.
- In this case, we’re looking for the best description of the empirical situation.
- Usually, this involves positing some allomorphs which are grammatically conditioned and others which are phonologically conditioned.
- However, judicious use of phonological rules might make it possible to treat all the allomorphs as grammatically conditioned.
# English Plurals, Redux

<table>
<thead>
<tr>
<th><strong>Singular</strong></th>
<th><strong>Plural</strong></th>
<th><strong>Allomorph</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>airstream</td>
<td>airstreams</td>
<td>[-z]</td>
</tr>
<tr>
<td>dad</td>
<td>dads</td>
<td>[-z]</td>
</tr>
<tr>
<td>airboat</td>
<td>airboats</td>
<td>[-s]</td>
</tr>
<tr>
<td>bank</td>
<td>banks</td>
<td>[-s]</td>
</tr>
<tr>
<td>press</td>
<td>presses</td>
<td>[-ɪz]</td>
</tr>
<tr>
<td>crèche</td>
<td>crèches</td>
<td>[-ɪz]</td>
</tr>
<tr>
<td>ox</td>
<td>oxen</td>
<td>[-ɛn]</td>
</tr>
<tr>
<td>goose</td>
<td>geese</td>
<td>V?</td>
</tr>
<tr>
<td>alumnus</td>
<td>alumni</td>
<td>[-aɪ] + deletion</td>
</tr>
<tr>
<td>octopus</td>
<td>octopodes</td>
<td>[-oudeɪs] + del.</td>
</tr>
</tbody>
</table>
Morphology and Syntax: Timing

- So far, we have not discussed the relationship between all this morphology and the syntax you already know.

- **Tell me:** how did you deal with morphology in your syntax class?

- Form rules are a good way to relate syntactic structure to morphological form which is determined by syntactic structure.

- Another answer to the English plurals problem is based on this observation:

  - **Idea:** make *all* the allomorphy grammatically conditioned, and deal with the s/z/ɪs in the phonology.
**A Modular Solution**

<table>
<thead>
<tr>
<th><strong>Allomorph</strong></th>
<th><strong>Condition</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>[-z/-s/-ɪz]</td>
<td>airstream, airboat, crèche, ...</td>
</tr>
<tr>
<td>[-en]</td>
<td>ox, child, ...</td>
</tr>
<tr>
<td>[-aɪ]</td>
<td>alumnus, ...</td>
</tr>
<tr>
<td>[-ø]</td>
<td>goose, fish, ...</td>
</tr>
<tr>
<td>[-oudeɪs]</td>
<td>octopus, ...</td>
</tr>
</tbody>
</table>

/-z/ → [-voice]/[-voice]____
/-z/ → [+cont]/[+cont]____
The Y-Model

- Lexicon
- Syntax
- Morphology
- Semantics
- Phonology/Phonetics
For Wednesday

• GO TO SECTION.
• Finish *Language Files* ch. 4 if you have not already.
• Begin looking at HW 1.