Announcements

- HW3 is due today. I will post the solutions once I receive all homework assignments.
- Midterm will be posted on Wednesday. It’ll be due a week after, on Wednesday Oct 31st.
- We will have a guest lecturer, Gustavo Freire, on Nov 5th to talk to us about his research on first language acquisition by English and Brazilian Portuguese children.

Presentations for Wednesday on tonight’s debate

- Two articles from the NYT on the ‘linguistics’ of the presidential campaign.
- I need four political junkies, 2 for each article, to read the article, watch the debate, see if what is mentioned in each article materializes tonight, then report to class on Wed. Any takers?
- Links to both articles are on the syllabus table in the cell for Wed’s readings. So, everyone is expected to read the articles as well.

Today’s agenda

- Do some morphology problems.
- Talk about some regular processes of word formation that add words to the lexicon of a language.
- Morphological typology: How do languages differ morphologically?

Morphological analysis: Bontoc

- [fikas] “strong” [fumikas] “to become strong”
- [kilad] “red” [kumilad] “to become red”
- [fusal] “enemy” [fumusul] “to become an enemy”
- How are verbs formed from adjectives/nouns in Bontoc?
- If the word for “dark” in Bontoc is [jitad], what would the form meaning “to become dark” be?
- If [pumukaw] means “to become white,” what would the form meaning “white” in Bontoc be?

Morphological analysis: Zulu (exercise 5 from the textbook, pp. 109-110)

<table>
<thead>
<tr>
<th>English</th>
<th>Zulu</th>
</tr>
</thead>
<tbody>
<tr>
<td>married woman</td>
<td>abafazi “married women”</td>
</tr>
<tr>
<td>boy</td>
<td>abafani “boys”</td>
</tr>
<tr>
<td>parent</td>
<td>abazali “parents”</td>
</tr>
<tr>
<td>teacher</td>
<td>abafundisi “teachers”</td>
</tr>
<tr>
<td>carver</td>
<td>ababazi “carvers”</td>
</tr>
<tr>
<td>farmer</td>
<td>abalimi “farmers”</td>
</tr>
<tr>
<td>reader</td>
<td>abafundi “readers”</td>
</tr>
</tbody>
</table>

LNGT0101
Introduction to Linguistics

Lecture #12
Oct 22nd, 2012
Morphological analysis: Zulu
(exercise 5 from the textbook, pp. 109-110)

<table>
<thead>
<tr>
<th>fundisa “to teach”</th>
<th>funda “to read”</th>
</tr>
</thead>
<tbody>
<tr>
<td>lima “to cultivate”</td>
<td>baza “to carve”</td>
</tr>
</tbody>
</table>

Suppose now that I told you that “abadlali” means “players” in Zulu. What’s the form for “player”? What’s the form for “to play”?

Swedish
(exercise 6 from the textbook, pp. 110-111)

<table>
<thead>
<tr>
<th>en lampa “a lamp”</th>
<th>en bil “a car”</th>
</tr>
</thead>
<tbody>
<tr>
<td>en stol “a chair”</td>
<td>en soffa “a sofa”</td>
</tr>
<tr>
<td>en tidning “a newspaper”</td>
<td>en katt “a cat”</td>
</tr>
<tr>
<td>lampor “lamps”</td>
<td>bilor “cars”</td>
</tr>
<tr>
<td>stolar “chairs”</td>
<td>soffor “sofas”</td>
</tr>
<tr>
<td>tidningar “newspapers”</td>
<td>katter “cats”</td>
</tr>
<tr>
<td>lampan “the lamp”</td>
<td>bilen “the car”</td>
</tr>
<tr>
<td>stolarna “the chairs”</td>
<td>soffan “the sofa”</td>
</tr>
<tr>
<td>tidningar en “the newspaper”</td>
<td>katten “the cat”</td>
</tr>
<tr>
<td>lamporna “the lamps”</td>
<td>bilarna “the cars”</td>
</tr>
<tr>
<td>stolarna “the chairs”</td>
<td>sofforna “the sofas”</td>
</tr>
<tr>
<td>tidningar en “the newspapers”</td>
<td>kattarna “the cats”</td>
</tr>
</tbody>
</table>

Cebuano
(exercise 7 from the textbook, p. 111)

7. Here are some nouns from the Philippine language Cebuano.

<table>
<thead>
<tr>
<th>pilipino</th>
<th>tagalog</th>
</tr>
</thead>
<tbody>
<tr>
<td>ibig</td>
<td>“a tagalog”</td>
</tr>
<tr>
<td>ilokano</td>
<td>“an ilokano”</td>
</tr>
<tr>
<td>tagalog</td>
<td>“a tagalog person”</td>
</tr>
<tr>
<td>ingles</td>
<td>“an Englishman”</td>
</tr>
<tr>
<td>bisaya</td>
<td>“a bisaya”</td>
</tr>
<tr>
<td>sinilaban</td>
<td>“the Cebuano language”</td>
</tr>
</tbody>
</table>

a. What is the exact rule for deriving language names from ethnic group names?
b. What type of affixation is represented here?
c. If *sawd* meant “a Swede” and *ital* meant “an Italian,” what would be the words for the Swedish language and the Italian language?
d. If *fransana* meant “the French language” and *magyar* meant “the Hungarian language,” what would be the words for a Frenchman and a Hungarian?

Turkish
(exercise 17 from the textbook, p. 115)

17. Following is a list of words from Turkish. In Turkish, articles and morphemes indicating location are affixed to the noun.

<table>
<thead>
<tr>
<th>deniz</th>
<th>“an ocean”</th>
</tr>
</thead>
<tbody>
<tr>
<td>evden</td>
<td>“from a house”</td>
</tr>
<tr>
<td>denizden</td>
<td>“to an ocean”</td>
</tr>
<tr>
<td>evinden</td>
<td>“from my house”</td>
</tr>
<tr>
<td>denizden</td>
<td>“of an ocean”</td>
</tr>
<tr>
<td>evinden</td>
<td>“in my ocean”</td>
</tr>
<tr>
<td>evde</td>
<td>“in a hand”</td>
</tr>
</tbody>
</table>

a. What is the Turkish morpheme meaning “to”?
b. What kind of affixes in Turkish corresponds to English prepositions (e.g., prefixes, suffixes, infixes, free morphemes)?
c. What would the Turkish word for “from an ocean” be?
d. How many morphemes are there in the Turkish word denizden?

Processes of word-formation
(enriching the Lexicon)

- There are systematic word-formation processes that take place across human languages.
- Depending on the language, some of these processes may or may not be available. But the result is the same: New words are always created and added to the dictionary of the language.
Derivation

- The most productive process of word formation in a language is the use of derivational morphemes to form new words from already existing forms, as we discussed last class:
  govern $\rightarrow$ government $\rightarrow$ governmental $\rightarrow$ non-governmental
- There are two classes of derivational affixes in English based on whether or not they trigger phonological effects, as on the handout.

Word coinage

- Word coinage happens when a name of a product acquires a general meaning and gets used to refer to anything that has the same function of the original product:
  kleenex, kodak, nylon, Dacron

Conversion:
Have you folks been *menued* yet?

- **Conversion** (aka zero derivation) is the extension of the use of one word from its original grammatical category to another category as well.
- For example, the word *must* is a verb (e.g. “You must attend classes regularly”), but it can also be used as a noun as in “Class attendance is a must”.
- Same applies to “vacation”, a noun that can also be used as a verb, and “major”, an adjective that can be used as a noun and a verb.

Borrowing

- New words also enter a language through borrowing from other languages.
- Here are some examples of foreign words that found their way into English:
  - leak, yacht (from Dutch)
  - barbecue, cockroach (from Spanish)
  - piano, concerto (from Italian)

Loan translations (calque)

- Related to borrowings are *loan translations*, where a new word or expression is created via translation of a foreign term, rather than actual borrowing of the term in the language, e.g.,
  - marriage of convenience (from French mariage de convenance)
  - Superman (from German Übermenschen)
  - perros calientes (from English hot dogs)
  - luna de miel (from English honeymoon)

Compounding

- New words are also created through the common process of compounding, i.e. combining two or more words together to form a new complex word. Here are some examples of compounding:
  - post + card $\rightarrow$ postcard
  - post + office $\rightarrow$ post office
  - book + case $\rightarrow$ bookcase
  - sister + in + law $\rightarrow$ sister-in-law
Compounding

- Like word structure, the internal structure of a compound can be represented using trees:

```
N
/|\
N N
book case
```

Structure of compounds

- We can also use trees to represent the internal structure of cases of multiple compounding such as dog food box:

```
N
/|\
N N
box
dog food
```

This is a phonology book chapter. So, what is it?

Properties of English compounds

- Stress placement:
  - greenhouse vs. green'house
  - blackboard vs. black'board
- Modification by “very”:
  - We live next to a very green house.
  - *We live next to a very greenhouse.
- Inflectional morphemes are added to the compound as a whole:
  - drop kick → drop kicked, *dropped kick
  - bear hunter → bear hunters, *bears hunter

Endocentric vs. exocentric compounds

- Semantically, compounds can be divided into two types:
  A. Endocentric compounds, which denote a subtype of the concept denoted by the rightmost component of the compound, e.g.,
    - dog food is a type of food
    - sky blue is a type of blue
  B. In exocentric compounds, by contrast, the meaning of the compound does not follow from the meanings of its parts, e.g.,
    - redneck is not a type of neck
    - redhead is not a type of head.

German compounding

- German:

```
<table>
<thead>
<tr>
<th>Composite</th>
<th>Meaning</th>
<th>Meanings of Individual Morphemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muttersprache</td>
<td>native language</td>
<td>mother language</td>
</tr>
<tr>
<td>Kinderlachen</td>
<td>child prodigy</td>
<td>产学 Child prodigy</td>
</tr>
<tr>
<td>Waschbär</td>
<td>bear hunter</td>
<td>bear hunters</td>
</tr>
</tbody>
</table>
```

- We live next to a very green house.
- *We live next to a very greenhouse.
Endocentric vs. exocentric compounds

- Observe the plurals:

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>club foot</td>
<td></td>
</tr>
<tr>
<td>Bigfoot</td>
<td></td>
</tr>
<tr>
<td>policeman</td>
<td></td>
</tr>
<tr>
<td>Walkman</td>
<td></td>
</tr>
</tbody>
</table>

Acronyms

- Acronyms are words created from the initial letters of several words. Typical examples are NATO, FBI, CIA, UN, UNICEF, FAQ, WYSIWYG, radar, laser.
- Sometimes acronyms are actually created first to match a word that already exists in the language, e.g., MADD (Mothers against Drunk Drivers).

Back-formation

- Back-formation of words results when a word is formed from another word by taking off what looks like a typical affix in the language.
- This was the case with the verb edit, which entered English as a back-formation from editor.
- Same applies to the pairs television-televise, self-destruction-self-destruct, donation-donate.

Clipping

- Another process of word-formation is clipping, which is the shortening of a longer word. Clipping in English gave rise to words such as fax from facsimile, gym from gymnasium, and lab from laboratory.

Blending

- Blending is another way of combining two words to form a new word. The difference between blending and compounding, however, is that in blending only parts of the words, not the whole words, are combined. Here’s a couple of examples:
  - smoke + fog → smog
  - motor + hotel → motel
  - information + commercial → infomercial

Eponyms

- Eponyms are words derived from proper names, e.g., “sandwich” from the Earl of Sandwich; “lynch” after William Lynch.
What process(es) is involved?

- Terra firma
- Webcam
- Facebook
- CEO
- Enabler
- Execs
- Blog (noun) and blog (verb)

Morphological typology

How do languages differ in their word structure?

Synthesis: How many morphemes does your language have per word?

- One aspect of morphological variation has to do with *synthesis*: Some languages may choose to “stack” morphemes on top of one another within words; others may elect to use at most one morpheme per word, and many others will fall somewhere between these two extremes.

- Let us start by comparing Yay to Oneida (examples from Whaley 1997:127):

Yay:

a. mi ran tua ñwa lew
   not see CLASS snake CMPLT
   “He did not see the snake.”

Oneida:

b. yo-nuhs-a-tho:lé:
   3.NEUT.PAT-room-epenthetic-be.cold.STAT
   “The room is cold.”

Morphological typology: Index of synthesis

- On the so-called *index of synthesis* for morphological typology (Comrie 1989), understood as a continuum, Yay is considered an *isolating* language, whereas Oneida would be closer to the *synthetic* end of the scale, with English closer to the Yay-end than to the Oneida-end:

  Isolating <--- x --- ----------- x --- Synthetic
  Yay     English     Oneida

Morphological typology: Index of synthesis

- Some languages take synthesis to the extreme, though, marking all grammatical relationships on the verb with extensive affixation, thereby creating *long and complex words* that would correspond to whole sentences in languages like English, as the case is in Tiwa (example from Whaley 1997:131):

  men-mukhin-tuwi-ban
  Dual-hat-buy-PAST
  “You two bought a hat.”
Morphological typology: Index of synthesis

- Or Eskimo:
  iglu-kpi-yuma-laak-tu-ŋa
  “I’m anxious to build a house.”

- Or Mohawk (from Baker 2001:88):
  Katerihwaiénňtha
  “I am a student. [Literally: I habitually cause myself to have ideas.]”

We call languages like Tiwa, Eskimo, and Mohawk, **polysynthetic** languages.

Morphological typology: Index of synthesis

- Or Mohawk again, though rather more ridiculously:
  Washakotya’tawishehervhta’se’
  “He made the thing that one puts on one’s body (i.e., the dress) ugly for her.”

Morphological typology: Index of fusion

**One-to-one or one-to-many?**

- Synthetic languages, in turn, differ in whether morphemes are easily segmentable or not. Consider this paradigm from Michoacan Nahuatl, for example:

<table>
<thead>
<tr>
<th></th>
<th>&quot;my house&quot;</th>
<th>&quot;my dog&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>no-kali</td>
<td>&quot;my house&quot;</td>
<td>no-pelo</td>
</tr>
<tr>
<td>no-kali-mes</td>
<td>&quot;my houses&quot;</td>
<td>mo-pelo</td>
</tr>
<tr>
<td>mo-kali</td>
<td>&quot;your house&quot;</td>
<td>mo-pelo-mes</td>
</tr>
<tr>
<td>i-kali</td>
<td>&quot;his house&quot;</td>
<td>i-pelo</td>
</tr>
</tbody>
</table>

Morphological typology: Index of fusion

- On the so-called **index of fusion** for morphological typology, also conceived of as a continuum, Michoacan Nahuatl is considered an **agglutinative** language, whereas Ancient Greek would be closer to the **fusional** end of the scale:

\[
\text{Agglutinative} \leftarrow \cdots \rightarrow \text{Fusional}
\]

Nahuatl      Greek

Next class agenda

- Syntax: Chapter 4 of the textbook, pp. 117-148.
Abbreviations used on the slides

- CLASS = classifier
- CMPLT = complete
- NEUT = neuter
- PAT = patient
- STAT = stative

References