• Read chapter 7

• For Monday 3/7:
  • Problems 5.2, 5.3 (pg. 96)
  • Problems 6.4, 6.5 (pg. 114)
Morphology

• Most generative theories of morphology work best for agglutinative derivational morphology

  \textit{dis-en-able-ment-ation-al-ity}

• Each morph corresponds to an atomic meaning

• Meaning of the word is composed from the meaning of the parts

• There is an \textit{iconic} relation between form and meaning

• Deviations from this ideal can be handled via process morphology, suppletion, etc.
Morphology

• In contrast, *descriptive* traditions don’t treat all morphology as agglutination

• This is especially true for inflectional morphology, where one-form-one-meaning agglutination is fairly rare

• Template morphology

• Paradigm-based morphology
Position classes

- The models we’ve been looking at assume morph order follows from word internal structure:

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- Semantic scope related to order of attachment related to morph order
Position classes

- Pre-Hockett morphological descriptions relied heavily on ‘position classes’
- Najavo (Young and Morgan 1980)

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Position classes

náánáoshtéél
‘that I might bring him again’
nááná- Ø- o- sh- ł- téél
I IV VII VIII IX X
SEM DO OPT 1sg CL STEM

náádeíníltee
‘we (3+) are again carrying him along’
náá- da- Ø- yí-ní- ii- ł- teeh
I III IV VII VIII IX X
SEM DIST DO PROG 1duopl. CL STEM

biih dínééshniitl
‘I will stick my head into it’
biih di- ni- yi- sh- Ø- niitl
(into it) VIb VIc VId VIII IX X
FUT CL PROG 1sg CL STEM(prog)
Position classes

• Individual morphs can put complex constraints on each other

\[náádeíníl\text{teeh}\]
‘we (3+) are again carrying him along’
\[náá-\ da-\ Ø-\ yí-ní-\ ii-\ \text{i} - \text{teeh}\]
I  III  IV  VII  VIII  IX  X
SEEM  DIST  DO  PROG  1duopl.  CL  STEM

• The compound progressive marker \(yí-ní\)- in position VIII requires the distributive marker \(da\)- in position III

• The distributive marker \(da\)- in position III requires the momentaneous stem \text{teeh} (cf. \text{téé́l})
Position classes

• More discontinuous dependencies

\[ bi\h\ dínééshniि\l \]
‘I will stick my head into it’
\[ bi\h\ di- ni- yi- sh- \Ø- niि\l \]
(\text{into it}) VI\text{b} VI\text{c} VI\text{d} VIII IX X
FUT CL PROG 1sg CL STEM(prog)

• The classifier \textit{ni-} ‘roundish object’ appears inside the compound future \textit{di-\text{yi-}} in position \text{VI}

• The stem \textit{niि\l} is a progressive allomorph of a morpheme meaning ‘to initiate free movement of a solid roundish object’
Position classes

- More complications: metathesis

\[ \text{badi'ní'á} \]
‘I loaned it (a solid roundish object) to him’

\[ \text{ba- 'a- di- ni- Ø- 'á} \]
I IV VIa VII IX X

\[ \text{ba- di- ' ni- Ø- 'á} \]

- The prefix ‘a ‘something’ in position IV swaps with position VIa and reduces to ‘-’
Position classes

- More complications: interrupted synthesis

  \[y\acute{a}shti']\]
  ‘I talk.’

  \[y\acute{a}-sh- \emptyset- ti'\]
  I VIII IX X

- The prefix \(y\acute{a}\)- means ‘having to do with speech’ and only occurs with semantically compatible verbs

- The stem \(ti'\) only occurs with the prefix \(y\acute{a}\)
Position classes

• Another notable property of position classes languages is that there’s lots of homonymy

• The meaning of a marker depends not just on its form, but on its position in the word as well

• The 1sg agreement marker shi- can indicate the subject, direct object, or indirect object, depending on which slot it fills

• The aspectual marker ni- can appear in position I, VI, or VIII, with subtle differences in meaning

• The marker yi- can be 3rd person agreement, progressive mode, or an adverbial prefix meaning either ‘to do something once’ or a indicating the passage of night
Template morphology

- Simpson and Withgott (1986) contrast *layered* and *template* morphology
- Zero morphemes are very common in template morphology, less so in layered morphology
- Layered morphology gives rise to headed structures, template morphology doesn’t
- Layered morphology is limited by adjacency constraints
- Layered morphology doesn’t allow selection of an ‘inner’ allomorph to be constrained by the occurrence of an ‘outer’ morph, but this is common for template morphology
Could template morphology be handled using the same formal devices as layer morphology?

Take a simple example from Swahili

\[ u\- \ na\- \ m\- \ sumbua \]
\[ \text{SUBJ TNS OBJ ROOT} \]
‘you are annoying him’

How could we analyze this language using the theoretical devices that we’ve seen so far proposed for English?
Template morphology

• An Item-and-Arrangement theory could do this using subcategorization:

\[
\begin{align*}
\text{Subj} & \quad \_\_V \left[ \text{AGR}(\text{su}): -, \text{TNS}: +, \text{AGR}(\text{ob}): + \right] \\
\text{Tense} & \quad \_\_V \left[ \text{AGR}(\text{su}): -, \text{TNS}: -, \text{AGR}(\text{ob}): + \right] \\
\text{Obj} & \quad \_\_V \left[ \text{AGR}(\text{su}): -, \text{TNS}: -, \text{AGR}(\text{ob}): - \right]
\end{align*}
\]

• An Item-and-Process theory could do the same by ordering rules (Obj applies before Tense, which applies before Subj)

• A Template Morphology theory could use a filler-slot model

\[
V = \text{SUBJ} \quad \text{TNS} \quad \text{OBJ} \quad \text{STEM}
\]

• The first two of these approaches will miss important generalizations for parallel position classes
Homonymy

- Swahili agreement prefixes

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- If we use subcategorization or rule ordering to predict the position of these morphs, we can’t express the fact that they are mostly but not entirely the same.
• Stump (1991, 1992) proposes a version of realizational morphology which takes position classes as part of the theory

• Realizational morphology is a kind of Word-and-Paradigm model

• We start with morphosyntactic words (stems+features) and apply a paradigm function to produce the correct word form

• One position class can share some (but not necessarily all) of the morphs of another through default inheritance