Wrapping up Phonology & First Steps toward Morphology

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Practice: Allophonic Rules

(1) In the following Korean (Koreanic; Korea) data, you will find the sounds [s] and [ʃ]. Determine whether the sounds [s] and [ʃ] are allophones of the same phoneme or separate phonemes. If the sounds are allophones of the same phoneme, say: (i) what the phoneme is, (ii) what the derived allophones are, and (iii) what the rule that determines the distribution of the allophones is.

[∫i]	'poem'	[sal]	'flesh'
[mi∫in]	'superstition'	[kasu]	'singer'
[∫inmun]	'newspaper'	[sanmun]	'prose'
[tʰaksaŋ∫ige]	'table clock'	[kasəl]	'hypothesis'
[∫ilsu]	'mistake'	[miso]	'smile'
[o∫ip]	'fifty'	[susek]	'search'
[paŋ∫ik]	'method'	[tapsa]	'exploration'
[kan∫ik]	'snack'	[so]	'cow'
[ka∫i]	'thorn'		

(2) In the following Georgian (Caucasian; Georgia) data, you will find the sounds [l] and [l]. Do the same as you did in (1).

[xeli]	'hand'	[kała]	'tin'
[kleba]	'reduce'	[pepela]	'butterfly'
$[c^holi]$	'wife'	[łxena]	'joy'
[zarali]	'loss'	$[\mathrm{ert^hxel}]$	'once'
$[c^hec^hxli]$	'fire'	[kbiłs]	'tooth'
[leło]	'goal'	[saxł∫i]	'at home'
[łamaza]	'prettily'	$[sax] \int i$	'however'

Parts of Speech ('POS')¹

- In the next couple of weeks, in order to talk about (parts of) words, phrases, and sentences, we're going to use a few notions from traditional grammar, those are the **Parts of Speech**:
 - Nouns (N): pizza, furniture, sincerity
 - **Verbs** (**V**): trade, eat, arrive, bother
 - **Prepositions** (**P**): in, beside, up, toward
 - Adjectives (A) or (Adj): green, happy, intelligent
 - **Determiners** (**D**) or (**Det**): the, a, this, several, each, my
 - Adverbs (Adv): quickly, happily, fast

Traditionally, those are classified as *open / lexical* vs. *closed / functional* **categories**.

- The open class ones have a *large number of members* and allow new words to be added.
 - (i) Nouns, verbs, adjectives, adverbs
- The closed ones have a *limited number of members*, and addition of new members is extremely rare.
 - Prepositions, determiners, complementizers, auxiliaries, modals, coordinators.
- However, the traditional ways of identifying POS rely on *semantic* criteria or intuitions, but we require more than that. Why?
 - Nouns like *destruction* (as in *the destruction of the city bothered the Mongols*) or *Sincerity* (as in *Sincerity is an important quality*) don't fit well to naïve semantic definitions. The first word is an action, which, by semantic criteria, would make it a verb. The second word is an attribute, which is normally associated with adjectives.
 - Consider the following possible sentence:
 - (i) The **bloresnick** is grey (from Kyle Johnson)

The position that *bloresnick* has in this sentence is enough for you to know a lot about which positions it can, and cannot have, in English.

- a. It bloresnick ran.
- b. He removed the long bloresnicks.
- c. She finds Sammy bloresnick.

 $^{^{\}rm 1}$ I thank Faruk Akkuş for the materials to this part.

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d. He let his face bloresnicks.

Going back to meaningful words, they can change their POS depending upon where they appear in a sentence:

a. Gabrielle's mother is a nice person. (N)

b. Anteaters mother attractive offspring. (V)

c. Wendy's mother country is Iceland. (Adj)

How to Determine Categories: Distributional Evidence

- (I) Syntactic frame
 - For example, nouns are the only (one-word) option that can occupy the empty slot in the following **frame**:

They have no _____
They have no pizza/furniture/sincerity **but not,** They have no devour/sincere/over/quickly/the

• For example, verbs are the only (one-word) option that can occupy the empty slot in the following **frame**:

When will Amal ____?
When will Amal arrive?

but not, When will Amal *pizza/in/quickly/the/green*?

• For example, Adjectives are the only (one-word) option that can occupy the empty slot in the following **frame**:

This is the *most* ______ / _____ est house I've ever seen.

This is the most interesting house I've ever seen

This is the smallest house I've ever seen

but not, This is the most sincerity/arrive/by/quickly/the house

I've ever seen

- (II) Morphology
 - For example, Verbs take certain **inflectional suffixes**.

Past tense	Present tense	Progressive
play- ed	play- s	play- ing
arriv- ed	arrive-s	arriv- ing
but not. pizza-ed	sincere-s	over- ing

- For example, it is possible to derive adverbs from adjectives:
- heavy, heavily; mere, merely; rough, roughly; sweet, sweetly, ...

⚠ Beware of:

- a. Subclasses in categories: Count vs. Mass nouns (for example)
 - (i) Count nouns ('CN'; *dogs, chairs*) pluralize differently than the mass nouns ('MN'; *sands, waters*).
 - (ii) CN can be modified by cardinal quantifiers (*one dog/chair*), while MN can't (*one water/sand* is bad)
 - (iii) CN allow modification by *many* (*many dogs*), while MN allow modification by *much* (*much water*).
- b. Irregularities in morphology:

play play-ed play-s play-ing go go-ed is bad go-es go-ing

c. frames that allow more than one category:

John is _____.
nice (Adj)
running (V)
but not carefully (Adv)

Practice: POS

(3) Use distributional evidence to determine the parts of speech of the nonce-words in the following sentence:

The yinkish dripner blorked quastofically into the nindin with the pidibs.

e.

a. **yinkish:**

- a. between the and a noun
- b. takes *-ish* adjective ending

b. **dripner:**

- a. after an adjective (and *the*)
- b. takes -er noun ending
- c. subject of the sentence

c. blorked:

- a. after subject noun
- b. takes -ed verb ending

quastofically:

- a. after a verb
- b. takes -ly adverb ending

nindin:

a. after *the* (and a preposition)

f. pidibs:

- a. after *the* and after a preposition
- b. takes -*s* noun plural ending