LX 321/521/621 Syntax
Fall 2020

Homework #4
DUE FRI OCT 2

[mostly adapted from Larson (2010)]

1 Lexical items

Look at the example sentences in (1) to (6) and decide what the lexical entry for each corresponding italicized word should be. Briefly explain your answer. An example of the task is given here for *tell*. The basic task here is to figure out what is required, what is optional. The answer is often not clear-cut—and in fact different answers could be correct, if properly justified. In some cases, you might decide that a word has more than one possible subcategorization frame (perhaps for different senses).

Ex. *tell*, V, **[+ __ NP PP]** ← *You provide the part after the category*
Homer told the story.
Homer told the story to Bart.

Explanation: In *Homer told the story*, there is an understood hearer (*Homer told the story to someone*); so the first seems to be an elliptical version of the second. (That is, the first one is derived from the second one by just leaving part of it unpronounced.)

(1) *talk*, V,
Marge talked.
Marge talked to Bart.

(2) *sneeze*, V,
Marge sneezed.
Marge sneezed a (little) sneeze.

(3) *behave*, V,
Bart behaved.
Bart behaved poorly.

(4) *left*, V,
Homer left.
Homer left the house.
Homer left the house dirty.

(5) *happy*, A,
Homer is happy.
Homer is happy about his promotion.
Homer is happy that he was promoted.

(6) *since*, P,
(Bart hasn't been there) since that day.
(Bart hasn't been there) since.
(Bart hasn't been there) since Homer left.
(Bart hasn't been there) since before Homer left.

2 Noun phrases

Here is a set of structural rules for noun phrases:

NP →	N	(← *we will discard this rule in Part D*)
NP →	Det N	

Here is a set of well-formed NPs and a set of ill-formed NPs:

(7)
a. [$_{NP}$ the man]
b. [$_{NP}$ Bart]
c. [$_{NP}$ each baby]
d. [$_{NP}$ a boy]
e. [$_{NP}$ one boy]
f. [$_{NP}$ some girl]
g. [$_{NP}$ no baby]
h. [$_{NP}$ two boys]
i. [$_{NP}$ some girls]
j. [$_{NP}$ both girls]
k. [$_{NP}$ the girls]

(8)
a. * [$_{NP}$ the Maggie]
b. * [$_{NP}$ some Marge]
c. * [$_{NP}$ every Homer]
d. * [$_{NP}$ no Lisa]
e. * [$_{NP}$ each babies]
f. * [$_{NP}$ a boys]
g. * [$_{NP}$ both boy]
h. * [$_{NP}$ one girls]

2.1 Part A. Lexicon building

Create a lexicon to go with the structural rules that will allow all of the examples of (7) to be generated, but none of the examples in (8). (Hint: You will need to use features on the subcategorization frames of complements to make this work. So, for example, you can say that *Bart* is an N that has the features [–pl, +proper], and that *no* is a Det that has a subcategorization frame [+ __ N$_{[-proper]}$]. That rules out (8d).)

2.2 Part B. Why ungrammatical?

For each of the underlined NPs in (8), explain how your lexicon blocks it from being generated.

2.3 Part C. Identifying an issue.

Here are some additional facts:

(9) a. * [$_{NP}$ boy] (ran)
b. [$_{NP}$ boys] (ran)
c. * [$_{NP}$ baby] (cried)
d. [$_{NP}$ babies] (cried)

Does the grammar you created in Part A produce all of these NPs? It probably does. State how you might change your lexicon so that the ill-formed NPs in (9) are not generated. Can you prevent the NPs in (9) by specifying complements in some way? Probably not, but assuming not, why would it require something other than just changing the lexicon? Basically, just discuss how (9) fit in to the grammar you have above.

2.4 Part D. Resolving the issue?

This isn't actually a problem for you to do. This is just an observation. Suppose all NPs are really of the form [$_{NP}$ Det N] (so that the rule NP $\rightarrow$ N is discarded). Suppose further that the NPs in (9) actually contain an unpronounced determiner SOME. That can solve the problem, because if we're allowed a determiner that has no pronunciation, then we can still have a Det node in the structure, and it can constrain its sister nodes. So, specifically, we can rule out "SOME boy" by giving SOME a subcategorization frame like [+ _ N$_{[+pl]}$]. To finish the data set we would need to hypothesize another one that goes just with proper names, which we could call PROP, with a subcategorization frame like [+ _ N$_{[+prop]}$].

3 Arguments and adjuncts

For each of the sentences in (10) to (15), state whether the underlined word or phrase is an adjunct or complement of the verb, and briefly give the reason for your choice.

Example:

Ex. Homer worded the message carefully.

Explanation: The adverb *carefully* is a complement of the verb *worded*. This is shown by the fact that it cannot be deleted without causing incompleteness: **Homer worded the message* Also, *do so* replacement seems to suggest that *carefully* is an argument, because the interpretation of *do so* includes *carefully*, meaning that this sounds contradictory-ish: *#Homer worded the message carefully, but Bart did so sloppily*.

(10) Marge signalled to Bart.

(11) Lisa slept two days in the hospital.

(12) Homer's job pays well.

(13) It bothers Homer when he has no beer.

(14) Homer stood the ladder in the corner.

(15) Lisa persuaded Homer that he should give up beer.

4 Enwording some trees

Complete the phrase markers by inserting appropriate terminal elements (words!). You do not need to use the same words for each tree—in fact, it's quite likely impossible to do so. Feel free to imagine you've got a lexicon with the appropriate words in there (you don't need to create the lexicon to do this).