LX 321/521/621 Syntax
Fall 2022

Homework #4
DUE FRI OCT 7

[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). There is an example below (6) that you can model your answers on.

(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.

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.)

2 Noun phrases

Here is a set of structural rules for noun phrases:

NP →	N	(← *we will discard this rule in Part C*)
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). You will need to use features on the subcategorization frames of complements to make this work.

NOTE: Assume that subcategorization frames are only possible on Det. That is: A Det can restrict the types of N it appears with, but an N cannot restrict the types of Det it appears with. Put another way, the placeholder in a subcategorization frame (in a head-initial language like English) must be first; things to the left restrict things to the right.

Example (for the lexical items *Lisa* and *no*), which will rule out (8d) *no Lisa*.

1. *Lisa*, N, [–pl, +proper]
2. *no*, Det, [+ __ $N_{[-proper]}$]

2.2 Part B. Why ungrammatical?

For each of the underlined NPs in (8), explain how your lexicon blocks it from being generated. Example answer for *No Lisa*, based on the example I gave before:

No Lisa is ruled out by the fact that *no* selects an N with the feature [–proper], and *Lisa* bears the feature [+proper])

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)

What distinguishes the grammatical ones from the ungrammatical ones?

(. . . Pause. . . for. . . thought. . .)

Right. It seems like the generalization is that a "bare noun" (without a preceding determiner) must be plural. This is just like the kind of restriction we've attributed to determiners in the previous part. In fact, it is the same pattern we had for *both*, which must be followed by a plural noun.

(. . . Pause. . . for. . . further. . . thought. . .)

What if there is actually a determiner there in (9) after all, one that we can't hear?

The sentence *boys ran* is, meaningwise, the plural version of *a boy ran*. Both have a meaning that is pretty similar to sentences with *some*. So, if we suppose that the silent determiner there is the plural counterpart to *a*, we can write a lexical entry for it. Let's name it "SOME" (using capital letters to signify the abstractness of it—it has no pronunciation, but still has a place in the tree).

Ok, that is the setup. Here is the task for you. Assume that we have removed the NP $\rightarrow$ N rule from our grammar, and anticipated above (7). Doing just this would incorrectly rule out (9b) (*boys*) and (7b) *Bart*. Propose a lexical entry for SOME, a Det, with a subcategorization frame, **and** propose a second lexical entry that will re-allow (7b).

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. There is an example below (15) that you can model your answers on.

(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.

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*.

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).