LX 321/621/521 Syntax
Spring 2024

Homework #1
DUE FRI FEB 2

[Exercises adapted from Larson (2010)]

1 Categories

State the categories of each word in each of the sentences in (1). N (noun), V (verb), P (preposition), Adj (adjective), Adv (adverb), D (determiner), C (complementizer), Neg (negation), Aux (auxiliary *have* or *be* or *do*). Some of these aren't entirely straightforward—and may have several possible correct answers. (In those cases, you don't need to provide all the possible answers, just giving one of them is fine.)

(1) a. Homer napped.
b. Maggie was sleeping.
c. Maggie is hungry.
d. Homer heard Maggie clearly.
e. Lisa picked Maggie up.
f. Marge thinks Bart chased Lisa.
g. Homer came home tired.

2 Patterns

The following set of sentences is potentially infinite, making use of a recurring pattern. Think about the pattern, identify it to yourself.

(2) Bart laughed.

(3) Bart laughed and-then Bart laughed again.

(4) Bart laughed and-then Bart laughed again and-then Bart laughed again.

(5) Bart laughed and-then Bart laughed again and-then Bart laughed again and-then Bart laughed again.

(6) . . .

Now, **write a (tiny) grammar that describes this pattern**. It will have two rules, and I will give you one of them and half of the other one, so you're really only responsible for the right side of the second rule.

(7)

Grammar	
S →	*Bart laughed*
S →	← *you fill in this part*

3 Ambiguity

Consider the sentences in (8). Each has two meanings, which correspond to two different sentence patterns. **What are the two patterns (for each of the two sentences)?** (What "sentence pattern" means here is a string of the categories. The sentence pattern of *Pat screams* is "N V", for example. For this, we are not considering more complex issues of hierarchy, so no "VP"s or anything. Also, some of the words may have several possible categories one could argue for—as before, you don't need to identify all of the options, just provide one that fits the meaning you are focusing on and passes the diagnostics.)

(8) a. Homer saw her duck.
b. Lisa heard that cheese might melt.

4 Japanese

The following examples are from Japanese. Assume that the Japanese parts of speech are the same as the parts of speech of the English gloss. **What are the sentence patterns?** (*Note*: The little particles *–ga*, *–o*, and *–ni* are used in Japanese to indicate a word's status as a subject, direct object, or indirect object, respectively. "Sentence pattern" here means the same as it did in the previous problem, a string of category labels. This is not even close to being a difficult problem, it's just coercing you into observing a way in which languages differ.)

(9) Taroo-ga Pochi-o mita.
Taroo-NOM Pochi-ACC saw
'Taroo saw Pochi.'

(10) Taroo-ga Hanako-ni Pochi-o ageta.
Taroo-NOM Hanako-DAT Pochi-ACC gave
'Taroo gave Pochi to Hanako'

5 PSRs and Trees I

Here is a set of phrase structure rules for English. They generate the sentences in (12):

(11)

Grammar	
S →	N V
S →	N V N
S →	N V N N
N →	*Homer*
N →	*Marge*
N →	*Lisa*
N →	*Bart*
N →	*Maggie*
N →	*SLH*
V →	*ran*
V →	*saw*
V →	*sleeps*
V →	*fed*
V →	*crawls*
V →	*gave*
V →	*chased*
V →	*sent*

(12)
a. Bart ran.
b. Homer sleeps.
c. Maggie crawls.
d. Homer chased Bart.
e. Lisa saw Maggie.
f. Maggie fed SLH.
g. Marge gave Homer Maggie.
h. Homer sent Bart SLH.

A. What tree diagram do the rules give for the sentence *Maggie fed SLH*?

B. Give four other sentences of English that these rules generate (i.e. find examples different from the ones in (12)).

6 PSRs and Trees II

The sentences below show new patterns, different from the ones in (12) above.

(13)
a. Homer talked to Marge.
b. Homer talked about Bart.
c. Maggie crawled to Lisa.
d. SLH ran from Homer
e. Homer talked to Marge about Bart.
f. Maggie crawled from Lisa to Marge.

A. What new rules must be added to the rules in (11) in order to produce these sentences?

B. What tree diagram do your new rules give for the sentence *Homer talked to Marge about Bart?*

7 PSRs and Trees III

The sentences in (14) show yet another sentence pattern, different from the ones in the previous two questions.

(14) a. Homer talked to Bart yesterday.
b. Marge gave Homer Maggie quickly.
c. Homer chased Bart recently.

A. What new rules must be added in order to produces these sentences?

B. What tree diagrams do your new rules give for the sentences *Homer talked to Bart yesterday* and *Homer chased Bart recently*?