LX 321/521/621 Syntax
Spring 2024

Homework #4
DUE FRI MAR 1

[mostly adapted from Larson (2010)]

1 Lexical items

Look at the example sentences in (1) to (6) and decide what the lexical entry/entries for each corresponding italicized word should be. Briefly explain your answer.

Before we start, I will provide three extended examples, to clarify what we're doing.

Ex1. *sing*, V,
Homer sang.
Homer sang the national anthem.

Reasoning (this part you don't need to hand in): We have two examples, one that looks like an intransitive verb without an object, and one that looks like a transitive verb with an object. So, is the object optional? If the object were optional, that would mean it would be an adjunct, which already is not very likely. But we have evidence against it being an adjunct because it can't be iterated (you can't say "Homer sang the national anthem Jingle Bells"). Yet if it is required, why is the sentence without an object grammatical? Thinking about the two, they can be said to mean slightly different things. The first one seems just to be talking about engaging in an activity. Homer is doing some singing. It doesn't seem like part of the concept that there is a thing that Homer is singing. The first example does not feel "incomplete." The second one is conceptually a bit more like Homer has done something to the national anthem; specifically, sing it. In order to relate a person and something via singing, there needs to be something sung. So, the conclusion here is that there are actually two different (related) lexical entries, two different "words" *sing*. One *sing* is intransitive, and one *sing* is transitive (requires an object).

One kind of argument that might help convince you of this involves trying to refer back to the thing being sung with a pronoun. You can say *Homer sang the national anthem. It starts with the word "O."* Here, *it* refers to *the national anthem*. But you can't say *Homer sang. It starts with the word "O."* In this second example, *it* seems to have no referent. So there probably was no object at all, even an implicit/understood one, in "Homer sang."

Lexical entry/entries: $sing_1$, V, **[+ __]** ; $sing_2$, V, **[+ __ DP]**

Explanation: The intransitive *sing* describes an activity, the transitive *sing* requires an object that undergoes singing.

Ex2. *tell*, V,
Homer told the story.
Homer told the story to Lisa.

Reasoning (this part you don't need to hand in): We have two examples here, one of the form V DP PP, and one of the form V DP. So, we're being asked to consider whether the PP is optional (an adjunct) or required (an argument, a complement). Is *tell* like *sing* where there are two different senses, and the PP is required for one of those senses? Here, if we think about what *tell* means, it seems to be basically *say* but with an audience. You can't be engaging in telling if you are by yourself in an empty room. Unless you wedge some kind of audience in there (telling something to the universe, telling something to someone who will listen to a recording later, telling something to yourself). So since *Lisa* here seems to be representing the audience, and the audience is a fundamental player in any telling event, it suggests that the first example (where *to Lisa* is not pronounced) there is still some need to have the audience represented. The idea in this case is that (for whatever reason) you can sometimes leave things implicit/understood, but that just means you have failed to pronounce something that is in the tree. It is a form of "ellipsis" in this case. The conclusion from this line of thought is that there is a single sense of *tell*, and it requires an audience (a PP, in this construction), But that in some circumstances, you can leave the PP unpronounced because it is clear from the context.

The back-reference test kind of works here, though it's a little bit shaky. But you can say "Homer told the story to half of the people at the party. Nobody could stay awake."—specifically with the meaning that none of those in Homer's audience could stay awake (even while others at the party might have remained alert). And I think you can also say "Homer told the story. Nobody could stay awake." Where *nobody* is quantifying over the understood audience (again who need not be everyone around, just those in the audience). It's a delicate conclusion.

Lexical entry/entries: *tell*, V, **[+ __ DP PP]**

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

Ex3. *hug*, V,
Homer hugged Lisa.
Homer hugged Lisa in the hallway.

Reasoning (this part you don't need to hand in): Here the two examples are like the previous ones, one has the form V DP PP and the other has the form V DP.

Again, the question is whether the PP is optional (an adjunct) or required (an argument/complement). Considering the meaning of the verb, it seems like a hugging requires a hugger and a huggee, but doesn't strictly require a specified location. So, here we would be inclined to say that the PP is not part of the subcategorization frame in the lexical entry.

As further support for this, you can add another one, or two, as in "Homer hugged Lisa in the hallway before the ceremony" or "Homer hugged Lisa in the hallway before the ceremony with compassion." And there certainly doesn't seem to be an ability to back-refer to the location if it isn't provided. You can say "Homer hugged Lisa in the hallway. It needed vacuuming." But you can't really say "Homer hugged Lisa. It needed vacuuming" (attempting to refer to the location where the hugging took place).

Lexical entry/entries: *hug*, V, **[+ __ DP]**

Explanation: The DP object is required, but the PP in the second example is an adjunct. It can be iterated, it is not conceptually necessary to describe a complete hugging event.

Ok! That should be enough examples, now you can try them on your own. You can say/tell the "Reasoning" part quietly to yourself, and just provide the "Lexical entry/entries" and brief "Explanation" parts when you hand this in. Some of these are difficult—to the point that there might not really be a clear right answer, but just options that may be more likely than others. You're mainly being asked to think about the issues that arise. (So, this is where the "Explanation" part is important.)

(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 Nouny phrases

Here are some structural rules we can use to build nouny phrases:

NP →	N
DP →	D NP

Here is a set of well-formed DPs and a set of ill-formed DPs. There are others, these lists are not exhaustive.

(7)
a. [$_{DP}$ the boy]
b. [$_{DP}$ the girls]
c. [$_{DP}$ the soap]
d. [$_{DP}$ no baby]
e. [$_{DP}$ no babies]
f. [$_{DP}$ no soap]
g. [$_{DP}$ each baby]
h. [$_{DP}$ a boy]
i. [$_{DP}$ one boy]
j. [$_{DP}$ some girl]
k. [$_{DP}$ some soap]
l. [$_{DP}$ two boys]
m. [$_{DP}$ some girls]
n. [$_{DP}$ both girls]
o. [$_{DP}$ Homer]

(8)
a. * [$_{DP}$ the Homer]
b. * [$_{DP}$ some Lisa]
c. * [$_{DP}$ no Lisa]
d. * [$_{DP}$ every Homer]
e. * [$_{DP}$ every soap]
f. * [$_{DP}$ every boys]
g. * [$_{DP}$ each babies]
h. * [$_{DP}$ a boys]
i. * [$_{DP}$ boy]
j. * [$_{DP}$ both boy]
k. * [$_{DP}$ both soap]
l. * [$_{DP}$ 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. Good features for this would be [±sg] (singular or not), [±pl] (plural or not), and [±prop] (proper name or not). Having two binary features for singular and plural allows us to consider *boy* to be [+sg, –pl] and *boys* to be [–sg, +pl], and mass nouns like *soap* to be [–sg, –pl]. So every N you put in the lexicon should have some specification for all three features, although the subcategorization frames will only specify some features sometimes.

Example (for the lexical items *Lisa* and *no*), which will rule out (8c) *no Lisa*. Also, *no* doesn't care whether it goes with singular, plural, or mass nouns, so neither [±pl] nor [±sg] are mentioned in its subcageorization frame.

1. *Lisa*, N, [+sg, –pl, +prop]
2. *no*, D, [+ __ $NP_{[-prop]}$]

In my answer key, I've written the lexicon out as a table because it seemed easier to read than a bunch of lexical items in the form above. That is, I wrote out the partial lexicon containing just *Lisa* and *no* like this:

Lexical item	Category	Features	Subcategorization frame
no	D		[+ _ $NP_{[-prop]}$]
Lisa	N	[+sg, –pl, +prop]	

I'd suggest writing the rest of the lexical entries in such a table as well.

2.2 Part B. Why ungrammatical?

For each of the underlined DPs 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 NP with the feature [–prop], and *Lisa* bears the feature [+prop].

2.3 Part C. Bare plurals.

Here are some additional facts:

(9) a. * [$_{DP}$ boy] (ran)
b. [$_{DP}$ boys] (ran)

c. * [$_{DP}$ baby] (cried)

d. [$_{DP}$ babies] (cried)

What distinguishes the grammatical ones from the ungrammatical ones?

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

Right. It seems like the generalization is that a "bare (count) 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.

We're already presuming that, in cases where we see no D, there must be a silent one. The D is the head of the DP after all, there must be a head. And we needed a silent D in the previous section in order to explain *Homer* anyway. (Right?) But that D is not going to be compatible with *boys*. (Either syntactically, or semantically, assuming that the D in *Homer* has some kind of definiteness meaning like *the* does.)

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. Propose a lexical entry for SOME, a D, with a subcategorization frame. In effect, we're just adding one more row to the table of lexical items. It should predict the grammaticality both of *boys* and of *soap* as DPs, and continue to predict the ungrammaticality of **boy*.

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 that you can model your answers on.

Note: The *do so* replacement test can be useful here. We did not focus on this much in class partly because the sense of the room was that constituency tests were "old hat." But handout 3 has some of these tests. The *do so* test diagnoses VPs, and seems to be able to exclude adjuncts. So the sentence *Pat ate lunch quickly, and Tracy did so slowly* is understood to mean that Tracy ate lunch slowly—the *do so* stands in for *ate lunch*. But *Pat behaved poorly, and Tracy did so sympathetically* can only be understood as Tracy behaving poorly (in sympathy), not as Tracy behaving sympathetically. That's because

the adverb after *behave* is inside the VP, and *do so* can only stand in for an entire VP (the V and all its complements).

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 a judgment of incompleteness: **Homer worded the message* Also, *do so* replacement seems to suggest that *carefully* is an argument, because if the VP is replaced by *do so*, it is interpreted as including the meaning of *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 structures below 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).