**Language Science - PSYCH-UH 2218 Name:**

**Problem set 3 Student ID:**

70 points

**Introduction**

The goal of this problem set is to uncover the basic syntax of your native language, and analyze it terms of X-bar theory and movement!

You will work systematically through the major questions we can ask about the syntax of a language. And you will use the tools we learned in class to do the analysis.

You may run into issues that are difficult to solve. That is ok. We have not covered the entire theory of syntax in this class. (And many phenomena are still active areas of investigation in the field). Please just do what you can with the tools that we have built in class. You do not have to solve problems that our tools cannot solve. You only have to apply the tools that we have and see what they yield.

For each word you write in your native language please provide a gloss in English. A gloss is the closest English word you can find. Write the gloss under the word in your native language (so, each example sentence you write will have two lines). Do not change the word order to match English word order. Simply place the gloss under your sentence in the same order. This will help me to see the word order of your language clearly.

**Some notes on writing systems:** You do not have to use IPA. You can write your target language in whatever writing system is most comfortable for you. If you write your language right-to-left, that is ok! But please recognize that in your writing system, “right” means “before” and “left” means “after” for drawing trees and figuring out whether your language is head-initial (=before) or head-final (=after); this is the opposite of what we saw in the lectures because we were working in a left-to-right writing system, where “left” means “before”.

**0. Please name your language (so I know what I am reading about!)**

|  |  |
| --- | --- |
| Your Language: |  |

**1. Nouns and NPs** (8 points)

Let’s start with NP.

Here are three nouns in English. Please write these nouns from your language in the table. Then create a sentence frame that demonstrates that these three words are the same category in your language:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Noun 1 | Noun 2 | Noun 3 |
| Your language |  |  |  |
| Gloss | cat | student | book |

|  |  |
| --- | --- |
| Frame: |  |
| Gloss: |  |

Now, choose one of the nouns, and draw an NP tree for it. This will be simple – you just need to draw the N, Nʹ, and NP levels

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**2. Determiners and DPs** (only if your language has them; 7 points)

If your language does not have determiners (i.e., if you speak an NP language), you don’t have to do this part. Just write “my language does not have determiners”.

If your language does have determiners, let’s first identify two determiners, and show that they are the same category, just like we did for nouns above. Let’s do it for the equivalent of “the” and “that” (as in “that book over there”).

|  |  |  |
| --- | --- | --- |
|  | Determiner 1 | Determiner 2 |
| Your language |  |  |
| Gloss | the | that |

|  |  |
| --- | --- |
| Frame: |  |
| Gloss: |  |

Now draw a tree for DP in your language using one of the determiners above and the noun “book”. Be sure to draw both the full NP for “book” and the full DP structure for the DP.

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**3. Verbs and VPs** (8 points)

Now let’s do VPs. First, let’s establish that the following three verbs are all the same category:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Verb 1 | Verb 2 | Verb 3 |
| Your language |  |  |  |
| Gloss | read | write | sell |

|  |  |
| --- | --- |
| Frame: |  |
| Gloss: |  |

Now, draw a tree for the VP “read the book” in your language. Remember to include the full NP and DP!

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**4. Tense and TPs** (7 points)

Tense is tricky. Not all languages have items of category T. Your language may not. But let’s try. If it turns out that your language doesn’t have any T items, we can just use a silent T to draw the tree.

Here is a set of T items in English: *will, could, should, would, can, may*

Check to see if you have any of these in your language. If you do, choose one or two to put in the table below. You will have to fill in the gloss as well too, to tell me which one it is:

|  |  |  |
| --- | --- | --- |
|  | Tense 1 (if you have one) | Tense 2 (optional) |
| Your language |  |  |
| Gloss |  |  |

|  |  |
| --- | --- |
| Frame: |  |
| Gloss: |  |

Now, draw a tree for the TP “the student {will/should/could/etc} read the book” in your language. You only need to choose one of the T items.

If your language does not have T, you can use the silent element in the T position: ∅. It may be difficult to identify the position of a silent T. It goes next to the VP, but the question is whether it is before it (head-initial) or after it (head-final). You can choose either one you like. But, in general, it will be the same direction as C (which we will do next)!

Remember to include the full NP, DP, and VP.

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**5. Complementizers and CPs** (10 points)

Most languages have at least two complementizers: one for embedded declarative sentences and one for embedded interrogative sentences. In English these are “that” as in “think that” and “if” as in “asked if” (not the “if” in if-then sentences). Let’s find both in your language!

|  |  |  |
| --- | --- | --- |
|  | Complementizer - declarative | Complementizer - interrogative |
| Your language |  |  |
| Gloss | that | if |

|  |  |
| --- | --- |
| Frame declarative: |  |
| Gloss declarative: | The professor thinks \_\_ the student read the book. |

|  |  |
| --- | --- |
| Frame interrogative: |  |
| Gloss interrogative: | The professor asked \_\_ the student read the book. |

Now, draw a tree for this sentence with an embedded CP in your language:

 “The professor thinks that the student read the book”

You can use ∅ in the T position for both the matrix clause and the embedded clause. In English, that would look like this:

 “The professor ∅ thinks that the student ∅ read the book”

Be sure to articulate all of the XPs in the sentence!

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**6. The stand-alone constituency test** (10 points)

We were able to draw the trees above because we already know X-bar theory. But let’s provide some empirical evidence for the structures we drew. We can do this with constituency tests. Let’s use the stand-alone test because it can reveal almost all of the constituents in our tree.

For this test, you will create a question for each constituent, such that the constituent is a possible answer that a native speaker of your language could utter all by itself. You can place the question, the answer, and their glosses in this table.

Here is the sentence we are investigating: “The professor thinks that the student read the book”

|  |  |  |  |
| --- | --- | --- | --- |
|  | XP | Question | Answer |
| Your lg. | DP/NP |  |  |
| Gloss |  |  | The book/book |
| Your lg. | VP |  |  |
| Gloss |  |  | Read the book |
| Your lg. | CP |  |  |
| Gloss |  |  | That the student read the book |

**7. The phrase structure rules** (10 points)

Finally, let’s create phrase structure rules for each of constituents in your tree! You can do this by simply reading from the tree that you created! You only need to fill in the DP and Dʹ rules if your language has Ds.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CP → | TP → | VP → | DP → | NP → |
| Cʹ → | Tʹ → | Vʹ → | Dʹ → | Nʹ → |

**8. Head direction (relative to complements) in your language** (4 points)

Let’s uncover the head direction for each of the major phrases in your language. The way to do this is to: (i) identify the head in each phrase, (ii) identify the complement of the head, and then (iii) observe whether the head appears before the complement (head initial) or after the complement (head final).

Please remember that TPs will have specifiers (the “subject” of the sentence), and specifiers typically appear before the head. Specifiers are not complements, so do not be distracted by this. Identify the complement.

Please enter what you think the head direction is for each phrase in this table. You only have to fill in DP if your language has DPs.

|  |  |
| --- | --- |
| **XP** | **Head direction (initial or final)** |
| CP: |  |
| TP: |  |
| VP: |  |
| DP: |  |

**9. Questions with “wh-words” in your language** (6 points)

We saw three strategies for wh-questions in class: multiple wh-fronting, single wh-fronting, or wh-in-situ. Let’s figure out which strategy your language uses.

First, let’s check whether it is wh-in-situ. Translate the following English sentence into an information-seeking question in your language. “Information-seeking” means that it is a question you would ask if you are generally interested in receiving an answer (you do not already know the answer, nor did you simply mishear a statement).

English: What did Lisa invent?

|  |  |
| --- | --- |
| Your language: |  |
| Gloss: |  |

Based on this, do you think your language is wh-in-situ or one of the wh-fronting strategies? Write either **wh-in-situ** or **wh-fronting** here:

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If your language was wh-in-situ, you can stop here. If your language was wh-fronting, we need to figure out if it is multiple-wh-fronting or single-wh-fronting. To do that, we need to create an information-seeking question that is asking about two things, and therefore includes two wh-words.

Imagine a scenario where you are going to a party, and each of the guests brings something to eat or drink to share with everyone else. You walk in, see a large table of food and drinks, and genuinely ask your friend the following question in English:

“Who do you think brought what?

Notice that the way that your friend will answer this question is with a list of pairs of people and things:

“I think Mary brought the soda.”

“I think Ben brought the cake.”

Translate this question into your language. Be sure to capture the same meaning – it is an information-seeking question, and the answer to it will be a list of pairs of people and things. The position and order of the wh-words may be very different in your language. The goal is to make sure it conveys the same meaning.

English: Who do you think brought what?

|  |  |
| --- | --- |
| Your language: |  |
| Gloss: |  |

Based on this, do you think your language is **multiple-wh-fronting** or **single-wh-fronting**? Write one of those here:

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