HW #3

MORPHOLOGY

Question 1: Identifying morphemes and lexical categories
For each of the following words, divide the word into morphemes, identify the root, the lexical category of the root and the lexical category of the entire word. Be careful: the root’s lexical category may or may not be the same as the entire word.

<table>
<thead>
<tr>
<th>Word Root</th>
<th>Root Category</th>
<th>Word Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. Govern</td>
<td>govern</td>
<td>verb</td>
</tr>
<tr>
<td>1. Inconsequential</td>
<td></td>
<td></td>
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<tr>
<td>2. Environmentalism</td>
<td></td>
<td></td>
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<td>3. Siller</td>
<td></td>
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<tr>
<td>4. Geekiness</td>
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</tr>
</tbody>
</table>

Question 2: Morphological Tree Structures

1. insincerity
2. reconstruction
3. undoable

• Draw a tree diagram for each of the words above, separating each morpheme and giving the part of speech of the root as well as for each node in the tree.
• Give the Morphological rules that have applied and give examples that show clearly that your generalizations are correct.
• Give evidence for why other logically possible trees are not correct representations.
• If there is more than one correct tree, then give all of the correct trees and state what the corresponding meanings are.

Example: rewashable Adj

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Adj
  V able
  re wash
```

rewash able

Rule: re- + V = V
Examples: reuse, redo, retie, reunite
Rule: V + -able = Adj
Examples: usable, readable, doable, walkable
Not: re- + washable because: V + -able = Adj but: *re- + Adj. (e.g.: *rehappy, *redelicious)
SYNTAX

Question 1: Spanish object pronouns and transformations
In English, pronouns always appear in the same place as other NPs. In Romance languages such as French, Spanish, Italian, etc., pronouns often appear in a different position from other NPs. Here are some Spanish examples:

Julio comí sopa
Julio ate soup

Julio lo comió
Julio it ate
(= English “Julio ate it.”)

Julio ha comprado un auto
Julio has bought a car

Julio lo ha comprado
Julio it has comprado
(= English “Julio has bought it.”)

As you probably know, the English word order for these pronouns is bad in Spanish:

Julio comió lo
I ate it

Julio ha comprado lo
Julio has bought it

****BAD****

Mary proposes the following set of phrase structure rules for simple Spanish sentences:

Phrase Structure Rules
S → NP (NP) Aux VP  (*note the addition of (NP) before Aux here*)
VP → V (NP)
NP → Det N

Lexicon

…
Det ∅
Det el
Det un
Aux ha (has)
Aux ∅
V comió (ate)
V comprado (bought)
N lo (he/it)
N sopa (soup)
N auto (car)
…
Unfortunately, Mary’s rules can generate the bad sentences above as well as the good sentences.

(i) Using Mary’s phrase structure rules, draw trees for one good Spanish sentence and one bad Spanish sentence.

(The easiest option is to use the example Spanish sentences given above, but you can create your own good/bad Spanish sentences if you like.)

(ii) We now change the S rule as follows and keep all the other rules the same:

\[ S \rightarrow NP \text{ Aux} \text{ VP} \]

Given these new phrase structure rules, state a transformational rule that will allow us to generate all the good sentences above without generating any of the bad sentences. The following is a template for an answer that you might find useful.

Move \ldots \ldots \ldots in the context \ldots \ldots \ldots so that it immediately [precedes/follows] the first \ldots \ldots \ldots to its [left/right].

An example of a context would be ___Aux (the context “comes before Aux”).

Question 2: Constituency Tests

(This question is about English, not Spanish.)

Use a constituency test to show that the first set of rules for VP is the correct one:

Correct
\[
\begin{align*}
\text{VP} & \rightarrow V (NP) (CP) \\
\text{VP} & \rightarrow VP \text{ PP}
\end{align*}
\]

Incorrect
\[
\begin{align*}
\text{VP} & \rightarrow V (NP) (CP) \text{ PP*}
\end{align*}
\]

There is a handout on the website describing the different constituency tests. You can assume that the rest of the phrase structure rules are as follows (though it doesn’t really matter much what they are):

\[
\begin{align*}
S & \rightarrow NP \text{ Aux} \text{ VP} \\
NP & \rightarrow \text{Det Adj* N} \\
NP & \rightarrow NP \text{ PP} \\
PP & \rightarrow P \text{ NP} \\
CP & \rightarrow C \text{ S}
\end{align*}
\]