1 Constituent Structure – English

In this exercise we will examine the constituent structure of sentences (1)a and (1)b below:

(1)  a. Mary made John proud of himself.
    b. Mary made John a picture of himself.

We will consider the two constituent structures below:

- XP can be AP (proud of himself) or NP (a picture of himself).
- SC is a small clause — an NP subject and a predicate that is an NP, AP, or PP.

Constituent Structure I:

```
  S
   NP       VP
   Mary    V    NP   XP
     made  John  proud of himself
                      a picture of himself
```
Constituent Structure II:

```
S
  NP  VP
    Mary  V  SC
         made  NP  XP
        John  proud of himself
                a picture of himself
```

**Applying tests for constituency:** In the next few tasks you will apply tests for constituency and get grammaticality judgments from a native speaker of English. You can use your own grammaticality judgments if English was your first language or was the language of your primary school.

**Task 1:** Apply a movement test to *John proud of himself*.

**Task 2:** Apply a coordination test to *John proud of himself*.

**Task 3:** Apply a movement test to *John a picture of himself*.

**Task 4:** Apply a coordination test to *John a picture of himself*. 
In this section of the problem, you will see how the reference of pronouns and reflexive pronouns relates to this constituency problem.

In English, a reflexive pronoun in a prepositional phrase can refer to either the subject or the object of the sentence. The indices $i$ and $j$ show what the pronoun refers to.

(2) John($i$) told Bill($j$) about himself($i/j$).

A non-reflexive pronoun cannot refer to an element in the same clause. A star on an index shows that the pronoun can’t refer to that index. For example, him in (3) cannot refer to John or Bill.

(3) John($i$) told Bill($j$) about him(*$j$/*$i$)

However, a non-reflexive pronoun can refer to an element in a different clause. The index $j$ refers to someone who is not mentioned in the sentence.

(4) Mary($i$) told John that Bill likes her($j/i$).

Now consider the following sentences. Use the grammaticality judgements given, even if you don’t agree with them. Be careful about the indices and the stars. Sometimes there is a star on one index, but not the other.

   b. Mary($i$) made John proud of her($i/j$).
   c. Mary made John proud of himself.
   d. Mary made John($i$) proud of him(*$j$/*$i$).

(6) a. Mary made John a picture of herself.
   b. Mary($i$) made John a picture of her(*$i/j$).
   c. Mary made John a picture of himself.
   d. Mary made John($i$) a picture of him(*$j$/*$i$).
Task 5: Fill in the following table. In each box, write:

- Tree 1 if the test supports Tree 1
- Tree 2 if the test supports Tree 2
- Both if the test results are compatible with both trees
- Neither if the test results are not compatible with either tree.

<table>
<thead>
<tr>
<th></th>
<th>Movement</th>
<th>Coordination</th>
<th>Reflexive</th>
<th>Pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>John proud of himself</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John a picture of himself</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Task 6: Which tree do you choose for *Mary made John a picture of himself*?

a. Tree 1
b. Tree 2

Task 7: Were some of your results inconsistent with the tree that you chose?

Task 7a: If so, why did you choose to ignore them?
2 Possessive Noun Phrases

In the last homework assignment, possessive pronouns like his were treated as determiners. However, possessors can be full noun phrases as in the boy across the street’s toy where the possessor is the boy across the street.

The ’s is a clitic, not a full word, but not a prefix or suffix. One of the things that makes it different from prefixes or suffixes is that it attaches to words that aren’t related to it. In the boy across the street’s toy the ’s indicates that the boy is a possessor, but it attaches to street.

Task 1: Using the phrase structure rules below, draw two trees for the wife of your friend’s brother, which has two different meanings. Assume that of your friend is an argument, not an adjunct. For the sake of simplicity, your is still treated as a determiner because it does not occur with ’s.

Task 2: Using the phrase structure rules below, draw two trees for We gave her dog biscuits. The verb give should have three arguments: agent, theme, and recipient.

S → N'' VP
VP → V N'' N''
PP → P N''
N'' → (Det) N'
N'' → NP ’s N'
N' → N (PP)

Det → the
Det → your
Det → her
N → N N
Task 3 (Extra Credit, five percent): When there is an NP consisting of NP ‘s N’, what principle determines that the N-bar and not the possessor NP is the head of the whole NP? I’m looking for a syntactic principle, which might be found somewhere in Radford’s book. A semantic principle is reasonable — the boy’s book is a book, not a boy — but that is not the answer I’m looking for. The answer is very specific and pretty short.