1 Modification principles

1.1 Impossible constituents

Don’t create impossible phrases that you know perfectly well are impossible. For example, *the ball to Mary* is not an NP in any sentence, even though the PP *to Mary* can occur next to the NP *the ball* in (1):

\begin{enumerate}
\item a. He threw the ball to Mary.
\item b. *The ball to Mary is red.
\end{enumerate}

As (1b) illustrates, *the ball to Mary* cannot be the subject of a sentence.

The following tree is an example of a tree that is bad because it contains an impossible NP. The tree below makes *the ball to Mary* an NP. Notice that there is an NP node that exhaustively dominates the string *the ball to Mary*.
Inspect your trees for impossible constituents, especially impossible NPs, which are the easiest to find and fix. When you find them it’s because you’ve got one of the modification relations wrong. Attaching a PP in the wrong place is a very common mistake that creates such impossible constituents. The misattached PP here is *to Mary*. It does not modify the noun *ball*, but this is what the tree says. Look for a word to the left that the misattached constituent *does* modify. For a preposition that word will almost always be a noun or a verb. Here the most likely candidate is *throw*. You can check how plausible it is to have *to Mary* modifying *throw* by omitting the other words:

(2) He threw to Mary.

Not bad. A very good test suitable for determining if the PP can modify the verb is to turn the NP into a **pronoun**. Like the last test, this shows that *to Mary* is appropriate even if the noun *ball* is missing:

(3) He threw it to Mary.

Finally, *the ball to Mary* cannot comfortably be the subject of a sentence:

(4) * The ball to Mary has been in the toybox all morning.

So now we **redraw** the tree with the correct modification relations:
1.2 Impossible modification relations

Don’t miss obvious phrases that are there by depicting impossible modification relations, for example by drawing trees like the following:

This has the Adverb *too* modifying the Noun *professor*. But

[Adverbs never modify Nouns!]

As always the bad tree can be fixed by discovering what the misattached modifier really does modify. Adverbs can modify adjectives on their right (*very unhappy*) or verbs either on their left or their right (*quietly slept* or *slept quietly*). Here the obvious candidate is the adjective *cocky*. Notice some confirming evidence:
(5) a. *She disliked the too professor.
   b. She disliked the professor.

When *cocky goes away, the presence of *too makes the sentence bad. So the presence of *too depends on the presence of *cocky. So we redraw the tree with *too modifying *cocky:

Here’s another example:

The word *quite cannot occur in this kind of sentence unless it is followed by an adverb like *thoroughly:

(6) a. *He cleaned the room quite
b. He cleaned the room thoroughly

The fact that *thoroughly* can occur without *quite* but *quite* cannot occur without *thoroughly* again tells us that *quite* is dependent on *thoroughly*, and that suggests that it is *thoroughly* that *quite* modifies, and the right tree is:

```
S
  NP
    N
    He
  VP
    V
    cleaned
    NP
      Det
      the
      N
      room
    Advp
      Adv
      quite
      Advp
    Adv
    thoroughly
```

## 2 Part of speech

- Don’t propose silly verbs. If it’s a verb, it has a past tense, an *-ing* form, a past participle, and a 3rd singular present tense form (with *-s*). So despite the existence of bona fide verbs like *rate*, *berate*, *inflate* and *deflate*, *accurate* can’t possibly be a verb because there are no sentences like the following:

  (7) a. * It accurates.
    b. * It accurated.
    c. * It has accurated.
    d. * It is accurating.

- Don’t propose silly adverbs. If it can modify a noun, it’s most likely not an adverb:

  (8) a. a lovely porch (*lovely* not an adverb)
    b. * a very porch (*very* is an adverb, or Deg word)
c. A tough steak (*tough* not an adverb)

The tricky thing here is that there are words that can be both nouns and adverbs:

(9) a. The car went fast
    b. A fast car is cool.

But at least be aware that you should look for clear case sentences like the ones in (9), and that you can be sure *fast* is an adverb in (a) and an adjective in (b).

• If it modifies a verb, there are several possibilities, NP, PP, Advp. For the most part, adjectives are excluded, and we assume part of speech ambiguities for words that can modify both nouns and verbs:

(10) a. He talks *tough*, but he is pretty nice.
    b. He is a *tough* man.
    c. He came on *strong*.
    d. He is a *strong* candidate.

• For prepositions, use a list. This one is not bad (it includes prepositions usually missing from such lists, like *athwart*): Wikipedia preposition list.

• For determiners, use a list. Do not mistake a determiner for a preposition. Test: If it can co-occur with *a* at the beginning of an NP, it’s not a determiner: for example, given *under a cloud*, we would suspect *under* is a preposition, and know it’s not a determiner.

### 2.1 Possible Modification relations

<table>
<thead>
<tr>
<th>Head</th>
<th>Left Mods</th>
<th>Right Mods</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>AdjP, NP, D</td>
<td>PP, CP</td>
</tr>
<tr>
<td>P</td>
<td></td>
<td>NP</td>
</tr>
<tr>
<td>V</td>
<td>AdvP</td>
<td>NP, PP, CP, AdvP</td>
</tr>
<tr>
<td>Adj</td>
<td>AdvP</td>
<td>PP, CP</td>
</tr>
<tr>
<td>Adv</td>
<td>AdvP</td>
<td></td>
</tr>
</tbody>
</table>
Good

Which?

Which?
3 Exercises
Construct a sentence that fits the following tree. Try to avoid Nouns, verbs, adjectives, and adverbs that have been used elsewhere in this tutorial.

Construct a sentence that fits the following tree. Try to avoid Nouns, verbs, adjectives, and adverbs that have been used elsewhere in this tutorial.
Draw chapter 3 trees for the following sentences.

(11) a. He dressed much too carefully.
    b. I must ask you to leave.
    c. The ball rolled right under the table.
    d. He will negotiate a friendly favorable settlement.
    e. The takeover battle has convinced industry insiders that the former university president could not continue as C. E. O.
    f. Georgia-Pacific’s management company blatantly lied about the deal.