Handout - Formal Transformational Grammar

Operations

**Merge**

- **categorial features** $(f)$
- **selectional features** $(=f)$

**Move**

- Features which **require** being moved $(-f)$
- Move to
- Features which **license** movement $(+f)$

Sample Lexicon

<table>
<thead>
<tr>
<th>Item</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>will</td>
<td>$=:v =d t$</td>
</tr>
<tr>
<td>the</td>
<td>$=:n d$</td>
</tr>
<tr>
<td>devour</td>
<td>$=:d v$</td>
</tr>
<tr>
<td>ointment</td>
<td>$=:n$</td>
</tr>
<tr>
<td>John</td>
<td>$=:d$</td>
</tr>
<tr>
<td>apple</td>
<td>$=:n$</td>
</tr>
</tbody>
</table>

Simple example (merge based)

John will devour the ointment.

(a) The expression “the ointment” is a merge of the $=:n d$ and ointment $=:n$. When they merge, the $=:n$ and $n$ match and get deleted.

(b) The lexical item devour $=:d v$ can now merge with “the ointment”. The $d$ and $=d$ features match and are deleted. The process continues in (c) and (d).
Move example:  
We will derive the question “Who saw the apple?” This will require moving the word “who” out of the subject position, to the specifier of CP position.

Disclaimer: This derivation is not entirely correct, because this sentence would actually require head movement (as described in section 1.3 of Kobele’s paper), but it accurately describes the mechanism of phrasal movement.

The first step is to construct the sentence as it is before the transformation using merge.

Now we have an otherwise complete tree that has a –wh feature in it, requiring that one of the phrases be moved. We merge with more words until we have a word with a +wh feature.

Now we are ready to move the phrase with the –wh feature to the location of the word with the +wh feature, becoming its specifier.