

## Drawing syntax trees using a computer

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Students who wish to draw their trees by hand in Microsoft Word are directed to the link <https://www.angl.hu-berlin.de/staff/1685901/unterrichtsmaterialien/tree.drawing.in.Word.doc>

Otherwise, there are various free programmes that can be used to create syntactic trees. Some are online and others require you to download a programme.

I will explain how to use the programme at <http://mshang.ca/syntaxtree/>

The website gives instructions under *Help*, but I will now try to make them a bit clearer.

To create the tree you have to type the structure using labelled brackets in the box just under the title *Syntax Tree Generator*. As you type, the programme constructs a tree below the box.

When you open the website, there is already an example in the box, but unfortunately the example is very simple (and the syntax assumed is incorrect). To get a better idea of how the programme works, copy the following structure into the box:

```
[CP [C4 will] [IP [DP3 the people] [I' [I t4] [VP [AdvP always] [VP [DP t3] [V' [V draw] [DP [D Ø] [NP^ correct trees]]]]]]]]]
```

Comparing this labelled bracketing structure with the tree you will notice the following:

- A. A category label in the tree is written immediately after the opening bracket. E.g. *always* is labelled AdvP in the tree because the brackets containing *always* have 'AdvP' written immediately after the first bracket: [AdvP always]
- B. If you want **triangle notation** (as above the NP *correct trees*), you type the carrot symbol ^ immediately after the category label. (In German versions of MS Word, you have to press the relevant key twice, whereupon ^ appears twice, so you have to delete one of these symbols. Or copy and paste the symbol from this document.)
- C. **Movement, traces, coindexation:** In representing movement, we need coindexation symbols so we can see which constituent the trace corresponds to. The commonest conventions are to mark the moved element and its trace with identical letters or numbers, or to write the moved element as a subscript to the trace (e.g.  $t_i$ ,  $t_3$ ,  $t_{will}$ ). You can put subscripts next to category labels by putting an underscore immediately after the label, followed by the subscript, e.g. [C\_4 will] in our example. However, in the programme recommended there is no easy way to write subscripts after traces. An acceptable solution is to use numbers as coindexation symbols and to write them immediately after the symbol t without attempting to write them as subscripts, e.g. t4.

When drawing trees, be sure to check that every opening bracket has a corresponding closing bracket. The programme tries to close the brackets for you, but I don't know if it always makes the right decisions.

If you click on 'Options' you will see that it is possible to change the size of the diagram. It might be better to click on 'colour' and choose black and white rather than colour, since this will cause fewer problems when the document is printed.

If you click on 'Options' or 'Help', the box where you write the labelled bracketing structures disappears. To get it back, click on 'Syntax Tree Generator'.

**Integrating the tree into your document:** You cannot directly copy the tree from your browser into your document. You must save the tree as a document first. To do so, right-click the tree and select the option 'save picture as' / 'Graphik speichern unter'.

Once you have saved the document, open it and copy the tree. In most programmes this will work if you select 'alles markieren' (in many windows programmes the shortcut for this is Strg A), then 'copy' (StrgC). Switch to your word processing programme and paste the tree (StrgV) at the appropriate place. You should be able to move the image and adjust its size. If the size is completely wrong, you might have to experiment with adjusting the size of the diagram in the Options in the online programme.

### Similar tree drawing programmes

<http://www.linguistics.ucla.edu/people/hayes/20/MakeTreesFast.htm>

<http://yohasebe.com/rsyntaxtree/>