# Using jsSyntaxTree

Go to <a href="https://www.ironcreek.net/syntaxtree/">https://www.ironcreek.net/syntaxtree/</a> to use André Eisenbach's software live, from his web site.

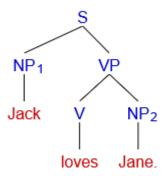
We can download and use his software on our computers by getting his .zip file from <a href="https://github.com/int2str/jssyntaxtree">https://github.com/int2str/jssyntaxtree</a>. The direct download link for the current version is <a href="https://github.com/int2str/jssyntaxtree/archive/master.zip">https://github.com/int2str/jssyntaxtree/archive/master.zip</a>.

#### Basic use

Write a bracketed sting to create a syntax tree. For example,

[S [NP Jack][VP [V loves][NP Jane.]]]

will produce this image:



[S [NP Jack] [VP [V loves] [NP Jane.]]]

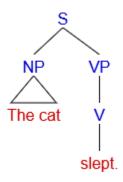
Inside each set of square brackets, we can put a label (such as **NP**) and the lexical item (such as **Jack**). By default, the software will add subscripts (such as **NP**<sub>1</sub>), unless we turn off that feature. Brackets inside brackets will generate nodes further down the tree, as we see above with

# [level 1 S [level 2 NP Jack] [level 2 VP [level 3 V loves] [level 3 NP Jane.]]]

(We can copy/paste these bracketed stings into Eisenbach's software to generate the trees ourselves, as a way to start learning his software. Pay attention too to his usage tips that rotate through the bottom of the page.)

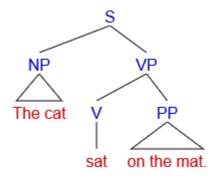
Below are some examples of some basic clause patterns.

#### An intransitive sentence: S V



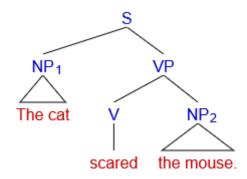
[S [NP The cat][VP [V slept.]]]

### An intransitive sentence with an adverbial: S V A



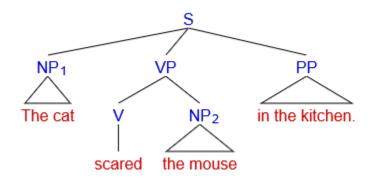
[S [NP The cat][VP [V sat] [PP on the mat.]]]

#### A transitive sentence: S V O



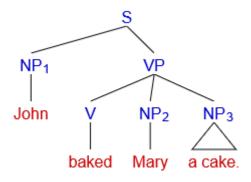
[S [NP The cat] [VP [V scared] [NP the mouse.]]]

# A transitive sentence with an adverbial: S V O A



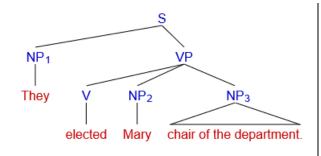
[S [NP The cat] [VP [V scared] [NP the mouse]] [PP in the kitchen.]]

# A ditransitive sentence: S V O O

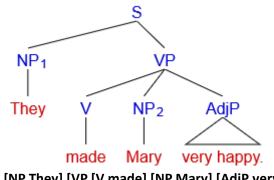


[S [NP John] [VP [V baked] [NP Mary] [NP a cake.]]]

# A transitive sentence with an object predicative: S V O OP

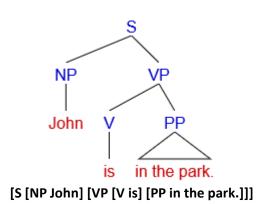


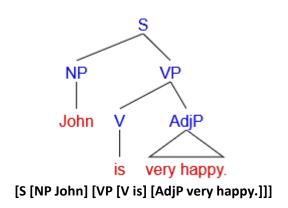
[S [NP They] [VP [V elected] [NP Mary] [NP chair of the department.]]]



[S [NP They] [VP [V made] [NP Mary] [AdjP very happy.]]]

# A copular verb with a subject predicative: S V SP



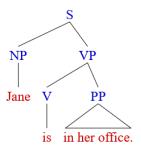


# Using quotation marks in jsSyntaxTree

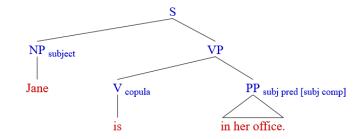
Quotation marks allow us to generate multi-word labels for a node in our trees, as we see in the bracketed string below, on the right.

### Creating subscripts

Sometimes, we may want to add labels to the nodes on a tree for clarity's sake. Using an underscore character ( \_ ) in the node label will create a subscript descriptor of our nodes. Compare:



[S [NP Jane] [VP [V is] [PP in her office.]]]

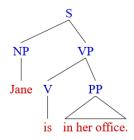


[[S [NP\_" subject" Jane] [VP [V\_" copula" is] [PP\_" subj pred [subj comp]" in her office.]]]

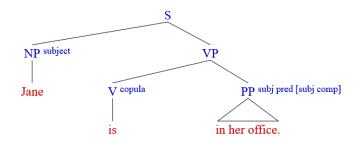
Notice that we can use the quotation marks feature to create multi-word subscript descriptors for a node.

### Creating superscripts

Using a caret character (  ${\mbox{^{}}}$  ) in the node label will create a superscript descriptor for our nodes. Compare:



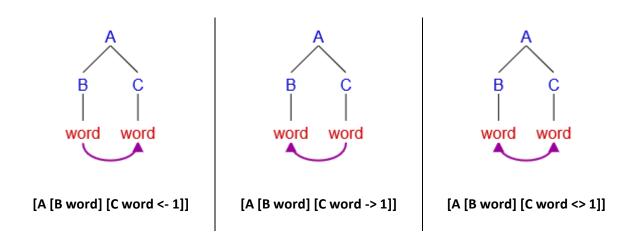
[S [NP Jane] [VP [V is] [PP in her office.]]]



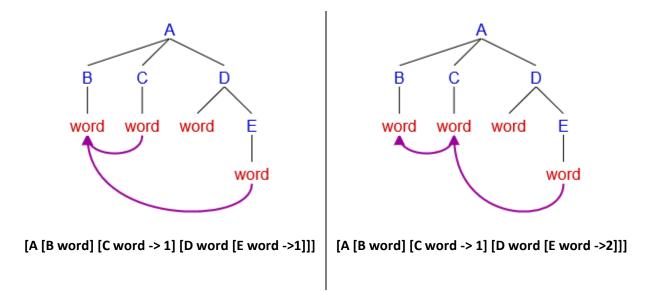
[S [NP^" subject" Jane] [VP [V^" copula" is] [PP^" subj pred [subj comp]" in her office.]]]

### Creating arrows

Sometimes, we might want to show movement from one position to another, or to show that there is a syntactic (or semantic) relationship between two positions. jsSyntaxTree will create arrows for us by adding a bit of code at the end of a bracketed string. To add arrows to a node, use ->, <- or <> (for a bi-directional arrow) followed by column number. For example, compare



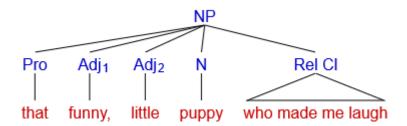
We can even create multiple arrows if we need to, e. g.,



# **Appendix**

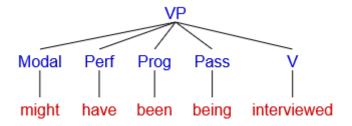
jsSyntaxTree can easily create phrase structure (PS) trees and other kinds of branching diagrams too.

Noun phrases (NPs):



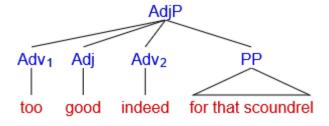
[NP [Pro that] [Adj funny,] [Adj little] [N puppy] ["Rel Cl" who made me laugh]]

Verb phrases (VPs):



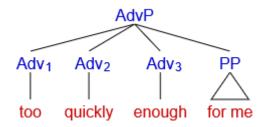
[VP [Modal might] [Perf have] [Prog been] [Pass being] [V interviewed]]

Adjective phrases (AdjPs):



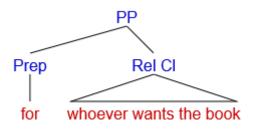
[AdjP [Adv too] [Adj good] [Adv indeed] [PP for that scoundrel]]

### Adverb phrases (AdvPs):



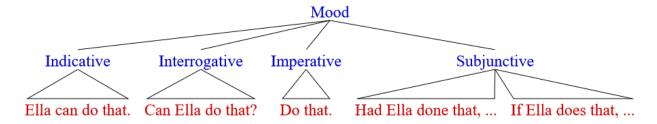
[AdvP [Adv too] [Adv quickly] [Adv enough] [PP for me]]

#### Prepositional phrases (PPs):



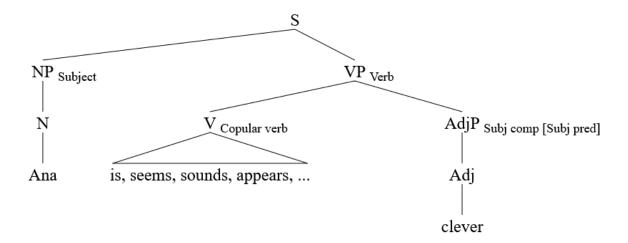
[PP [Prep for] ["Rel CI" whoever wants the book]]

We can also use jsSyntaxTree to create miscellaneous branching diagrams:



[Mood [Indicative Ella can do that.] [Interrogative Can Ella do that?] [Imperative Do that.] [Subjunctive "Had Ella done that, ..." "If Ella does that, ..."]]

Option used above: serif font.



[S [NP\_" Subject" [N Ana]] [VP\_" Verb" [V\_" Copular verb" is | seems | sounds | appears | ...] [AdjP\_" Subj comp [Subj pred]" [Adj clever.]]]]

Options used above: serif font and no color.