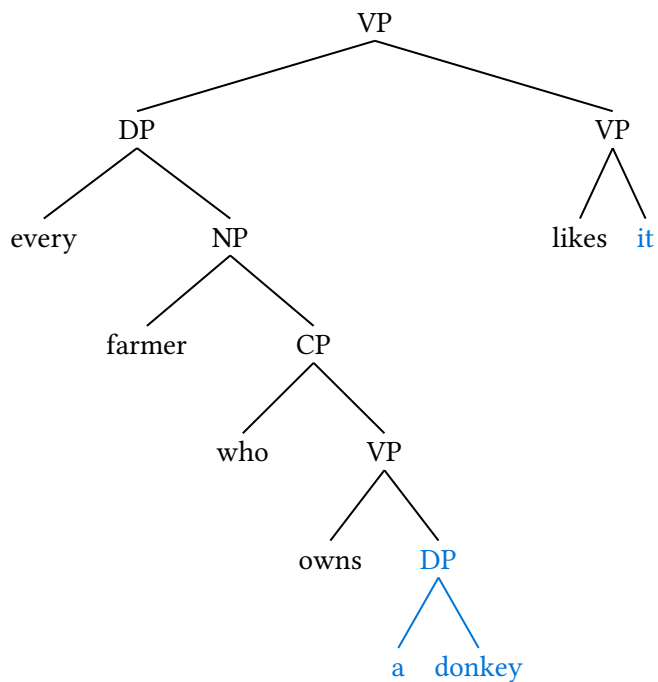# *lingtree*

A Typst package for drawing linguistic tree.

v1.0.0

Usage

Here is a simple example:

```
#render(
  tree(
    tag: [VP],
    tree(
      tag: [DP],
      [every],
      tree(
          tag: [NP],
          [farmer],
          tree(
            tag: [CP],
            [who],
            tree(
              tag: [VP],
              [owns],
              tree(
                tag: [DP],
                [a], [donkey],
                defaults: (color: blue),
              )
            )
          )
      )
    ),
    tree(
      tag: [VP],
      [likes], text(blue)[it],
    ),
  )
)
```


Reference

- render()
- tree()

Variables:

- global-defaults

render

Renders a tree

Parameters

```
render(
  tree: tree ,
  defaults: dictionary
) -> content
```

tree   `tree`

Tree to render

defaults   `dictionary`

A dictionary overriding default parameters of rendering, cf `tree()` for a list of parameters and explanation.

Default: `global-defaults`

tree

Creates a tree from children trees or contents. The root may be labelled with an optional tag (label for the root node). This function returns a data structure that can serve as argument for `render` or for subsequent invocation of `tree`.

Parameters

```
tree(
  tag: content none ,
  .. children: content tree ,
  layer-spacing: length none ,
  child-spacing: length none ,
  branch-stroke: stroke color length dictionary none ,
  color: color none ,
  align: alignment none ,
  defaults: dictionary none ,

) -> tree
```

tag   `content` or `none`

Label for the root node. If none, no label will be rendered.

Default: `none`

.. children   `content` or `tree`

Children of the root node

layer-spacing   `length` or `none`

Distance between this root node and its immediate children. If none, a default value is used.

layer-spacing: 1em

A
B C

layer-spacing: 2em

A
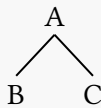B C

layer-spacing: 3em

A
B C

Default: `none`

child-spacing   `length` or `none`

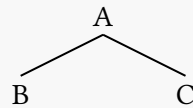Distance between consecutive children of the root node. If none, a default value is used.

child-spacing: 0em

A
BC

child-spacing: 2em

A
B   C

child-spacing: 5em

A
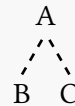B   C

Default: `none`

branch-stroke   `stroke` or `color` or `length` or `dictionary` or `none`

Stroke with which to draw the edge between the root node and its immediate children

stroke: blue + 3pt

A
B C

stroke: (dash: "dashed")

A
B C

Default: `none`

color   `color` or `none`

Color of the edges, the tag and the leaf nodes. If none, the edges will be black and the content will have its default color.
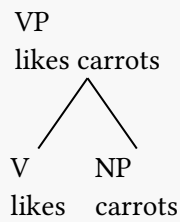
A
B C

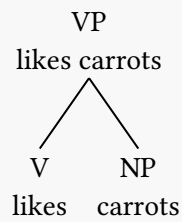Default: `none`

align `alignment` or `none`
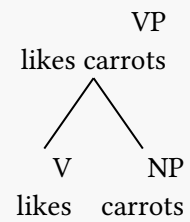
Alignments for the content of the tags and the content.

align: left

VP

likes carrots

V   NP

likes   carrots

align: center

VP

likes carrots

V   NP

likes   carrots

align: right
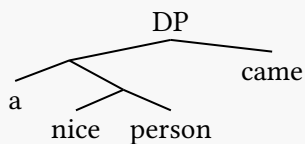
VP

likes carrots

V   NP
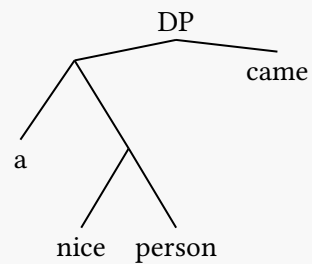
likes   carrots

Default: `none`

defaults `dictionary` or `none`

This dictionary can take any of the value for the optional parameters above. When a parameter value is specified here, it applies to this node and *all* of its descendants.

defaults: (layer-spacing: 1em)

DP

came

a

nice   person

layer-spacing: 1em

DP

came

a

nice   person

Default: `none`

global-defaults

Default values for the parameters of `tree()`.

NB: Because Typst is pure, changing these values will not change how trees are rendered. `global-defaults` is only provided for your information. To change the defaults globally, rename `render` (name shadowing):

```
#let render = render.with(defaults: new-defaults)
/* rest of document */
```