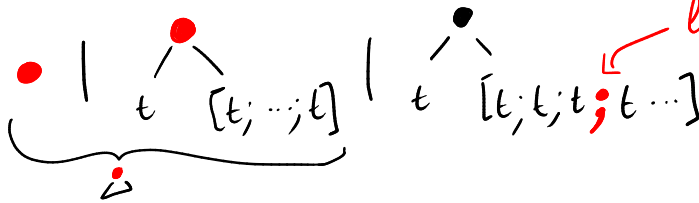
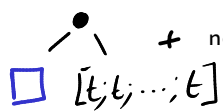
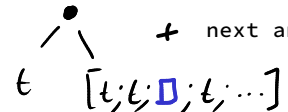


type $t = \bullet \mid t \begin{smallmatrix} \diagup \\ \diagdown \end{smallmatrix} [t; t; \dots] = \text{leaf} \mid \text{Node of } t * t \text{ list.}$

type head =  list constructor.

= Raw of $t \mid \text{InNode1 of } t * t \text{ List.Zipper.t}$

(\square = hole)

type ancestors =  + next ancestors \mid  $\mid \emptyset$

= Node0 of hole * t list * ancestors \mid Node1 of $t * t \text{ List.Zipper.d0} * \text{ancestors} \mid \text{NoAncestor}$

type zipper = head * ancestors

(1) go-up  , [] = 

(2) go-up  , [ ; ...] =  , [...]

(go_up (Raw tree, Node0 (Hole, list_of_trees, ancestors)) = Up (Raw (Node (tree, list_of_trees)), ancestors))

(3) go-up  , [ ; ...] =  , [...]

(go_up (Raw tree, Node1 (tree', list_d0, ancestors)) = Up (InNode1 (tree', List.Zipper.plugin tree list_d0), ancestors))

the hole is hidden in here

New function!

(4) go-up  , ancestors =  , ancestors

the pointer moved up in the list

(5) go-up  , ancestors =  , ancestors

the pointer is now on Node

(go_up (InNode1 (tree, list_zipper), ancestors) = match List.Zipper.go_up list_zipper with
 \mid Up new_zipper \rightarrow Up (InNode1 (tree, new_zipper), ancestors) (4)
 \mid Top list \rightarrow Up (Raw (Node tree, list), ancestors) (5))