## Algorithm 1 Débinariation

```
function BINAIRE2NAIRE(tree: list)
    tmp \leftarrow \text{LIST}(;)
   bin \leftarrow \downarrow;
    for feuille \in tree do
       if isinstance(feuille, list) then
           if bin \in feuille[0] then
               tmp = tmp + \text{UNBIN(feuille[1:])};
           else
               tmp.append(UNBIN(feuille))
       else
           tmp.append(feuille)
   return tmp
function Lexicale2Unaire(tree)
   if |tree| == 3 then
       head, leftchild, rightchild \leftarrow tree;
       if \uparrow \in head then
           gauche, droite \leftarrow \text{SPLIT}(\text{bin, head, 1})
           return [gauche, GENERALUNBIN([droite, leftchild, rightchild])]
       else
           return [head, Lexicale2Unaire(leftchild), Lexicale2Unaire(rightchild)]
    else if |tree| == 2 then
       head, child \leftarrow tree;
       if \uparrow \in head then
           gauche, droite \leftarrow SPLIT(bin, head, 1)
           return [gauche, Lexicale2Unaire([droite, child])]
       else
           return [head,child]
function GENERAL UNBIN (tree)
    firststep \leftarrow Lexicale2Unaire(tree)
   return GENERALUNBIN(firststep)
```