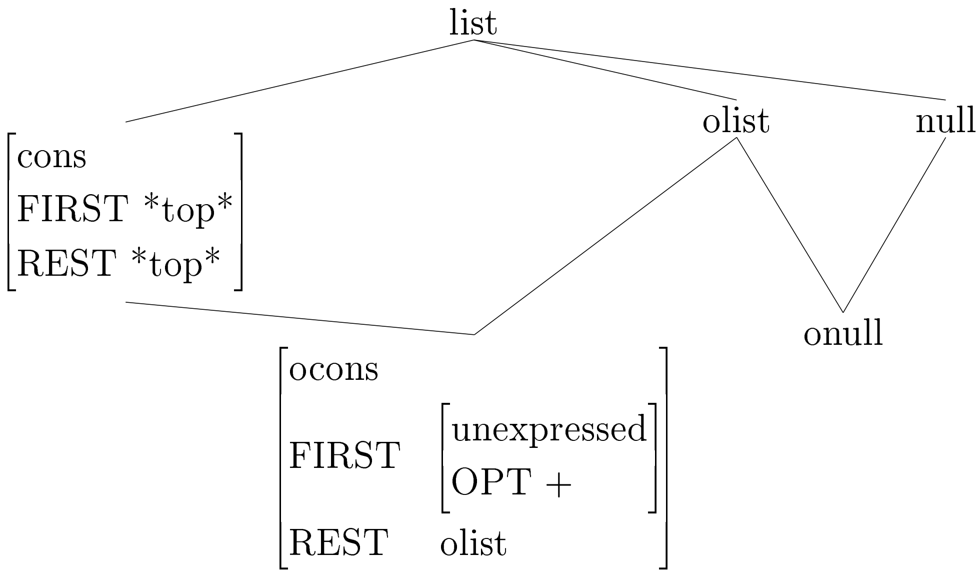
The OPT feature

```
synsem-min := avm &
  [ OPT bool,
    LOCAL mod-local,
    NON-LOCAL non-local-min ].

email_v := trans-verb-lxm &
  [ STEM < ‘‘email’’,
    SYNSEM [ LOCAL.CAT.VAL [ SUBJ < [ OPT - ] >,
                             COMPS < [ OPT + ] > ],
             LKEYS.KEYREL.PRED ‘‘email_rel’’ ] ].
```

Partial hierarchy under *list*



Two variants of olist with three elements

- AVM variant: $\begin{bmatrix} \text{ocons} & \\ \text{FIRST} & \begin{bmatrix} \text{unexpressed} \\ \text{OPT} + \end{bmatrix} \\ \text{REST} & \begin{bmatrix} \text{ocons} & \\ \text{FIRST} & \begin{bmatrix} \text{unexpressed} \\ \text{OPT} + \end{bmatrix} \\ \text{REST} & \begin{bmatrix} \text{ocons} & \\ \text{FIRST} & \begin{bmatrix} \text{unexpressed} \\ \text{OPT} + \end{bmatrix} \\ \text{REST} & \text{onull} \end{bmatrix} \end{bmatrix} \end{bmatrix}$
- Angle bracket variant: $\left\langle \begin{bmatrix} \text{OPT} + \end{bmatrix}, \begin{bmatrix} \text{OPT} + \end{bmatrix}, \begin{bmatrix} \text{OPT} + \end{bmatrix} \right\rangle$

Ditransitive verb lexeme with one optional complement

- *The man shows the boy a picture*
- *The man shows a picture*

$$
\begin{bmatrix}
\text{ditrans-verb-lxm} \\
\text{SS} \begin{bmatrix}
\text{LOC} \,|\, \text{CAT} \,|\, \text{VAL} \begin{bmatrix}
\text{SUBJ} \left\langle \begin{bmatrix} \text{OPT -} \\ \text{LOCAL} \,|\, \text{CONT} \,|\, \text{HOOK} \,|\, \text{INDEX } \boxed{0} \end{bmatrix} \right\rangle \\
\text{COMPS} \left\langle \begin{bmatrix} \text{OPT +} \\ \text{LOCAL ... INDEX } \boxed{1} \end{bmatrix}, \begin{bmatrix} \text{OPT -} \\ \text{LOCAL ... INDEX } \boxed{2} \end{bmatrix} \right\rangle
\end{bmatrix} \\
\text{LKEYS} \,|\, \text{KEYREL} \begin{bmatrix} \text{ARG1 } \boxed{0} \\ \text{ARG2 } \boxed{2} \\ \text{ARG3 } \boxed{1} \end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

head-opt-comp-one-phrase

$$\begin{bmatrix} \text{SS} \mid \text{LOC} \mid \text{CAT} \mid \text{VAL} \mid \text{COMPS}\ \boxed{1} \\ \text{HEAD-DTR} \mid \text{SS} \mid \text{LOC} \mid \text{CAT} \mid \text{VAL} \mid \text{COMPS} \left\langle \begin{bmatrix} \text{unexpressed} \\ \text{OPT}\ + \end{bmatrix} .\ \boxed{1} \left\langle \text{expressed-synsem, ...} \right\rangle \right\rangle \end{bmatrix}$$