

Examples with the `\cgex{n}{derivations}` command:

$$\begin{array}{c}
 \text{John} \quad \text{likes} \quad \text{Mary} \\
 \hline
 S/(S \backslash NP) \quad (S \backslash NP_{3s})/NP \quad (S \backslash NP) \backslash ((S \backslash NP)/NP) \\
 : \lambda p.p \text{john}' : \lambda x \lambda y. \text{like}' xy \quad : \lambda p.p \text{mary}' \\
 \hline
 S \backslash NP : \lambda y. \text{like}' \text{mary}' y \\
 \hline
 S : \text{like}' \text{mary}' \text{john}'
 \end{array}$$

$$\begin{array}{c}
 \text{John} \quad \text{likes} \quad \text{Mary} \\
 \hline
 S/(S \backslash NP) \quad (S \backslash NP_{3s})/NP \quad S \backslash (S/NP) \\
 : \lambda p.p \text{john}' : \lambda x \lambda y. \text{like}' xy : \lambda p.p \text{mary}' \\
 \hline
 S/NP : \lambda x. \text{like}' x \text{john}' \xrightarrow{\mathbf{B}} \\
 \hline
 S : \text{like}' \text{mary}' \text{john}'
 \end{array}$$

$$\begin{array}{c}
 \text{dismiss} \quad \text{-ed} \\
 \hline
 VP_{\text{inf}}/NP : \lambda x \lambda y. \text{dismiss}' xy \quad ((S \backslash NP_{\text{agr}})/NP) \backslash (VP_{\text{inf}}/NP) : \lambda p \lambda x \lambda y. \text{past}' (Pxy) \\
 \hline
 (S \backslash NP_{\text{agr}})/NP : \lambda x \lambda y. \text{past}' (\text{dismiss}' xy)
 \end{array}$$

$$\begin{array}{c}
 \text{Mary} \quad \text{musn't} \quad \text{have} \quad \text{been} \quad \text{being} \quad \text{arrest} \quad \text{-ed} \\
 \hline
 (S_{\text{pres}} \backslash NP)/VP_{1\text{sg-pl}} \quad VP_{1\text{sg-pl}}/VP_{\text{en}} \quad VP_{\text{en,ing}}/VP_{\text{ing}} \quad VP_{\text{pass,ing}}/VP_{\text{pass}} \quad VP_{\text{inf}} \backslash NP \quad VP_{\text{pass}} \backslash (VP_{\text{inf}}/NP) \\
 \hline
 (S_{\text{pres}} \backslash NP)/VP_{\text{en}} \xrightarrow{\mathbf{B}} \quad \quad \quad VP_{\text{pass}} \\
 \hline
 (S_{\text{pres}} \backslash NP)/VP_{\text{ing}} \xrightarrow{\mathbf{B}} \\
 \hline
 (S_{\text{pres}} \backslash NP)/VP_{\text{pass}} \xrightarrow{\mathbf{B}} \\
 \hline
 S_{\text{pres}} \backslash NP
 \end{array}$$

Example above using `\begin{ccg}{n}{data}{derivations}\end{ccg}`. This environment puts in the first lines itself. Based on `\cgex`. No gloss line on top.

Mary	musn't	have	been	being	arrest	-ed
	$(S_{\text{pres}} \backslash NP) / VP_{1\text{sg-pl}}$	$VP_{1\text{sg-pl}} / VP_{\text{en}}$	$VP_{\text{en,ing}} / VP_{\text{ing}}$	$VP_{\text{pass,ing}} / VP_{\text{pass}}$	$VP_{\text{inf}} \backslash NP$	$VP_{\text{pass}} \backslash (VP_{\text{inf}} / NP)$
	$\xrightarrow{> \mathbf{B}}$				$\xleftarrow{<}$	
	$(S_{\text{pres}} \backslash NP) / VP_{\text{en}}$				VP_{pass}	
	$(S_{\text{pres}} \backslash NP) / VP_{\text{ing}}$			$\xrightarrow{> \mathbf{B}}$		
	$(S_{\text{pres}} \backslash NP) / VP_{\text{pass}}$				$\xrightarrow{> \mathbf{B}}$	
	$S_{\text{pres}} \backslash NP$					
	$\xrightarrow{>}$					

Another example, to show glossing in the beginning and the end.

It uses `\begin{ccgg}{n}{data}{gloss}{derivations}\end{ccgg}`.

ver-dir give-caus	-t -caus	-ti. -past
$VP_{\text{inf}} \backslash NP_{\text{dat}} \backslash NP_{\text{dat}} \backslash NP_{\text{acc}}$	$(S \backslash NP_{\text{nom}} \backslash NP_{\text{case}}) \backslash VP_{\text{inf}}$	
$: \lambda x \lambda y \lambda z. \text{give}'_{yxz}$	$: \lambda p \lambda x \lambda y. \text{cause}'(px)y$	
		$\leftarrow \mathbf{B}^3$
$S \backslash NP_{\text{nom}} \backslash NP_{\text{dat}} \backslash NP_{\text{dat}} \backslash NP_{\text{acc}}$		
$: \lambda x_1 \lambda x_2 \lambda x_3 \lambda x_4 \lambda x_5. \text{cause}'(\text{cause}'(\text{give}'_{x_1 x_2 x_3})x_4)x_5$		
‘made to let give’, from Turkish		