

A	1b) Type of transition	Rule used	Config
0	—	—	( $\bar{S}$ , Mary's baby man)
1	SHIFT	NP $\rightarrow$ Mary	(NP $\bar{S}$ 's, baby man)
2	SHIFT	POSS $\rightarrow$ 's	(NP POSS $\bar{S}$ , baby man)
3	LC-PREDICT	NP $\rightarrow$ NP POSS N	( $\bar{N}$ NP $\bar{S}$ , baby man)
4	MATCH	N $\rightarrow$ baby	(NP $\bar{S}$ , man)
5	LC-CONNECT	S $\rightarrow$ NP VP	( $\bar{VP}$ , man)
6	SHIFT	V $\rightarrow$ man	(V $\bar{VP}$ , e)
7	LC-CONNECT	VP $\rightarrow$ V	(e, e)

2b) Type of transition	Rule used	Config.
0	—	( $\bar{S}$ , 0)
1	SHIFT	NP $\rightarrow$ John (NP $\bar{S}$ , 1)
2	LC-CONNECT	S $\rightarrow$ NP VP ( $\bar{VP}$ , 1)
3	SHIFT	V $\rightarrow$ meet (V $\bar{VP}$ , 2)
4	LC-CONNECT	VP $\rightarrow$ V NP ( $\bar{NP}$ , 2)
5	SHIFT	D $\rightarrow$ the (D $\bar{NP}$ , 3)
6	SHIFT	N $\rightarrow$ boy (D N $\bar{NP}$ , 4)
7	LC-CONNECT	NP $\rightarrow$ D N SRC ( $\bar{SRC}$ , 4)
8	SHIFT	THAT $\rightarrow$ that (THAT $\bar{SRC}$ , 5)
9	LC-CONNECT	SRC $\rightarrow$ THAT VP ( $\bar{VP}$ , 5)
10	SHIFT	V $\rightarrow$ saw (V $\bar{VP}$ , 6)
11	LC-CONNECT	VP $\rightarrow$ V NP ( $\bar{NP}$ , 6)
12	SHIFT	D $\rightarrow$ the (D $\bar{NP}$ , 7)
13	LC-CONNECT	NP $\rightarrow$ D N ( $\bar{N}$ , 7)

4) MATCH  $N \rightarrow actor$   $(\epsilon, \epsilon)$

3b) Type of transition Rule used Config,

0) — —  $(\bar{S}, 0)$

1) SHIFT  $D \rightarrow the$   $(D \bar{S}, 1)$

2) SHIFT  $N \rightarrow actor$   $(D N \bar{S}, 2)$

3) LC-PREDICT  $NP \rightarrow D N ORC$   $(ORC NP \bar{S}, 2)$

4) SHIFT  $D \rightarrow the$   $(D ORC NP \bar{S}, 3)$

5) LC-PREDICT  $NP \rightarrow D N$   $(N NP ORC NP \bar{S}, 3)$

6) MATCH  $N \rightarrow boy$   $(NP ORC NP \bar{S}, 4)$

7) LC-CONNECT  $ORC \rightarrow NP V$   $(V NP \bar{S}, 4)$

8) MATCH  $V \rightarrow met$   $(NP \bar{S}, 5)$

9) LC-CONNECT  $S \rightarrow NP VP$   $(VP, 5)$

10) SHIFT  $V \rightarrow was$   $(V VP, 6)$

11) LC-CONNECT  $VP \rightarrow V$   $(\epsilon, \epsilon)$

3b) Top-down

0 — —  $(S, 0)$

1 PREDICT  $S \rightarrow NP, VP$   $(NP, VP, 0)$

2 PREDICT  $NP \rightarrow D N ORC$   $(D N ORC VP, 0)$

3) MATCH  $D \rightarrow the$   $(N ORC VP, 1)$

4) MATCH  $N \rightarrow actor$   $(ORC VP, 2)$

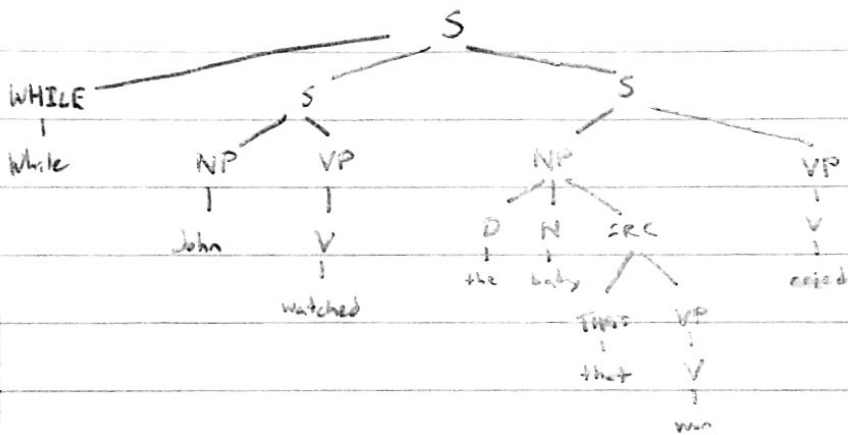
5) PREDICT  $ORC \rightarrow NP V$   $(NP V VP, 2)$

6) PREDICT  $NP \rightarrow D N$   $(D N V VP, 2)$

7) MATCH  $D \rightarrow the$   $(N V VP, 3)$

- |             |                          |                        |
|-------------|--------------------------|------------------------|
| 8) MATCH    | $N \rightarrow b-y$      | $(V, VP, 4)$           |
| 9) MATCH    | $V \rightarrow net$      | $(VP, 5)$              |
| 10) PREDICT | $VP \rightarrow V$       | $(V, 5)$               |
| 11) MATCH   | $V \rightarrow \epsilon$ | $(\epsilon, \epsilon)$ |

D) Correct tree



Partial tree

