Chapter 10, Problem 2: Pseudopassives

A. Our Passive LR requires inputs of type *tv-lxm*. None of the examples in (i)–(iii) contains a transitive verb. Instead, the verbs of these sentences are followed by prepositions (*at, in, about*) that are not followed by NP objects. Further, the subjects of these sentences play the semantic roles we would normally associate with the object of the preposition.

B. The ARG-ST for *laughed* in (i) (with indices added to show how it relates to the second ARG-ST below) is:

$$\left[\text{ARG-ST} \quad \langle\, \text{NP}_i \,,\, \text{P[FORM at]} \,,\, \text{PP[FORM by]}_j \rangle \right]$$

Note that the second argument is not a PP but just a P – it is [COMPS $\langle$ NP $\rangle$].

The ARG-ST for the corresponding active form is:

$$\left[\text{ARG-ST} \quad \langle\, \text{NP}_j \,,\, \text{PP[FORM at]}_i \,\rangle \right]$$

C. Pseudopassive Lexical Rule

$$
\begin{bmatrix}
\textit{d-rule} \\[4pt]
\text{INPUT} \quad \left\langle \boxed{1}\,,\,
\begin{bmatrix}
\text{SYN} & \begin{bmatrix}\text{HEAD} & \textit{verb}\end{bmatrix} \\[6pt]
\text{ARG-ST} & \left\langle \text{NP}_i \,,\,
\begin{bmatrix}
\text{PP} \\
\text{FORM} & \boxed{2} \\
\text{MODE} & \{\text{ref , ana}\} \\
\text{INDEX} & j
\end{bmatrix}
\right\rangle \oplus \boxed{\text{A}}
\end{bmatrix}
\right\rangle \\[40pt]
\text{OUPUT} \quad \left\langle \text{F}_{PSP}(\boxed{1})\,,\,
\begin{bmatrix}
\textit{part-lxm} \\
\text{SYN} & \begin{bmatrix}\text{HEAD} & \text{[FORM pass]}\end{bmatrix} \\[6pt]
\text{ARG-ST} & \left\langle \text{NP}_j \,,\, \text{P[FORM }\boxed{2}]\right\rangle \oplus \boxed{\text{A}} \oplus \left\langle \begin{bmatrix}\text{PP} \\ \text{FORM} & \text{by} \\ \text{INDEX} & i\end{bmatrix} \right\rangle
\end{bmatrix}
\right\rangle
\end{bmatrix}
$$

The second argument of the INPUT is constrained to be either [MODE ref] or [MODE ana] to ensure that this rule only applies to verbs that select for argument marking prepositions. (Predicational prepositions are [MODE prop].)

D. The INPUT ARG-ST must begin with an NP followed by an argument-marking PP, but it may contain other elements (the list $\boxed{\text{A}}$). The first element of the OUTPUT ARG-ST is an NP with the same index as the input PP. In this way, the semantic argument that was expressed by the PP in the active version is expressed by the subject NP in the passive version. The second element is a P with the same FORM as the input PP. It follows from the assumption that all Ps in this construction are argument-marking that the NP that is the subject in the passive form actually plays no semantic role with respect to this preposition – it introduces no predication, so there are no semantic roles to be filled. After the P comes the list $\boxed{\text{A}}$ – i.e. whatever else the active verb was looking for – and then the optional *by*-phrase expressing the argument that would be subject in the active form.

E. Yes, the Pseudopassive LR above will license both (iii) and (v). Both PP[FORM to] and PP[FORM about] (abbreviated in (iv) as PP[to] and PP[about]) are optional. Example (iii) represents what happens if only the PP[about] option is selected. Example (v) represents what happens if only the PP[FORM to]

option is selected. In both cases, the ARG-ST's second element is a PP selecting a specific preposition. Although (iv) doesn't show it, these are argument-marking prepositions, so the Pseudopassive LR can apply.