Chapter 12, Problem 6: A Type for Existential *Be*

A. The type *orv-lxm* has an ARG-ST with three elements, the second of which is tagged as identical to the SPR of the third. This much is the same as *exist-be-lxm* from Chapter 11.

However, there is one constraint on *orv-lxm* as it is presented in Chapter 12 which is inconsistent the lexical entry for existential *be*, namely the requirement that the INDEX value of the third ARG-ST element be an argument of the predication in the RESTR value. There is no such predication in the type *exist-be-lxm*, since the existential *be* is semantically empty (i.e. it has an empty RESTR list).

There are also some constraints on the existential *be* (such as the requirement that its subject be *there*) that are not shared by object raising verbs in general. These will have to go into the lexical entry.

B. If we want the existential *be* to be of type *orv-lxm*, we must make the the RESTR value defeasible. That is, the type constraints on *orv-lxm* must now be the following:

$$\begin{bmatrix} \text{ARG-ST} & \left\langle \text{NP} , \boxed{1} , \begin{bmatrix} \text{SPR} & \langle\, \boxed{1} \,\rangle \\ \text{COMPS} & \langle\,\rangle \\ \text{INDEX} & s_2 \end{bmatrix} \right\rangle \\ \text{SEM} & \left[\text{RESTR} \quad / \left\langle \left[\text{ARG} \quad s_2 \right] \right\rangle \right] \end{bmatrix}$$

C.

$$\left\langle \text{be} , \begin{bmatrix} \textit{orv-lxm} & \\ \text{ARG-ST} & \left\langle \left[\text{FORM} \quad \text{there} \right], \text{X} , \begin{bmatrix} \text{PRED} & + \\ \text{SEM} & \left[\text{INDEX} \quad \boxed{4} \right] \end{bmatrix} \right\rangle \\ \text{SEM} & \begin{bmatrix} \text{INDEX} & \boxed{4} \\ \text{RESTR} & \langle\,\rangle \end{bmatrix} \end{bmatrix} \right\rangle$$