Chapter 14, Problem 2: Blocking Filled Gaps
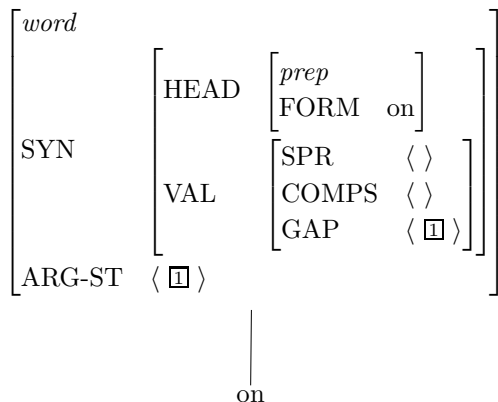
The NP after *on* in (i) is licensed through the interaction of several mechanisms. The lexical entry for (this use of) *on* is an argument marking preposition, so its SPR value is the empty list and its ARG-ST list contains a single accusative NP. Through the ARP, this will result in its COMPS value being a singleton list containing just an accusative NP, so long as the GAP list is empty (as it is in (i)). Hence, the Head-Complement Rule will put an NP after *on*.

In (ii), the GAP list for *on* is not empty. Rather, it contains the single member of the ARG-ST list (an accusative NP). Hence, by the ARP, the COMPS value must be empty. Consequently, when the Head-Complement Rule is applied, *on* takes nothing following it.

$$
\begin{bmatrix}
\textit{word} \\[2pt]
\text{SYN} \quad
\begin{bmatrix}
\text{HEAD} \quad
\begin{bmatrix}
\textit{prep} \\
\text{FORM} \quad \text{on}
\end{bmatrix} \\[10pt]
\text{VAL} \quad
\begin{bmatrix}
\text{SPR} \quad \langle\,\rangle \\
\text{COMPS} \quad \langle\,\rangle \\
\text{GAP} \quad \langle\,\boxed{1}\,\rangle
\end{bmatrix}
\end{bmatrix} \\[16pt]
\text{ARG-ST} \quad \langle\,\boxed{1}\,\rangle
\end{bmatrix}
$$

$$\big|$$

on

The GAP Principle will ensure that the nodes dominating this preposition (proceeding up the tree: VP, S, CP, VP, and S) are all specified as [GAP ⟨ NP[CASE acc] ⟩]. The S[GAP ⟨ NP[CASE acc] ⟩] *Pat thinks that I rely on* can then combine with the NP *this mnemonic* according to the Head-Filler Rule to build an S[GAP ⟨ ⟩].

(iii) is not generated, because the S *Pat thinks I rely on some sort of trick* must be [GAP ⟨ ⟩] (nothing is 'missing'). Hence, it cannot combine with the NP *this mnemonic* by the Head-Filler Rule, which requires that the head daughter have a non-empty GAP value.