

$$\begin{array}{ccc}
 P & \longrightarrow & \mathrm{Hom}(\mathbb{B}, \{\mathcal{A}, \mathcal{V}\}) & (K, T) \longmapsto T : \mathbb{B} \longrightarrow \{\mathcal{A}, \mathcal{V}\} \\
 \downarrow & & \downarrow (-) \circ i & \downarrow \qquad \qquad \downarrow \\
 \{*\} & \xrightarrow{\{F_S\}} & \mathrm{Hom}(\mathbf{1}, \{\mathcal{A}, \mathcal{V}\}) & * \longmapsto F_S = T \circ i
 \end{array}$$