

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