

$$\begin{array}{ccc}
 I & \xrightarrow{j_a} & \mathrm{Mor}_{\mathcal{A}}(a, a) \\
 & \searrow j'_{F(a)} & \downarrow F_{aa} \\
 & & \mathrm{Mor}'_{\mathcal{A}}(F(a), F(a))
 \end{array}$$