$$\begin{array}{ccc}
\langle *, a \rangle & \longmapsto & a \\
\\
\{\bullet\} \times A & \xrightarrow{\lambda_A} & A \\
\mathrm{id}_{\{\bullet\}} \times f \downarrow & & \downarrow f \\
\{\bullet\} \times A' & \xrightarrow{\lambda_{A'}} & A' \\
\\
\langle *, f(a) \rangle & \longmapsto & f(a)
\end{array}$$