

$$\begin{array}{ccc}
 B & \xleftarrow{\text{eval}_B} & B^Y \times Y \\
 \nwarrow f \circ \text{eval}_A & & \uparrow (h', \text{id}_Y) \\
 & & A^Y \times Y \\
 & & \uparrow h' \\
 & & A^Y
 \end{array}$$