

$$\begin{array}{ccc}
 X & \xrightarrow{u} & I(\beta(X)) \\
 & \searrow f' & \downarrow \beta(f) \\
 & & I(C)
 \end{array}
 \qquad
 \begin{array}{c}
 \beta(X) \\
 \downarrow f \\
 C
 \end{array}$$