

$$\begin{array}{ccc}
 \mathbb{C}^{\text{op}} & \begin{array}{c} \xrightarrow{y(C)} \\ \downarrow \eta_{F,C}^{-1}(a) \\ \xrightarrow{F} \end{array} & \mathbf{Sets} \\
 & & \\
 C' & \begin{array}{c} \xrightarrow{f} \\ \uparrow y(C)(f) \end{array} & \\
 C & & 
 \end{array}
 \qquad
 \begin{array}{ccc}
 y(C)(C') & \xrightarrow{\eta_{F,C}^{-1}(a)_{C'}} & F(C') \\
 \uparrow y(C)(f) & & \uparrow F(f) \\
 y(C)(C) & \xrightarrow{\eta_{F,C}^{-1}(a)_C} & F(C)
 \end{array}$$