

$$\begin{array}{ccccccc}
F(x) & \xrightarrow{F(\eta_{K_1(\Gamma_1(x))})} & F(K_1(\Gamma_1(x))) & \xrightarrow{F(\beta_{\Gamma_1(x)})} & F(K_2(\Gamma_1(x))) & \xrightarrow{F(K_2(\alpha_x))} & F(K_2(\Gamma_2(x))) \\
& \searrow \varphi_x & & \nearrow \psi_{\Gamma(x)} & & & \\
& & G(\Gamma_1(x)) & \xrightarrow{G(\alpha_x)} & G(\Gamma_2(x)) & \xrightarrow{F(\beta_x) \circ \psi_x} &
\end{array}$$