

$$\begin{array}{ccc}
H_C(B) = K_B(C) & \xrightarrow{K_B(g)} & H_{C'}(B) = K_B(C') \\
H_C(f) \downarrow & & \downarrow H_{C'}(f) \\
H_C(B') = K_{B'}(g) & \xrightarrow{K_{B'}(g)} & H_{C'}(B') = K_{B'}(C')
\end{array}$$