$$\begin{CD}
\mathbf{E} @>{\tau_a}>> \hom(Fa, Ga) \\
@V{\tau_{a'}}VV @VV{G(f)_*}V \\
\hom(Fa', Ga') @>>{F(f)^*}> \hom(Fa, Ga')
\end{CD}$$

τ_f