

$$\begin{array}{c}
(\textcolor{red}{1}, \textcolor{red}{2}, \dots, \textcolor{red}{a_1}, \dots, \textcolor{blue}{1'}, \textcolor{blue}{2'}, \dots, \textcolor{blue}{a_n}) \\
\downarrow (\tau \cdot \rho) \circ_{a_1, \dots, a_n} (\sigma_1, \dots, \sigma_n) \\
\overbrace{(\sigma_{\tau^{-1}(1)}(\rho_{\tau^{-1}(1)}(1)), \sigma_{\tau^{-1}(1)}(\rho_{\tau^{-1}(1)}(2)), \dots, \sigma_{\tau^{-1}(1)}(\rho_{\tau^{-1}(1)}(a_{\tau^{-1}(1)})))}^{\text{1st block}}, \dots \\
\dots, \overbrace{(\sigma_{\tau^{-1}(n)}(\rho_{\tau^{-1}(n)}(1)), \sigma_{\tau^{-1}(n)}(\rho_{\tau^{-1}(n)}(2)), \dots, \sigma_{\tau^{-1}(n)}(\rho_{\tau^{-1}(n)}(a_{\tau^{-1}(n)})))}^{n\text{-th block}})
\end{array}$$