$$(\overbrace{1, 2, \ldots, k_{i,1}}^{\text{1st block}}, \overbrace{1', 2', k_{i,2}}^{\text{2nd block}}, \ldots, \overbrace{1', 2', \ldots, k_{i,a_i}}^{a_i\text{-th block}})$$

$$(\ldots, \overbrace{\rho_{i,1}(1), \rho_{i,1}(2), \ldots, \rho_{i,1}(k_{i,1})}^{\sigma_i(1)\text{-th block}}, \ldots, \overbrace{\rho'_{i,a_i}(1), \rho'_{i,a_i}(2), \ldots, \rho'_{i,a_i}(k_{i,a_i})}^{\sigma_i(a_i)\text{-th block}}, \ldots)$$