$$\begin{array}{c} \mathbf{U}_{f} \times S(\mathbf{X}_{f} * \mathbf{X}_{g} * \mathbf{X}_{h}) & \xrightarrow{\operatorname{dyn}_{f \S(g \S h)}} & S(\mathbf{X}_{f} * \mathbf{X}_{g} * \mathbf{X}_{h}) \\ \operatorname{id}_{\mathbf{U}_{f}} \times \operatorname{coh}_{f \S(g \S h)} & \xrightarrow{\operatorname{dyn}'_{f \S(g \S h)}} & \operatorname{coh}_{f \S(g \S h)} \\ \mathbf{U}_{f} \times (S(\mathbf{X}_{f}) \times S(\mathbf{X}_{g} * \mathbf{X}_{h})) & \xrightarrow{\operatorname{dyn}'_{f \S(g \S h)}} & S(\mathbf{X}_{f}) \times S(\mathbf{X}_{g} * \mathbf{X}_{h}) \\ \operatorname{id}_{\mathbf{U}_{f}} \times (\operatorname{id}_{S(\mathbf{X}_{f})} \times \operatorname{coh}_{g \S h}) & \xrightarrow{\operatorname{dyn}''_{f \S(g \S h)}} & S(\mathbf{X}_{f}) \times (S(\mathbf{X}_{g}) \times \operatorname{coh}_{g \S h}) \\ \mathbf{U}_{f} \times (S(\mathbf{X}_{f}) \times (S(\mathbf{X}_{g}) \times S(\mathbf{X}_{h}))) & \xrightarrow{\operatorname{dyn}'_{f \S(g \S h)}} & S(\mathbf{X}_{f}) \times (S(\mathbf{X}_{g}) \times S(\mathbf{X}_{h})) \end{array}$$