

$$\begin{array}{ccc}
 \mathbf{U}_f \times (\mathbf{X}_f * \mathbf{X}_g * \mathbf{X}_h) & \xrightarrow{\text{dyn}_{f \circ (g \circ h)}} & (\mathbf{X}_f * \mathbf{X}_g * \mathbf{X}_h) \\
 \text{id}_{\mathbf{U}_f} \times \text{coh}_{f \circ (g \circ h)} \uparrow & & \uparrow \text{coh}_{f \circ (g \circ h)} \\
 \mathbf{U}_f \times ((\mathbf{X}_f) \times (\mathbf{X}_g * \mathbf{X}_h)) & \xrightarrow{\text{dyn}'_{f \circ (g \circ h)}} & (\mathbf{X}_f) \times (\mathbf{X}_g * \mathbf{X}_h) \\
 \text{id}_{\mathbf{U}_f} \times (\text{id}_{(\mathbf{X}_f)} \times \text{coh}_{g \circ h}) \uparrow & & \uparrow \text{id}_{(\mathbf{X}_f)} \times \text{coh}_{g \circ h} \\
 \mathbf{U}_f \times ((\mathbf{X}_f) \times ((\mathbf{X}_g) \times (\mathbf{X}_h))) & \xrightarrow{\text{dyn}''_{f \circ (g \circ h)}} & (\mathbf{X}_f) \times ((\mathbf{X}_g) \times (\mathbf{X}_h))
 \end{array}$$