$$\begin{aligned}
\mathrm{dyn}_{f\fatsemi(g\fatsemi h)} : \mathbf{U}_f \times (\mathbf{X}_f \fatsemi (\mathbf{X}_g \fatsemi \mathbf{X}_h)) &\to \mathbf{X}_f \fatsemi (\mathbf{X}_g \fatsemi \mathbf{X}_h) \\
\langle u, [x_f \mathbin{;} x_g \mathbin{;} x_h] \rangle &\mapsto [\mathrm{dyn}_f(u, x_f) \mathbin{;} \mathrm{dyn}_{g\fatsemi h}(\mathrm{ro}_f(x_f), [x_g \mathbin{;} x_h])] \\
&= [\mathrm{dyn}_f(u, x_f) \mathbin{;} \mathrm{dyn}_g(\mathrm{ro}(x_f), x_g) \mathbin{;} \mathrm{dyn}_h(\mathrm{ro}_g(x_g), x_h)].
\end{aligned}$$