Lemma. Consider $\mathbf{d}, \mathbf{e} \in \mathrm{Hom}_{\mathbf{DP}}(\mathbf{P}; \mathbf{Q})$ and $\mathbf{g} \in \mathrm{Hom}_{\mathbf{DP}}(\mathbf{Q}; \mathbf{R})$. One has

$$(\mathbf{d} \vee \mathbf{e}) \fatsemi \mathbf{g} = (\mathbf{d} \fatsemi \mathbf{g}) \vee (\mathbf{e} \fatsemi \mathbf{g}).$$