

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

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