

$$x = \text{Diagram of a red loop } \alpha \text{ with incoming blue arrows } i \text{ and } j$$

$$y = \text{Diagram of a green loop } \beta \text{ with incoming blue arrows } k \text{ and } l$$

$$\mu_{\otimes} \circ (\Psi \otimes \Psi)(x \otimes y) = \text{Diagram of } x \otimes y \text{ with dotted lines} = \sum_{a,b=\pm} \epsilon \left( \text{Diagram of a blue loop with arrows } j, k, a, b \right) \text{Diagram of } x \otimes y \text{ with solid lines}$$

$$= \sum_{a,b=\pm} \mathbf{r} \left( \text{Diagram of a blue loop with arrows } k, a \right) \otimes \text{Diagram of a blue loop with arrows } j, b \right) \Psi \circ \mu \left( \text{Diagram of } x \otimes y \text{ with solid lines} \right)$$