$$X^{p} \otimes Y^{q} \xrightarrow{\varepsilon(p,q) \cdot \tau} Y^{q} \otimes X^{p}$$

$$\downarrow^{d} \qquad \qquad \downarrow^{d}$$

$$X^{p+1} \otimes Y^{q} \xrightarrow{\varepsilon(p+1,q) \cdot \tau} Y^{q} \otimes X^{p+1}$$

$$\oplus \qquad \oplus \qquad \oplus$$

$$X^{p} \otimes Y^{q+1} \xrightarrow{\varepsilon(p,q+1) \cdot \tau} Y^{q+1} \otimes X^{p}$$