$$\operatorname{Hom}_{\mathbf{C}}(X;Y) \otimes (\operatorname{Hom}_{\mathbf{C}}(Y;Z) \otimes \operatorname{Hom}_{\mathbf{C}}(Z;U)) \xrightarrow{\operatorname{as}} (\operatorname{Hom}_{\mathbf{C}}(X;Y) \otimes \operatorname{Hom}_{\mathbf{C}}(Y;Z)) \otimes \operatorname{Hom}_{\mathbf{C}}(Z;U)$$

$$\operatorname{id}_{\mathbf{C}} \otimes m_{Y,Z,U} \downarrow \qquad \qquad \qquad \downarrow m_{X,Y,Z} \otimes \operatorname{id}_{\mathbf{C}}$$

$$\operatorname{Hom}_{\mathbf{C}}(X;Y) \otimes \operatorname{Hom}_{\mathbf{C}}(Y;U) \xrightarrow{m_{X,Y,U}} \operatorname{Hom}_{\mathbf{C}}(X;U) \stackrel{\operatorname{as}}{\longleftarrow} \operatorname{Hom}_{\mathbf{C}}(X;Z) \otimes (\operatorname{Hom}_{\mathbf{C}}(Z;U)$$