$$\langle \langle a, \bullet \rangle, b \rangle \longmapsto \langle a, \langle \bullet, b \rangle \rangle$$

$$(\mathbf{A} \times \mathbf{1}) \times \mathbf{B} \xrightarrow{\mathrm{as}_{\mathbf{A}, \mathbf{1}, \mathbf{B}}} \mathbf{A} \times (\mathbf{1} \times \mathbf{B})$$

$$ru_{\mathbf{A}} \times id_{\mathbf{B}} \xrightarrow{\mathbf{A} \times \mathbf{B}} id_{\mathbf{A}} \times lu_{\mathbf{B}}$$

$$\langle a, b \rangle$$