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

$$(A \times B) \times C \xrightarrow{\text{as}_{A,B,C}} A \times (B \times C)$$

$$(f \times g) \times h \downarrow \qquad \qquad \downarrow f \times (g \times h)$$

$$(A' \times B') \times C' \xrightarrow{\text{as}_{A',B',C'}} A' \times (B' \times C')$$

$$\langle \langle f(a), g(b) \rangle, h(c) \rangle \longmapsto \langle f(a), \langle g(b), h(c) \rangle \rangle$$