$$\langle \langle c, 1 \rangle, 2 \rangle$$

$$as_{A+B,C,D}$$

$$\langle (c, 2), 1 \rangle \quad ((A + B) + C) + D$$

$$as_{A,B,C} + Id_{D} \downarrow$$

$$(A + (B + C)) + D$$

$$as_{A,B,C} + Id_{D} \downarrow$$

$$(A + (B + C)) + D$$

$$as_{A,B+C,D}$$

$$as_{A,B+C,D}$$

$$A + ((B + C) + D)$$

$$as_{A,B+C,D}$$

$$A + ((B + C) + D)$$

$$as_{A,B+C,D}$$

$$as_{A,B+C,D}$$