

$$\begin{array}{ccccc}
 L(a + a') & \longrightarrow & (w + {}_{Lb}x) + (y + {}_{Lb'}z) & \longleftarrow & L(c + c') \\
 \downarrow s & & \uparrow q + q & & \downarrow s \\
 La + La' & & & & Lc + Lc' \\
 \downarrow f + h & & & & \downarrow g' + k' \\
 w + y & \xrightarrow{\iota + \iota} & (w + x) + (y + z) & \xleftarrow{\iota + \iota} & x + z
 \end{array}$$