$$G \leftarrow K \times G$$

$$\mathfrak{b}_g{}^{g}\mathfrak{q} = \overset{+}{\mathfrak{b}} \text{ left K-inv}$$

$$\text{LHS} = \mathfrak{b}\, \underline{R}_g{}^{g}\mathfrak{q} \underset{\text{KN}}{=} \overbrace{\mathfrak{b}\underline{R}_g{}^{g}\underline{R}^{-1}}^{+} = \text{RHS}$$