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we have

$$\begin{aligned} u(x) &= \langle T_{(a)}, a^\rho R_a^* Ru(x) \rangle = \Gamma(D)_{(a)} (a^\rho R_a^* Ru(x)) \Big|_{a=e} \\ &= P_{(x)} (a^\rho R_a^* Ru(x)) \Big|_{a=e} = P_{(x)} R^* Ru(x). \quad \square \end{aligned}$$

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