$\left(\operatorname{Id}_{U} \otimes \operatorname{Tr}_{X,Y}^{Z}(f)\right)^{\star}(u,x) = \uparrow \{u\} \times \left\{ y \in Y \mid \bigvee_{z \in Z} \langle y, z \rangle \in f^{\star}(x,z) \right\}.$