$$U(f) \,\mathbin{\mathring{,}}\, U(g) : \mathbf{Pos} \to \mathbf{Pos}$$

$$P' \mapsto \mathord{\uparrow} \left(\bigcup_{q \in \mathord{\uparrow} \bigcup_{p \in P'} \{f(p)\}} \{g(q)\} \right)$$

$$\mapsto \mathord{\uparrow} \left(\bigcup_{p \in P'} \{g(f(p))\} \right). \tag{??}$$