$$(\mathbf{d} \otimes \mathbf{g}) (\langle p, r \rangle^*, \langle q, s \rangle) = \mathbf{d}(p^*, q) \wedge \mathbf{g}(r^*, s)$$

$$\leq_{\mathbf{DP}} \mathbf{e}(p^*, q) \wedge \mathbf{h}(r^*, s)$$

$$= (\mathbf{e} \otimes \mathbf{g}) (\langle p, r \rangle^*, \langle q, s \rangle).$$