$$\leq_{\mathbf{DP}} \bigvee_{r \in \mathbf{R}} \mathbf{e}(\langle r, p \rangle^*, \langle r, q \rangle)$$

$$= \mathrm{Tr}_{\mathbf{P}, \mathbf{Q}}^{\mathbf{R}}(\mathbf{e})(p^*, q).$$

 $r \in \mathbb{R}$   $\leq_{\mathbf{DP}}$ 

 $\operatorname{Tr}_{\mathbf{P},\mathbf{O}}^{\mathbf{R}}(\mathbf{d})(p^*,q) = \sqrt{\mathbf{d}(\langle r,p\rangle^*,\langle r,q\rangle)}$