Definition (Monoidal product in **DP**)**.** Given two design problems $f : A \nrightarrow B$ and $g : C \nrightarrow D$, their *monoidal product* $f \otimes g : A \times C \nrightarrow B \times D$ is their conjunction:

$$f \otimes g : (A \times C)^{\mathrm{op}} \times (B \times D) \to_{\mathbf{Pos}} \mathbf{Bool},$$
$$\langle \langle a, c \rangle^* , \langle b, d \rangle \rangle \mapsto f(a^*, b) \wedge g(c^*, d).$$

The diagrammatic representation of the monoidal product is reported in **??**.