

**Definition** (Intersection of design problems). Given design problems  $f : A \multimap B$  and  $g : A \multimap B$ , their *intersection* is denoted  $(f \wedge g) : A \multimap B$ , defined by:

$$(f \wedge g) : A^{\text{op}} \times B \rightarrow_{\text{Pos}} \mathbf{Bool}$$

$$\langle a^*, b \rangle \mapsto f(a^*, b) \wedge g(a^*, b).$$