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

$$(f \land g) : A^{\text{op}} \times B \to_{\mathbf{Pos}} \mathbf{Bool}$$
  
 $\langle a^*, b \rangle \mapsto f(a^*, b) \land g(a^*, b),$ 

and represented as in ??.