B are design problems. We define the order as follows.

$$\frac{f \leq_{\mathbf{DP}} g}{f(a^*, \mathbf{b}) \leq_{\mathbf{Bool}} g(a^*, \mathbf{b}), \quad \text{for all } a \in A, \mathbf{b} \in B}$$

Definition (Order on **DP**). Suppose that A and B are posets, and that $f,g:A \rightarrow B$