$$(f \mathbin{\mathring{,}} g) : \quad A^{\mathrm{op}} \times C \xrightarrow{\quad} _{\mathbf{Pos}} \mathbf{Bool},$$

$$\langle a^*, c \rangle \mapsto \bigvee_{b_1 \leq b_2, b_1, b_2 \in B} f(a^*, b_1) \wedge g(b_2{}^*, c).$$