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

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