$$(f_1 \mathbin{\fatsemi} g_1)(a^*, c) = \bigvee_{b \in B} f_1(a^*, b) \wedge g_1(b^*, c)$$

$$\preceq_{\mathbf{DP}} \bigvee_{b \in B} f_2(a^*, b) \wedge g_2(b^*, c)$$

$$= (f_2 \mathbin{\fatsemi} g_2)(a^*, c).$$