$$(\mathrm{un}^{\mathbf{P}}_{\mathcal{U}} \, \mathring{\,}\, \mathsf{Unc}(\mathbf{f}))(p^*, [q_1, q_2]) = \bigvee_{[p_1, p_2] \in \mathrm{Int}(\mathbf{P})} \mathrm{un}^{\mathbf{P}}_{\mathcal{U}}(p^*, [p_1, p_2]) \wedge \mathsf{Unc}(f)([p_1, p_2]^*, [q_1, q_2])$$

$$= \bigvee_{[p_1, p_2] \in \mathrm{Int}(\mathbf{P})} (p \preceq p_1) \wedge \mathbf{f}(p_1{}^*, q_1) \wedge \mathbf{f}(p_2{}^*, q_2)$$