

## es-pstar-q\_functionality\_wrt\_implies<sup>0,22</sup>

$$\begin{aligned} & \forall es:\mathbf{ES}, e_1:\mathbf{E}, e_2:\{e:\mathbf{E} \mid \text{loc}(e) = \text{loc}(e_1) \in \text{Id}\}, p, q, p', \\ & q':(\{e:\mathbf{E} \mid \text{loc}(e) = \text{loc}(e_1) \in \text{Id}\} \rightarrow \{e:\mathbf{E} \mid \text{loc}(e) = \text{loc}(e_1) \in \text{Id}\} \rightarrow \text{Prop}). \\ & (\forall a, b:\{e:\mathbf{E} \mid \text{loc}(e) = \text{loc}(e_1) \in \text{Id}\}. \\ & \quad (a \in [e_1, e_2]) \Rightarrow (b \in [e_1, e_2]) \Rightarrow \{p(a,b) \Rightarrow p'(a,b)\}) \\ \Rightarrow & (\forall a, b:\{e:\mathbf{E} \mid \text{loc}(e) = \text{loc}(e_1) \in \text{Id}\}. \\ & \quad (a \in [e_1, e_2]) \Rightarrow (b \in [e_1, e_2]) \Rightarrow \{q(a,b) \Rightarrow q'(a,b)\}) \\ \Rightarrow & \{[e_1;e_2] \sim ([a,b].p(a,b)) * [a,b].q(a,b) \Rightarrow [e_1;e_2] \sim ([a,b].p'(a,b)) * [a,b].q'(a,b)\} \end{aligned}$$