$$\underbrace{\left\{ \left( \bigcup_{p \in \uparrow \bigcup_{i \in I} S_i} \{f(p)\} \right) \right\}}_{\star} \subseteq \uparrow \underbrace{\left\{ \bigcup_{i \in I} \{f(s_i)\} \right\}}_{\diamond}.$$