

## not-r-immediate-pred<sup>11,40</sup>

$\forall es:ES, R:(E \rightarrow E \rightarrow \mathbb{P}).$   
 $(\forall e, e':E. \text{Dec}(R(e',e)))$   
 $\Rightarrow R \Rightarrow \lambda x,y. (x < y)$   
 $\Rightarrow (\forall e, e':E.$   
 $(e' R e) \Rightarrow (\neg \text{es-r-immediate-pred}(es;R;e';e)) \Rightarrow (\exists c:E. ((e' R c) \& (c R e))))$