

## R-state-var-compat3<sup>0,22</sup>

$\forall i:\text{Id}, ds_1, ds_2:x:\text{Id fp} \rightarrow \text{Type}, da:k:\text{Knd fp} \rightarrow \text{Type}, x, y:\text{Id}, T_1, T_2:\text{Type}, ks_1, ks_2:\text{Knd List},$   
 $tr_1:(k:\{k:\text{Knd} \mid (k \in ks_1)\} \rightarrow \text{State}(ds_1) \rightarrow \text{Valtype}(da;k) \rightarrow T_1 \rightarrow T_1),$   
 $tr_2:(k:\{k:\text{Knd} \mid (k \in ks_2)\} \rightarrow \text{State}(ds_2) \rightarrow \text{Valtype}(da;k) \rightarrow T_2 \rightarrow T_2).$   
 $\neg x = y$   
 $\Rightarrow ds_1 \parallel x : T_1$   
 $\Rightarrow ds_2 \parallel y : T_2$   
 $\Rightarrow ds_2 \parallel ds_1 \oplus x : T_1$   
 $\Rightarrow ds_1 \parallel ds_2 \oplus y : T_2$   
 $\Rightarrow \text{R-state-var}(i;ds_1;da;x;T_1;ks_1;tr_1) \parallel \text{R-state-var}(i;ds_2;da;y;T_2;ks_2;tr_2)$