

## s-unconditional-send1-rule<sup>0,22</sup>

$\forall x, \ tg:\text{Id}, \ k:\text{Knd}, \ l:\text{IdLnk}, \ T, \ A, \ B:\text{Type}.$   
 $(\text{recv}(l,tg) = k \Rightarrow T = B)$   
 $\Rightarrow (\forall f:(A \rightarrow B \rightarrow T).$   
 @source( $l$ ):  $k(v)$  sends  $[tg, \ \lambda a.b. \ [f(a,b)](x, v)]$  on link  $l \in \text{Dsys}$   
 &  $(\forall D:\text{Dsys}.$   
     @source( $l$ ):  $k(v)$  sends  $[tg, \ \lambda a.b. \ [f(a,b)](x, v)]$  on link  $l \subseteq D$   
      $\Rightarrow D$   
     realizes  $es.$   
      $\text{vartype}(\text{source}(l);x) \subseteq \rho A$   
     &  $(\forall e:E. \ \text{loc}(e) = \text{source}(l) \in \text{Id} \Rightarrow \text{kind}(e) = k \in \text{Knd} \Rightarrow \text{valtype}(e) \subseteq \rho B)$   
     &  $(\forall e:E. \ \text{kind}(e) = \text{recv}(l,tg) \in \text{Knd} \Rightarrow \text{valtype}(e) \subseteq \rho T)$   
     &  $(\forall e:E.$   
          $\text{loc}(e) = \text{source}(l) \in \text{Id}$   
          $\Rightarrow \text{kind}(e) = k \in \text{Knd}$   
          $\Rightarrow (\exists e':E.$   
              $\text{kind}(e') = \text{recv}(l,tg) \in \text{Knd}$   
             &  $\text{sender}(e') = e \in E$   
             &  $(\forall e'':E.$   
                  $\text{kind}(e'') = \text{recv}(l,tg) \in \text{Knd} \Rightarrow \text{sender}(e'') = e \in E \Rightarrow e'' = e' \in E)$   
             &  $\text{val}(e') = f((x \text{ when } e), \text{val}(e)) \in T)))$