

## **es-sender-causl<sup>11,40</sup>**

$\forall the\_es: \text{event\_system}\{i:l\}, e: \text{es-E}(the\_es).$

$(\uparrow \text{es-isrcv}(the\_es; e)) \Rightarrow \text{es-causl}(the\_es; \text{es-sender}(the\_es; e); e)$