

## **f2f+-req-exists**<sup>11,40</sup>

$\forall es:ES, ff:FIFO, f2f+:F2F+-decls.$

$\text{plus-ify}\{i:l\}(es;ff;is\_req ;is\_ack ;awaiting ;owes\_ack )$

$\Rightarrow (\forall sndr, rcvr:ff.C, e:E.$

$[e: sndr \leftarrow is\_ack \dashv\vdash rcvr]$

$\Rightarrow (\exists e':\{a:E \mid [a: sndr \dashv\vdash is\_req \rightarrow rcvr]\} . f2f+-pred(e',ff.Sender(sndr,e))))$