Topics in Concurrency Qu. 1

(a) Bookwork P.55 Course notes on Topics in Concurrency available from www.cl.cam.ac.uk/~gw104.

(b) $$[a]([a]F \wedge [b]F)$$
$$\wedge \langle a \rangle T$$
$$\wedge [b]F$$

(c) $t_1 \equiv a.nil + a.b.nil$, $t_2 \equiv a.b.nil$

are st. $t_1 \lesssim t_2$ & $t_2 \lesssim t_2$ via

the relations R_1 , R_2 defined by

$R_1 = \{ (t_1, t_2), (nil, b.nil), (nil, nil),$
$\phantom{R_1 = \{} (b.nil, b.nil) \}$

$R_2 = \{ (t_1, t_2), (a.nil, a.nil), (nil, nil) \}$.

How $t_1 \not\sim t_2$, i.e. t_1, t_2 are not

strong bisimilar, as

$t_1 \xrightarrow{a} nil$ and only $t_2 \xrightarrow{a} b.nil$.

But $nil \not\sim b.nil$