

$$\underline{R(s, s')} \Rightarrow \underline{n'(u) = n(u)}, \underline{u = i}$$

from acyclicity

$$Ax_0, R^*(s_0, s) \Rightarrow \underline{n(u) = n_0(u)}, \underline{u <_0 i}$$

$$Ax_0, i <_0 i \Rightarrow i = \text{null}$$

⋮

$$Ax_0, R^*(s_0, s) \Rightarrow i = \text{null}, \underline{n(i) = n_0(i)}$$

from def. of R

$$R(s, s'), i = \text{null} \Rightarrow$$

$$R(s, s') \Rightarrow i' = n(i)$$

$$Ax_0, R^*(s_0, s), R(s, s') \Rightarrow n(u) = n_0(u), u <_0 i' \quad \textcircled{1}$$

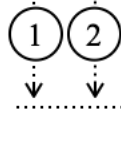
$$Ax_0, R^*(s_0, s), R(s, s') \Rightarrow n'(u) = n(u), u <_0 i' \quad \textcircled{2}$$

from def. of R, n* & equality

$$\underline{n(i) = n_0(i)}, \underline{u <_0 i}, \underline{R(s, s')} \Rightarrow u <_0 i'$$

$$\underline{n(i) = n_0(i)}, \underline{u = i}, \underline{R(s, s')} \Rightarrow u <_0 i'$$

$$\underline{n(u) = n_0(u)}, \underline{n'(u) = n(u)} \Rightarrow n'(u) = n_0(u)$$



$$Ax_0, R^*(s_0, s), R(s, s') \Rightarrow \underline{n'(u) = n_0(u)}, u <_0 i'$$