SL 6(2) : $p(a) \vee p(b)$ → 3 Models (FOL)

LP: 2 "minimal" models

FOL equiv

$P_1 := \{ \neg p(a) \rightarrow p(b) \}$ $P_2 := \{ \neg p(b) \rightarrow p(a) \}$

as rules: directed !

stratification: $p \circlearrowright \neg$

→ programs $P_1, P_2$ are not stratifiable

→ consider ground terms for stratification

$P_1$: $DP'$: $p(a) \xleftarrow{\neg} p(b)$ "local (ground) stratification"

$\Rightarrow \varphi'$: locally stratified semantics: $S_0 = \{\}$

- first compute $p(a)$ according to $T_P^\omega$
- then compute $p(b)$ " " " $S_1 = \{ p(b) \leftarrow \neg p(a) \}$

$\rightsquigarrow T_{S_0}^\omega(\emptyset) = \emptyset \quad \hat{=} \; p(a) \notin \mathcal{J}_1$

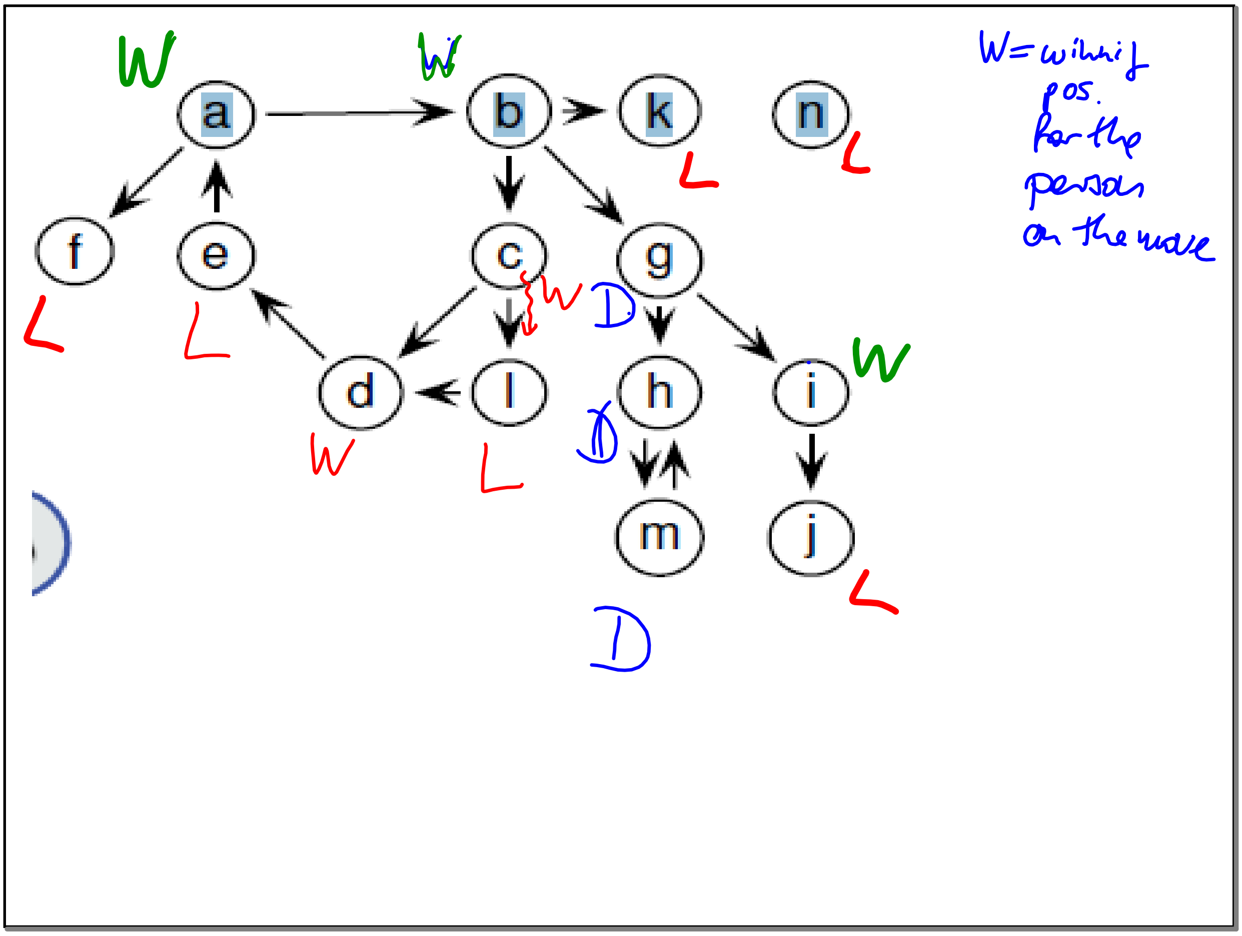
$T_{S_1 \cup \mathcal{J}_1}^\omega(\emptyset) = \{ p(b) \}$

$\Longrightarrow \varphi_{locStrat(P_1)} = \{ p(b) \} =: \mathcal{M}_1$

additional:

evaluate $P_1$ in the same way on

on $\mathcal{M}_1 \rightsquigarrow \mathcal{M}_1$ is "stable"



reduct of P: win(x) :- move(x,y), ¬win(y).

EDB

win(a) :- ~~move(a,a)~~, ¬win(a).
win(a) :- move(a,b), ¬win(b).
win(a) :- ~~move(a,c)~~, ¬win(c)
win(a) :- move(a,f), ¬win(f)
win(a) :- ~~move(a,h)~~, ¬win(h)
win(b) :- move(b,c), ¬win(c)
g ¬win(g)
k ¬win(k)

win(f) :- ~~move(f,a)~~, ¬win(a)
win(f) :- ~~f(h)~~ → no rules for win(f) remain
⇒ win(f) is false

14 grd. instances for a, a … a, n
14 for b

→ same for all no-exit-lose nodes