

Well-founded model:

quite complex "reasoning"

still polynomial

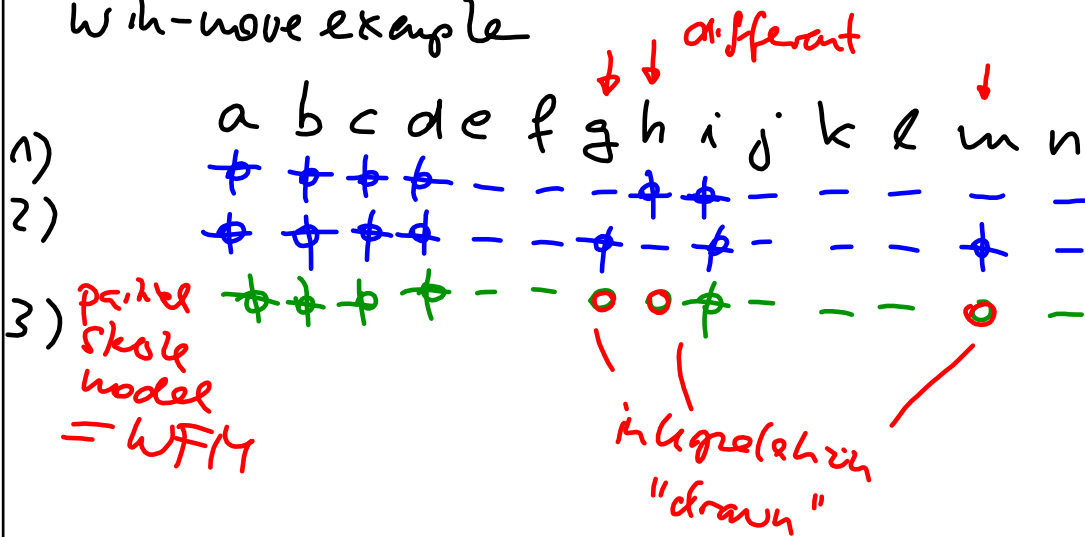
→ move towards stable models

- total stable models (do not always exist)

- a unique minimal perfect stable model
≡ (partial) well-founded model

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win-move example



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AFP for slide 625

$p(a) :- \text{not } q(a).$
 $q(a) :- \text{not } p(a).$

$I_0 = \emptyset$

$P_{I_0} = \{ p(a) :- \text{true},$
 $q(a) :- \text{true} \}$

$I_1 = T_{P_{I_0}}^{\cup}(\emptyset) = \{ p(a), q(a) \}$

$P_{I_1} = \{ \}$

$I_2 = T_{P_{I_1}}^{\cup}(\emptyset) = \{ \} = \emptyset$
 $= I_0$

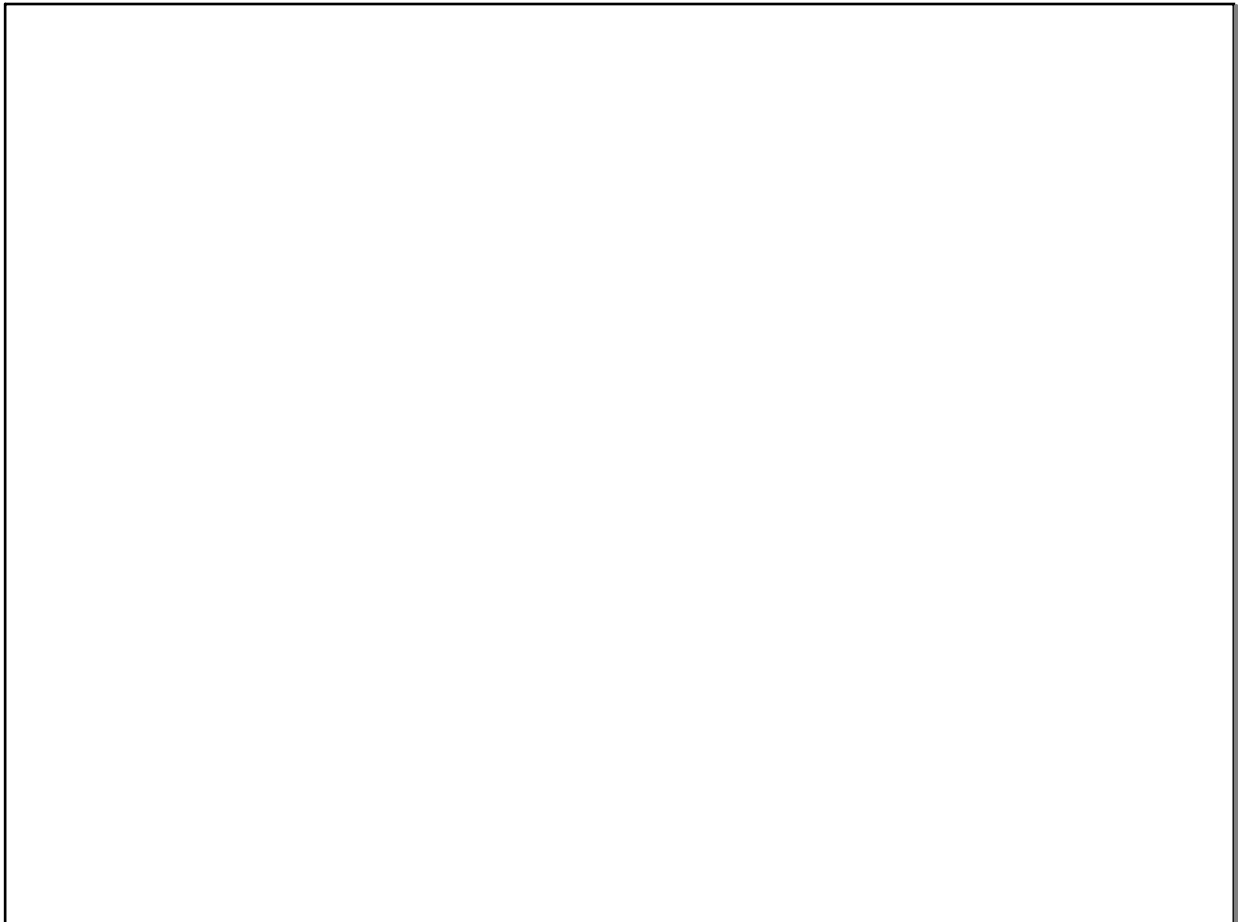
\Rightarrow AFP reached \rightarrow 3-valued model $= (\emptyset, \emptyset) = : \omega$

$\begin{matrix} T & & F \\ & \downarrow & \swarrow \\ & & \end{matrix}$

means $Val_{\omega}(p(a)) = \omega$
 $Val_{\omega}(q(a)) = \omega$

in this case
~~we have~~ we have 2 total/cycle models,
 $(\{p(a)\}, \{q(a)\})$
 $(\{q(a)\}, \{p(a)\})$

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