

Slides 5 & 1 :

rules are directed

consider a rule with a negative literal L_1 & L_2 body:

$$\begin{array}{ccc}
 \overbrace{P \leftarrow \neg q}^{P_1} & \longrightarrow & P \vee q \\
 \downarrow & & \overbrace{\neg p \rightarrow q}^{P_2}
 \end{array}$$

$M_0 := \{p\}$ "supported"

$M_0 \not\models P_2$ *not supported*

$M_1 := \{q\} \models P_1$
not supported

$M_1 \models P_2$ "supported"

$$P_1 \cup P_2 = \{p \leftarrow \neg q, q \leftarrow \neg p\} \hat{=} P \vee q$$

$M_0 \models P_1 \cup P_2$ "supported"

$M_1 \models P_1 \cup P_2$ "supported"