

$$(Letter, 1) \models [Lab(!La?puLa?7p)] Kap$$

iff for all  $(M', s')$ :

$$(Letter, 1) \models [Lab(!La?puLa?7p)](M', s')$$

implies

$$(M', s') \models K_a P$$

Letter

$$ab \in 0 \xleftarrow{a,b} \frac{1}{P} \xrightarrow{a,b} ?p$$

$$Lab(La?puLa?7p) \left( \begin{array}{c} \downarrow ?7p \\ \downarrow La?7p \\ 0' \Rightarrow \boxed{0' \xrightarrow{a} a} \end{array} \right)$$

$$(Letter, 1) \models [?P](M^*, 1')$$

$$1' \xrightarrow{M^*} \boxed{1' \xrightarrow{a} a}$$

$$a, b \in 0 \xleftarrow{b} \frac{1}{P} \xrightarrow{a} b, a \quad M'$$

Tia to point 5'

$$(M, s) \models [L_b] (M', s') \text{ iff } M' = \dots$$

$$\text{and } (M, s) \models [a] (M', s')$$

$$(Letter, 1) \models [!La?puLa?7p] (M', s')$$

$$(Letter, 1) \models [La?7p] (M', s')$$

$$(Letter, 1) \models [?P] (M', s') \text{ apa } \omega s' = 1'$$

$$(M, 01) \models [La?(pvq) \cup La?(7pv7q)] Kap$$

$$M^{**} \begin{array}{c} \xrightarrow{a} 00'' \\ \xrightarrow{a} 01'' \\ \xrightarrow{a} 10'' \\ \xrightarrow{a} 11'' \end{array} \xrightarrow{La?(pvq) \cup La?(7pv7q)} \begin{array}{c} \xrightarrow{a} 00'' \\ \xrightarrow{a} 01'' \\ \xrightarrow{a} 10'' \\ \xrightarrow{a} 11'' \end{array}$$

$$(M, 01) \models [7pv7q] (M^*, 01'')$$

$$(M, 01) \models [La?(7pv7q)] (M^{**}, 01'')$$

$$(M, 01) \models [La?(pvq)] (M^{**}, 01')$$

$$(M, 01) \models [La?(7pv7q) \cup La?(pvq)] (M^{**}, 01'')$$

$$(M^{**}, 01')$$