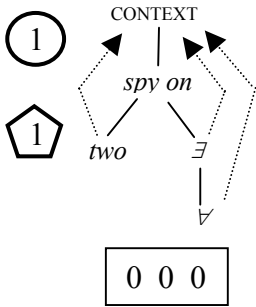


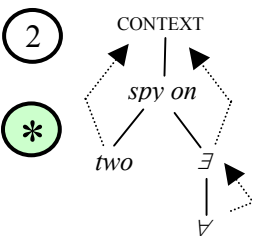
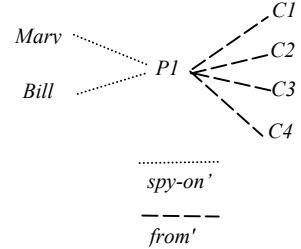
THE SIX INTERPRETATIONS OF THE SENTENCE

Two politicians spied on someone from every city



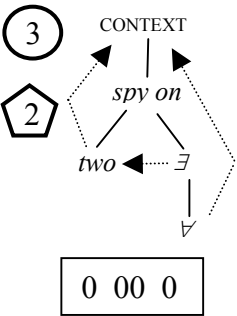
There are two politicians (Mary and Bill) each of which spied on a person (P1), which comes from all (relevant) cities (C1, C2, C3, C4).

$$\begin{aligned} &\exists x_1 \exists x_2 \exists y \\ &[x_1 \neq x_2 \wedge \\ &\forall x [(x = x_1 \vee x = x_2) \rightarrow \text{politician}'(x)] \wedge \\ &\text{person}'(y) \wedge \\ &\forall z [\text{city}'(z) \rightarrow \text{from}'(y, z)] \wedge \\ &\forall x [(x = x_1 \vee x = x_2) \rightarrow \text{spy-on}'(x, y)] \end{aligned}$$



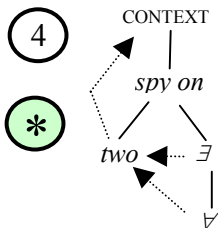
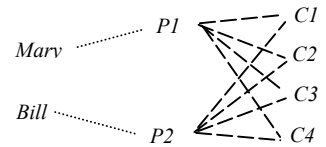
Conflates in 1..

$$0 \ 0 \ 01$$



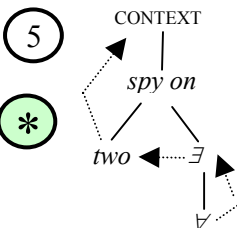
There are two politicians (Mary and Bill). Each of them spies on a person that comes from all (relevant) cities, but they may spy on different persons.

$$\begin{aligned} &\exists x_1 \exists x_2 [x_1 \neq x_2 \wedge \\ &\forall x [(x = x_1 \vee x = x_2) \rightarrow \text{politician}'(x)] \wedge \\ &\forall x [(x = x_1 \vee x = x_2) \rightarrow \\ &\exists y [(\text{person}'(y) \wedge \\ &\forall z [\text{city}'(z) \rightarrow \text{from}'(y, z)] \wedge \\ &\text{spy-on}'(x, y)]]] \end{aligned}$$



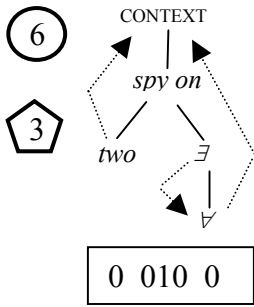
Conflates in 3.

$$0 \ 00 \ 00$$



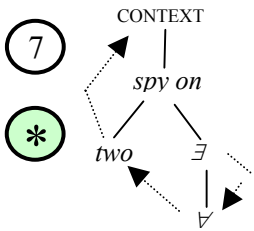
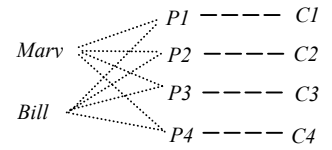
Conflates in 3.

$$0 \ 00 \ 01$$



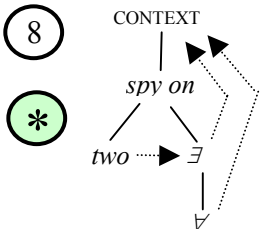
There are two students (Mary and Bill), four theories (Tr1, Tr2, Tr3, Tr4), and three theorems for each theory. Each student studies those theorems

$$\begin{aligned} &\exists_{x1}\exists_{x2} [x1 \neq x2 \wedge \\ &\quad \forall_x [(x = x1 \vee x = x2) \rightarrow \text{politician}'(x)] \wedge \\ &\quad \forall_z [\text{theory}'(z) \rightarrow \\ &\quad \quad \exists_y [\text{person}'(y) \wedge \\ &\quad \quad \quad \forall_x [(x=x1 \vee x=x2) \rightarrow \text{spy-on}'(x, y)]]]] \end{aligned}$$



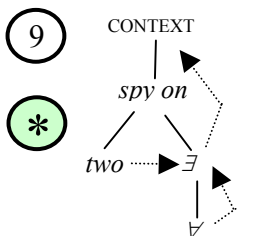
Conflates in 6.

0 010 00



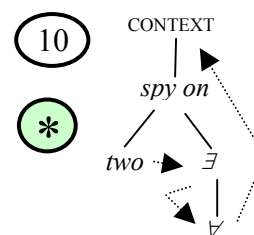
Nothing can depend on an existential.

01 0 0



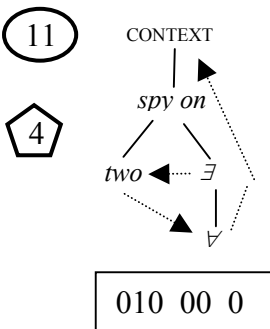
Nothing can depend on an existential.

01 0 01



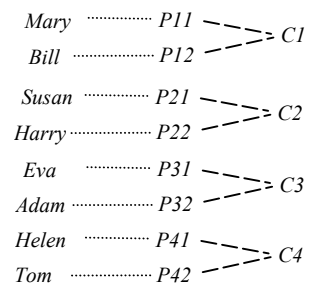
Nothing can depend on an existential.

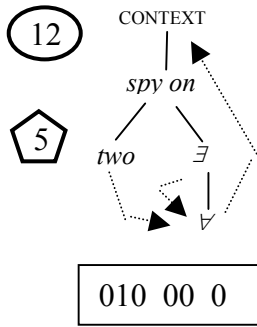
01 010 0



For all (relevant) cities there are two, possibly different, politicians who spied on a person from that city (possibly, a different person for each politician)

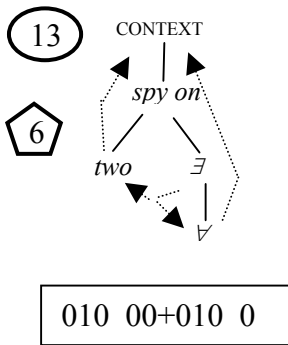
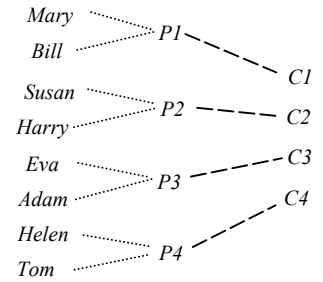
$$\begin{aligned} &\forall_z [\text{city}'(z) \rightarrow \\ &\quad \exists_{x1}\exists_{x2} [x1 \neq x2 \wedge \\ &\quad \quad \forall_x [(x = x1 \vee x = x2) \rightarrow \text{politician}'(x)] \wedge \\ &\quad \quad \forall_x [(x = x1 \vee x = x2) \rightarrow \\ &\quad \quad \quad \exists_y [\text{person}'(y) \wedge \text{spy-on}'(x, y)]]]] \end{aligned}$$





For each of the (relevant) cities there is a person and two politicians who spy on her/him..

$$\forall_z [\text{theory}'(z) \rightarrow \exists_{x_1} \exists_{x_2} \exists_y [x_1 \neq x_2 \wedge \forall_x [(x=x_1 \vee x=x_2) \rightarrow \text{politician}'(x)] \wedge \text{person}'(y) \wedge \text{from}'(y, z)] \wedge \forall_x [(x=x_1 \vee x=x_2) \rightarrow \text{spy-on}'(x, y)]]]$$



There are two politicians such that for all (relevant) cities there is a person that each of those politicians spy on.

$$\exists_{x_1} \exists_{x_2} [x_1 \neq x_2 \wedge \forall_x [(x=x_1 \vee x=x_2) \rightarrow \text{politicians}'(x)] \wedge \forall_x \forall_z [((x=x_1 \vee x=x_2) \wedge \text{city}'(z)) \rightarrow \exists_y [\text{person}'(y) \wedge \text{from}'(y, z) \wedge \text{spy-on}'(x, y)]]]]]$$

