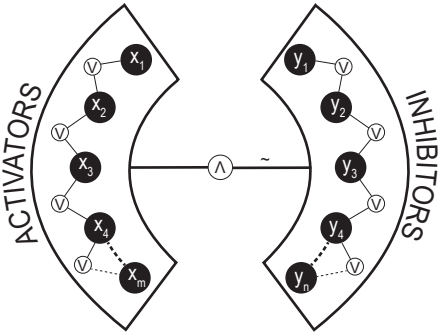
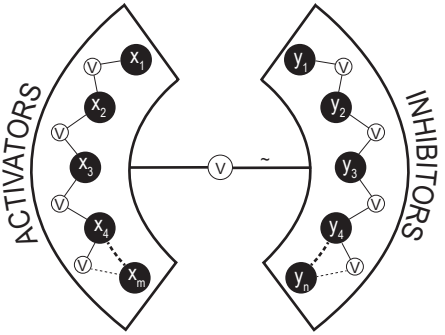
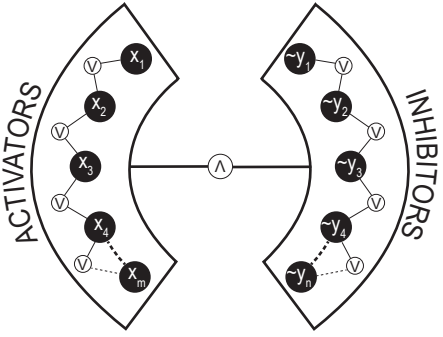
(a) $f_{AND\text{-}NOT} = (x_1 \vee x_2 \vee \ldots \vee x_m) \wedge \sim (y_1 \vee y_2 \vee \ldots \vee y_n)$



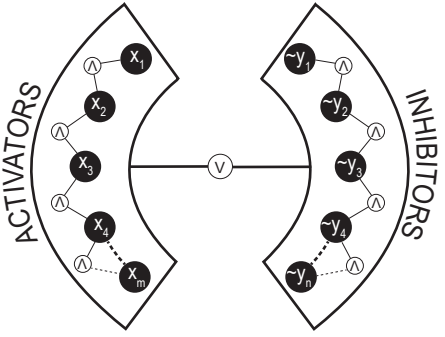
(b) $f_{OR\text{-}NOT} = (x_1 \vee x_2 \vee \ldots \vee x_m) \vee \sim (y_1 \vee y_2 \vee \ldots \vee y_n)$



(c) $f_{AND\text{-}pairs} = (x_1 \vee x_2 \vee \ldots \vee x_m) \wedge (\sim y_1 \vee \sim y_2 \vee \ldots \vee \sim y_n)$



(d) $f_{OR\text{-}pairs} = (x_1 \wedge x_2 \wedge \ldots \wedge x_m) \vee (\sim y_1 \wedge \sim y_2 \wedge \ldots \wedge \sim y_n)$



V - OR operator Λ - AND operator ~ - NOT operator