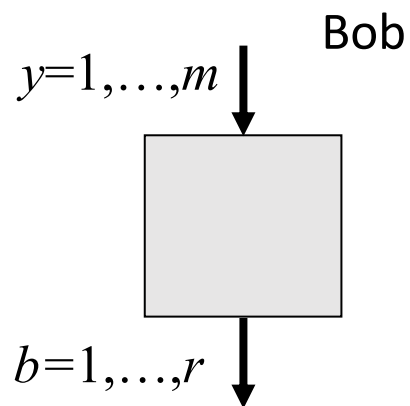


$$p(ab|xy)$$



$$p(a,b|x,y) = \begin{pmatrix} p(1,1|1,1) & p(1,2|1,1) & \cdots & p(r,r|1,1) \\ p(1,1|1,2) & p(1,2|1,2) & \cdots & p(r,r|1,2) \\ \vdots & \vdots & \ddots & \vdots \\ p(1,1|m,m) & p(1,2|m,m) & \cdots & p(r,r|m,m) \end{pmatrix}$$

$$p(ab|xy) \geq 0 \quad \sum_{ab} p(ab|xy) = 1 \quad \forall x, y$$

$$\mathcal{C} \subsetneq \mathcal{Q} \subsetneq \mathcal{NS}$$

