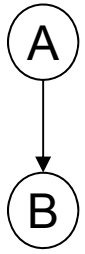
Konstruktion Bayesscher Netze – fehlende Werte (4)

- Beispiel:



Training data *D*

d_1 = (?, 0)

d_2 = (?, 0)

d_3 = (?, 1)

θ^0

A	
1	0
0.5	0.5

A	*B*	
	1	0
1	0.6	0.4
0	0.5	0.5

D^0

$$d_1 = \begin{bmatrix} P(A=1)=0.44 \\ P(A=0)=0.56 \end{bmatrix}, B = 0 \Big]$$

$$d_2 = \begin{bmatrix} P(A=1)=0.44 \\ P(A=0)=0.56 \end{bmatrix}, B = 0 \Big]$$

$$d_3 = \begin{bmatrix} P(A=1)=0.54 \\ P(A=0)=0.46 \end{bmatrix}, B = 1 \Big]$$

θ^1

A	
1	0
0.47	0.53

A	*B*	
	1	0
1	0.38	0.62
0	0.29	0.71

$\frac{1}{3} d_1(A=1) + \frac{1}{3} d_2(A=1) \ldots$

- $P(A = 1|B = 0) = P(B = 0|A = 1) \cdot P(A = 1) / P(B = 0)$
- Algorithmus findet i. Allg. nur lokales Optimum.