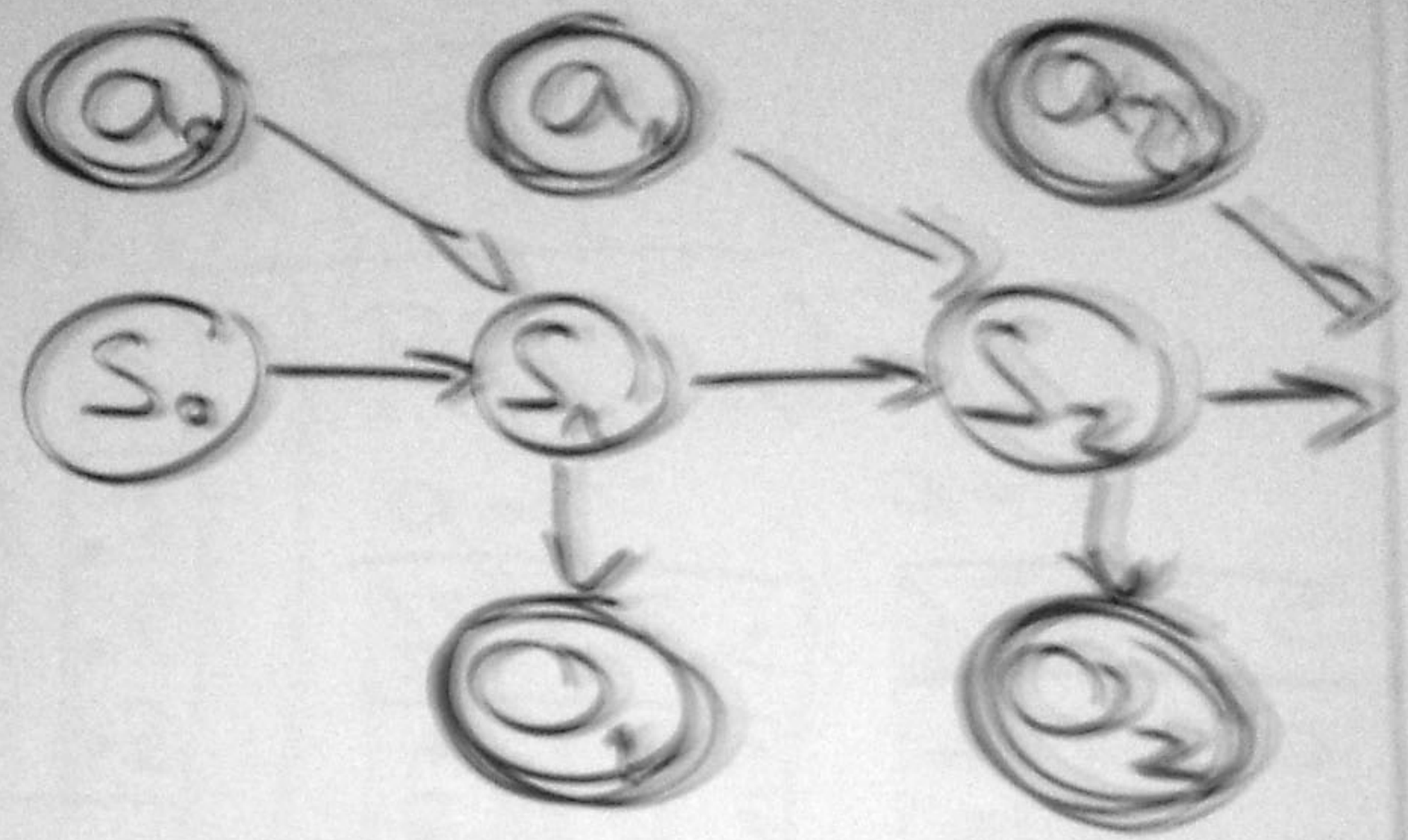
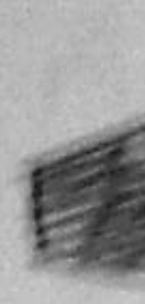


$$P_t(s_t) = P(s_t \mid a_{0:t-1}, o_{1:t})$$

$$P_t(s_t) \propto P(o_t \mid s_t) \sum_{s_{t-1}} P(s_t \mid s_{t-1}, a_{t-1}) P_{t-1}(s_{t-1})$$



	A	B	C

$P(O|S)$:

S	
A	.9
B	.6
C	.2

$P(S'|S,a)$:

$a=r$

S \ S'	A	B	C
A	.1	.9	0
B	0	.1	.9
C	0	0	1

$a=l$

S \ S'	A	B	C
A	1	0	0
B	0	1	0
C	0	0	1

$P(S,a)$

A	.33
B	.33
C	.33

$a=r$ →

A	0.1·0.33
B	0.9·0.33+0.1·0.33
C	0.9·0.33+1·0.33

A	.03
B	.33
C	.63

$a=l$ →

A	0.9·0.03 = 0.03
B	0.6·0.33 = 0.20
C	0.2·0.63 = 0.13

A	0.08
B	0.56
C	0.36

$a = 1$ →

A	0.08
B	0.56
C	0.36

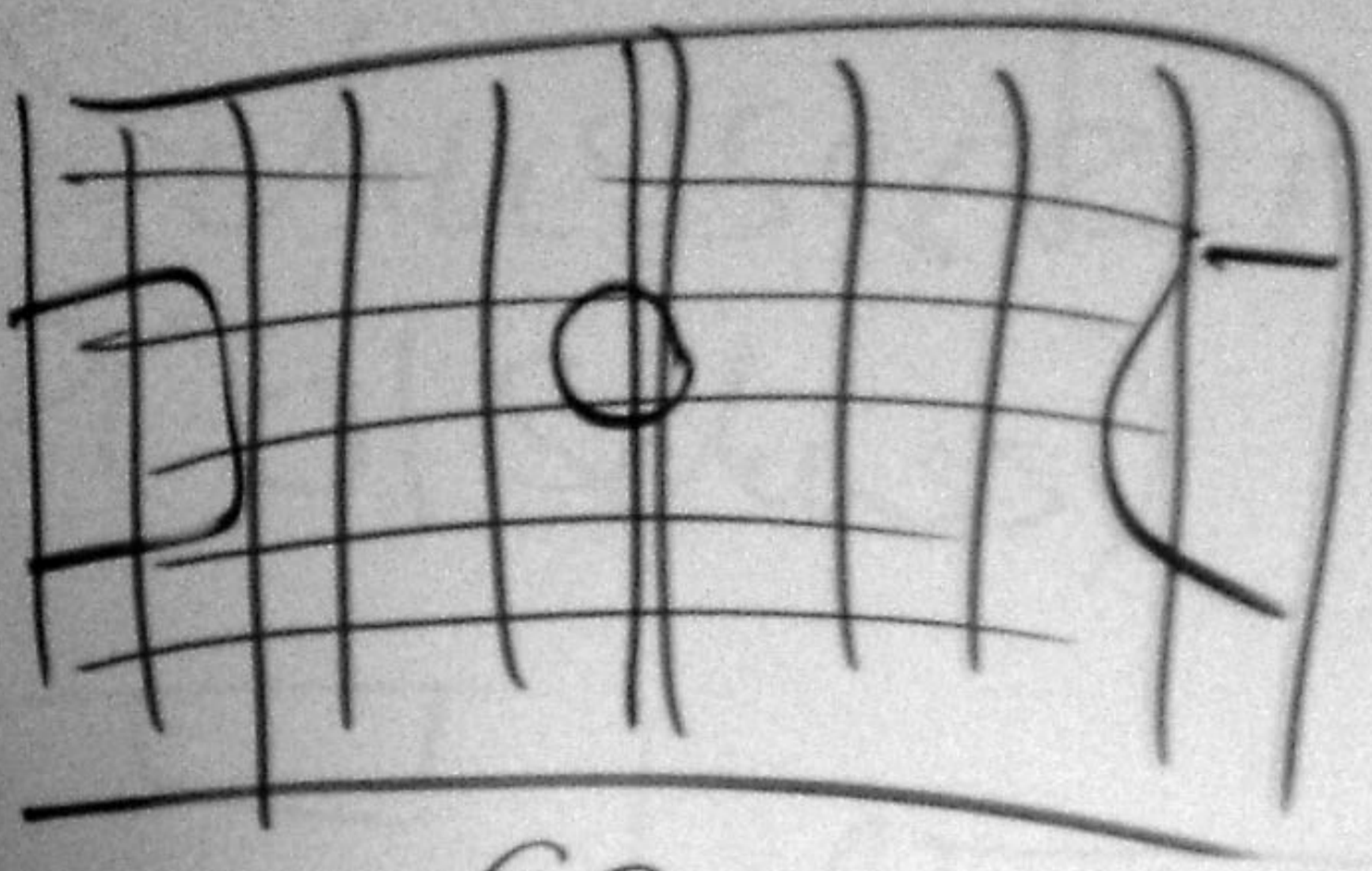
A	0.08
B	0.56
C	0.36

$0 = \emptyset$ →

0.1 · 0.08
0.4 · 0.56
0.8 · 0.36

norm →

A	0.02
B	0.43
C	0.55



40

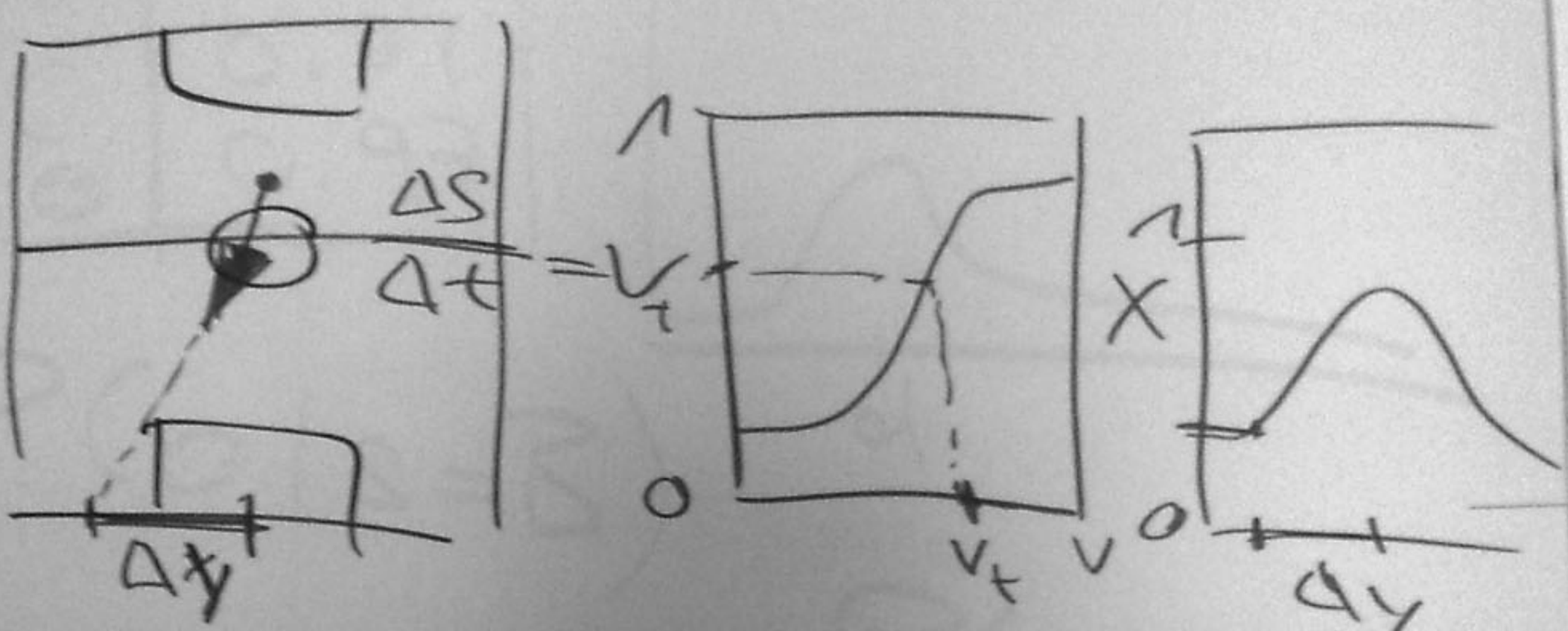
x

60 x 36

&6 400

Schusserkennung

$P(o|Schuss)$



$P(s'|s) =$

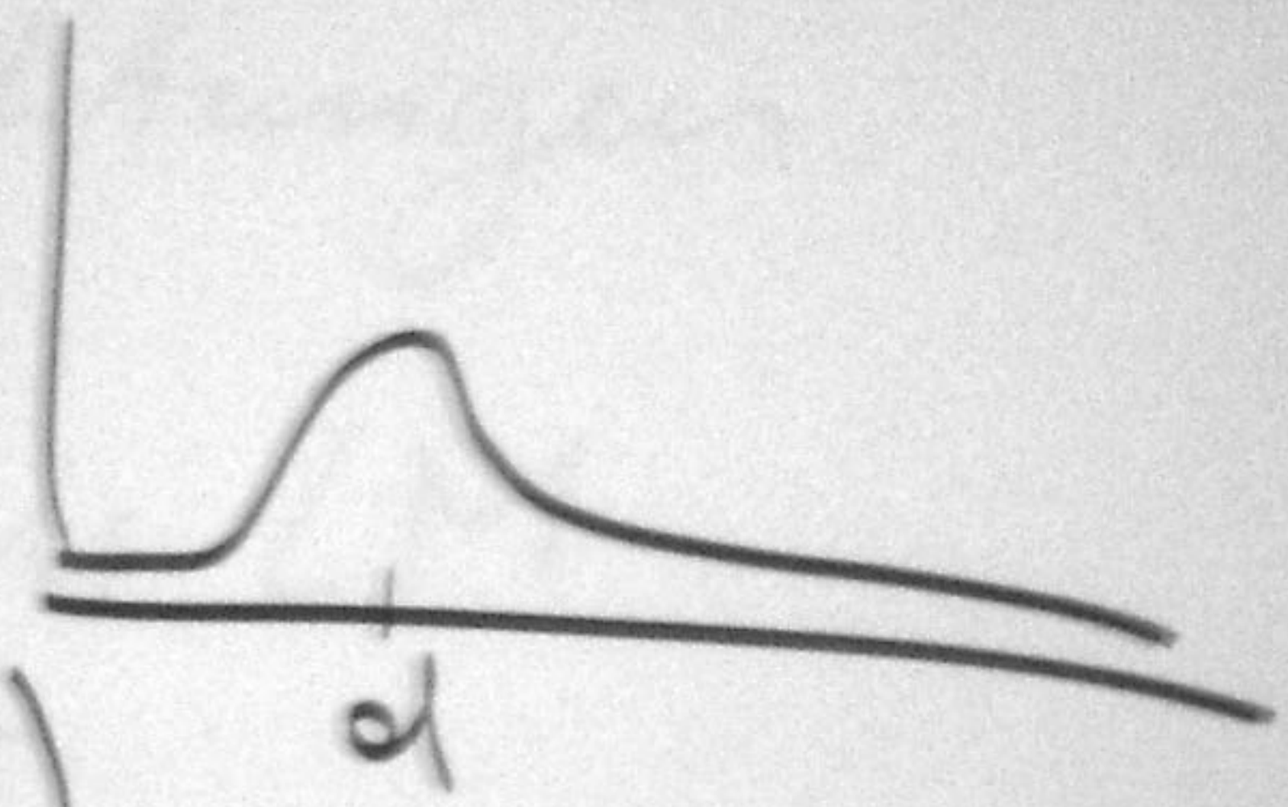
s \ s'	Schuss	¬Schuss
Schuss	1	0
¬Schuss	.1	.9

$P(o|\neg Schuss) = konst$

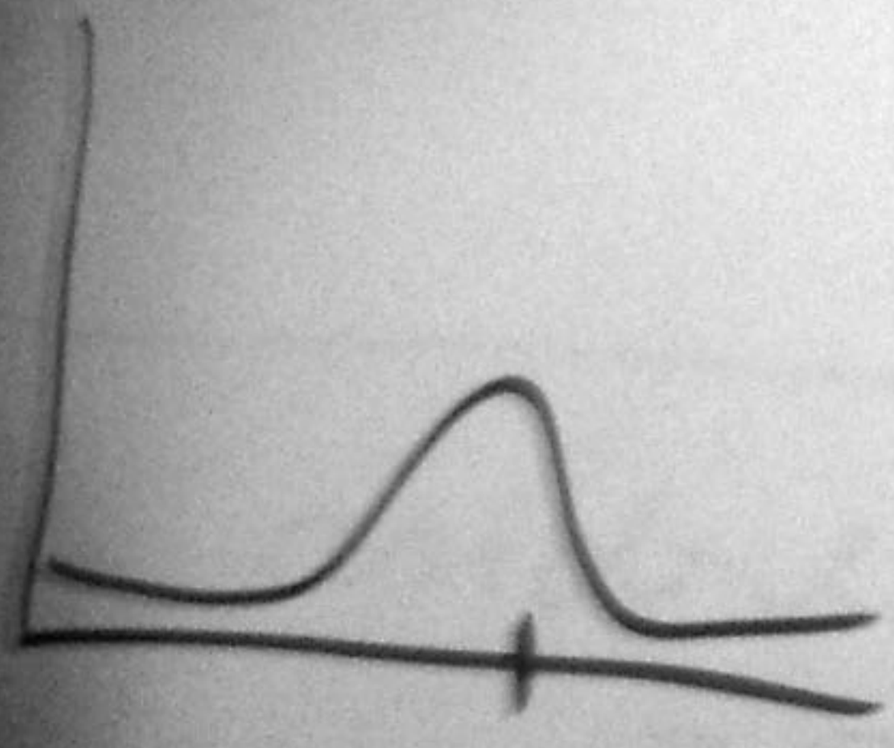
$P(s', s) = 1$

A	0.01
B	0.01
C	0.01
😀	0.97

$P(o|s=A)$



$P(o|s=B)$



$P(s|s=😀)$