

Representing uncertainty

1. Cautious classification
2. Outlier detection
3. Classification with confidence

	$p(C_1 x)$	$p(C_2 x)$	$p(b x)$
A	$1 \rightarrow .9$	$.0 \rightarrow .0$	$.1$
B	$.5 \rightarrow .5$	$.5 \rightarrow .5$	$.0$
C	$.0 \rightarrow .0$	$1 \rightarrow .5$	$.5$
D	$.5 \rightarrow .0$	$.5 \rightarrow .0$	1
E	$.5 \rightarrow .1$	$.5 \rightarrow .1$	$.8$

