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$$P(a|b) = \frac{P(a \wedge b)}{P(b)} \text{ if } P(b) \neq 0$$

For enumeration:

$$P(Y|E=e) \propto P(Y, E=e) = \alpha \sum_h P(Y, E=e, H=h)$$

Independent if:

$$P(A|B) = P(A) \text{ or } P(B|A) = P(B) \text{ or } P(A, B) = P(A)P(B)$$

$$\text{Bayes's rule: } P(a|b) = \frac{P(b|a)P(a)}{P(b)}$$

$$P_t(h_i) = \underbrace{P(Q_t|h_i)}_{\text{known}} * \underbrace{P_{t-1}(h_i)}_{\text{computed at previous round}} \rightarrow \text{computed at previous round}$$

\downarrow
 $P_{t-1}(Q_t)$
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computed at previous round.