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- ...why would this be the case???
- Here are the ingredients I'll give you to work with:
  - A lexicon
  - A probability distribution $P(w)$ over entries in the lexicon
  - Your choice of representations for the "input" to the word recognition
  - Bayes' rule

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- With Bayes rule we can rewrite this as

$$P(w|I_{1\ldots n}) = \frac{P(I_{1\ldots n}|w)P(w)}{P(I_{1\ldots n})}$$
$$= \frac{P(I_1|w)P(I_2|w)\ldots P(I_n|w)P(w)}{P(I_{1\ldots n})}$$

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- This can be *incrementalized* to update posterior w after each sample:

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  2. If $P(w|I_{1\dots n})$ exceeds a threshold α for some w, stop and choose w; otherwise collect another sample and repeat.

References I

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