

A: the distribution associated with the probability of flipping heads (success)

B: the results of our flips (number of heads, number of trials)

$$P(A|B) = \frac{P(B|A)P(A)}{P(B)}$$

likelihood (the data gathered, #H #T) ↓

posterior probability (the probability of heads given the flips)

the marginal probability of the flips (ensures that total probability of posterior sums to 1)

prior probability (our belief about the probability of heads, initially, but after collecting data it's the old posterior) ←