

**Probability
(mathematics)**

$$P(H|D) = \frac{P(D|H)P(H)}{P(D)}$$

Everyone uses Bayes' formula when the prior $P(H)$ is known.

Bayesian path

Frequentist path

**Statistics
(art)**

$$P_{\text{Posterior}}(H|D) = \frac{P(D|H)P_{\text{prior}}(H)}{P(D)}$$

Bayesians require a prior, so they develop one from the best information they have.

$$\text{Likelihood } L(H; D) = P(D|H)$$

Without a known prior frequentists draw inferences from just the likelihood function.