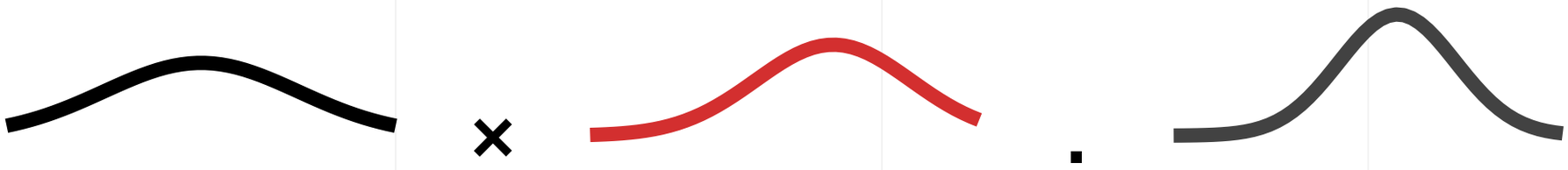
Bayesian Inference: Mathematical Framework

Probabilistic updating with mathematical precision

PRIOR
.(.)

LIKELIHOOD
L(.|data)

POSTERIOR
.(.|data)



Prior: . ~ Normal(0, 2.5)

Likelihood: Y ~ Multinomial(p1, p2, p3)

Posterior: .(.|data) . .(.) × L(.|data)

MCMC: Stan sampling with 4 chains, 2000 iterations

Bayes' Theorem:

.(.|data) =
.(.) × L(.|data)
.....
. .(.) × L(.|data) d.