Bayesian Inference

induction & approach
Evans & Rosenkrantz: Bayesians' simple setups assume a rich prior most of the world.

Simple example -

a) above a coin flip -
determne whether coin is fair or not.
plausible approach: do k flips &
doth all consistent with
heads & tails equals -
hypothes - in this consider with
t coin being fair -
null - hypothesis.

We have the following.
BAYESIAN APPROACH —

ASSUME WE KNOW MORE ABOUT THE WORLD — DATA ON PATIENTS —

\[ P(D|H) \]  

\[ P(H|D) \]  

\[ P(D) \]  

\[ P(H) \]  

\[ P(D|H) \cdot P(H) = P(D) \cdot P(H|D) \]

\[ \text{Likelihood} \cdot \text{Prior} = \text{Evidence} \cdot \text{Posterior} \]

\[ P(x = \text{fairly}) \]  

\[ P(x = \text{unfairly}) \]

Complete details, units, Evans & Rosen that we can calculate.

Hole: a world wide web model. I am so rich — where does this all come from?