

Statistical data science: probabilistic process models for data, (STAT206 9 Jun 20)

Bayes's Theorem & covariance as algorithms

Machine-learning data science

science: create problem-specific algorithms

Both are highly useful when done well.

2 kinds of frequentist

probability: relative frequency

Bayesian (uncertainty, informative)

$P_F(\theta = 1) = \text{undefined}$

frequentist

super-important + probability judgments

B

Similarity ← when one 2 (close)

things similar enough that

it's ok / useful to ignore

all other aspects of the

things variables

relevance: defines the

(only) important dimensions

defining similarity

Q11 How do humans judge the quality ^③ with which they do things!

A:

- processes: ^{harder} what you do
- outcomes: ^{easier} what happens

as a consequence of your actions.

fun: .999
spe: .994

$P(\text{Bob really is HIV+} \mid \text{test says HIV+})$

$$= \frac{.999}{1.593} = 0.627 (!)$$