



*A Bayesian-analysis app
for prediction, hypothesis testing, bias examination, and more
with “small data”*



A p -value, or statistical significance, does not measure the size of an effect or the importance of a result.

By itself, a p -value does not provide a good measure of evidence regarding a model or hypothesis.

it is time to stop using the term “statistically significant” entirely. Nor should variants such as “significantly different,” “ $p < 0.05$,” and “nonsignificant” survive, whether expressed in words, by asterisks in a table, or in some other way.

OK, which software should I use then?



Bayesian general-purpose app

- ✓ *Any combination of continuous & categorical quantities*
- ✓ *Directly interpretable predictions (eg “75% of the full population will have value X”)*
- ✓ *Uncertainty quantification*
- ✓ *Any kind of conditional predictions, eg $P(X | Y, Z)$ or $P(Z | X, Y)$ or $P(X | Y)$ or $P(X)$*
 - ⇒ *Bias examination*
- ✓ *Only meaningful input from user (“Which dependencies are you interested in?”)*
- ✓ *Non-parametric*
- ✓ *No need of training/validation/test splits or cross-validation*
- ✗ *Only ‘small data’ ($\#quantities^2 \times \#data \sim 10\,000$)*
- ✗ *Not appropriate for 2D/3D kind of data* *But ✓ OK with time-dependent data*