

Eliciting expert knowledge about the amount of scientific misbehaviour among PhD candidates

Student: Elian Griffioen
Supervisor: Rens van de Schoot

FFP: falsification, fabrication and plagiarism

QRP: questionable research practices

RCR: responsible conducting research

PhD candidates ($n=743$)

Answering questions about three vignettes

Data

Deans, vice-Deans and Heads of programmes ($n=34$)

Try to estimate the answers/behaviour of PhD candidates

Priors

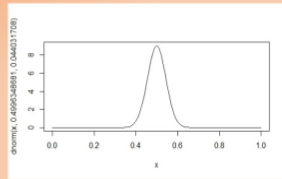
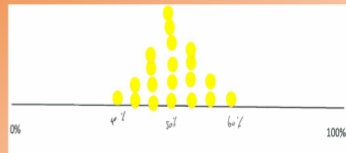
The study



Is there a prior-data conflict?

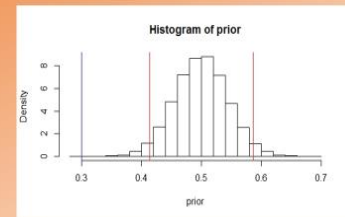
Eliciting a prior

- Experts give their estimate by pasting stickers to form a distribution
- This is converted into a parametric distribution with SHELF in R
- Elian and Rens check whether both distributions are in agreement or not



Prior-data conflict tests

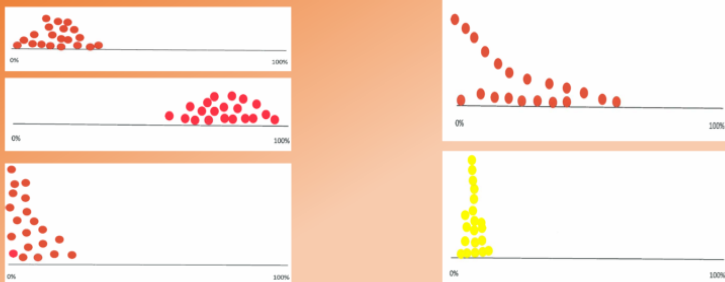
- Credibility interval check: Lies the data proportion in the highest probability interval of the prior?
- Prior predictive check:
 - A sample is taken of possible data proportion based on the prior distribution.
 - What is the probability of the real data proportion based on this predicted distribution?



$p = .00012$

Eliciting priors

But most of the priors were imperfect and cannot be analysed with the method of Johnson et al. (2010). So I developed a new method!



Results

