

PHILOSOPHY

ABOUT THE PSYCHOLOGY OF SCIENTISTS

28.02.2020

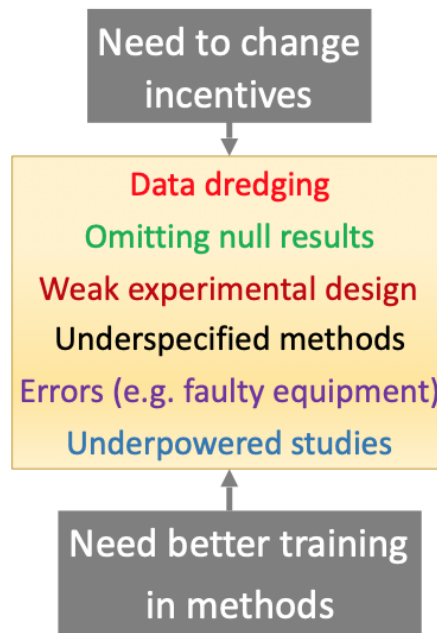
It is my impression that most of the scientific misconduct cases are not the result of intentional fraud ([with some exceptions](#)) but self deception, poor education, indifferent handling of facts and wrong rewards.

Dorothy Bishop thinks [that the role of cognitive biases in sustaining bad science is underestimated.](#)

I shall argue, however, that to improve scientific practices we need to go deeper, to understand and counteract the mechanisms that maintain bad practices – not just at the institutional level, but in individual people... Much has been written about how we might tackle the so-called “replication crisis”. There have been two lines of attack. First, there are those who emphasise the need for better training in experimental design and statistics. Second, it is recognised that we need a radical overhaul of the incentive structure of science.

Academy of Medical Sciences, 2015 Report on Reproducibility and Reliability of Biomedical Research

Possible
solutions:
Emphasis on
both bottom-up
and top-down
changes



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Source: Dorothy Bishop <https://metascience.com/wp-content/uploads/2020/01/bishop-stanford-metascience.pptx> viewed 28Feb2020

Interesting slide #26 on p-hacking and the sequence of positive/negative studies when the sequence of 'significant' results is YNNYNNNNYN – my empirical example would be the pseudo [association of mycobacterial infection and allergy](#). Interesting also her slide #31 on the canonization of false facts which looks like the [reverse! association of vitamin D and allergy](#).