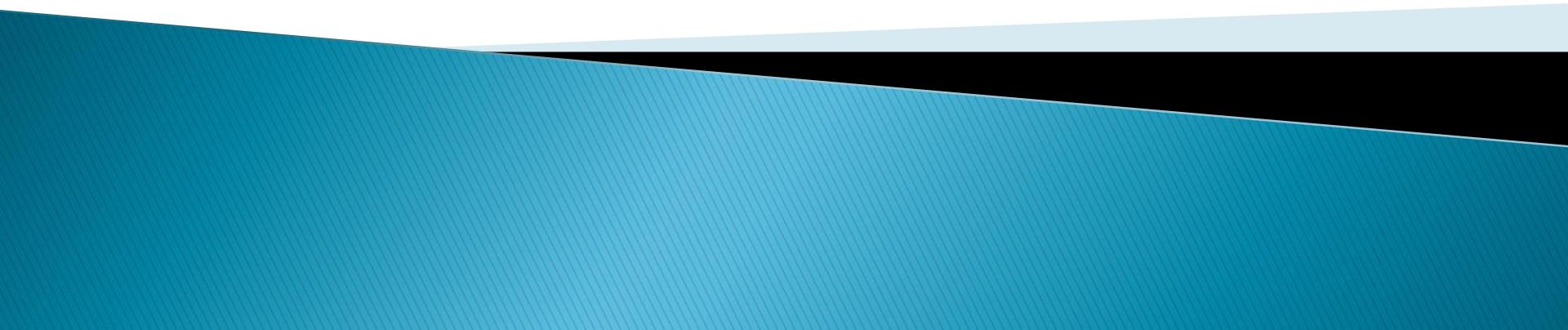


Experimental Psychology

Lecture 8: Issues Within Experimental Psychology

Dr. Kate Williams



- ▶ Last lecture looked at cognitive neuroscience
 - New methodologies
 - New findings
 - A new paradigm?
 - Kuhn's argument of paradigm shifts

▶ The 'new' psychology?

- 'Traditional' research (social, cognitive, developmental, etc.)
- Neuroscience (Cognitive, Social, etc.)
- Biological/Medical neuroscience
- Behavioural genetics
- Applied research

▶ Not a paradigm shift

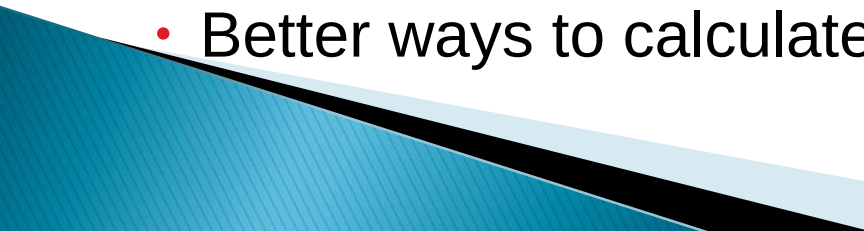
- An amalgamation of existing paradigms

Problems in Psychology

- ▶ Similar to the crisis in the 1970s
 - Methodology issues
 - Plus fraud
 - But see reports on Cyril Burt
 - Not necessarily a new phenomena

Problems in Psychology: Methodology

- ▶ Bennett et al.
 - fMRI scan of a dead salmon showed brain activity
 - Voxel/Statistics issue
 - Raises questions for the role of fMRI in studying brain processes
 - Not the be-all and end-all some thought

 - ▶ Statistics
 - Use of p -values
 - Is .05 a useful cut-off?
 - What is the difference between .05 and .06?
 - Better ways to calculate statistics?
- 

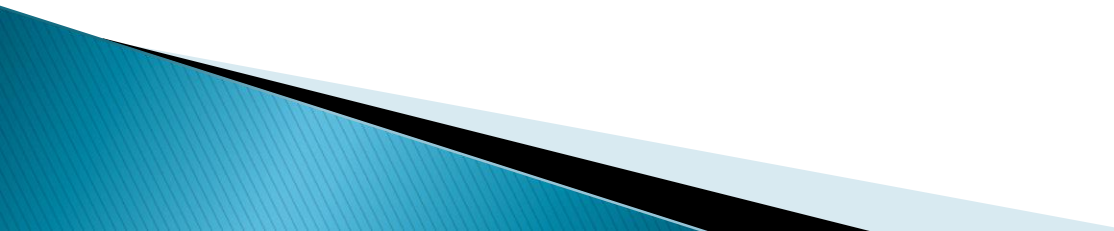
Problems in Psychology: Fraud

- ▶ Diederik Stapel (University of Tilburg)
 - Falsified data in a number of high-profile studies
 - Priming studies
 - Numerous others have resigned/retracted papers since this.
- ▶ Integrity
 - Trust in us as scientists
 - Badly damages the integrity of the whole field

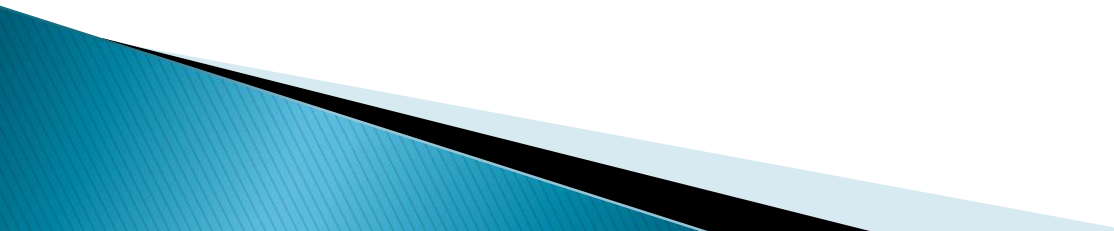
Problems in Psychology: Selectivity

- ▶ File-drawer problem
 - Only reporting significant results
 - Non-significant results go into the file-drawer (stay in office)
 - Never reported
 - Run a study four times
 - Three non-significant results
 - One significant result
 - Report the significant result
 - Journals do not tend to report non-significant findings
 - Replication/Data-sharing

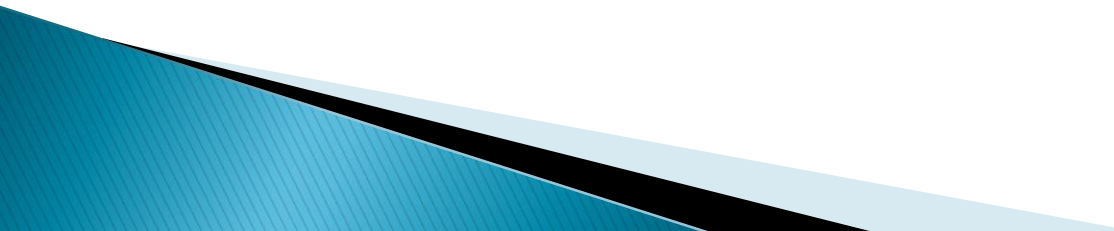
Problems in Science

- ▶ These are not problems for only psychology
 - Scientific methodology is questioned
 - Fraud exists in all sciences
 - Selectivity exists in all sciences
- 

The Reason We Ask You To Do Things In A Specific Way

- ▶ Exploring worthwhile topics
 - ▶ Using validated measures
 - ▶ Researching topics
 - ▶ Examining/Reporting accurately
 - ▶ Examining/Reporting with integrity
 - ▶ Embracing new methodologies
 - ▶ Embracing correct methodologies
- 

Assignment Submission Reminder

- ▶ Your first assignment for this module is due in on Tuesday 12th December by 12pm (Midday).
 - ▶ DRAFT and FINAL Turnitin submission portals are on Moodle.
 - ▶ Can submit only ONE draft of your work.
 - ▶ You will **not** receive feedback on your draft submission.
 - ▶ The draft submission is to allow **you** to view the level of text-matching in your report in order to rectify any glaring errors before you submit your final piece of work.
 - ▶ Remember to also check the breakdown of the originality report generated by Turnitin and not just the overall percentage.
 - ▶ **Please make sure you then submit the correct version of your work to the final Turnitin submission portal.**
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Next Week...

- ▶ Lecture: Case Study - Experimental study of Memory
 - We will examine the different types of memory, theories proposed to explain how we forget, real-life implications of memory failure, & impaired memory resulting from brain injury. We will also ask ourselves whether having perfect memory is to be desired or not.
- ▶ Seminar: Is Psychology a Science? Issues in Experimental Psychology.
 - You will discuss the case of Deiderik Stapel, what the implications are for research in light of this case, and start to critically consider the role of experimental psychology in science and as a tool to explore issues in the world.
 - **Compulsory reading MUST be done in preparation for this seminar - the three papers are available on Moodle.**