



# Interpreting integrity: A schema for research

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# The subjects of discussion

- ▶ Researchers (and scientists)
- ▶ Research
- ▶ Science
- ▶ Research ethics
- ▶ Research integrity
- ▶ Scientific integrity
- ▶ Scientific misconduct
- ▶ Research misconduct
- ▶ Processes and persons
- ▶ Types of misconduct and integrity breaches

# Research agents

- ▶ Researchers
- ▶ Research teams
- ▶ Research collaborations
- ▶ Research institutions

# Research and science

- ▶ Research is the production of new knowledge
- ▶ Science is a larger body of knowledge and hypotheses
- ▶ If research is corrupted, its results will corrupt science

# Research integrity and scientific integrity

- ▶ This distinction parallels that between research and science
- ▶ Breaches of research integrity mean that scientific integrity is threatened

# Research ethics and research integrity

- ▶ Generally, research ethics systems and processes set the parameters of what is permissible for a given project
- ▶ Research integrity systems concern whether those parameters are respected

# Internal and external rules

- ▶ A researcher could obey all rules but be motivated only by fear of getting caught – this does not demonstrate integrity
- ▶ Researcher integrity is about self rule, while research integrity lies in consistency with external rules – and this consistency in turn ensures the integrity of science more widely



# Integrity and intent

- ▶ All cases of misconduct involve intent
- ▶ But researchers can make honest mistakes that threaten the scientific integrity of their work
- ▶ This does not mean that they have failed to *act* with integrity
- ▶ However, an enduring pattern of errors may indicate a lack of research integrity on the part of that researcher or supervisor
- ▶ Also, deliberate misconduct can be camouflaged as error
- ▶ Some researchers will feel no qualms in engaging in misconduct because they lack integrity.
- ▶ Some will know they ought not do wrong but suffer akrasia ( or regard caring for family via salary as more important )
- ▶ Some again will resist complicity in misconduct to avoid being caught breaking rules.
- ▶ Only very few will act with integrity without considering external rules.



# Categorising misconduct

- ▶ *Research misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. – US Federal Policy*
- ▶ Integrity is frequently used as synonym for “absence of misconduct”, and more specifically “absence of plagiarism, falsification and fraud.”
- ▶ But integrity is much more than simply avoiding the “big three”
- ▶ And why is plagiarism accorded the same seriousness?

# Questionable research practices

- ▶ “...actions that violate traditional values of the research enterprise and that may be detrimental to the research process.” - National Academies, 1992
- ▶ Unlike QRPs or DRPs, FFP “directly damage the integrity of the research process”
- ▶ But in fact, plagiarism doesn’t directly damage the integrity of the process - and other so-called QRPs do

# Categorisation of integrity breaches

|  | <b>Breach of RI</b> | <b>Breach of SI</b>   | <b>Misconduct</b> | <b>Form of fraud</b> |
|--|---------------------|---|-------------------|----------------------|
| <b>Image manipulation</b>                | Yes                 | Yes (data integrity)  | Yes               | Yes                  |
| <b>Guest authorship</b>                  | Yes                 | No  | Yes               | Yes                  |
| <b>Failure to disclose potential COI</b> | Yes                 | Possibly  | Yes               | Yes                  |
| <b>Plagiarism</b>                        | Yes                 | No (only in terms of double-counting in systematic reviews) | Yes               | Yes                  |
| <b>Failure to raise concerns</b>         | Yes                 | Often   | Yes               | No                   |
| <b>Honest error</b>                      | No                  | Yes   | No                | No                   |
| <b>Doing irrelevant research</b>         | Yes                 | No  | Yes               | Yes                  |

# Perspectives on Research Integrity in Science and Medicine - PRISM

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