Chapter 8 – Research Misconduct

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Chapter 8 in Key Points

- Scientific Misconduct may endanger scientific confidence, what may lead to mistrust, slower progress, direct harm,...
- Idea-theft, manipulation of data, plagiarism, anything that endangers a good research environment, self-plagiarism(?)
- Falsification vs. omission of “outliers”, sloppiness at data-processing
- Plagiarism vs. Self-Plagiarism, idea-exchange at conferences, common knowledge
Chapter 8 in Key Points

• How do you establish/prevent plagiarism? Independent board vs researchers role in the decision process
• Good research environment!
• Sanctions? Up to the department
• Some practical considerations for vice-chancellors
An Ethical Problem

- Imagine you are a research group leader in theoretical physics.
- Two of your graduate students have written and published about 40 papers with various other collaborators in the last two years. Some of those in highly esteemed journals.
- You referenced some of these papers in a recent grant proposal, which you will use to employ a number of new PhD students.
- A colleague, surprised by the grad students' low physics knowledge and bad English skills during an oral exam, found evidences for plagiarism in several of their papers and informs you about these findings.
- What do you do?
Solution A: Go by the Book

• Report case to the corresponding authorities in the university.
• Report the case to the funding agencies and journals involved.
• Follow the procedures of the institution. This may include:
  • Provide evidence, organize the case, talk to students involved and see the effect of the corresponding disciplinary actions.
Ethical Problems and Conflicts

• Prioritizing university rules over career and student interests.
• Students career will inevitably suffer damage... Did I fail my role as supervisor? As a researcher?
• Funding might be lost, causing damage to possible future students and research.
• Depending on how information is spread, own career, name of the group and institution might also be affected.
People Affected

• Students involved (careers)
• Future students (funding)
• Me (trajectory)
• Journals involved (duty of referee and editor)
• Funding agencies (increase of filters for future applications)
• Society and Politicians (trust in scientific procedures/taxes: why invest in science?)
Values and Standpoints

Praised Values
• Openness in science and funding mechanisms.
• Good research practice.
• University rules.

Disregarded Values
• Students future (role as supervisor).
• Interests of the group.
• Productivity (lack of funding).
Optimization of Solution

• Follow legal procedures.
• Collect evidence for disciplinary actions: Is it possible to make a case that would also consider the point of view of the student?
• Manage information of the case accordingly.
• Cooperate with journals and funding agencies: Could the application for funding survive anyway?
• Be a better supervisor and researcher. Inform future students how are you supposed to publish.
Solution B - Minimal Action

• Tell students this will not be accepted.
• Do not inform the university.
• Do not inform the journals where the papers were published.
Ethical Problems and Conflicts

- Prioritizing students' and own interests over rules of plagiarism
- Papers with little or no new results flood the journals, distracting from other papers.
- Problems in the review process of the journals involved can continue.
- Funding has been misused and can continue to be misused.
People Affected

- The students.
- Colleague who reported the misconduct.
- Me as a supervisor.
- The journals where the papers were published.
- Funding agencies.
Values and Standpoints

**Praised Values**
- Students future (role as supervisor).
- Interests of the group.
- Productivity (lack of funding).

**Disregarded Values**
- Openness in science and funding mechanisms.
- Good research practice.
- University rules
- Possibly the relationship with the colleague who reported the plagiarism.
Optimization of Solution

• Make sure the students do not repeat the misconduct. No “false” science was published and the group can continue to make good science.
We choose Solution A!

*We think that it is important to keep a good research environment.
*In the real scenario the university’s president send a personal letter to the journal requesting that the paper be withdrawn.