



Good Scientific Practice

An Introduction for Doctoral Candidates

Dr. Brigitte Lehmann
Humboldt Graduate School

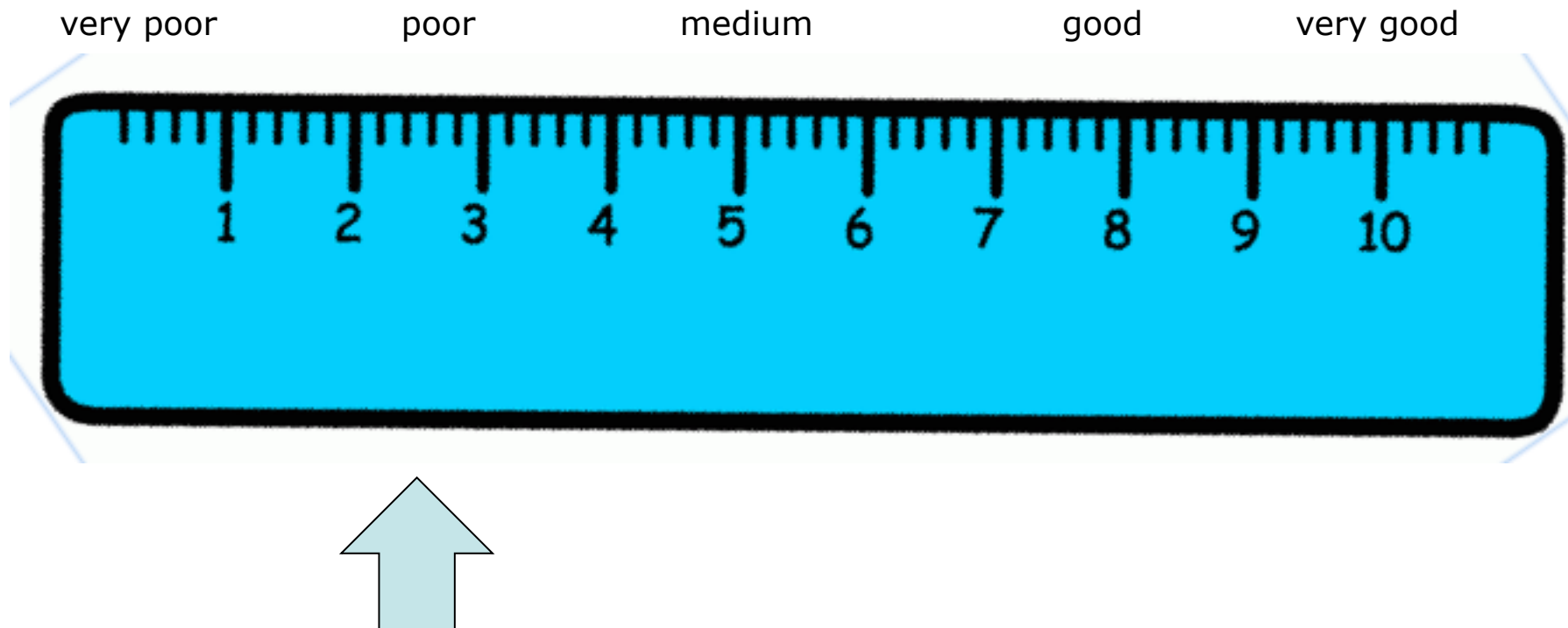
What are we talking about?



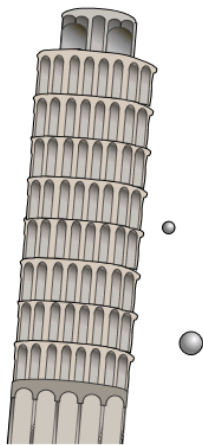
- Good Scientific Practice
- Research Integrity
- Research Ethics



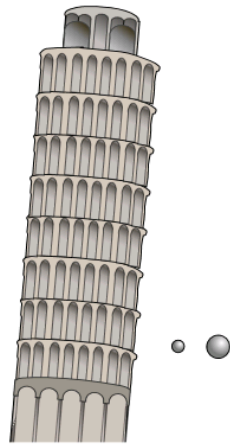
Who feels how informed about this topic?



Famous cases of misconduct



Old idea



Galileo

Drawn by Theresa Knott, CC BY-SA 3.0

Claudius Ptolemy (star catalog of Hipparchus)

Galileo Galilei (questionable experiment)

Gregor Mendel (too accurate results)

Cyril Burt (twin data manipulated)

Hwang Woo-suk (shammed cloning)

Situation in Germany*

1997	"Herrmann/Brach" case
1998	DFG memorandum
1998	DFG member universities committed to measures to ensure the GSP facility of the (national/ nationwide) ombudsperson for science
2002	"Schön" case, forfeiture of doctoral degree
2009	SFB 552 case –tropical ecology of rainforest
2010	DFG initiative "quality over quantity"
2011	"zu Guttenberg" case, followed by more revocations of doctorates among politicians

*List put together by Gisela Sponholz

The ideal world*

Science/Academia is a system of high integrity and modesty of scientists,

- who are devoted to genuine insight,
- who quest for knowledge and insight, not for fame,
- who have an intrinsic motivation,
- who are satisfied by satisfying their curiosity.

Based on Claus Lamm: "Research ethics and integrity - a systemic view", Talk held in Vienna, 11.06.2014.

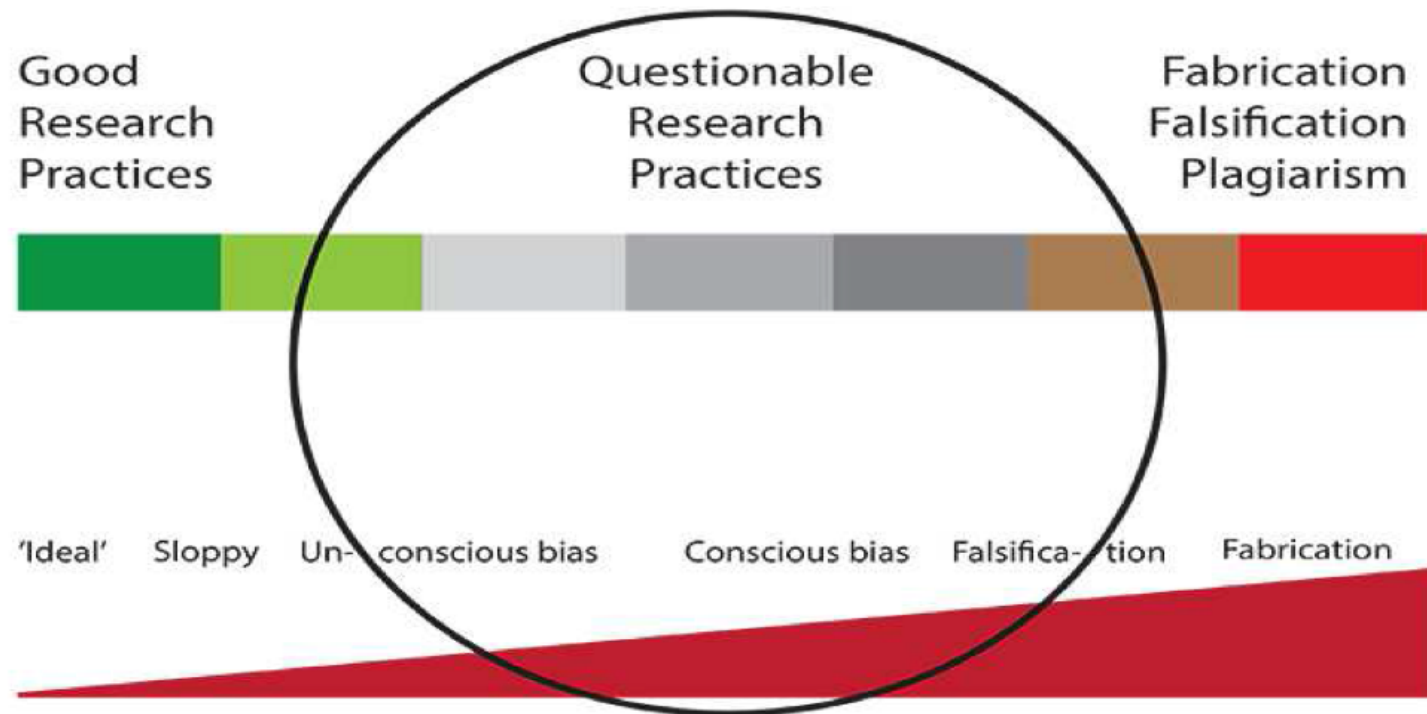
But ...

Science has become (is?) a business, with all the negative attributes

- "Winner takes it all"- mentality
- Formation of "publishing syndicates"
- Culture of reciprocity, networking, and "insider deals"
- Culture with predominantly "male" attributes
- "Me" instead of "we"
- scientific values and norms less valued than own achievements

Based on Claus Lamm: "Research ethics and integrity- a systemic view", Talk held in Vienna, 11.06.2014.

What are we talking about?



Source: Adapted from a presentation by Daniel Fanelli – by VIB

Our rules today ...

Confidentiality (secrecy) is imperative.

An open discussion about (y)our own experiences can only take place if you can be sure that nothing leaks to the outside.

There are no stupid questions.

We disclaim hasty moral judgments, censure, reprimand, superior attitude and threats of punishment.

Case study I

There is a third-party funded Junior Research Group in the empirical sciences. All doctoral researchers in the group hold a working contract with the university the group is affiliated to.

Continuous differences between the group leader and a doctoral researcher regarding the balance of working hours and the time for independent research poison the relationship between the postdoctoral group leader who acts as his / her supervisor and doctoral researcher.

Eventually, when it is evident that there is no way to restore the lost confidence, the doctoral researcher leaves the group and accepts a job offer from another university.

To whom belong the data collected and does the doctoral researcher have the right to access them and to use them for his / her doctoral thesis?

Good Scientific Practice

- **thesis agreement**
- **work plan**
- **data management**
- primary data and image processing (no manipulation)
- quotation and citation (no plagiarism)
- publication agreement
- authorship (dealing with the designation of the author)

Data management – Why bother?

- clear the chaos (clean up the mess)
- availability for interim reports, work group meetings, further planning
- proof of the validity of results
- exclusion of
 - data manipulation
 - suppression of results
 - data invention (fabrication)

Good Scientific Practice

- thesis agreement
- work plan
- data management
- **primary data and image processing (no manipulation)**
- **quotation and citation (no plagiarism)**
- **publication agreement**
- authorship (dealing with the designation of the author)

Case study II

A DFG-Research Training Group with a group of about ten doctoral candidates has an extra curriculum consisting of workshops and lectures and different forms of colloquia.

In one of these colloquia one of the doctoral candidates (Adam) witnesses an intensive debate between another candidate (Barbara) and her supervisor, cumulating in certain precise ideas how to access the research question and how to design the empirical part of the intended study.

A couple of weeks later, Barbara comes across an article, authored by Adam, which exploits exactly the ideas developed in her discussion with her supervisor during the said session.

What do you think about that?

Good Scientific Practice

- thesis agreement
- work plan
- data management
- primary data and image processing (no manipulation)
- quotation and citation (no plagiarism)
- publication agreement
- **authorship (dealing with the designation of the author)**

Bibliography

- Recommendations and rules for Good Scientific Practice by DFG (1997, revised 2013)
http://www.dfg.de/en/research_funding/principles_dfg_funding/good_scientific_practice/
- Joint position paper of the **Allgemeiner Fakultätentag** (AFT), Fakultätentage and **German University Association** (Deutscher Hochschulverband DHV) (2012)
http://www.hochschulverband.de/cms1/uploads/media/Gute_wiss._Praxis_Fakultaetentage_01.pdf
- And many more

About the proceeding

- Statute of the Humboldt Universität zu Berlin to ensure good scientific practice and for handling allegations of scientific from 17/02/2014
- Office for Good Scientific Practice at the Humboldt Universität
(<http://gremien.hu-berlin.de/kommissionen/fehlverhalten/>)

Confidant/e of the Humboldt Universität

Ombuds-people of the Humboldt Universität for scientific misconduct:

Prof. Dr. Karin Donhauser, Department of German Studies and Linguistics

Prof. Dr. Christian Limberg, Department of Chemistry

Commission on the review of allegations of scientific misconduct

Members of the Commission

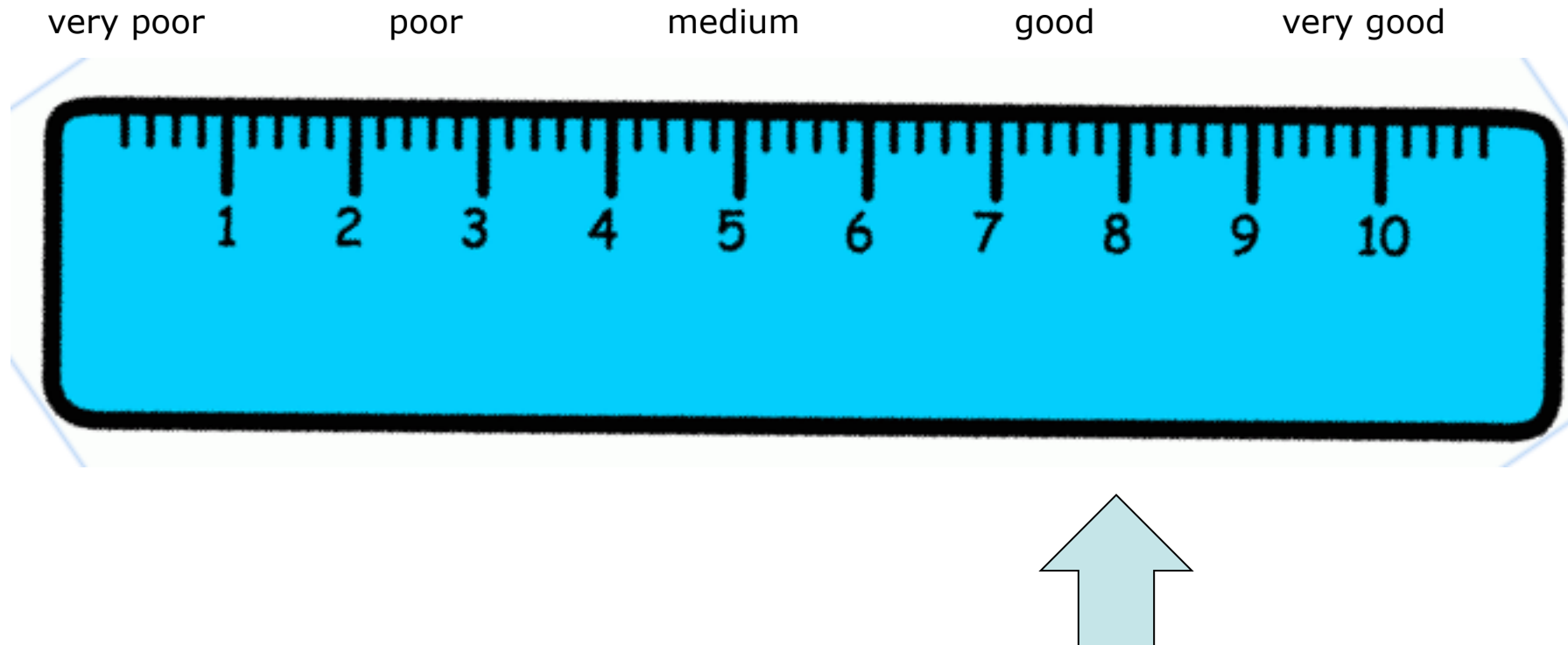
Prof. Dr. Michael Seadle (Chair)
Prof. Dr. Anke Lüdeling (Vice Chair)
Prof. Stefan Hecht, Ph.D.
Prof. Dr. Reinhard Singer
Dr. Maik Jörg Lehmann
Frank Reichherzer

Office

E-Mail: geschaeftsstelle-KWF@uv.hu-berlin.de

Telephone: 030-2093-1665

How do you feel informed now?



Next courses

11.11./
12.11.2015

- Good Scientific Practice for Social Sciences (in German)

19.11./
20.11.2015

- Scientific Data Protection (interdisciplinary)

26.11.2015

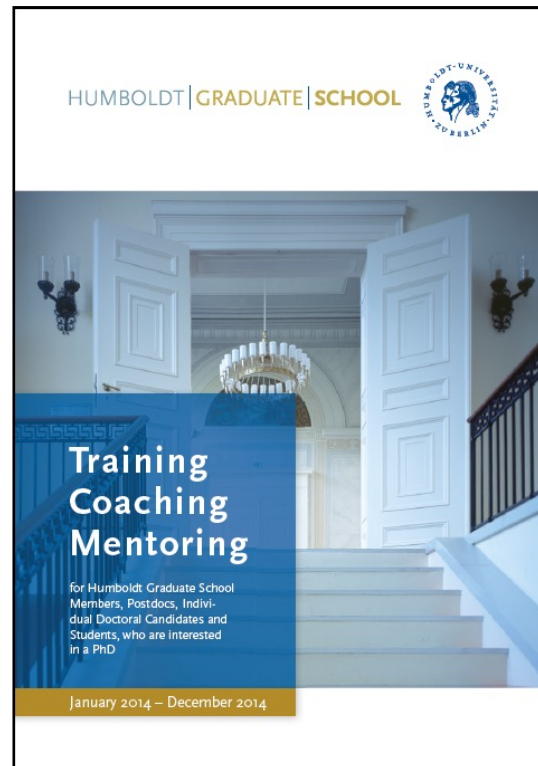
- Research Data Management (interdisciplinary)

09.12./
10.12.2015

- Good Scientific Practice for Life Sciences (in English)

|| ||| HUMBOLDT | GRADUATE | SCHOOL

Program for Key Competencies



https://humboldt-graduate-school.de/en/services-en/schluesselkomp2-en/kursprogramm-en?set_language=en

And finally ...



Thank you very much!