4.1.2 Ethics of Scientific Writing

Scientists Cheat

- According to a **20** year crusade of the "**Süddeutsche Zeitung**", practically all scientists are cheaters, frauds, crooks or just plain criminals. They routinely falsify their results, steal from colleagues, enslave everybody they can (in particular **PhD** students) and try to get their names on papers without having made a contribution.
  - Ironically, the Magazin of the same **Süddeutsche Zeitung** provided the scientific community with several very good examples of how to bend the truth in elegant ways - one example is given in full length in the link.
- The truth is a bit anticlimactic: Yes, the community of scientists contains a certain percentage of cheaters, frauds, crooks or just plain criminals like any other professional community (say journalists or the so-called "creatives" in advertising), but with a far lower percentage than most other communities (there have been far more incidences of indecent behavior among catholic priests, for example, than among physicists). If you don't believe that, check the wikipedia article for "Betrug und Fälschung in der Wissenschaft". Something like 5 cases in Physics and Technology in the last **30** years or so - including the case of "cold fusion" taken up in this link.
  - The reasons for scientists being so comparatively good is not that they are a better breed, but that changes are very good that you will get caught quickly if you cheat. The truth will come out, eventually, and that will be the end of career.
  - Compare that to other professional groups:
    - In **advertising** you are expected to lie about whatever you advertise. If the truth "comes out", nothing happens.
    - In **journalism** you are expected to stick to the facts and nothing but the facts. If you are caught lying, however, possibly a very small errata will be printed somewhere, and very rarely somebody will be fined. If you don't lie outrightly but just have no idea about what you are writing, getting all numbers and facts wrong, nothing whatsoever will happen.
    - In **economics**, you and your colleagues may have explained in detail that the exponential growth of the stock market value of companies that did not have a product or any income is a good thing for the economy and would go on forever. After your breed then runs the global economy smack against a hard wall (witness the collapse of the Internet bubble, the 2007 collapse of the USA real estate bubble causing a world-wide recession, the Spanish real estate bubble, the financial crisis of the Greece and the Euro, the financial crisis of the Dollar, the erroneous booking of 55 Billion (!) Euro at the HRE "bad bank" in 11 /2011, ..), you will still be revered experts, because now you will explain why this was unavoidable and exactly how it happened.
- OK - so *you* don't cheat. What that means in particular is:
  - You stick to your data. You don't make 'em look better and you don't omit whatever doesn't fit your interpretation.
  - You say it exactly as it is. You do not use wordings that, without being factually wrong, will give the reader the wrong impression.
  - You look at all facets of your hypothesis or theories, not just the ones that agree with the data. There is no shame in admitting that not everything is clear at present.
  - You refer to everything that has a bearing on your work as carefully and as objectively as you can. You do not accidentally overlook references that make your work look less important.
  - You will admit that you were wrong, if you were wrong, and you will try to be the first one to publish that and not keep quiet and hope that nobody will notice.
  - You will acknowledge the help you got from people who are not authors.
  - You will only appear as an author on a paper if you actually contributed something to it, and you will put all colleagues on your paper who contributed.
  - You will not publish things you learned about from others after quickly redoing their work, just because they haven't published it themselves yet.
- Pretty clear and self-evident, you might think. You are wrong. A few examples:
  - Should the guy (often called a Professor) who wrote the successful proposal that made research in a certain field possible, who picked you to do the work, who initiated you to the topics, discussed what you did, gave you ideas on how to progress, and read and corrected the stuff you wrote, be one of the authors? If you (like me) think he or she should, you are in violation of the guide-lines of august research organizations in Germany (the same ones who will never again fund your proposal if you, the "Prof.", do not keep publishing like crazy).
  - In the USA at least, competition in Science is so strong that everybody considers that whatever you say is now public property. If you don't keep your mouth shut - too bad, for you. Nobody will even feel slightly guilty in using your stuff for their own purposes. However, doing Science in secrecy will be the end of Science. If you don't want to do this, you must be prepared of being disenfranchised quickly and cunningly by your "colleagues".
- There is no end to this (most scientists are human, after all). But there is simple advice: Just be honest.
- For completeness sake, here are a few links

- ***DFG:*** Vorschläge zur Sicherung guter wissenschaftlicher Praxis Januar **1998**
- ***MPG***: Regeln zur Sicherung guter wissenschaftlicher Praxis Nov. **2000**