

PHILOSOPHY

PREVENTION OF FRAUD

4.12.2006

Donald Kennedy is writing in this week' Science editorial about [Responding to Fraud](#). The editorial is even more about prevention of fraud: The external reviewers ask for future risk assessment of potential fraud. Science will think in the future

... which papers deserve particularly careful editorial scrutiny. Papers that are of substantial public interest, present results that are unexpected and/or counterintuitive, or touch on areas of high political controversy may fall into this category...

I appreciate such an initiative and I agree that science is based on an assumption of trust – no procedure will be immune to deliberate fraud. However, looking both at people and at papers could be worthwhile. I would give extra score points for

- too ambitious institutional environments
- large and anonymous organizations
- poor social and scientific interaction at a local level
- limited scientific qualification or background of researchers or department heads
- time pressure, too many projects, no longterm goals
- direct financial compensation in return of scientific impact
- past history of minor misconduct

Looking at papers will also reveal inconsistencies

- contradictory numbers
- suspicious modifications of figures
- original data not public available
- original documentation not public available
- constructs, cell lines, animals not public available
- inadequate point by point response to review
- insufficient documentation of IRB and authorship

Another option is to pay reviewers – the review process is becoming more and more time consuming – and even to plan on-site evaluation. An option probably not feasible is to delay publication until the main findings are independently reproduced.

Finally, I see a large gap between the attempts of Science and Nature to improve their performance while some average impact journals never respond if you ask them to correct or withdraw a highly distorted paper. Yea, yea.

Addendum

[Guide to promoting integrity in scientific journals published by the Council of Science Editors](#)

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