

33- The peer review system

The peer review system is very important both for the health of the science production and qualification and credibility of the scientists. Nevertheless, far of filtering Junk science, peer review may be blocking the flow of innovation and corrupting public support of science, after e.g. D. F. Horrobin.

Peer review is central to the organization of science. The reviewing process determines what sees the light of day in a particular journal. In spite of the peer reviewing there are a lot of papers rejected that are published in journals of low standards.

The peer reviewing is indirectly responsible for the control of funding of the scientific research. Moreover, a very high standard reviewing that gives prestige to the journals determines also the prestige of the authors and easier access to funding.

Because of the antagonism between openness and evaluation, the objectivity and validity of peer review is questioned.

Rothwell and Martin carried a detailed evaluation of the reviews of papers submitted to two neuroscience journals. The result was that the relationship among the reviewer's opinion were no better than that obtained by chance.

Objective evaluation of grant proposals is a high priority. Public support can only erode further if science does not put its house in order and begin a real attempt to develop validated processes for the distribution of publication rights, credit for completed works, and funds for new work. Funding is the most important issue that most urgently requires opening up to rigorous research and objective evaluation.

Another problem in the peer reviewing system is:

Could the peer-review processes in both academia and industry have destroyed rather than promoted innovation ? There are specialists that are convinced that the peer-reviewing both destroys and promotes innovation in a statistical manner.

If science is to have any credibility and high efficiency - the peer review process must be put on a much sounder and properly validated basis or scrapped altogether.