

Impact Factor: Who are you bullshitting?

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From the blog "[In the name of science - Fair \(and unfair\) discussion about the state of science.](#)"
<http://francescientist.wordpress.com/2011/01/15/impact-factor-who-are-you-bullshitting/>

At the lunch table, I was thinking of an experiment when my attention turned to a colleague whose paper was recently rejected by a medium caliber (read impact factor) journal and his supervisor had dissuaded him from addressing the reviewers' mean questions. Instead, he was gently cajoled into submitting his paper to a new open-access online journal. Despite the old adage that good things in the nature are free, he was unconvinced of the value of publishing in an open-access journal. That only tells how much we are used to scientific journals' policy of charging authors to 'defray the cost of publication'. In any other field, authors are paid when they publish. My colleague, probably smarting from the scathing verbiage of the 'behind the curtain' reviewers, was unimpressed and unconvinced, and skeptical about the quality of the open-access online journal.

My colleague is not alone in his quest of collecting impact factor points. Every scientist, at least in biomedical research, is worried about the impact factor of the papers published. Many have figured out complex algorithms as to which impact factor zone they should reside to keep their research lab afloat. **The impact factor frenzy has generated a class system in science where publication in a journal with the glossiest cover page has become the ultimate goal of scientists.** It also helps the supervisors as a carrot to dangle in front of their postdocs, 'if you perform fifty experiments in a day, with a 24/7 attitude, you will get your paper published in the Cosmopolitan or Vogue of science world'.

Ever wondered why the movie *The Devil Wears Prada* appeared eerily familiar to the postdocs? The only difference was that the Devil's minion gets to wear glitzy clothes and gives away fabulous Bang & Olufsen phone; most postdocs cannot even spell that name.

The impact factor sickness has not only caught scientists, it has also affected the morale of major hardcore science journals. Just in case you forgot, there are roughly two categories of science journals; first, journals that are published by scientific societies and most of their scientific matters of soliciting, reviewing, and editing is done by real working scientists. Second, those journals that are run by publishing powerhouses who pluck away energetic hotshot postdocs as editors to their ritzy offices to run the business of scientific publishing.

The impact factor is determined by a commercial arm of a major publishing conglomerate whose non-scientific methods of assigning impact factors generated brouhaha among the Rockefeller Press journals. These journals were assigned low impact factor despite being darlings of a cross-section of research community. Probably, the failure to attract good

papers and loss of revenue led them to publish a syndicated editorial challenging and ridiculing the impact factor system. Their arguments were cogent and the language was bold and challenging. It is not clear how, but their impact factor did improve. However, after they gained the impact factor, their campaign against impact factor disparity fizzled. Publishers are not the only one who benefit from impact factor inflation.

Impact factor is a crutch that is most often used by impotent, unimaginative and incompetent committees in academic institutions for recruitment, promotions, and fiscal matters. Notice that I showered the adjectives on committees, not the members of the committees, who are generally intelligent people (including me). Overworked, unappreciated, and sometimes lazy and indifferent members of a committee do not want to be held responsible for making a decision. Therefore, they rely on impact factor to show their 'objectivity'. If they hire a new faculty member who later turns out to be a complete jerk in the department, they can easily blame it on the impact factor of his publication which led to his recruitment. Had they selected him on the basis of their 'judgement', they would be scoffed at by their peers and colleagues.

So, once you begin to equate impact factor as being objective index of productivity, smartness, intelligence, and innovation, you have unleashed a monster that is going to take over the part of the system that traditionally relied on competing interests. Grant reviewers and paper reviewers can now exercise more arbitrary control over the decision-making without appearing to be unfair. They can veto the impact factor invoking their experience and judgement. Essentially, the reviewers are manipulating the system in their favor.

One may argue that eventually, the system will be 'normalized' so that no one will be clearly at an undue advantage. The truth is that it is the same old bullshit with the added objectivity armor of the impact factor.

In case you wondered how some journals achieve high impact factor, it is quite revealing to notice that the Annual Reviews series have some of the highest impact factor. Wow!! You would have thought that real research papers should be the winners. Apparently not! And there lies the trick. Most high impact journals are highly cited not because of their published research papers but because of the review articles. It is not their altruism that glitzy journals are happy to let you download artistic slides for your PowerPoint presentations.

Although it is a great business plan to target lazy scientists who don't want to do their own legwork of literature review, there is another reason for using review articles to boost impact factor. Many shrewd scientists like to cite reviews published in the high impact factor journals in their grant proposals and research papers upfront. This way a lazy reviewer can be convinced that because the topic was reviewed in a high impact journal, it must be of great importance.

When I was a new postdoc, I learnt a valuable lesson in assessing the scientific caliber of a scientist. My research advisor was a soft-spoken, astute scientist with an incisive vision. He showed me how he judged the quality and productivity of a faculty candidate from his Curriculum vitae.

- 1. Throw out all reviews, he (or she) has listed.*
- 2. Take away all papers where authorship is beyond the second author (or senior author).*
- 3. Trash all conferences and posters presented.*
- 4. Look at how regularly papers have been published and how good they are. Yes, use your judgement. A good paper does not need any assistance, you will know when you see it (at least in the area of research close to you).*

I think I agree with his style of assessment rather than the bullshit of impact factor. Won't you agree?



About francescientist

'Cynicist'