measure of success. We must rather publicize tangible path-breaking contributions, new keywords that have been generated, and how research in that field has been affected.

Emphasis on publications in high IF journals is wrong because it does not count the long-term citations (beyond two years) that path-breaking papers receive. Supportive papers receive quick citations, whereas path-breaking papers are usually cited after a gap because of initial disbelief. Further, by putting a premium on publications in such journals we are asking our young researchers to be more compliant to the thinking of the reviewers and editors of that journal. This causes our scientists to refer to specific papers and support specific ideas, to dilute their conclusions and make them more in line with those suggested by the referees, etc. It lowers the level of our research output by dilution at the publication stage. We need to discuss these problems in order to be able to mentor our young scientists accordingly.

h-index is just a count of every paper that cites us, but on a binary 1/0 scale. It does not distinguish between our paper being cited as one number in a group of numbers, and our paper being used as a template with extensive citation over a few sentences each at a few places in the paper. One number in a group of numbers implies a supportive 'me-too' paper, and our *h*-index will improve if we do that kind of research. The Indian experience with path-breaking papers also speaks against the *h*-index criterion. As colleagues have confirmed their experiences, an Indian path-breaking paper has to first wait for acceptance from an established researcher abroad, who will probably cite it extensively. Subsequent publications that accept the new ideas prefer to cite this established researcher than the original work of a lesser known Indian scientist.

I have tried to explain why we should not advertise (or use) these three benchmarks because they are biased in favour of running citations and supportive papers. Our young scientists are being told that they become creators of new knowledge. But unless the (self-)assessment parameters are correct, they will not know if they are on the right path. We easily comprehend that technology innovators cannot be assessed by the number of patents they get registered; their contribution is assessed by how extensively a patent of theirs is being used. We must similarly have measures of good research. When I was the Director of UGC-DAE Consortium for Scientific Research, I (along with other eminent members of our Award Committee) had stipulated that the scientists short-listed for our annual 'Scientific Excellence Award' should submit all the extended citations that their papers receive. Extended and repeated citations in a paper would have drawn the attention of the reviewers of that paper, something that cannot be said of a running citation. While such extended citations are not too many, the ones I saw gave a lot of satisfaction and a fair idea of the impact of the scientist's work. More important was the changed attitude I saw when this criterion was advertized!

To sum up, I suggest that senior scientists should suitably display their belief that younger scientists can do better. The 'plagiarism cells' I have proposed[3,4] to help young researchers who become victims of 'idea-plagiarism', would also help display this belief. Such self-belief is essential to challenge existing ideas with newer ideas. Second, we should create the right benchmarks and standards for (self-) assessment, since existing criteria favour supportive research. The 'gold standard' will be when our research changes, in some way, how research is done in a given field. Indian research should create new keywords!

1. Joseph, M. and Robinson, A., *Nature*, 2014, **508**, 36–38 and references therein.
2. Roig, M., *Nature*, 2012, **481**, 23.
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4. Chaddah, P., *Curr. Sci.*, 2014, **106**, 927–928.

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Peer review: single-blinded or double-blinded?

Recently, we made a simple survey on the preferred peer-review policies of academic journals and collected feedback from the scientists in our university. More than 60% of them supported the double-blinded peer review, while about 25% felt that the single-blinded policy is beneficial. The others remained indifferent.

Majority of the participants approved the double-blinded policy as it provides a fair chance to share scientific ideas. Many scientists worry that a full disclosure of the author identity would affect the peer review, owing to the potential biases of individual referees against specific institutions or authors. In contrast, some others believe that single-blinded policy actually helps the referee to quickly seize the idea of the manuscript, because the research background and prototype work, is easy of access. Then the referee can explore the previous archival contributions, if necessary, to have a deep understanding of the manuscript under review.

Most of the scientists included in the survey were willing to discuss their findings, directly or indirectly, with the referees. To a certain extent, scientists themselves regard the double-blinded policy as extra protection against biases rather than an indispensable process of peer review. They hope that academic journals can help cross the hurdle of policies and contribute to build pure communications platform accelerating advances in science.

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