

during their lifetime. Their intellectual dissonance with mainstream science led by the West often marred their reputation. An inevitable consequence of creativity in science is intellectual conflict. 'If you can't join "em", beat "em"'. Replacing this discord with pursuit of extant fashions set abroad cannot be regarded as hallmarks of creativity.

The glorious achievements of Indian science that remain eternal are all instances of small science. Intellectual conflict is healthy for creation only in the case of research in small science. In the case of mega science, however, such 'disloyalty' may throw one away from the mainstream and that effect is a great danger for an established scientist.

Will successful Indian scientists always remain dependent on intellectual

leadership and patronage from abroad? Do ordinary people have to continue to admire them, only because they diligently followed fashions originating elsewhere? The answer, unfortunately, seems to be in the affirmative, unless the practice of giving priority to mega science in this country is substantially altered.

If competent Indian scientists today, neither engage in teaching the large pool of smart students in this country, nor take pains to train them research-wise, but continue with their obsession of frequent visits abroad for research ideas, then one can be rest assured that no world-class scientific discovery would come out from this country in the near future. In our problem-stricken country, investment of public money for advancement of

science can only be justified if scientific research is substantively original and creative, and not built exclusively on following fashions started abroad. To attain this goal, a far higher priority needs to be accorded to small science, in contrast to the primacy currently given to 'mega science'. Without strengthening university education manifold, Indian science will continue to remain in the backwaters, and our scientists will have to continue to look for patron saints in the West for their survival.

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High impact factor journals have more publications than expected

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Journal impact factor is widely used in research evaluation. By using the 2016 Journal Citation Reports, we find that high impact factor journals publish more publications than expected and low impact factor journals publish less publications than expected. Our findings may be useful to optimize the journal based evaluation system.

Journals indexed by the three citation indices, namely, Science Citation Index (SCI), Social Sciences Citation Index (SSCI) and Arts & Humanities Citation Index (A&HCI) of the Web of Science (WoS) are usually deemed as the world's leading international and regional journals. Publications in these indexed journals are widely used in research evaluations¹⁻⁴. In order to maximize the impact of their works, scholars may prefer to publish in high impact factor journals⁵. However, such journals generally have higher manuscript acceptance standards. So, some important and interesting questions arise: what is the relative share of publications in high impact factor journals? Is the relative share of publications in high impact factor journals less than those in low impact factor journals?

The 2016 *Journal Citation Reports (JCR)* accessed on 9 July 2017 was chosen as the data source of this study. Journal impact factor (JIF) quartile as a field-normalized indicator published by *JCR* was used to identify high and low impact

factor journals (for more information about JIF quartile, readers may visit <http://ipscience-help.thomsonreuters.com/incitesLive/9053-TRS.html>). We regard quartile 1 (Q1, within the top 25% of JIF among a certain category) journals as high impact factor journals. Similarly, quartile 4 (Q4, within the bottom 25% of the JIF among a certain category) journals are deemed as low impact factor journals. Journals that belong to more than one category may also belong to more than one JIF quartile. In order to avoid the double-counting problem, a journal was allocated to the highest quartile if it had more than one quartile⁶.

According to the 2016 *Journal Citation Reports – Science Edition*, nearly 9000 SCI journals are almost evenly distributed among four JIF quartiles. As shown in Figure 1, each JIF quartile accounts for about 25% of all the SCI journals. However, the distribution of publications (only articles and reviews considered) in these journals is different. Although high impact factor (Q1) jour-

nals only account for 27% of all SCI journals, about 44% of all SCI publications is published in these journals. On the contrary, only about 13% of SCI publications is published in low impact factor (Q4) journals.

We examined the distribution of journals and publications among four JIF quartiles in social sciences using 2016 *Journal Citation Reports – Social Sciences Edition*. SSCI journals are almost evenly distributed among four JIF quartiles. As shown in Figure 2, each JIF quartile accounts for roughly 25% of all the SSCI journals. Comparatively, the publications in journals of these four JIF quartiles are unevenly distributed. Although high impact factor (Q1) journals account for 26% of all SSCI journals, about 36% of all SSCI publications is published in these journals. On the contrary, only about 15% of SSCI publications is published in low impact factor (Q4) journals.

Using the 2016 *JCR*, we found that high impact factor journals had more

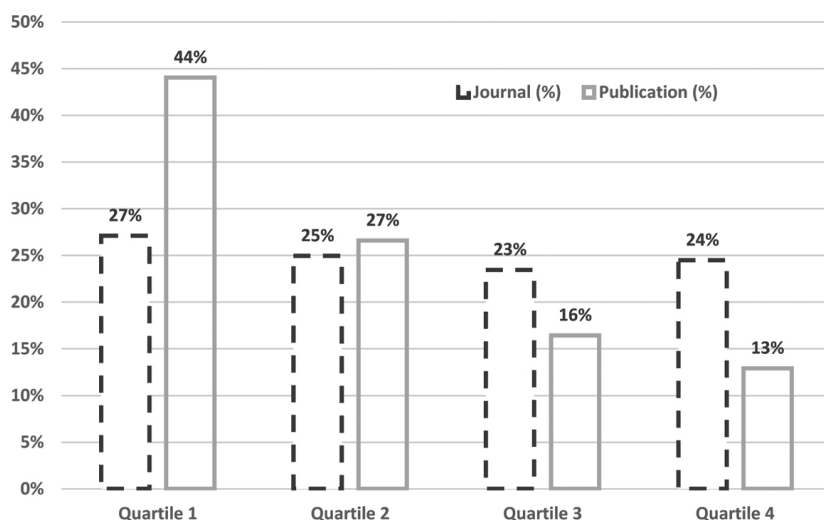


Figure 1. Distribution of SCI journals and publications among four JIF quartiles. (Data source: 2016 *Journal Citation Reports – Science Edition*. Only articles and reviews considered.)

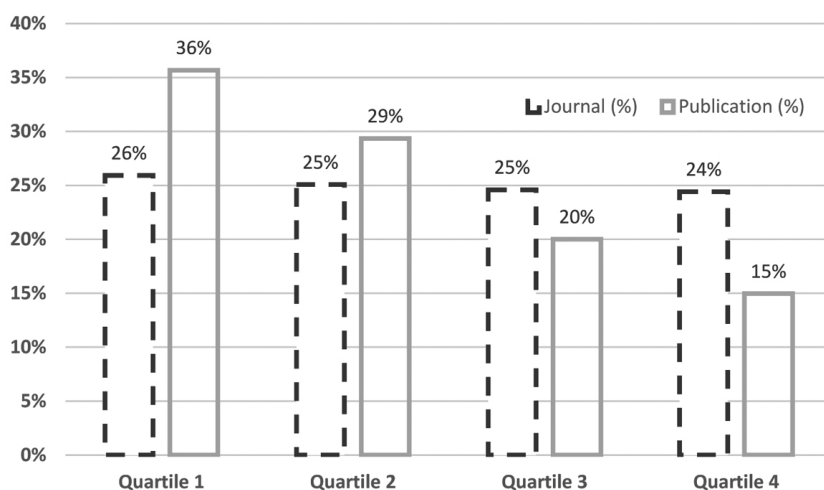


Figure 1. Distribution of SSCI journals and publications among four JIF quartiles. (Data source: 2016 *Journal Citation Reports – Social Sciences Edition*. Only articles and reviews considered.)

publications than expected, whereas low impact factor journals had less publications than expected. Both these phenom-

ena exist in the field of natural science and social sciences. Our findings echo Huang’s⁷ opinion that the JIF and article

number in scholarly journals are positively correlated. Besides, our study expands the finding of Liu *et al*⁶. to the field of social sciences. Our findings may be useful to enrich the discussion about the journal-based evaluation system^{8,9}.

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