'Science' in old Hindu scripts!

Out of his over-enthusiasm to show that the *atman* described in old Hindu scripts is nothing but genetic material, Narasimhan[1] did not notice that these biomolecules can be destroyed by fire, dried by air, wetted by water and cut into pieces by various chemicals and therefore do not fit the definition of atman, given in the *Bhagavad Gita.* Discoveries of this sort, reported from time to time, stem from the age-old hypothesis that all the achievements of modern science were already made in ancient India by the seers. Though it has no rational basis, letters, articles, books and lectures that foster this notion, enjoy a lot of attention and importance in our society. Even people in the echelon of higher education and research are unable to overcome this euphoria and to adopt some rational way of thinking on this aspect. Knowing about the work of Meghnad Saha on a problem of astrophysics, one eminent lawyer of Dhaka (Bangladesh) remarked that these findings were well-documented in the Vedas. Irked by this comment, Saha went through the Vedas, Upanishads, Puranas and all other old scripts and wrote in an article (published during the early fifties) that modern science is the contribution of European scientists, made during the last three hundred years. However, very few people are able to get rid of patriotism while dealing with the history of science. Hence they find indication of chimera in Ganesh, aviation in the Pushpakrath, test-tube babies in the description of birth of the Kauravas and also discover similarities between atman and genetic materials. It is difficult to understand why we have to stretch our imagination to find elements of science in these stories which are otherwise highly appreciated for their literary values. It is high time we discourage the propagation of these myths.

1. Narasimhan, N. S., *Curr. Sci.*, 2003, **85**, 1115–1116.

M. K. CHATTOPADHYAY

Centre for Cellular and Molecular Biology,
Hyderabad 500 007, India
e-mail: mkc@ccmb.res.in

Science Citation Index, co-citation and the scientists

Science Citation Index (SCI)® has provided the opportunity to find out productive clusters in various areas of scientific interest. It represents world science in spatial and temporal dimension, designed to provide direction and objectivity to global S & T enterprises. The selection process of the journals is uniform and applicable to all.

The compulsions of Karandikar and Sunder in raising the issues are appreciated[1], but the arguments unfolded by the authors do not go in the spirit of science. Most of the issues raised are much debated internationally and *SCI* is now one of the 'acceptable tools' world over for the productivity analysis of Science and Technology and generating inputs for policy formulations[2].

While attempting to see the global intellectual structure of Ocean Technology, the very first thing we did was to find out a reliable journal-set that represents the field of 'Ocean Technology' globally. We had no other way but to use *SCI*, as it provided us with a journal-set which represents the field. For the year 2000 it contained around 464 articles. A huge corpus of 1341 journals were referred and articles of around 5898 authors were used to generate a meagre 464 articles! Now, is it really possible to pursue all these 'A's and 'B's as suggested by Karandikar and Sunder to flare-up the co-citation frequencies? In this small dataset n is only 5898, while in another study of ocean science as a whole, for a particular year this n was around 52,893. In reality, it is a 'cumulative advantage process', which protects the whole process from the ills of personal bias and local aberrations. Therefore, it has a tremendous potential to arrive at a manageable productive cluster in an information jungle.

Studies of science and technology, and newer techniques like scientometrics are making their presence felt in S & T circles and policy-making institutes worldwide[2]. The writings of Eugene Garfield[3] are available at http://www.garfield.library.upenn.edu/pub.html. One might get answers to the points raised by Karandikar and Sunder there. One should not blame a measuring scale, if one is unable to use it properly.

One should be aware of the reality of the present day world of Science and Technology where the cognitive boundaries are crumbling while more and more interdisciplinary research is coming up/encouraged. It is always desirable for scientists to remain connected to the global trend. We have to live up to reality. As pointed out by Arunachalam[2], it is not 'just one parameter'.

1. Karandikar, R. L. and Sunder, V. S., *Curr. Sci.*, 2003, **85**, 235.
2. Arunachalam, S., *Curr. Sci.*, 2003, **85**, 1392.
3. Garfield, E., http://www.garfield.library.upenn.edu/pub.html.

PRABIR G. DASTIDAR

ICMAM,
Department of Ocean Development,
NIOT Campus,
Velachery–Tambaram Road,
Chennai 601 302, India
e-mail: prabirgd11@rediffmail.com