

Current Science: A vital link in more than one sense

I wonder if the response¹ to A. W. Joshi's search² for modern Ramans and the review³ by N. V. Joshi of the biography of Ramchandran, the brightest of Raman's students (claimed by Raghupathy Sarma in the biography) appeared in the same issue by accident or by design. In any case, the link was strong, and vital in more than one sense catalysed by *Current Science*.

Joshi's lucid review and very apt emphasis drew our attention to the fact that an unenlightened Vice Chancellor of Madras University was responsible for the suppression of Ramchandran's dynamism at a time when he needed the support most, for, that could have almost certainly led to the development of CAT scanner technology entirely at home with the bonus of a Nobel prize as well. Joshi's sensibilities probably, though needlessly, restrained him from naming Sundaravadevelu who took over at the critical stage after Mudaliar retired as responsible for this tragedy. I learnt the name later from the biography. This is one vital link between readers as mentioned by Vas Dev⁴.

It has also linked two similar potential events involving a teacher and his equally brilliant student in which the significance of a human catalyst for promoting excellence in science has been clearly brought to make us pause and ponder. We are now in a position to better appreciate the significance of the role of individuals who work behind the scenes, sacrificing their personal scho-

lastic ambitions to see that others excel¹; a vital sensitive relation between two generations, not to be mistaken for the much eulogized *guru-sishya* relation. Raman made it to get his Nobel prize; Ramchandran was obstructed from getting his due. An intense *guru-sishya* relationship is necessary but not sufficient to ensure the optimum expression of potential of any individual – the institution's environment is a critical requirement which Asutosh and Mudaliar strived to ensure.

One may ask, if successes like Raman are missing, why are so the consequent expected tragedies of the potential Ramans like Ramchandran? Perhaps students watching their environment sense or learn from their wellwishers while being educated in our institutions, that even the shadows of Mudaliars or Asutoshes have receded from the Indian scene. The stimulating academic environment in the West in contrast to ours, in spite of severe competition and insecurity appear to them, not without reason, as better institutions for achieving excellence. Therefore, they move out quietly hiding in the crowd who go seeking greener pastures for opportunity and wealth. Presumably, the impression is deep enough – imagine the effect on those who witnessed the tragedy of Ramchandran – to last the entire career of many who remain alienated even after having reached the pinnacle of excellence, which finally induces them to settle abroad. We really need more of

Mudaliars and Asutoshes to reset the clock of our progress; Ramans will then sprout and grow in dozens.

The 10 April issue¹ of *Current Science*, probably accidentally, carries the results of an experiment as it were, on human relations within Indian laboratories linking two events about half a century apart, the experimental subjects being culturally very similar (Raman and Ramchandran), including a 'perfect negative control', just as in our test tube experiments to draw meaningful inferences – equivalents of Asutosh in one tube and Sundarvadevelu in the other!

It is difficult to imagine best of the international journals with very high *SCI* or *IF*, including *Nature* and *Science*, doing this vital service of sensitizing us by acting as our mirror, so that the coming generation gets mentally ready to meet the challenges in science and technology of the next millennium.

1. Bhattacharjee, S. K., *Curr. Sci.*, 1999, 76, 862.
2. Joshi, A. W., *Curr. Sci.*, 1999, 76, 8–9.
3. Joshi, A. W., *Curr. Sci.*, 1999, 76, 1042–1043.
4. Dev, V., *Curr. Sci.*, 1999, 76, 1295–1296.

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Basic sciences and engineering

This is with reference to K. Kaniappan's letter (*Curr. Sci.*, 1999, 76, 1173). The problem of weightage in basic sciences in an engineering curriculum is not confined to Tamil Nadu but also to many other states. Admittedly, curriculum of any engineering subject must have much more weightage on the particular subject than the basic sciences. At the same time, it should also be kept in mind that one cannot draw a line between any engineering subject and its basic principals, i.e. science.

Can anyone think of teaching refrigeration without talking about 'Joule-Thomson Effect'? Can a student be taught about preparation of nylon without telling him what a condensation reaction is? True, it is not required to teach general theory of relativity to a student of mechanical engineering but does that mean the whole of physics is irrelevant? Will it be not like writing a novel without any story to tell, if mechanics is omitted from the syllabi?

The need for basic sciences in the curriculum is well accepted by AICTE, as well as various universities of repute and the IITs. However, shortsightedness may have created undesirable situations in source places which is a serious matter of concern.

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