CURRENT SCIENCE

Volume 96 Number 1 10 January 2009

EDITORIAL

Anniversaries at the Academies

The major Academies of Science in India celebrate 75 years of existence this year. The Indian Academy of Sciences, Bangalore and the Indian National Science Academy (INSA) were born in 1934/1935 under far from happy circumstances. An editorial in this journal in 1933, written by C. R. Narayan Rao had outlined, succinctly and elegantly, the case for an Academy. C. V. Raman's move to establish an 'Indian Academy' at Bangalore, even as moves were underway in Calcutta to found the National Institute of Sciences (later to transform itself into INSA, with its base in Delhi), led to considerable controversy. Newspaper reports in 1934 reflect a level of discord that must interest historians of science even many decades later. Raman, who appears to have always followed his own instincts, uninfluenced by others, singlehandedly created and fostered the Indian Academy of Sciences from 1934, until his death in 1970. His remarkable commitment to science, charisma and brilliance ensured that Bangalore's Academy would follow an academic trajectory. In the years after Raman, many dedicated Fellows of the Academy, Sivaraj Ramaseshan notable amongst them, preserved and protected the Raman legacy. A distinctive feature of Bangalore's Academy is its focus on the production of science journals. Raman was a strong advocate of the need for India to sustain its scientific journals. In recent times the Academy has experimented with the introduction of new journals, *Resonance* pre-eminent among them, and in restructuring old journals. This journal has been closely associated with the Academy, although the Current Science Association is a distinct body established two years before the birth of the Academy. Meetings, workshops, teachers training programs and summer internships for students have all become an integral part of the activities of Bangalore's Academy. The Academy's quiet location contributes to its ambience; at times appearing far removed from the hustle and bustle of modern day science.

The Indian National Science Academy (INSA) based in Delhi is a few months younger and clearly the more 'official' Academy. INSA is India's window to international exchange and collaboration and the body that represents the country in the world's scientific bodies and councils. There is a whiff of Government in its corridors, an inescapable consequence of its location in the capital. INSA's earlier years have seen some of the most famous names in Indian science occupy the presidentship; M. N. Saha, J. C. Ghosh, S. S. Bhatnagar, S. N. Bose, K. S. Krishnan, P. C. Mahalanobis and H. J. Bhabha amongst them. Here the contrast with Bangalore is evident. Raman reigned far away from Delhi, unencumbered by connections to government, preoccupied principally with fundamental science. A third Academy appeared on the scene when the National Academy of Sciences was formed at Allahabad in 1936. A provincial academy had metamorphosed into a national body. Some years ago after I had begun to write regularly in these columns, a distinguished past president of one of the academies asked me why we had three of them. This rhetorical question, to which no answer was expected, prompted me to examine the 'profusion of academies' (*Current Science*, 1999, **77**, 4). A decade later the question remains, resurfacing as the academies of science prepare to celebrate their anniversaries.

Over the years academies have acquired the status of elite clubs, which admit to their membership scientists who satisfy specified academic criteria. Election to the academies confers a level of peer recognition that is much sought after. Unfortunately, the processes of selection can never be universally acclaimed. Nominations and elections dominate the proceedings of the academies. Scientists who have not been admitted to the club by a certain age find their chances slipping as the years pass; youth is an important parameter which sometimes overshadows accomplishment and scholarship. Promise and patronage can outweigh performance. In Raman's days the decision making process was simple. He judged individuals. The process is more complicated now as the subdisciplines of science have increased and become ever more specialized. Judgements are made by committees and councils in a complex process. As the number of scientists has grown, decision making is an increasingly hazardous task. The academies have a difficult problem in assessing nominations in interdisciplinary areas. Nominees often fall between two stools; disciplinary boundaries are jealously guarded. There are separate academies for engineering and medicine, although a fairly large number of clinical researchers and engineers are also fellows of the science academies. The Fellowship of the academies has become increasingly coveted following the decision by

government to provide a cash incentive to researchers who are members of more than two approved academies. This is a development which might have left the founders of the academies bemused.

In recent times the science academies have begun to cooperate in many science promotion activities; a welcome change from the early days. This transformation has become possible since a large number of fellows belong to more than one academy, sometimes holding office in multiple places, thereby facilitating cooperation. The report on the four year science degree program and suggestions for higher education in science are examples of inter-academy initiatives that are becoming common. At a recent meeting in Bangalore, the Indian Academy of Sciences considered the celebratory program planned for the platinum jubilee year. Several past presidents reflected on their experiences and the role of the Academy. There appeared to be a general feeling that academies are unable to have a significant influence on science policy of the government. Some noted the reluctance of the academy to take up a clearly stated position on issues of public importance. It is clear, of course, that on some issues there is only one acceptable position. For example, it is easy to state that the academy disapproves of plagiarism or data falsification. On the other hand, it is not clear if there can be one and only one clearly articulated position on the Indo-US nuclear deal. A starting point might be to prepare well presented reports on difficult issues which may permit informed judgement. Can the academy's report on restructuring the undergraduate science programs prove influential? In order for any reform to be effected the report needs wide discussion in the UGC, in the universities and colleges where the programs are conducted. Unfortunately, this may not happen easily as there are few champions for a restructuring process in these institutions. The representation of university teachers in the academies is also limited, restricting the reach of well prepared, well intentioned reports. Academy reports that present and analyse data in scholarly fashion may indeed fare better than reports that are prescriptive, although dissemination is always limited. Critical surveys of problems and opportunities in emerging fields may also find a receptive audience.

The anniversary is a good time for the academies to reflect on their past and to redefine their goals for the future. Would it be pragmatic to avoid seeking a greater role for the academies in influencing government policy and focus instead on promoting science, an activity that the Academy at Bangalore has so successfully done over the years?

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