

## Is Indian science ready to tackle conflict of interest in a rational way?

Almost everything about India predates India, as the country has been around for several millennia; nevertheless, it got independence from the British colonizers in 1947! Science in India is several millennia old as well with Aryabhata (the scientist) and Ayurveda (medicinal science) predating by many centuries, the modern science that engulfed the world in the second millennium. Any critical analysis of science in India should ask the following question: If India had invented zero and Indian mathematicians had discovered calculus before Newton, why didn't India progress the way the Europe did after Newton's contributions in science? One can go on blaming the Mughals and British for all the ills we face. For a commoner in me, no one can fool you for long without your permission. Why did Ayurveda not progress beyond what was done by the founding fathers millennia ago? Did we have any fundamentals in our society that were wrong and prohibiting our growth? This is too complex a question to be addressed in a two-page editorial. However, I do find one major problem in India and naturally in Indian science that could have partly or largely contributed to this. It is about time we address it head-on. The problem is 'not recognizing a conflict of interest and doing enough to ensure that it does not affect the decision-making process'.

Very few in the world are born geniuses, like a Gauss or Ramanujan. (Incidentally, an editorial on genius was published recently: Sanjay, A. P. and Pandya, S. K., *Curr. Sci.*, 2018, **114**, 709. In summary, it argues that geniuses born in India, in the recent times, are unmasked only after they left the country.) They are considered to be gifted as we cannot find a rational explanation for their genius! Most others have to go through two decades of training in schools, colleges and universities to learn and be an expert in a narrow field. I have been at the Indian Institute of Science (IISc), Bengaluru for a little more than two decades now and this experience has helped me in realizing that India and Indian science have not dealt with conflict of interest in a critical and dispassionate way.

Often the strengths and weaknesses are the same. We are proud about the eastern values and the strong tradition

of family structure and criticize the West for moral degradation. From the time we are born, we are taught to respect and listen to elders and not argue with them. Blood is thicker than water. Not surprisingly our decisions about blood relatives tend to be clouded by emotion rather than reason. In our society, children are expected to follow the footsteps of their fathers while choosing their careers, even when they have no interest or inherent ability to do this. Our system is built in a way that helps a father's position going to a son without due considerations. This gets extended to faculty-student relations in a seamless way. It is about time we let the next generation choose a career/path of their own interests and support them, and not push them into positions they do not deserve or aspire.

The Tata group of companies has declared a code of conduct for all their employees and one can read it in the Appendix B of the book *The Greatest Company in the World: The Story of Tata* by Peter Casey. I quote a sentence from the section on what is conflict of interest. 'Award of benefits such as increase in salary or other remuneration, posting, promotion or recruitment of a relative of an employee of a Tata Company, where such an individual is in a position to influence decisions with regard to such benefits.' It appears that many, if not all, Indian institutions/universities have no such code of conduct. I interpret this class for a faculty member in an academic institution by changing 'a relative' to 'a relative or a student/postdoctoral associate'.

Before I go on, let me record a few facts. IISc was the result of a discussion between J. N. Tata and Swami Vivekananda and it started with the generous contributions from Tata and the Mysore King, Krishnaraja Wodeyar IV. William Ramsay was asked to help in setting up IISc. He headed a committee that did the ground work. Bengaluru was chosen to house the Institute and Morris Travers, a student of Ramsay, was appointed as its first Director. That it remains an institute of international eminence 11 decades later indicates that Travers did lay the foundation strong! Did Ramsay have a conflict of interest in recommending his own student as the Director? He did not recommend Travers in his own institution.

I do not see anything wrong in recommending your student for a job (s)he deserves, and that is what we are supposed to do. I am not sure if Ramsay continued at IISc holding some regular or honorary position and drew a salary/honorarium after his student became the Director, or built himself a laboratory or home to live and work forever in the campus. If that had happened, one can clearly see a conflict of interest.

As of today, one can see scientists sitting in committees selecting their own students/junior colleagues from among a list of scientists for an award, a fellowship, a position or a project. This is not the same as recommending your student/younger colleague for any of these. Strangely, if the students/colleagues have shown some independence, they are unlikely to be selected. The tragedy of Indian science today is that we have a significant number of such committee members who expect the beneficiary to show some gratitude. Hence, it would not be uncommon to listen to them proudly declaring that they selected their students for this award. If a candidate has to be thankful to a committee member, something has seriously gone wrong! Rather than realizing the conflict of interest in their action, they appear to think that they have earned a position to recommend an award for their students! Even when the authors are asked to suggest some experts to review a manuscript, they are informed not to suggest a colleague or a collaborator. There is a proverb in Tamil 'காக்கைக்கும் தன் குஞ்சு பொன் குஞ்சு', which translates to 'even for a crow, its chick shines like gold'. Naturally, the ones who are beneficiaries of such a selection process, expect the next generation to behave the same way. In a few generations, our system would have ended up choosing the most subservient people for the top positions. One cannot expect innovation or path-breaking science from such a sample. While many have written about favoritism and nepotism affecting science, I consider the conflict of interest as more damaging.

The conflict of interest is not only ignored when a senior person choosing some younger one for personal reasons; it also extends to the selection for positions at the higher level. Here one needs to worry about quid pro quo. If someone is chosen as a Chairman of a Board or Council and if as Chairman, this person approves some personal benefits for the person who nominates him, there is a clear conflict of interest. It appears more like a confluence of interest and this should not happen. Moreover, persons holding some position, from which they could, say, approve a grant to some institution, should not join the same institution in some capacity after their retirement.

IISc had a Council in the past that could tell C. V. Raman to resign as Director. Those who are keen on learning more about this incident could read B. V. Subbrayappa's book titled *In Pursuit of Excellence: A History of The Indian Institute of Science*. Let me quote one sentence at the end of the chapter discussing this episode in Raman's illustrious career: 'After this traumatic experience in Calcutta, it would have probably been better for Raman and the Institute, had he joined it not as its Director but as Professor of Physics'. Clearly, the institution was considered more important than any individual. In the long run, this helps any institution.

Raman Research Institute (RRI) founded by Raman looked for a Director after he passed away in 1970 at the age of 82! The selection committee called his son V. Radhakrishnan from California and appointed him as the Director. Radhakrishnan appeared to have been a multifaceted personality, who decided not to have any formal degrees, and had built flying machines and boats. It was interesting to learn that he participated in building a microwave amplifier at Caltech (Jayaraman, A., *C. V. Raman, A Memoir*, Reprinted by Indian Academy of Sciences, 2017). Some more questions to ask now: Would anyone else who did all these things as well as Radhakrishnan or perhaps even better than him, have been appointed as the Director of RRI? Why did Raman not groom a successor during his time? Why did not anyone from within RRI or anywhere else in the world get picked to succeed Raman? To his credit Radhakrishnan has served RRI well during his tenure. However, we would never know if anyone else could have done better than him! Have actions like these throughout our history led India to perform below its potential?

I have often compared cricket and science (Arunan, E., *Curr. Sci.*, 2010, **98**, 993). Recently, the Chairman of the Board of Control for Cricket in India was asked to resign as he chaired a committee that selected a team sponsored by a company under his control. He refused to see the conflict of interest and finally the Supreme Court had to ask him to step down. I only hope the science leaders in India would ensure that they act before the courts tell them to do so. They owe it to the Nation!

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