

Irreverence in Indian science – much ado about a lesser issue

The recent debate about ‘irreverence’ and its impact on lack of advancement in science in India has been an interesting discussion about a few issues that seem to plague Indian science. The issue of reverence in the Indian scientific milieu has been brought into focus by Mashelkar¹ in a recent article in *Science*. This was followed by a commendable editorial by Balaram² and also a few comments by other scientists^{3,4}.

At the outset, we feel that the very phrase ‘irreverence’ selected by both Mashelkar and Balaram has been differently used to portray the state of science in India and to ascribe reasons thereof. Almost all dictionaries describe irreverence as an expression of disrespect for official or holy or all such things that are usually respected by the majority. Applying ‘irreverence’ to scientific attitudes that prevent mute acceptance of the expert’s and boss’ points of view, in effect, connotes disobedience and surely this, by itself, is not enough to engender progress or otherwise in science. Reading between the lines of the above two principal commentaries on irreverence by Mashelkar and Balaram, it transpires that they were in effect striving to convey that there is a lack of curiosity, of scientific inquisitiveness that helps not only in further nurturing science but also in defining the direction of one’s own R&D endeavours.

A tradition of highly respected teachers – those stalwart individuals who have caused a paradigm shift in one’s outlook on any problem, be that in life or in profession or in education – is the hallmark of our upbringing and mental and spiritual growth along the tenets of *Acharya devo bhava* and *Baba vakyam pramanam*, the latter also being invoked by Mashelkar¹ with his thesis on irreverence. To us, reverence is much loftier than what the above commentaries have tried to invoke – reverence is a sentiment and an expression of the same that, say,

a Pandit Bhimsen Joshi (http://en.wikipedia.org/wiki/Bhimsen_Joshi) has for his *guru*, the late Rambhau Kundgolkar (aka Sawai Gandharva) or a Sachin Tendulkar (<http://www.indianexpress.com/news/tendulkar-pays-tribute-to-mentor-achrekar/491113/>) has for his *guru*, Ramakant Achrekar. It is so lofty a sentiment that the disciple, though at a considerably advanced state of achievement and greatness, is still humbled when confronted by his *guru*. This very dignity of the expression also makes it almost blasphemous to be irreverent to the *guru*. It is this type of reverence that seamlessly merges with veneration and a contrary expression of the same is what irreverence should be or actually is.

Science is too earthy to invoke such strong, lofty sentiments. An obedient scientist, who appears to be the very embodiment of reverence towards his boss, is actually expressing a cosmetic sentiment that cloaks a motivation or a sycophancy with an end objective of gaining favours, promotions, better jobs and so on. Surely, much more than a lack of irreverence, we would say with reasonable confidence that it is a preponderance of obsequious reverence and sycophancy that has placed the science in the country on a downhill slope, if not on a totally retrograde trend. Add to this a generous measure of non-accountable work ethics and a lack of self-respect and pride in one’s work; that has obscured the vision and inquisitiveness of glory or global recognition amongst Indian scientists. A common litany amongst many scientists, when queried about their non-performance or not being at par with the rest of the world in their field of research, will invariably include a list of ‘support’ or ‘infrastructure’ or ‘encouragement’ factors that were lacking. There would hardly be any scientist who would be graceful to accept non-performance as a reflection of not finding the best or the correct answers to his queries in science.

A quick census of the R&D outputs of a sizeable majority of the institutions and scientists in India and of the infrastructure created, broken down, altered or renovated in the past 5 years or in any other given time slot, will be a sure reflection of what ails Indian science – but it is surely not irreverence as Mashelkar¹ has conveyed or as Balaram² has tried to elaborate further. To look for a foundation ethic in science that invokes and entails all the principles of good science probably comes much later in our effort to improve upon the science in the country. Still, it is indeed commendable on the part of Mashelkar¹, Balaram² and others^{3,4} to at least give voice to a concern about the status of Indian science. We paraphrase Netaji Subhash Chandra Bose (http://en.wikipedia.org/wiki/Subhas_Chandra_Bose): ‘the Indian society demands – give us honest, incorruptible and self-respecting Indians and we will give you a global position for the science in India as much as a global position for India in science’. Every stakeholder in Indian science must walk-talk and it is only then that we can see irrefutable evidences of the exciting journey that our country embarks on in contemporary science as it searches for a global benchmark.

1. Mashelkar, R. A., *Science*, 2010, **328**, 547.
2. Balaram, P., *Curr. Sci.*, 2010, **98**, 1155–1156.
3. Sharma, O. P., *Curr. Sci.*, 2010, **99**, 859.
4. Bhaduri, S., *Curr. Sci.*, 2010, **99**, 859.

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