

Indian science: The case of the missing generation

This has reference to a recent editorial in *Current Science* journal titled 'Requiem for a missing generation'¹ and the 'News Focus' titled, 'Missing generation leaves a hole in the fabric of research'². I thank Balaram for his lone voice of protest and for comprehensively addressing the various issues raised in *Science* by the self-appointed captains of our profession in India.

The major point made in *Science* was that there is a lack of leadership qualities in the current generation of working scientists in India, necessitating the recruitment of scientists from abroad to head the laboratories and institutes here.

Let us for an argument assume that there are no worthwhile scientists here today. Who is to blame? Surely, it is those who have been in charge of science and science administration all these years. Suppose then that this statement is factually incorrect. The implications are worse: the leaders of Indian science, it appears, have been pursuing the worst kind of nepotism in promoting the incompetent to the various Academies at the expense of the truly meritorious, whose very existence has been denied. Judge this statement either way – the blame falls squarely on those who made it!

Why then did the supposedly intelligent leaders of our scientific enterprise make such self-incriminating statements? This foot-in-the-mouth syndrome has its origin, at least in part, to a mindlessness born out of what a friend of mine has characterized as a 'soft intellectual culture'. This culture is engendered by the systematic elimination of democratic debate and the consequent intolerance of dissent. In such an atmosphere, personal whims metamorphose into public policy. The result, as pointed out by Balaram, is 'a profusion of academies' even as science is allegedly on the decline, unsustainable (conceptually, financially and legally), hare-brained schemes such as the Swarna Jayanthi and centres and institutes that proclaim quality in their names rather than by their deeds. Readers may be interested to know that the only other centres of excellence (for instance in physical chemistry) are housed in Pakistan!

If we have to combat the situation, it is imperative that we examine how the soft intellectual culture is perpetuated. This is done by what in popular culture is called 'cronyism'. Contrary to the common understanding of this word, cronyism is not the outcome of unquestioned acceptance of a superior's opinion by the subordinates, but a curious inversion of this relationship. Witness how secretaries of government departments, directors of institutes and laboratories, who have been vested with public trust and authority by due processes subordinate themselves to individuals who form extra-constitutional power centres, having long outlived their tenures in office. Witness also how the latter manoeuvre themselves into search committees and the like with the sanction of the former. All important decisions are made here and there is no room for debate or dissent.

How is the crony culture sustained? An elaborate, complex and ever-expanding system of awards and rewards (associated with monetary gain for the awardees) has been put in place, largely operated by this extra-constitutional kabbala. This system caters to every possible age group of working scientist. The awards are finely calibrated and structured so that the potential awardees make the slow and torturous career-long ascent. A heavy price – both personal and societal, is extracted along the way. The joy of doing science is sacrificed first, as innocent young researchers are made acutely aware of the importance of gaining these awards as a measure of their coming of age. The trap is set. Dismantling these false institutions and awards can go a long way in improving science, as working scientists will then be liberated from this pernicious distraction and focus on science. It would be pertinent to recall that an earlier government suspended the much-politicized Padma awards with a temporary salutary effect. That latter-day governments failed to fully redeem the honour associated with these awards, need not discourage us from performing a similar experiment in our profession.

There is however a more charitable view of the awards system in our country which was pointed out to me a while ago.

The logic is somewhat as given below: Somewhere among the 100 crores of people in this country, must be lurking an individual, deserving enough of a Nobel Prize in science. All that we need to do is to identify her (or him) and provide generous support, both personal and professional. This will lead to that individual gaining the Prize – a sure sign of the improvement of Indian science. A view, juvenile at best.

Improving science is a part of nation-building. This is hard work and there are no short cuts here. Importing NRI directors will not do. Any system of incentives will only lead to ingress of the worst of the lot. The best are happy doing what they are best at in the best places in the world. There is another problem with NRIs. They left India at various points of time in our recent history. Their mindsets are frozen in those times. We here, have grown with the passage of time, sometimes by sheer default, but they have not. They can only take us back not forward. Even if they do take us forward, remember that technological leap-frogging can only help you operate modern gadgets – not build nations. Nation-building begins with the most unglamorous of goals such as noon-meal schemes, reducing primary-school drop-out rates, functional literacy and the like. It could then eventually lead to excellence in science and Nobel prizes. Countries leading in science today have traversed this long road in their not-too-distant past, with character and dignity. It is these last two qualities that we need to build into our scientists first.

1. Balaram, P., *Curr. Sci.*, 2002, **83**, 1297–1298.

2. Bagla, P., *Science*, 2002, **298**, 733–735.

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