

Of course the main factor here is the pay and perks. I do not mean that money is everything but it is something even for those in science. Unless this fact is understood and given a serious thought to, any talk of improving the condition of science is a farce.

In the end, my contention is that those at the helm of the affairs should look at the matter with a different perspective. The pay structures need to be

reviewed in a renewed sense. There is need to think out of the class system of central government employees. Today the main work force for research of any research institute/university – the research scholars are underpaid (the stipend is slightly above the class-IV employees' salary). Now that a former professor of repute is heading the HRD ministry, things should take a different course. We hope that this community

wakes up and gives the government a clear and influential signal so that we are left with enough talent to carry the country over to the next millennium on a high note.

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Stray thoughts of a retired scientist

I have been mulling over the editorial 'Reviewing a review' (*Curr. Sci.*, 10 November 1998). In assigning Bhargava's ire to the *apres moi le deluge* syndrome, the editor has personalized and trivialized the problem. This is being less than fair to the silent majority of hard-working scientists in this country, who are deeply unhappy and despondent over the rampant 'self-glorification and cronyism', but have no other recourse except to turn their faces away in utter disgust.

Yes, people do feel more secure in launching their critical comments at the system only after they retire from active service. But they are hardly to be blamed for this, given the existing climate in this country. No scientist in his right senses is likely to jeopardize his future scientific career by indulging in criticism of the present. Even after retiring from active research, it is rare to find anyone with enough commitment to attempt to find out what has gone wrong with the system.

Bhargava's criticisms can be grouped under two heads:

- i) Those dealing with breaches of morality and ethical behaviour in a broad sense: Patronage, cronyism, lack of accountability, self-glorification, plagiarism, careerism without commitment, fraud, dishonesty, lack of integrity, sycophancy.
- ii) Criticism of intellectual and scientific capability: Mediocrity, lack of originality, ignorance of scientific methods.

I believe the concerns referred to in the second group have already been addressed by several distinguished educationists and debated in various fora. I have nothing further to add in this matter. It is the first group therefore that I wish to comment on.

A few weeks back, there was an interesting news item put up on the notice board of the Pune University Chemistry Department. This summarized the results of a survey conducted by some organization on the general impression of the common man about different professions. The questionnaire had asked for a rating of each profession on a scale of 1 to 10 with respect to several parameters. The ones which are most relevant here are: i) Which profession promises to give the maximum material benefits to its practitioners? ii) Which profession confers the greatest dignity to one who is engaged in it? iii) Which profession do you respect most? iv) Which is the most corrupt profession in your estimate? Not surprisingly, 'teaching' and 'science' scored the lowest in material benefits and highest in 'respect' and 'dignity'. Seemingly, the most satisfying evaluation as far as the scientists are concerned, is the public rating of the professionals in terms of their proneness for corruption; politicians and policemen top the list and scientists and teachers occupy the last two positions.

Obviously, this is something we should congratulate ourselves about. But a small nagging doubt persists in my mind: Are scientists really less cor-

rupt by nature, or do they appear to be less corrupt since the fruits of corruption are likely to be less substantial in their case? Are favouritism, nepotism and cronyism the exclusive prerogatives of politicians and bureaucrats?

I am quite sure that most of us scientists have encountered examples of the kind of unethical behaviour referred to earlier during our careers – in recruitment and promotion, in choosing the recipients of awards and honours, in election to Fellowships, etc. We cannot sit back and ignore this under the specious plea that corruption exists everywhere.

The institution of awards has already received editorial (*Curr. Sci.*, 1999, 76, 1080) and other (*Curr. Sci.*, 1999, 76, 1521) attention. Let me add my bit also here. There was an interesting news item in the *Times of India* of 26 June. Somebody had filed a public interest litigation in the High Court against the Government's decision to give a cash award to one of our ex-cricket-heroes. I wish the same public-spirited gentleman would also turn his attention to the Awards to the 'scientists' of this country. The proliferation of 'societies' seems to be the consequence of the need to create more awards. If all the awards of the existing Academies and Learned Societies have been exhausted, then create new societies. Each new 'society' can of course institute its own awards. As for the dispensing of awards, in most cases the awardees seem predetermined, perhaps by way of settling professional debts, or honouring per-

sonal commitments. The *modus operandi* can vary: Packing committees with the faithful, shifting goal-posts to suit the shot, etc.

What is wrong with the 'organizations' supposed to be looking after the interests of scientists and scientific development in our country? Can we honestly claim that merit in research is *consciously* being encouraged by providing funds, facilities and freedom to pursue the chosen field? The sad fact is that merit-based promotions are out; they are supposed to be contra-democratic; everyone has a right to reach the top – regardless of his or her competence. Transparency and innovation are the two words most bandied about, but least observed in practice.

The malaise may not yet be widespread. But the wrong role-model may corrupt a whole generation of youngsters. The most urgent task now before us is to give proper guidance to our students. What better advice to give them except to plead with them to imprint in their minds the golden words of the grand lady who lived two thousand years ago:

'What we have learnt, is like
a handful of Earth,
While what we have yet to learn
is like the whole World.'¹

Perhaps our senior scientists would also do well to remember this when assessing their own research contributions!

1. Saint Avvaiyar (Tamil poetess, 1st century B.C.) quoted in an article by Blumer, M., *Angew. Chem. Int. Ed. Engl.*, 1975, 14, 507. Almost nineteen hundred years later, Laplace is reported to have echoed the same thoughts – "That which we know is a little thing; that which we do not know is immense". (Will and Ariel Durant, *The Story of Civilization: The Age of Napoleon*, p. 324).

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Why should we not ignore the criticisms against nuclear defence preparedness?

The debate on nuclear armament issue seems to suggest that we would rather intellectualize our cowardice than look for ways to strengthen the economy by adopting a work culture with genuine personal commitment to our profession.

Nuclear armament is, no doubt, an expensive business. Moreover, as a burden for the next generation to update and sustain, it is likely to be even more expensive. However, on many occasions our silence and inaction causes considerable financial loss both to the Government and to us personally. For instance, it is highly unlikely that the academicians were unaware of the recently exposed corrupt practices and scandals since a higher level functionary of the university admitted⁶ that he did not investigate the matter because it was giving about 3.5 crores annually as revenue to the University.

This indifference has not only created more underqualified degree holders, but has ensured a much greater amount of loss to educational institutions in the future due to the perilous snow-balling effect. Not that we like such losses in either universities or other spheres of activities, but expect the Government alone to take corrective measures.

The arguments posed by some to decry¹⁻³ the pronuclear stand of Udgankar⁴ and Balasubramanian *et al.*⁵ seem to be consistent with our mentality sketched above. For instance, Chatterjee and Vyasulu¹ do not feel it necessary to refer to the way the money in education is being drained out.

Does it occur to our academicians that the number of colleges that sprang up to give these devalued degrees, and the earnings from them subsequently, if estimated for even 100 universities would probably exceed our expenditure on projected nuclear arms programme?

However, it needs more courage to set right these centres of learning than criticizing nuclear defence programme; it demands a clear sense of purpose, enlightened spirit without forming caucus, and persistence of efforts until we establish a proper tradition. Why not raise a debate on that too? How many of our academicians antagonists of Indian nuclear arms programme publicly criticized this pillage, now probably ritualized, with even half that gusto? On the contrary, Chatterjee and Vyasulu¹ suggest we invest more money in these thoroughly corrupted educational pro-

grammes without a shred of doubt on its wisdom.

In my view, another reason for anti-nuclear stand by many is their immediate personal benefit rather than a genuine concern for global deescalation of nuclear arms or concern for the poor, which link their or their children's career in Western countries.

It is easy to raise a debate on a Government programme if we fear a financial burden on us because popular support is assured. Since the Government's fate depends critically on public image orchestrated by the media, a limited bravery of the intellectuals turning vocal in such issues is possible without much risk, particularly if one happens to agree with the official position of the all-powerful US Government!

Why do we behave the way we do? Probably because we fail to see far enough to appreciate that institution's interests serve even our personal interests decidedly much better in the long run. Paradoxically, while watching the decline in the quality of higher education in present institutions, we are proud of the extinct ancient institutions like Nalanda and Taxila. One wonders if the ancient ones also decayed for similar