

Educating the underprivileged geniuses

The article 'Genius in medicine'¹ caught my attention as it discusses how the present educational standards in medicine could be further improved in India. Since this goal does not apply to medicine alone, it seems to be important for education in general in many fields throughout the globe. The authors also proposed measures for improving the frequency of innovators in India. These measures need clarification.

The authors cite as the highest standard the definition of genius according to the Oxford English Dictionary as 'native intellectual power of exalted type: extraordinary capacity for imaginative creation, original thought, invention and discovery'. The authors continue stating that 'These components include as an example the capacity to learn and see what others miss; an inborn ability to innovate.' Then the authors cite many known historic examples of innovators.

The principal question of these authors is as to how to increase the frequency of innovative scientists in India. Cited are some very successful scientific institutions founded by scientists who returned from the US and established scientific institutes with an international reputation. These examples should be multiplied to enhance the number of innovative scholars remaining, so that they could work in India rather than abroad.

The authors propose to establish independent thinking throughout India from the first educational experiences already at a young age aiming at developing a

mental stage where 'creativity supersedes rote learning' and scientific curiosity and independent thinking becomes established. They propose that this could be achieved by 'fettering the intellectual mind in a curriculum that sets free young minds so that they can show dissent with respect to "established truth" in science'. And a curriculum should be designed for educating the young 'for the development of critical skills in the Indian context'.

Several questions came up and demand clarification:

1. Innovative thinkers are very rare. How could you increase their numbers by a special curriculum of which you did not reveal any characteristics, except maybe that it prefers creativity rather than rote learning?
2. Who would be qualified to design, teach and perform quality checks for such a special curriculum and later educate the scholars?
3. What could be done to establish this novel curriculum, thereby aiming at finally teaching creativity and innovation, and that probably represents instructions for discovering facts that are unknown today?
4. Can creativity be taught? Can genius be induced by education?

Just after I wrote the comment above, an article appeared in the 19 May 2018 issue of the German Weekly *DER SPIEGEL* entitled 'Die unbekannt

Genies' (the unknown geniuses). The goal of the association Mensa is to identify highly gifted adolescents in India's very poor areas which remain without an adequate education. With a series of intelligence tests, which are based only on defined pattern recognition, a kind of indigenous creativity can be recognized without the need for the ability to read or write.

Juveniles with an intelligence score above 130 are defined as highly gifted and Mensa is looking for resources to grant these 2% of the talented very poor (a frequency similar in the uncompromised population) a normal education as the common population.

This correspondence presents the first examples of detecting outstanding talent by the applied test by Mensa, which also corresponds to the creative capabilities in their daily life. Thus, this test can indeed identify the very invaluable but otherwise lost talents within the giant underprivileged population. This search has the capacity to assemble the highly gifted poor and by their assisted success, increase dramatically the pool of true inventors everywhere.

1. Pai, S. A. and Pandya, S. K., *Curr. Sci.*, 2018, **114**, 709–710.

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Double-blind peer review system – an essential step for a fair evaluation of research

'I have a dream that my four little children will one day live in a nation where they will not be judged by the color of their skin, but by the content of their character.'

– Martin Luther King, Jr.

We evoke the above famous quote as we write this communication on the peer review system in research publications. Research is an essential aspect of scien-

tific growth, and more importantly, it is for all to share their work and novel ideas through publication, irrespective of their associations and affiliations to ensure wide dissemination of scientific observations.

An impartial peer review process is crucial for the researcher, reader and journal. In this regard, adopting a double-blind review system by leading journals such as *Nature*¹, is certainly an

encouraging development. Double-blind peer-review system is expected to be free from various biases, and thus, is a realistic and judicious step towards transparency, equity and justice in research and its publication. Apprehensions associated with the double-blind peer review system appear unsubstantiated and can be easily taken care of². It is the authors' responsibility to ensure that the manuscript is anonymous and giveaways such as 'we