

Epilepsy, madness and creativity: The Indian ethos

The editorial 'The recesses of the mind' (*Curr. Sci.*, 2002, **82**, 1065–1066) has generated Indian academic interest in both, the nature and nurture of creativity in arts and sciences. On ordering search of 'Genius and madness', 'Google' gave a figure of 1,09,000 in 0.11 s. And not surprisingly, there is an almost total absence of citations from India. By a mere statistical probability, a nation of more than one billion people must be having its reasonable allocation of geniuses. Where are they? What are they doing? How does our education system spot them? What can be done to encourage the exceptional ones? Is our leadership – political, academic, technical, scientific – ever seized with these queries? Has the Ministry dealing with human resources ever embarked on their central issue of future progress of India? Do we have special educational facilities for our dyslexics or attention-deficit disordered children?

Epilepsy is called 'apasmara' in Ayurveda. The dancing Nataraja is shown, in all the icons, as poised on the body of apasmara-purush. Literally it means that the rhythm overcomes the dys-rhythm. Epilepsy is a consequence of an electrical dys-rhythm – a brainstorm. Madness episodes and the bursts of creativity have

been correlated with epilepsy¹. Magnetic Resonance Imaging (MRI) of the post-mortem brain of Kumagusu Minakata (1867–1941), a Japanese genius, showed evidence of right hippocampal atrophy. His diary reveals evidence that he had temporal lobe epilepsy². The study offers a bridge between neuroscience and classic psychopathologic approaches to the creativity of geniuses. Now there is a possibility of studying with MRI the hippocampal volumes or their discordance in size, for the right or left hemisphere in creative artists and scientists, with or without epilepsy. Even if existing hundreds of MRIs were to be screened and correlated, we may have unique Indian data on hippocampal volumes in creative persons vs cohorts.

Madness, in India, is socially much more accepted than in the Western society. The street, I live on, in Mumbai's Juhu area, has three insane persons, who are relatively well-tolerated, despite their bizarre behaviour. Freud made an early attempt to explain Leonardo da Vinci's genius in psychoanalytic concepts of narcissism, homosexuality, parenting and sublimation³. India, a land of so many mystics and creative persons, offers a goldmine for research in the relationship

of madness – depression or schizophrenia – to mystic experiences, dreams and creativity – scientific or artistic. Steve Mizrach's article on genius or madness, wherein he discusses creativity as a hereditary flaw and a biosocial origin of genius, is worth studying in the Indian context⁴. This would particularly be relevant to facilitate creative outlets for the identified 'gifted' persons or potential genius. The role of advanced Rajayoga for its influence on the brain needs to be explored for this purpose; special powers are reported to emerge due to practice of yoga.

1. Monrow, R. R., *J. Am. Acad. Psychoanal.*, 1991, **19**, 462–470.
2. Murai, T., Hanakawn, T., Sengoku, A., Ban, T., Yoneda, Y., Fujita, H. and Fujita, N., *Neurology*, 1998, **50**, 1373–1376.
3. Blum, H. P., *J. Am. Psychoanal. Assoc.*, 2001, **49**, 1409–1425.
4. Mizrach, S., <http://www.uoregon.edu/~ucurrent/1.3.html>.

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Corneal blindness

Balasubramanian's article (*Curr. Sci.*, 2002, **82**, 948–957) highlighting molecular and cellular approaches for the treatment of some eye diseases was both informative and timely.

As regards corneal blindness, we are today faced with a pathetic scenario. In the city of Mumbai, with a death rate of 75,000 a year the problem seems to be twofold.

First, eye-banking is neither looked upon as a specialized medical fraternity nor as a noble function, but as a mere social cause meant only to enhance social credibility. As a result, eye-banking is controlled by politics and eye banks are run by architects, lawyers, chartered accountants and ophthalmic surgeons with vested interests. Just about anyone, except professional eye bankers.

Secondly, while the burden of eyeball collection from the deceased still

remains with the eye banks, the cost of eyeball processing, surgery and hospitalization remains with the blind recipient (barring government hospitals), and yet remains termed ironically as an 'eye donation'.

As a matter of fact, the 'loudest whisper' amongst social workers and voluntary doctors is – 'Eyes are donated to whom? . . . the surgeon, the eye bank, the hospital or the recipient'.

In view of the above, utilization (corneas used for restoring vision or therapeutic treatment of the eye) of collected eyeballs in a city like Mumbai remains an abysmal 20%, thereby depriving the corneally blind of restored vision.

The Government of India has allotted a sum of Rs 500 per pair of eyeballs collected by the eye bank, but nothing towards surgery for the same.

'Eye donation' is a community effort and the number of eyeballs collected will depend on the 'accountability and transparency' of the existing eye bank, wherever it may be.

The answer therefore for corneal blindness does not lie with the eye banks, but seems to rest with the community itself.

A shining example is Dr Ramani's eye banking model in Coimbatore which has not only received recognition from the Government of India, but the blessings of poor, corneally-blind villagers for restoring their vision.

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