

Simon Lehna Singh



'I am of Indian heritage and continue to visit India. It is special for me to accept this award in India.'

– Simon Lehna Singh, Leelavati Awardee at ICM 2010 on 26 August 2010 (photo credit: Rahul V. Pisharody)

Simon Lehna Singh has authored popular science books including *Big Bang*, *Fermat's Last Theorem* (which is also the theme of a BBC documentary that he made in 1996) and *The Code Book*. His latest book is *Trick or Treatment? Alternative Medicine on Trial*. His article in *The Guardian* (19 April 2008; <http://www.guardian.co.uk/commentisfree/2008/apr/19/controversiesinscience-health>) on chiropractic therapy has been the subject of controversy in Britain. For this, he was sued by the British Chiropractic Association for libel. After two years, he won the case. At the International Congress of Mathematicians (ICM) held in Hyderabad, India, Singh was awarded the Leelavati Award 'for outstanding contributions to public outreach in mathematics by an individual'. Details of his work can be found at <http://www.simonsingh.net/>

Excerpts from the interview* follow.

Why did you make a transition from physics to science journalism?

I always wanted to be a physicist. But when I was finishing Ph D, I could notice that other people were brighter than me; maybe I would have survived, but could not have been a good researcher. So

I thought about what I could do that still keeps me in mathematics and science without doing research; the idea was to become a journalist and I think it was a good decision because I still get to meet scientists and talk to mathematicians. I learn new topics, new ideas and pass that excitement to others as well.

Did this transition from physics to journalism come along with some struggle? What about qualifications?

It is not easy for a journalist to become a mathematician, but if a mathematician wants to write an article, it is not so hard. Having a science background is important. You can go to a journalism school but when you graduate you have nothing to write about, whereas if you go and study politics, or science or literature, then when you graduate you have something to write about. It is not so hard to learn the skills of journalism, it is through experience.

Martin Gardener had no mathematics qualifications, but he may have been the most successful popularizer of mathematics of the 20th century. So, maybe former qualifications are not so important. My qualification is not in mathematics, it is in physics.

What are your views on public communication of mathematics?

During the panel discussion (at the ICM), there was a question from the audience about why should we bother to communicate to the public. I think we need to inspire more people to be excited about mathematics and science. We all should encourage that, and nurture that enthusiasm in the next generation. Mathematicians need to explain to the public what they do, about what mathematics is.

We have to educate the public so that they can make decisions about genetically modified foods or get value for money in buying organic food. In other words, they can make the right decisions based on the right evidence. Also, it can be fun and interesting for the scientists and mathematicians to get involved in communication with the public and they can do it in many different ways; they can go to schools or give public lectures. In England, we have something called

science in the pub, which is an informal environment for people to look into areas they do not know about.

What are the essentials of communicating mathematics to the public? Is it different from communicating other sciences?

Communicating mathematics is much harder, because mathematics is generally more abstract; many areas of mathematics are not rich in pictures, the ideas are complex and people have a natural negative reaction to mathematics; whereas astronomy, dinosaurs and genetics are all exciting topics. Mathematics is totally at another end. So, what you should try and do is pick those bits of mathematics which are, maybe less complex, may have images to go with, have some drama associated and some emotions of history, and try the best you can to communicate.

Is there a flip side of mainstream media?

Media does a good job in some ways, but there is a pressure to sensationalize or to hype; each treatment is either presented as a miracle cure or has horrible side effects; the truth is each new medicine is a small improvement on the previous one, or each new medicine has some evidence of usefulness in the future, but that is not so interesting for the media. The job of news agencies is to sell newspapers; the way they sell newspapers is by sensationalizing. How do we try to stop that? Scientists making complaints is a good starting point. Like I said in my talk at ICM, if you have an expertise and you see something which is wrong in the press, then ring up the journalists and talk to them. They may have made a mistake, in which case you can educate them. If they did not just make a mistake and have been sensationalists deliberately, then complain to the editor, or somebody else. People should make sure that their complaint is heard, because if it is not heard then the scaremonger group may just carry on.

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*The complete version of the interview is available at <http://www.ias.ac.in/currensci/25jan2010/153a.pdf>.