

Advancing Science and Einstein's Contribution

The following letters appeared in *The Sun* newspaper on July 4 and July 8 2011.

Letters *The Sun*, July 4, p.13

Scientists build on work of predecessors

IN REPORTING on the Conference on Decolonising our Universities (July 1), your writer highlighted the work of the Indian scientist and mathematician C.K. Raju who recently corrected Einstein's formula on the theory of relativity. Good for Raju!

While we celebrate yet another step in the advancement of science, the writer's contention that Raju's achievement resulted in "another great god of science and mathematics, Albert Einstein, (being) dragged down from his Olympian heights" shows a misplaced understanding of the way science advances.

Science progresses when researchers build upon the foundation laid down by their predecessors.

From the 13th century, researchers in Europe studied and translated the earlier work of scientists from the Arabic-speaking world who in turn, from the 8th century, studied and translated the learning bequeathed by the Greeks.

In research, scientists confirm, disprove or refine the findings of those who have gone before them. Indeed, even if a scientist were proven wrong down the road, there is no dishonour as long as his conclusions had been properly drawn from information available at the time.

The landmark discoveries of Einstein that modified the basic laws of gravitation promulgated by another scientific luminary, Newton, three centuries before do not lessen our admiration of the latter. Is there need to denigrate Einstein if someone else has now elucidated further on his discovery?

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Greater than the sum of its parts

Posted on 8 July 2011 - 05:05am

I AM not a physicist and I don't know very much more about Einstein's Theory of Relativity than the next person. My response to the article "Decolonisation of universities begins with us" was made owing to what I felt was undue disparaging of Einstein just because someone else had made a correction to one of his equations.

Prof C.K. Raju has now said (July 6) that Einstein's vilification is justified because the latter is suspected to have "copied the entire Theory of Relativity from Poincaré".

Prof Raju's erudite analysis of the works of Einstein and Poincaré that led him to this conclusion is best left to discussion among experts. Here, I would just like to share a few common sense thoughts.

Plagiarism in scientific research does happen. For example, someone could rehash a long forgotten report in an obscure research discipline, and have it published in one of the less read journals. However, such shenanigans are difficult to pull off in a high profile area of research where each new discovery is minutely discussed, analysed and dissected by experts in the field.

If Einstein had essentially plagiarised the discoveries of Poincaré, this transgression would not have been lost on a host of expert physicists who had applauded Einstein for his discovery. As much as they were Einstein's contemporaries, they were also Poincaré's.

It would arguably have been easier for scientists of the day to be persuaded by the writings of someone of the stature of Poincaré, a distinguished professor at the Sorbonne, than Einstein, a Bern Patent Office technical expert, third class.

Indeed, if Poincaré had in fact anticipated Einstein's findings on relativity, wouldn't the community of physicists have hoisted Poincaré on their collective shoulders and declared him a genius, even before Einstein's publication? Why did they hold back their praise until Einstein's paper came along?

Rightly or wrongly, the scientific community at large were of the opinion that the body of work accomplished by Einstein represented an important advancement over existing knowledge at the time. How would such a turn of events square with Prof Raju's contention that Poincaré had in fact articulated all the essential elements leading to the theory earlier?

I would hazard a guess that what Einstein offered to the scientific community in his Theory of Relativity was greater than the sum of its parts. Think of a jigsaw puzzle. All the pieces are already there to begin with, yet someone still has to put them all together to make sense of the final picture. Might Einstein have been that someone?

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