

## Invitation for a debate on NCERT school math texts you authored

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From: Prof. C. K. Raju (ckr@ckraju.net)

To: jayant@iucaa.in

Date: Wednesday, February 23, 2022, 06:17 AM GMT+5:30

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Dear Prof. Narlikar,

Just in case you have forgotten who I am, let me recall some of our past interactions. We first interacted some 44 years ago, in 1978, when, as a graduate student, I found holes in your version of the absorber theory (with Fred Hoyle), as also errors in the earlier absorber theory of J. A. Wheeler and R. P. Feynman, and proposed an alternative theory.<sup>1</sup> Apart from our in-person discussions, over two weeks, when we agreed to disagree, you never later responded academically. Indeed, you never wrote again on absorber theory. (And I would not like to go here into your resulting insecurities, and non-academic responses to try to wreck my scientific career.)

Later, when someone from the Nobel prize committee asked me to evaluate your work, and I had to read all of it, I understood what the real problem was. You do science like science fiction: if there is a difficulty (such as a difficult integral) you just overcome it by means of a hypothesis! That makes you a good storyteller but a poor scientist. One should learn something from a scientific theory even if it is refuted. But if a scientific theory is so littered with hypotheses, one learns nothing when it is refuted, like your cosmology.

You might also remember the paper you wrote for PHISPC on “Four questions that history might answer”. You stated in it you were only exposing your ignorance of history. It was sent to me for adjudication after David Pingree accepted it for publication, but K. V. Sarma rejected it, asking why you needed to publicly expose your ignorance of history! I agreed with K. V. Sarma, but recommended the paper should be published, as a record, but the title could be changed to “Four questions that the library might answer”! All the reports are public, and were published in the inaugural issue of Sandhan of which you were an editor.

This issue is relevant, since false history of math, spread to millions of students, through NCERT texts you authored, is one of the issues pertinent to this email.

Then, the IUCAA PRO emailed me (19 June 2006 et seq), as cited in detail in my paper on Aryabhata,<sup>2</sup> asking for the source of a quote from Aryabhata (where he compares the earth to a kadamba flower). I gave the source, but pointed out that the spelling of Aryabhata (as Aryabhata) in his email, and in the NCERT school text you authored, was wrong, and that the change (from bhata to bhata) converted a dalit to a Brahmin. Your PRO said you knew about it. And that wrong spelling eventually was corrected in the NCERT text.

But the janeyu on the Aryabhata statue in IUCAA converts him to a dvija (though with flowing locks instead of a shikha!). That statue is standing uncorrected, for some 15 years, and Wikipedia reproduces its image on the authority of IUCAA, to spread misconceptions about caste in India (despite Dharampal, that the lower castes were indeed educated in pre-colonial India).

Likewise, standing uncorrected for the last 15 years, there is the issue of “Euclid” in the class IX NCERT text. There is no primary early Greek source for “Euclid” (from before the 19<sup>th</sup> c., when it was concocted) and NCERT refuses to correct its text. Actually, “Euclid” is just concocted Crusading history, which you are instrumental in spreading and indoctrinating schoolchildren with. Clearly, despite all your talk of scientific temper, when it comes to Western myths, especially church myths, you go by the myths that you learnt in Cambridge, not evidence. Is that all that your scientific temper is about: *which* authority one believes in?

As you might know, my prize<sup>3</sup> of Rs 2 lakhs for PRIMARY evidence about “Euclid” is standing for a decade. What happened to your "scientific temper" in the matter of “Euclid”? Of course, it is not just about the person “Euclid”; there are no axiomatic proofs in the “Euclid” book.<sup>4</sup>

Likewise, there is the false history that Newton “discovered” calculus, a history based on the genocidal doctrine of Christian discovery.<sup>5</sup>

Then, the class IX text says only Greeks used reasoning, and that no one else had any notion of proof in math. These are complete lies, spread widely by your NCERT text. See, for example, this video clip.<sup>6</sup> A clear notion of proof is stated in Nyaya Sutra 2, and I have given examples of its use in Indian math. But admitting this would inconveniently force you to *compare* the two kinds of reasoning: (1) with facts, and (2) without facts, using assumptions or axioms.

Your school text confounds the difference between normal reasoning (with facts) and axiomatic reasoning (which prohibits facts). It also hides the fact that it was the church which first used axiomatic reasoning (Aquinas’ angel theorem), or reasoning minus facts, because facts did not suit church dogma. As a scientist, how do you explain the prohibition of the empirical as resulting in “superior” proof in math? If math is to be used for science, as most students assume, how does prohibition of the empirical benefit math?

The issues are not just about history. Since you did a math tripos from Cambridge, would you care to publicly debate why to use real numbers (class IX text) and limits in the calculus (class XI and class XII)? Just to imitate what the West did? I doubt you will feel up to a debate on this issue, but just asking.

There are many other issues. I guess that you are probably no longer on the NCERT text-book committee. But the issue is one of public accountability of experts. Whatever huge errors have got into the NCERT texts, even if they are eventually corrected, they would still have damaged the minds of millions of students. Do you accept that responsibility?

Therefore, the errors in the texts authored by you (still in use) still deserve a public debate, and I am challenging you to one, the way you challenged astrologers. An open public debate would also clarify that there is no backdoor saffronization, but only a process of examining and rejecting unexamined church myths and superstitions in the math which came with colonialism.

I would be happy to send a more complete list of topics, once you agree to a public debate on these issues in NCERT school texts on math, for which you were the lead author.

Please let me know if you are agreeable to such a public debate on these NCERT math texts. This debate could be conducted online at any mutually convenient date or time.

With good wishes, and hoping you are in good health,

C. K. Raju

<sup>1</sup> C. K. Raju, ‘Classical Time-Symmetric Electrodynamics’, *Journal of Physics A: Math. Gen.* 13 (1980): 3303–17. A more sophisticated version of the theory is in my book C. K. Raju, *Time: Towards a Consistent Theory* (Springer, 1994).

<sup>2</sup> C. K. Raju, ‘Aryabhata Dalit: His Philosophy of Ganita and Its Contemporary Applications’”, in *Theory and Praxis: Reflections on the Colonization of Knowledge*, ed. Murzban Jal and Jyoti Bawane (Routledge, London, 2020), 139–52, <http://ckraju.net/papers/Aryabhata-philosophy-of-ganita-paper-2r.pdf>.

<sup>3</sup> <https://youtu.be/sEK1FCrLHjU?t=3292>.

<sup>4</sup> C. K. Raju, “‘Euclid’ Must Fall: The ‘Pythagorean’ ‘Theorem’ and the Rant of Racist and Civilizational Superiority - Part 2”, *Arumaruka: Journal of Conversational Thinking* 1, no. 2 (2021): 57–105. <http://ckraju.net/papers/AJCT-Euclid-must-fall-Part-2.pdf>. A simplified version is [here](#).

[5](#) C. K. Raju, 'California, Indian Calculus and the Technology Race. 1: The Indian Origin of Calculus and Its Transmission to Europe', *Boloji.Com*, 11 December 2021, <https://www.boloji.com/articles/52924/california-indian-calculus>. The second part of the article explains how to make the calculus easy, by reverting to its Indian epistemology, as demonstrated in pedagogical experiments over the last decade.

[6](#) [Indian notion of proof \(in math\)](#).

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