

The march from yesterday



August 10, 2017 00:02 IST

Updated: August 09, 2017 23:56 IST

Share Article

- PRINT
- AAA



Scientists should participate in a public debate on the nature of science and its practice in India

These days when everybody is marching for something or the other, scientists don't want to be left behind. A global movement called [March for Science](#) was held in different places in the world in April this year and the Indian version was held in some cities on Wednesday. But do the concerns that drove the global marches for science also matter in the Indian case?

The call for this march in Indian cities had many problematic assertions. The march was justified by pointing out that science in India is "facing the danger of being eclipsed by a rising wave of unscientific

beliefs and religious bigotry” along with reduction of funding to premier scientific institutions. They added that non-scientific ideas are being promoted and suggested that “promoting [a] scientific bent of mind can certainly help improve the social health of our country where incidents of witch hunting, honour killing and mob lynching are reported regularly.”

Also Read



The march organisers made four suggestions: allocate a certain percentage of the GDP for science and education, “stop propagation of unscientific, obscurantist ideas and religious intolerance”, insist that education should only impart “ideas that are supported by scientific evidence”, and finally, “enact policies based on evidence-based science”.

Problems with the narrative

This statement as well as the rationale for the March for Science shows how naïve ideas of science continue to be propagated as truth. It also illustrates the power of the scientific community in India that they can continue to utter such sweeping statements about science without worrying about their consequences. Moreover, such recycling of ideas of science and its relation to society is unfair to hundreds of thoughtful scientists.

What is worrying about such calls is that they echo the national narrative on science right from Independence. Science in India has constantly legitimised itself by creating a false opposition with beliefs, superstition and religion. The fact that this same narrative continues even today just shows how these ideas are being used as a decoy so that the real questions that the public may ask about Indian science do not get asked. This invocation of superstition, witches, mob action or even caste atrocities seems to suspiciously arise whenever the scientific community wants to demand more funds from the government. There is a striking parallel between the language and narrative of the religious right and those who hold fundamentalist ideas about science. The claim that there is a “rising wave of unscientific beliefs” is more rhetorical than evidence-based and deploys the strategy of fear-mongering to make a point. To claim that a “scientific bent of mind” can get rid of honour and mob lynching is to betray a very poor sense of the nature of social reality and social action.

The suggestions that this group made are actually unscientific. To claim that 10% of the GDP should be allocated for education is an unscientific claim and one made without factoring either the fiscal policies on education or the challenges that confront education in India today. They also want to stop the propagation of unscientific ideas, but what are ‘unscientific ideas’? The logical fallacy of using extreme examples to push for their agenda is yet another strategy of the fundamentalists.

A blinkered viewpoint

Like the right wing, these scientists too do not give the norms which will define what is scientific; all that we have now is that whatever scientists say or do is scientific — analogous to the claim by the right wing that whatever they say or do about their religion is that religion. Their ignorance, or perhaps their disinterest, about the rich debates on what constitutes scientific evidence betrays only an unscientific use of the term ‘scientific evidence’. Their third suggestion that education should only be about ideas that are supported by scientific evidence is patently absurd. True education should be as much about the capacity to critically reflect on science as on everything else we are taught. Imagine the world of education if we followed this condition: we could not teach art, music, literature, languages and quite a significant portion of social science, to list a few. We cannot teach history because it is not ‘scientific’ and so we will never learn how to understand the history of science. We cannot teach sociology since many theories of sociology will not pass the test of scientific theories, so we cannot really understand how scientific knowledge is created socially. Their final suggestion that policies should be based on “evidence-based science” aggravates all these mistakes.

What these scientists do not seem to realise is that the point of contention is precisely what they take for granted: science, scientific method and scientific temper. What is common between such claims about science and the right wing fundamentalists is that both these camps do not draw upon available material which offers a challenge to their naïve beliefs. Both these camps speak as if what they say is the literal truth. Both of them try to force everybody else into their own beliefs and states of ignorance, many times by using radical oppositions and images (such as lynching).

In the case of this ‘national’ view of science, everything they claim can easily be disproved by referring to the extensive work in the fields of history, philosophy and sociology of science. The difficulty of giving one coherent definition of science or of scientific method, or to have a theory of causality that can help explain how scientific temper can get rid of superstition, caste, religion or even mob lynching should hopefully make them more critical of their own beliefs about science. Yet nothing changes the discourse about science in India. This is truly an example of Science Sena at work.

A march based on such an ‘unscientific’ understanding of science cannot be a march for science. It sounds more like a sermon for science. The scientists should instead participate in a public debate on the nature of science and its practice in India. This will take the mystery of scientific knowledge out of gated institutes and private meeting rooms into the public domain, which after all has been funding science for so long without necessarily seeing the returns for the cost it has incurred.

Sundar Sarukkai is Professor of Philosophy at the National Institute of Advanced Studies, Bengaluru