The Times of India, June 4, 2005

Eclipse Of Reason

Superstition continues to thrive in India

By JAYANT NARLIKAR

It was October 24, 1995, in Allahabad. My wife and I, along with our daughter, anxiously made our way to the railway station to board the Bombay Mail. When we reached the station, we found it deserted, as if it were a bandh, even though it was mid-morning. I wondered if the train had been cancelled.

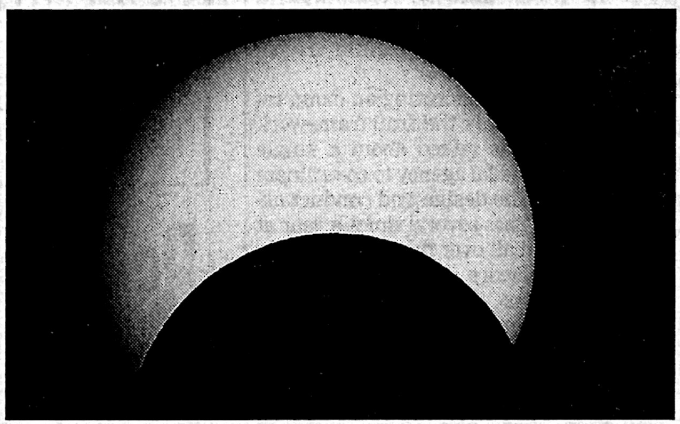
The solitary railway official assured us that the train was on time. The train duly arrived and we got in. The compartment was practically empty and there were hardly any passengers on the entire train. How did this highly unlikely situation arise? The answer: It was the morning of a total solar eclipse. This was a telling comment on the lack of scientific temper in India.

People often comment on the economic gap that exists in India. Some mention the educational gap. There are a few who achieve international recognition for their scholastic or scientific achievements as against a large population who cannot even read or write. But how many of us are conscious of the gap in scientific temper that transcends income and education?

Only when we are politically and economically free will the mind start functioning normally and critically — so wrote Jawaharlal Nehru in Discovery of India. Now more than six decades later, we have not moved forward in that direction. In fact, we have taken a couple of backward steps.

Why does one need a scientific temper? Because it is the need of the hour. It has become a cliche to say that these days we are living in an age of science and technology. Everyday we read about new advances of science. In pure science this may be about nanotechnology or the structure of the universe or about the basics of biology. Pure research may get translated to applications in medicine and communications all the way to weapons of mass destruction.

Whether we like it or not, science and technology shape our lives in a major way. It is like being served with a banquet of appetising dishes laid on a buffet table where new items are being forever added. The diner must pick and choose if only because he is incapable of consuming them all. It is the same with science and technology. We have to learn to control and harness it to our benefit. The fact that we are facing problems of pollution, destructive weapons and harmful research shows that we have not yet mastered that art.



This is where scientific temper has a role to play. Although it evolved out of the way scientists study and advance their research into the unknown, it has applications in daily life beyond the confines of science labs. It tells us to rely on factual evidence and choose a course of action that is not prejudiced by traditional beliefs.

Although man has given himself the title of a rational creature, in reality he is far from that. So in everyday life there is a continuing battle between the scientific temper and ideas guided by untested preconceptions. It is here that we Indians are found wanting. Take some typical instances from our daily lives. We still like to check with the planets before taking any crucial decision. Marriages are not approved unless horoscopes match. Events like the solar eclipse or rahukalam are still viewed as inauspicious. When building houses, the advice of the architect is overruled by vaastu shastra. There are parts of the country where sati is still encouraged. The list can go on and on.

Ironically, the grounds on which the original beliefs were based have long been debunked. Newton's laws determine the way planets move round the sun. Solar and lunar eclipses are explained as shadow effects based on the geometry of the earth, sun and moon. Professional magicians have demonstrated how so-called miracles can be performed using sleight of hand or simple results from physics and chemistry. Beliefs in pseudo-architecture have no controlled scientific experiments to back them. Regarding sati, we need another Rammohun Roy to re-educate us.

Far from fulfilling Nehru's expectations that once we are a free nation we would begin to think rationally, we have gone downhill. These trends are harmful for a nation that is attempting to become a global power. We simply cannot afford to be superstitious. The Bhagavad Gita has rightly said that as great leaders do, the rest tend to copy. The record of our political leaders in this respect is hardly worth writing about. Even scientists, who are expected to know what the scientific temper is, tend to confine it to their labs and return to the world of rituals and beliefs outside it.

Against this background it is good news that the International Union of Science Communicators has recently come into existence with its headquarters in Mumbai. This world body will bring together individuals and NGOs engaged in popularising science and waging war against superstition. India certainly needs them.

The writer is an astrophysicist.