

the methodology of science. Not only must the hypothesis be testable, but the results must be independently reproducible. If not, the proposed hypothesis cannot be considered scientifically acceptable.

Predictability: A scientific hypothesis must be able to predict things yet unknown. Predictability is an important cornerstone in the progress of science. It was Einstein's quantitative prediction of the bending of light rays as they go past the sun and its experimental confirmation by Eddington, that lent credence to and general acceptance of the theory of relativity.

Simplicity: When different hypotheses are proposed to explain the same observed natural phenomenon, the criterion of simplicity states that, the particular hypothesis which is the simplest among them, is the most likely explanation. It was said that Einstein rejected his unified theories by stating, 'The good Lord could not have created the universe in such a complex manner'.

These are the basic principles of pursuit of knowledge about natural phenomena through the methodology of science. The predictions of the future of people by astrologers based upon the locations of some planets at the time of birth, do not satisfy this very first and important condition of relevance. Astrologers cannot logically explain why among zillions of heavenly bodies, the location of few planets at the time of birth, could decisively determine a person's future. Furthermore, they expect you to accept their predictions on faith. Astrologers rarely talk about the failures of their predictions, but only boast about their successes. If astrology is a branch of science, all predictions by all astrologers must be identical and must be specific. They cannot be amenable to flexible interpretations. If this first condition of relevance fails, the other conditions cited above become irrelevant. Against this background, it is hard to believe that Vedic or any other form of astrology is scientific. People who believe in astrology, including some scientists, will have to be considered 'boundedly rational'. Faith, as such, has

no place in science. Intuition certainly plays a role in the progress of science. But conclusions from intuition cannot ignore the above criteria.

Because of the innate urge of human beings to know what the future has in store for them, astrology has come to occupy a popular place in the minds of people all over the world. But it would be absurd to call astrology a branch of science. It would appear that scientists who are a party to this decision are betraying the cause of science.

One may also like to recall Feynman's comment, 'Science is a way of trying not to fool yourself'. Quoting this, the editor of *Scientific American* (June 2001) said, 'The dangers of ignoring its messages (of Science) are greater than merely making politicians look foolish'. Is the decision of UGC any less serious?

S. R. VALLURI

659, 100 Feet Road,
Indira Nagar,
Bangalore 560 038, India
e-mail: srvalluri@eth.net.

Futile struggle against Vedic astrology

With reference to the recent editorial 'The astrology fallout' (*Curr. Sci.*, 2001, **80**, 1085–1086), I am reminded of the principle stated by Isaac Asimov in his *Foundation* series of books to the effect that 'sufficiently advanced technology is indistinguishable from magic'. To the layperson, science is technology, and the processes by which 'respectable' technology achieves its successes are indistinguishable from those by which the less respectable ones achieve (or claim to achieve) theirs. If the former is science, so is the latter. Thus, weather forecasting, earthquake prediction and perhaps even electricity generation (given the sorry state of most of our power plants) are considered only as scientific as, or less scientific than, astrology, palmistry, numerology

and other such hermetic pursuits. And, apparently, it is not just the layperson that believes this but also our academic and scientific 'leaders'. Many of my own scientific colleagues are sincere believers in the effectiveness of 'Reiki' and 'pranic healing'. Other scientists are followers of men whose chief claim to fame is the magical ability to produce religious objects from thin air. And most of us would consult an astrologer before we fix a date for the wedding of our children. Thus, the struggle against Vedic astrology now going on in our institutions of higher learning (at least in parts of some of them) is probably futile, though heroic and necessary.

What I find particularly intriguing and objectionable about the whole affair is the emphasis on Vedic, and not (per-

haps) Indian, astrology. What about, for example, Mughal astrology? This partiality is of a piece with the prestige that is awarded by the powers to ayurvedic medicine, while being denied to siddha medicine. It is not correct to hold that the proponents of Vedic astrology are being irrational. On the contrary, if the real purpose behind such endeavours is considered, we have to acknowledge their clear thinking and essential rationality.

N. GAUTHAM

Department of Crystallography and
Biophysics,
University of Madras,
Chennai 600 025, India
e-mail: crystal@giasmd01.vsnl.net.in