Vedic Astrology or Jyotirvigyan

Neither Vedic Nor Vigyan

It could be argued that astrology will continue to exist and flourish, just because people seek solace in it and find it an aid to decision-making. However, there has so far been no rational justification for astrological statements. Promoting it as part of higher education and encouraging the adoption of its decision-making process for various sectors is a giant leap backwards in time. Indeed a survey of Vedic literature nowhere reveals the notion of the supposed influence of planets on human destiny.

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In February 2001, the University Grants Commission announced that it was instituting departments of Vedic Astrology in Indian universities and subsequently renamed the courses as 'Jyotirvigyan', as if to underscore their scientific nature. The annexure to the announcement contains details on the objective, scope, courses and their durations. Allowing for the quality of English which would have made professor Higgins turn in his grave, the announcement promised that Vedic astrology is "not only one of the main subjects of our traditional and classical knowledge, but this is the discipline which lets us know the events happening in human life and in the universe on time scale".

There is a common confusion in the lay mind between astrology and astronomy. Let us reassure ourselves that the UGC circular means astrology and not astronomy. Certainly astronomy does not talk of events in human life, nor does it add "new dimensions for research in the fields of Hindu mathematics, vastushastra, meteorological studies,..." as claimed in the UGC circular. Such claims are made by astrology, defined by the *pocket Oxford English Dictionary* as "study of occult influence of stars on human affairs". The pocket *OED* defines astronomy as 'science of heavenly bodies'.

It is necessary to get this distinction clarified at the outset. For the contention of this article is that Vedic Astrology is neither Vedic nor a Vigyan.

Why Is Astrology Not Vedic

A few years ago S G Dani had debunked Vedic Mathematics in the pages of this journal (see *EPW*, vol XXVIII, No 31, p 1577). A lesson to be learnt from that exercise is that one should be very wary of anything declared to be 'Vedic' or of ancient origin. Since India had an oral tradition of transfer of knowledge, there are very few reliable records of what knowledge existed at what ancient age. The situation is thus different from other cultures like China or Arabia or medieval Europe where written traditions existed. What written works we have may (and very well do) contain the 'prakshipta', that is later additions by others than the original creator(s) of the manuscript.

I myself had once been misled by this circumstance. I was very impressed by the verses in *Shukraneeti*, spelling out the employee welfare steps recommended to the employer, such as provident fund, help to the employee's widow, etc. "See how the ancients back in the fifth century had given thought to such modern issues like employer-employee relations." I wrote; only to be corrected by scholars that those verses were inserted much later by someone who simply followed the rules practised by the East India Company!

A survey of Vedic literature does nowhere reveal the notion of nine planets and their supposed influence on human destiny. There are references to omens and also to sacrifices to be performed at different times of the year as determined by the positions of constellations. The seven-day week came to India from the west, from the Greeks through the Arabs. This is related to 'planets' (the sun and the moon were part of these nine planets!). That the concept of occult influence of planets is of European origin is indicated by a shloka from the *Surya-Siddhanta* in which Surya (the Sun god) is telling the asura Maya "to go to Rome (which was symbolic of the Greco-Roman culture), your own city, where, because of a curse of Brahma I will reveal to you this knowledge in the guise of a Yavana (the name given to a foreigner or non-Indian)". The Sanskrit scholar C Kunhan Raja has stated in unequivocal terms: "There is no astrology of Vedic tradition..." adding that there have been inputs outside the Vedic culture (*Survey of Sanskrit Literature*, Bombay, 1962, pp 275-277). Alexander's invasion of India in the fourth century BC opened the way for flow of ideas (good or bad!) from Greece to India.

In fact, authentic records tell us more about Vedic *astronomy*, which involved the observations of stars and constellations, vis-a-vis the Sun and the Moon and their use for time keeping and calendar-making. There has been controversy here too, with some scholars claiming that all ancient Indian astronomy was essentially borrowed from the west, and other scholars denying this assertion and maintaining that Indian astronomy from the *Vedanga Jyotisha* to the golden age ranging from Aryabhata I (fifth century) to Bhaskara II (12th century) had developed considerable originality. But all these claims are about astronomy and not astrology.

Indeed, the Greek word 'planet' means 'wanderer', a notion the Greeks had arrived at for planets by long-term observations which showed these heavenly bodies changing their positions relative to the stellar background somewhat arbitrarily. The response to these findings was twofold, one based on astronomy and the other on astrology.

The astronomy component sought to fit the apparently erratic planetary motion within the framework of Aristotelian hypothesis that all natural motions are

circular and that the Earth is at rest at the centre of the universe. So here was a challenge to the astronomers of the day: explain the motion of a planet by assuming that the Earth is fixed and the planet moves in a circle. They met the challenge by introducing epicycles, that is a series of circles, each circle in the series having its centre moving on the preceding member in the series, with the planet moving on the last one. It was an ingenious but tedious exercise in what today's physicist would call 'parameter fitting', but was rendered redundant with the emergence of the heliocentric theory of Copernicus, Galileo, Kepler and Newton.

The astrology component on the other hand took recourse to assuming that the irregular motion of planets owed its existence to the special power the planets possess which allowed them to move at will. Then followed the next step of believing that this power extended its effect on humans also, by governing their destiny. So here we see some reasons for the origin of astrological beliefs. However, such is the human psyche, that even though today the planetary motion is fully understood, and it is well established that far from possessing any special power to move at will, a planet moves in a completely predictable fashion bound by the Sun's gravitation, even though man is now able to send spaceships to observe the planets closely, all this factual information has not eradicated the astrological beliefs. In short, while one can understand some logic, howsoever convoluted, in the early beliefs in astrology, there is no logic at all in justifying that belief in the post-Newtonian (post-1685) era of today. Nevertheless later in this article, we will look at a reason as to why there are believers in astrology even today. And this brings us to the second of our questions: is astrology a science?

Why Is Astrology Not a Science

The scientific community is up in arms against the UGC step not on the issue of its being Vedic or not, but on its projection as a science. Let us first examine the arguments that supporters of astrology make when astrology is rejected as a science. These are usually of the following kind:

(A) Astrology makes use of the positions of planets obtained by scientific observations, just as astronomy does. So if astronomy is a science, why not astrology?

(B) There is always someone who has heard of some astrologer whose prediction had come true. For making such correct predictions, shouldn't astrology be credited as being a science?

(C) Look at meteorology and medicine. Weather forecasts go wrong, medical diagnosis is known to fail, and may vary from doctor to doctor. You regard these subjects as sciences, so why exclude astrology from science?

(D) Some astrologers fail because they are bad practitioners of the subject: it is unfortunate that there are charlatans in the field, whereas the subject itself is fully scientific.

(E) Scientists are an arrogant lot, who have rejected astrology without studying it or testing it.

To deal with these objections it is necessary to spell out what is required of a subject to be called a 'science'. Science has evolved over the centuries through a process of theorising (T), experimentation (E) and observation (O). The process ideally is cyclical, rather like a winding staircase, where, one goes through the endless process

---T---E---O---T---E---O---

and the rise denotes progress towards a better understanding of nature. In practice there are many hiccups and wrong turnings. The history of science is littered with falsified theories and misleading experiments or wrong observations. A scientist will be the first to admit this fact. He will also admit that at no time can science claim to have solved everything. Rather, experience has shown that when you progress up the staircase new questions come before you that you were unaware of previously simply because your understanding was not sufficient to grasp them as questions. So what is the strength of what we call science? It is its self-imposed discipline which works in the following way.

A scientific theory must clearly state its basic assumptions, and these must be consistent with the evidence to date. Based on these it should present a logical framework of arguments leading to falsifiable predictions. The theory should not indulge in tautology, nor should it change its basic tenets each time it is called upon to make a prediction. In other words there is a uniqueness about its assumptions. The predictions are subject to tests, which require experiments and observations. Now these have a built in objectivity...it is not the case that only scientist X can find the required result, while scientists Y, Z, ...can't repeat his experiment or observations. The experiment and observations should be designed in a controlled fashion so that their findings can be interpreted by statistical analysis. And with all these safeguards, no theory can claim to be perfect. Newton's law of gravitation was improved upon by Einstein's general relativity; but only after a large number of controlled experiments could this claim be acknowledged. Despite these successes no scientist today believes that relativity represents the last word on gravitation. Quantum gravity lies as the next challenge to be surmounted by any theory claiming to improve on general relativity.

Let us now come to the above comments on behalf of astrology. Take (A) first. Astronomy follows the rigorous discipline of science described above; does astrology do so? Are there a unique set of basic rules for astrology? Is there a logical set of rules for interpreting data that is fully objective and not depend on a specific astrologer? Are failed predictions accepted as disproofs of the theory? The answers to all these questions is "No" . Rather the attitude of supporters of astrology has been that their subject is perfect, and if it fails, it is because it is wrongly interpreted. So does interpretation vary from person to person? How then would you design textbooks for the proposed course or find teachers who agree upon a uniform approach?

Regarding (B), astrologers have probably not heard of Karl Popper, and if they have, they choose to ignore what he said about a scientific theory. The Popperian view is that a scientific theory has to be abandoned if it fails on a single prediction. Thus successful predictions are necessary but not sufficient for the survival of the theory. If you ask that 'someone' how many unsuccessful predictions that astrologer made, he would not have the answer.

On (C), it is admitted that weather forecasts and medical diagnosis are not perfect; however, these subjects do follow the disciplines of science. In weather forecasting a complex calculation of the various conditions in the atmosphere and even on the ground are involved, with the forces controlling them getting better and better understood. So are the observations of the atmospheric conditions by man-made satellites. Even detractors of meteorology as a science will admit that the quality of weather forecasting has steadily improved because of more sophisticated theory and observations. Medical science also does not claim to be perfect, but as with progress

in biology and biotechnology, we understand the human body better, its diagnosis and treatment have consistently improved. It is to be noted that whenever a new drug is put on the market, it is tested under controlled conditions, for several years if need be. Has astrology shown any improvement in its performance with inputs of science and technology?

(D) has already been considered. If the stand is that every time a correct prediction is made, astrology is a science, but a wrong prediction means that the astrologer is a charlatan, then there is no astrologer left who cannot be branded thus. Is it not time that the practitioners of the subject take a critical look at what they preach?

The last criticism (E) is unfair to the considerable body of work that already exists in literature about how scientists have studied and examined astrology and how each and every study conducted to verify the correctness of astrological predictions has failed to give a positive result in favour of astrology.

Consider by way of example, the study conducted by Bernie Silverman, a psychologist at the Michigan State University to test the astrological claim that matching or compatibility of horoscopes of couples has any bearing on the success or otherwise of their married life. The study picked 2,978 couples who were happily married and 478 who were divorced. Their horoscopes were given to two established astrologers (who were not informed as to whom these horoscopes belonged), to agree between themselves as to which of the horoscopes were compatible and which were not. Their selection and the factual situation had no significant overlap as judged by standard statistical tests.

The statement against astrology issued by 186 distinguished scientists including 18 Nobel laureates in 1975 is explicit in declaring it as unscientific. The following extracts from what they said are self-explanatory:

> ...We, the undersigned – astronomers, astrophysicists, and scientists in other fields – wish to caution the public against the unquestioning acceptance of the predictions and advice given privately and publicly by astrologers. Those who wish to believe in astrology should realise that there is no scientific foundation for its tenets...In these uncertain times many long for the comfort of having guidance in making decisions. They would like to believe in a destiny predetermined by astral forces beyond their control. However, we must all face the world, and must realise that our futures lie in ourselves, and not in the stars (*The Humanist*, September/October 1975).

Why People Like to Believe in Astrology?

The last part of what has been reproduced above explains partly why astrology has survived scientific debunking. It is looked upon as a psychotherapeutic exercise, which brings solace to human mind when confronted with moments of decision-making, sorrow, disappointment, etc. Rather than worry or brood upon difficult issues, it helps to delegate the responsibility to planets, or to someone who claims to interpret their effects. On such occasions logic is the last thing in one's mind.

There is another psychological aspect that goes under the name 'Barnum effect' according to which, from the astrological 'predictions' the human mind picks up selectively those items that apply to the individual and ignores the discordant part. And astrological predictions are frequently worded in such a way that almost everything applies to anybody. (When P T Barnum, the owner of Barnum and Bailey's circus was asked the secret of his success, he replied that his circus contained a diversity of acts and so even if different people in the audience liked different acts, everyone went away satisfied that he or she saw something worthwhile! Hence the name Barnum effect.)

The Barnum effect has been tested on believers and non-believers in astrology. In an experiment, each person from a group was given three word profiles giving his/her character-sketch, one prepared by an astrologer based on that person's horoscope, another being a similar profile of some other person in the group and the third one a totally synthetic and vaguely worded (Barnum) profile, same one given to everybody. The Barnum profile runs somewhat along these lines; see how far it applies to you:

> You have a great need for other people to like you and admire you. You have a tendency to be critical of yourself. You have a great deal of unused capacity which you have not used to your advantage. While you have some personality weaknesses, you are generally able to compensate for them. Disciplined and self-controlled outside, you tend to be worrisome and insecure inside. At times you have serious doubts as to whether you have made the right decision or done the right thing. You prefer a certain amount of change and variety and become dissatisfied when hemmed by restrictions and limitations. You pride yourself on being an independent thinker and do not accept other's statements without satisfactory proof. You have found it unwise to be too frank in revealing yourself to others. At times you are extroverted, affable and sociable, while at other times you are introverted, wary and reserved. Some of your aspirations tend to be pretty unrealistic. Security is one of your major goals in life.

Each group member was asked to rank on a scale of 1 to 5 how well each profile matched him or her. While the average ranking showed no significant distinction between the first two types, each was ranked well below the Barnum profile. This finding tells a lot about the 'authenticity' of astrological profiles and what makes people believe them.

It could be argued that astrology will continue to exist and flourish, just because people seek solace in it and find it an aid to decision-making. However, if man wishes to lay claims to the title of a 'rational animal', then one needs to worry; for there has so far been no rational justification for astrological statements. Indeed promoting it as part of higher education and encouraging its decision-making process for architecture, weather forecasting, stock market investments, etc, is a giant leap backwards in time. In the west, belief in astrology is more by way of fun, and does not enjoy the stamp of respectability. In our country, it is taken seriously in all walks of society and transcends all divisions with respect to caste, education, income, politics, etc. People consult astrologers for fixing marriages, for inducting ministries, for starting new businesses... In a country, which is trying to catch up on the developed nations, a rational and efficient management of human resources is essential. This could hardly be achieved by making them more superstitious. EPW

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