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Sunlight in the genesis of principles of *Jyotish* (A *Vedānga*)

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Abstract

Although *Para Vidya* has Reality as its content possesses a unique quality of ultimacy which is unique and free from reason and senses, *Jyotish*, a *Vedānga* belonging to the four *Vedas* classified as *Para Vidya* has scientific reasoning in the genesis of the principles of *Jyotish*. Astrology is the derivative and life side of astronomy. It is established in this paper that the genesis of the design of Zodiac, substitution, inclusion and exclusion of planets adapted into it for its study, distances of planets, positions of *Rāhu* and *Ketu* in the sequence of *Vimsottari Dasas*, lordship of signs by planets, exaltation of planets, *Dasa* years of planets in *Vimsottari Dasa* System, special aspects of planets, significations of houses, are all based on sunlight which is electromagnetic wave of radiation.

Keywords: Sunlight, genesis *Jyotish*, *Vedānga*

Introduction

Astrology is the fruit of Astronomy. The life side of Astronomy is Astrology. If the study of astrology is worth the while of any civilised nation and the credit is due to the gigantic intellects of ancient India who labored at it. Leaving alone the mythological stories extant about the genesis of the science, the subject was assiduously cultivated by the best intellects of ancient India such as *Parāśara*, *Gārgi*, *Sūrya*, *Vyāsa*, *Vāsistha*, *Atri*, *Kaśyapa*, *Jaimini*, *Manu*, *Varāhamihira*, *Bhrigu*, *Ārya Bhatta*, *Satyāchārya*, *Vidyāranya*, *Yavanāchārya* and many others to whom I owe my salutations. These illustrious men, judging from their astrological and other works, must have been head and shoulders above us, moderns. They have said the last word on the subject of astrology. Ancient Hindus excelled in all subjects that afforded the largest field for abstraction and contemplation. It was therefore left to such a people to perfect the science of astrology^[1].

The science of Astrology has been vehemently opposed in the very land of its glory by the modern educated unbelievers with preconceived notions pronouncing it as pseudoscience; further said that belief in it is a retrograde step and spoils the scientific temper of one and all. The academics wondered why astrology needs to find a place at university. After all, it shows no interest in being linked to fields of science (not to biology, not to psychology, not to statistics, not even to astronomy), or the humanities or the social sciences. As it happens, the think-tank noted that around 1998 the Astrological Association applied for Charity status. In their reply the Charity Commissioners quoted from dictionaries in which astrology was dismissed as nonsense and not to be taken seriously. The think-tank felt that astrology needs to gain academic credentials to be taken seriously.

I have taken up this challenge to make my own researches whether the genesis of basic principles of Astrology have any scientific rationale. If so every rule and principle of Astrology must have Astronomy and/or its allied sciences in its base. I could not but exclaim 'eureka' when the results of my research for over five decades in this endeavour have been quite amazing and confirmed they are the derivatives of Astronomy, Physics, Astrophysics, Geology, Geometry, Astrobiology and Hindu Philosophy. At no time, I have had any doubt about my convictions in this regard. I have, therefore, brought the results of my research work here for the benefit of one and all and dispel the doubts about Astrology as a science. Its main purport is to convert the educated unbeliever into a firm believer of this great science and

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acknowledge the gigantic intellects of ancient India. It is established that *Jyotish* unravels the mystery of origin of life and evolution [2]. While astrology rests on two vital considerations, namely, astronomically correct zodiac for astrological divination and astrologically correct planetary periods for the timing of events, the whole edifice of the genesis of Astrology rests on the premise that all planets were in celestial conjunction in Aries '0' Degrees with the exception of *Rāhu* which is placed 180 Degrees opposite in the sign Libra, at the beginning of *Sveta Varāha Kalpa* (Figure 1). The five astronomical *siddhantas* (*Panchasiddhāntika*), viz., *Romaka*, *Paulista*, *Saura*, *Pitāmaha* and *Vasishtha* [3] are also based on the assumption that all the Planets were in celestial conjunction in Aries 0° except *Rāhu* 0° in the Sign Libra at the beginning of *Sveta Varāha Kalpa*.



Fig 1: Planets' positions at the beginning of *Sveta Varāha Kalpa*

The genesis of the zodiac, lordship of signs by planets, significations of houses, planetary periods (*Dasas*), exaltation and debilitation of planets, special aspects of planets based on Astronomy and Principles of Light in Physics have all been dealt in detail with strict principles of astronomy [4] and principles of Light in Physics.

“Everything is energy and that's all there is to it. Match the frequency of the reality you want, and you cannot help but get that reality” -Albert Einstein said “Everything in Life is Vibration”-Albert Einstein said.

Rationale of Substitution, Exclusion and Inclusion of adaptation of Planets in Astrology

It can be easily observed from the adaptation of celestial bodies in *Jyotish* for its study are all not planets (Figure 2). Some of the planets of the solar system are excluded, some which are not planets are included. The whole exercise appears to be based on the principle of cause of sunlight falling on the Earth directly from the sun, or by reflection, or

deflection and reflection from or by modulation by celestial bodies. Sunlight is essential for flora and fauna to flourish on the Earth. Sunlight is an electromagnetic wave of radiation and particles [5]. In short, the Universe is full of vibration.

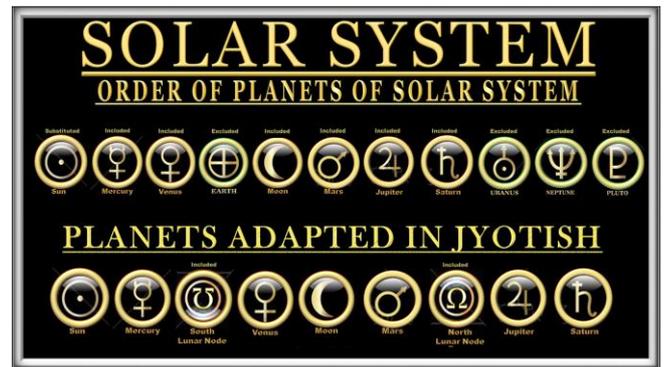


Fig 2: Planets and other Celestial Bodies adapted into *Jyotish*

Earth is excluded as it is the moving observatory and therefore the Sun which substitutes the Earth is included and the earth receives sunlight directly. Moon, the satellite of the earth, Mercury, and Venus are included as they reflect sunlight onto the earth. Mars, Jupiter and Saturn bring sunlight to the earth by Einstein's Principle of deflection of light rays and reflection onto the earth [6]. Outer planets beyond the orbit of Saturn, namely, Uranus, Neptune and Pluto are at very great distances from the sun and hence the incidence and reflection of sunlight is negligible. Hence, they are excluded. *Rahu* and *Ketu*, the two shadowy planets, are included since they modulate the amount of sunlight during the two fortnights i.e., from Waning Moon to Waxing Moon (Figure 2).

Rationale of Lordship of Signs of the Zodiac

The zodiac is divided into 12 divisions of each 30 degrees' extent. *Rāhu* and *Ketu* are shadowy planets. They are not assigned Lordship of any sign. Thus, the remaining seven entities must be assigned the 12 signs. Sun substitutes the Earth and the Earth's satellite, the Moon, are grouped together and treated as one entity. Thus, the total entities are six to be assigned the lordship among the twelve signs. The six entities are assigned lordship over two signs each. Sun and Moon together also get two signs when each of them gets lordship of one sign (Figure 3). Assigning the lordship of the signs commences from Leo (*Simha Rāsi*) and its Lord the Sun (*Ātmakāraka*) in the anticlockwise direction. It can be easily observed that the sequence of lordship of planets is in the same order as that of the sequence of planets situated in the solar system in the Geocentric Model (Figure 4).

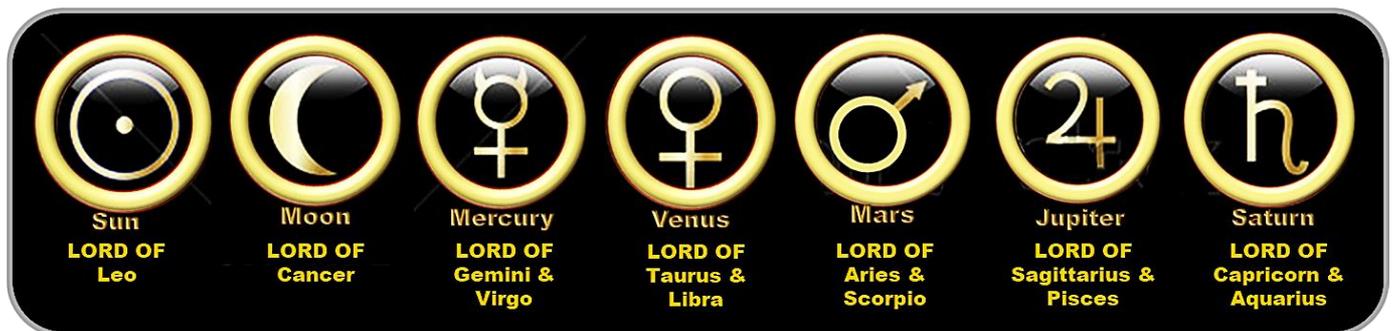


Fig 3: Lordship of Signs by Planets

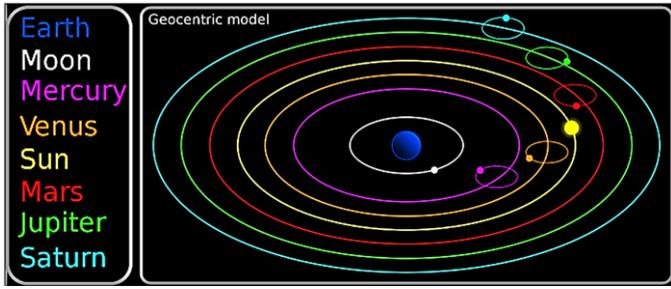


Fig 4: Geocentric Model

Titus bode law and distances of planets

Though Titius Bode Law [7] has no mathematical basis in Astronomy since the distances arrived at for Planets beyond the orbit of Saturn are not relevant, it fits very well in *Jyotish* as the outer planets, namely, Uranus, Neptune and Pluto are excluded in its study. The distances of planets measured from the Sun are very huge in value, they are expressed in Astronomical Units, simply denoted as AU as multiples of 1 AU which is the mean distance between the Sun and the Earth (1 AU = 149,597,871 Kilometres). The distances of the planets as measured from the Sun are derived thus:

By writing the following mathematical series where the succeeding number is double the preceding number in the series:
 0, 0.3, 0.6, 1.2, 2.4, 4.8, 9.6..... By adding 0.4 to each number in the above series, the following series 0.4, 0.7, 1.0, 1.6, 2.8, 5.2, 10.0 AU is obtained which denotes the actual distances of

planets in the solar system mentioned in Astronomical Units (Figure 5):

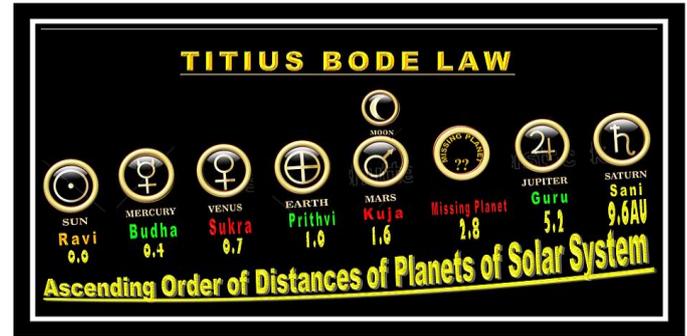


Fig 5: Ascending Order of Distances of Planets of Solar System

Rationale of Positions of Rāhu and Ketu in Solar System and Vimsottari Dasa System

It can be observed from the above figure that at every value of the above series there is a planet existing but at the value of 2.8AU, there is no known planet which is called a ‘Missing Planet’ in Astronomy. Ancient Hindus have placed ‘Rahu’, a shadow planet at the place of the missing planet. Rahu is the 2nd planet from the Earth to its right side next to Mars and therefore Ketu is placed 2nd to the left side of the Earth after Venus (Figure 6). Thus, we have, in all, nine entities and each has a Dasa period of its own and fits well with the *Vimsottari Dasa System* in its sequence of the *Dasas*.



Fig 6: Adaptation of Planets, including Rahu and Ketu, into Astrology

Though *Rāhu* and *Ketu*, the two shadow entities, are not assigned any lordship of the signs of the zodiac, still they are assigned certain *Dasa Years* in *Vimsottari Dasa System*. In Sanskrit, *Vimsottari* means 120 years. It is considered that the maximum span of life of a normal person is 120 years. The nine entities, including *Rāhu* and *Ketu*, are assigned different planetary periods (*Dasa years*) each after its name. The Sequence of the *Dasas* in *Vimsottari Dasa System* with their *Dasa years* runs as follows:
KETU DASA (7 years), SUKRA DASA (20 years), RAVI DASA (6 years), CHANDRA DASA (10 years), KUJA DASA (7 years), RĀHU DASA (18 years), GURU DASA (16 years), SANI DASA (19 years) and BUDHA DASA (17 years).

Rationale of Dasa Years of Planets in Vimsottari Dasa System

Here also electromagnetic spectrum with its *VIBGYOR* colours is the criterion in deciphering the *Dasa Years* of Planets in *Vimsottari Dasa System*. The assigning of lordship of the 12 signs of the zodiac amongst 6 entities affords a clue that the 6 entities get 20 years’ extent each of total 120 years of *Vimsottari Dasa System*. But when *Rahu* and *Ketu* are also included in the *Dasa System*, they partake some portion from 20 years’ extent of each entity. Thus, the *Dasa years* of all the nine entities are not uniform but different and appear to be at random. In fact, the *Vimsottari Dasa System* is not random

but goes with scientific background based on the principles of ‘Dispersion of Light’ in Physics.

Colours Signified by Planets

Each planet signifies a definite colour. This amazingly coincides with the principles of Dispersion of Light in Physics. All the nine Planets signify the 7 colours of the spectrum. Venus, Saturn, North Lunar Node (*Rāhu*), Mercury, and Jupiter signify Violet, Indigo, Blue, Green, Yellow colours respectively, while the Sun & Moon together represent orange colour, and Mars & South Lunar Node (*Ketu*) represent Red colour respectively [8] (Figure 7).



Fig 7: Colours Signified by the Planets

Dispersion of Light

When a ray of white light is incident on the surface of a glass prism, the white light passes from air into the glass prism and it is refracted. It is made up of seven different colours viz,

Violet, Indigo, Blue, Green, Yellow, Orange and Red (VIBGYOR). The rays of each colour travel with a different speed and they are refracted by different amounts. When they

emerge out from the opposite face of the prism, each colour is seen separately. This is known as 'Dispersion of Light' in Physics^[9] (Figures 8 and 9).

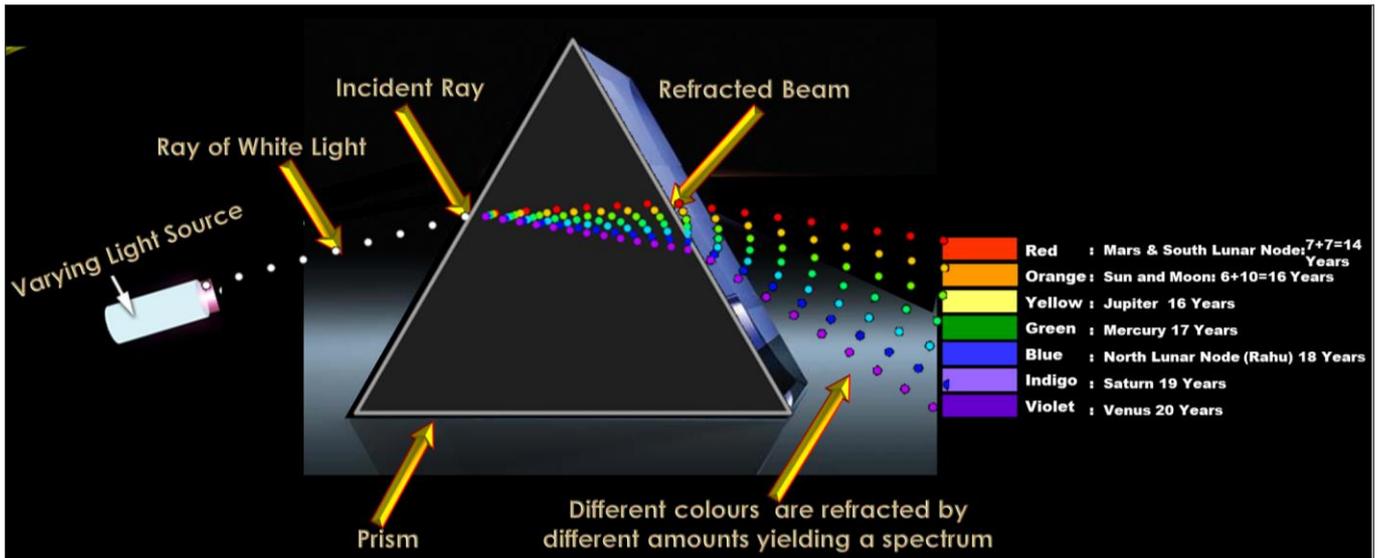


Fig 8: Dispersion of Light

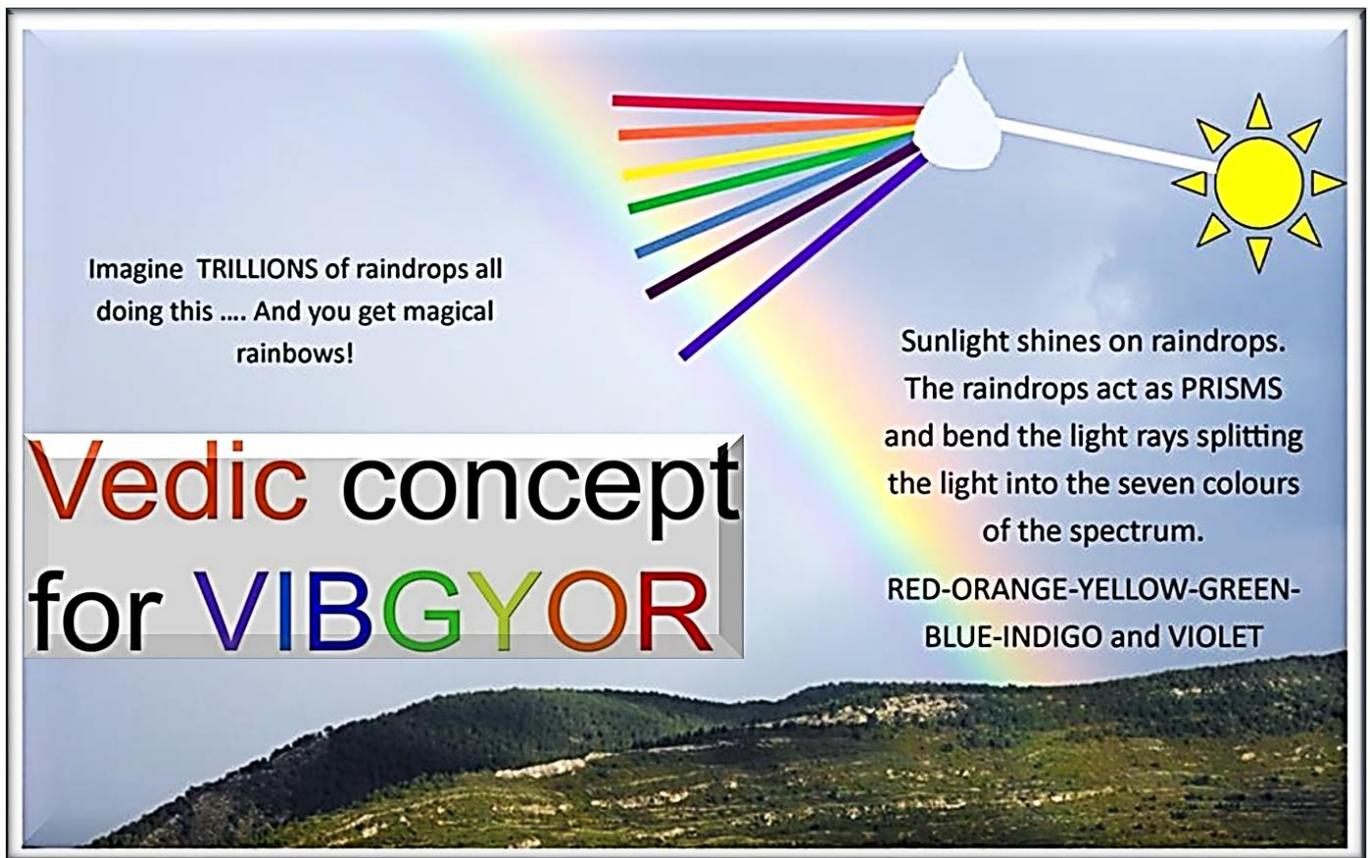


Fig 9: Vedic Concept for 'VIBGYOR'

Angle of Deviation of Light Rays

The angle of deviation is the angle made between the incident ray of light entering the first face of the prism and the refracted ray that emerges from the second face of the prism. The angle of deviation is maximum for Violet colour and minimum for Red colour. It may be stated here that colours of Planets and the angle of deviation of colours give rise to Planetary Periods (*Dasa* Years) of *Vimśottari Daśa* System (Figure 10).

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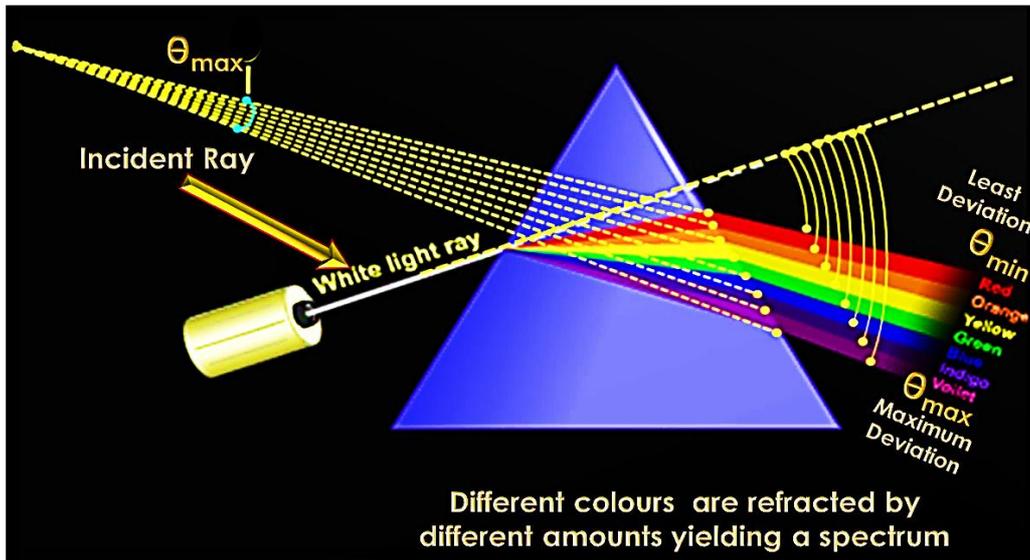


Fig 10: Angle of Deviation of Light Rays

Exaltation of Planets

A planet in a sign of a similar nature, but which it does not rule, with the exception of Mercury, is said to be in exaltation. The planet gets strength and energy from its exaltation, and thus, its influence is positive. The opposite signs to the exaltation signs of planets will be their debilitation signs where planets lose their strength. Mercury is fickle and needs to be steadied and so exalts in its own sign [10]. The four cardinal points of astronomical year are Vernal Equinox, Summer Solstice, Autumnal Equinox and Winter Solstice. Aries is the first sign and principle cardinal point of the zodiac. Aries was allotted to the Sun as the sign of his exaltation. Exterior planets are assigned to the other cardinal points (quadrants) i.e., Mars to Capricorn, Jupiter to Cancer and Saturn to Libra in the sequence as their exaltation signs.

Sun and Moon, lords of the two consecutive signs Leo and Cancer respectively are considered as single entity. Thus, Sun and Moon have Aries (Vernal Equinox) and Taurus, the two consecutive signs as their exaltation signs. The three exterior Planets, Mars, Jupiter and Saturn have their exaltation signs at the cardinal points of Zodiac along with the Sun. Saturn is at Autumnal Equinox. Sun and Saturn are on the same meridian; similarly, Mars and Jupiter are on another meridian. Jupiter is at Summer Solstice. Mars is at Winter Solstice on the same meridian. Mercury and Venus have their exaltation signs at North Celestial Pole (NCP) and South Celestial Pole (SCP) respectively on the same meridian. Thus, all the six planets exalt at the cardinal points (Bench Marks) and North and South Central Pole of Celestial Sphere based on astronomy only (Figure 11).

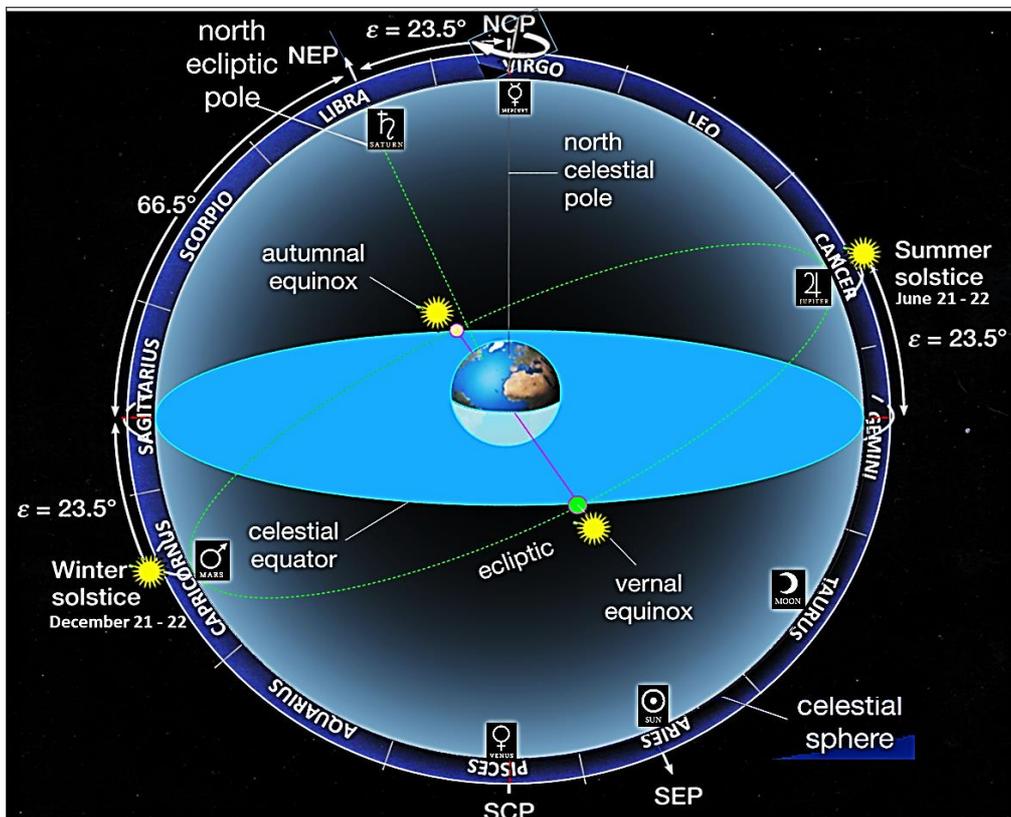


Fig 11: Exaltation of Planets in Zodiacal Signs of Celestial Sphere

Certain Observations about Planets in Exaltation and Debilitation

It is observed that ‘Benefic Planets’, Moon, Jupiter, Mercury and Venus are found to be in exaltation only in benefic signs’, viz., Taurus, Cancer, Virgo and Pisces. ‘Malefic Planets’, Sun and Mars’, with the exception of Saturn exalt in malefic signs. Saturn exalts in Libra, a benefic sign. It is observed that Gemini, Sagittarius, Leo and Aquarius are pairs of opposite Signs where none of the planets have them neither for exaltation nor for debilitation. Saturn is a Liaison Planet in the Natural *Rājayoga* Planets. Saturn is a ‘Liaison Planet’ between the ‘Benefic’ and ‘Malefic’ Planets. Saturn is a Liaison Planet in Exaltation and Debilitation of Planets also.

No planet, except Venus, in exaltation in the *Rāsi* chart is found to be in exaltation in the corresponding *Navāmsa* chart. Venus exalts in Pisces 27 degrees and also is in exaltation in the *Navāmsa* chart (Figures 12 and 13). *Varāhamihira* in his states that a planet in exaltation in the *Rasi* chart is also

exalted in the *Navāmsa* chart obtains maximum strength. It can be observed in the figure number 10, on ‘Angle of Deviation’ that Venus signifying ‘violet colour has the maximum deviation. Thus, plausibly Venus has maximum *Dasa* years of 20 [11].

* INTERIOR PLANETS		
SUN	(RAVI)	ARIES 10°
MOON	(CHANDRA)	TAURUS 3°
MERCURY	(BUDHA)	VIRGO 15°
VENUS	(SUKRA)	PISCES 27°
* EXTERIOR PLANETS		
MARS	(KUJA)	CAPRICORN 28°
JUPITER	(GURU)	CANCER 5°
SATURN	(SANI)	LIBRA 20°

Fig 12: Exaltation Signs and Degree of Exaltation of Planets

12 PISCES (MEENAM) VENUS(SUKRA) 27°	1 ARIES (MEHAM) SUN (RAVI) 10°	2 TAURUS (VRISHABHAM) MOON (CHANDRA) 3°	3 GEMINI (MIDHUNAM)
11 AQUARIUS (KUMBHAM)	ZODIAC (RASI CHART)		4 CANCER (KARKATAKAM) JUPITER (GURU) 5°
10 CAPRICORN (MAKARAM) MARS (KUJA) 28°			5 LEO (SIMHAM)
9 AGITTARIUS (DHANUS)	8 SCORPIO (VRISCHIKA)	7 LIBRA (TULA) SATURN (SANI) 20°	6 VIRGO (KANYA) MERCURY (BUDHA) 15°

12 PISCES (MEENAM) SATURN (SANI) VENUS (SUKRA)	1 ARIES (MEHAM)	2 TAURUS (VRISHABHAM) MERCURY (BUDHA)	3 GEMINI (MIDHUNAM) SUN (RAVI)
11 AQUARIUS (KUMBHAM)	ZODIAC (NAVAMSA CHART)		4 CANCER (KARKATAKAM)
10 CAPRICORN (MAKARAM) MOON (CHANDRA)			5 LEO (SIMHAM) JUPITER (GURU)
9 SAGITTARIUS (DHANUS)	8 SCORPIO (VRISCHIKA)	7 LIBRA (TULA)	6 VIRGO (KANYA) MARS (KUJA)

Fig 13: Exaltation Signs and Degree of Exaltation of Planets in the *Rāsi* Chart and the Corresponding *Navāmsa* Chart

Rationale of Significations of Houses in respect of the Native and His Family *Vis-à-vis* Mathematical Maxim

The premise is that all Planets except *Rāhu* were in celestial conjunction at 0° Aries and that *Rāhu* is at 0° in Libra at the beginning of *Sveta Varāha Kalpa*. If the premise is true, then conclusion must be true. House Significations were premised with reference to Aries as Ascending Sign or *Lagna* and later adopted the derived ‘Principle’ as a ‘Rule’ applicable to all ascending signs. The following example proves the premise is true and the conclusion is unambiguously true.

Female human menstruation is an important phase in reproduction. It is mentioned in the monumental works, namely, *Sāravali* by Kalyāna Varma [12] and *Brihat Jātaka* by *Varāhamihira* that for female menstruation to occur, transit Moon should not be in *Anupachaya* Houses i.e., in 3rd, 6th, 10th and 11th houses from the Natal Moon. This principle is a clear instance of having been derived from the premise of *Sveta Varāha Kalpa*. The Houses 3 & 6, 10 & 11 are owned

by two planets Mercury and Saturn signifying neuter gender, respectively from Aries as the Ascending Sign.

The *Lagna* signifies the native and Significations of certain Houses signifying the native’s immediate family members enunciated by the ancients is a veritable truth. It is a ‘Mathematical Maxim’. From each one of these significations, if one counts to the *Lagna*, what the Native is to that signification holds good (Figure 14).

Thus, from the 3rd House signifying younger siblings, *Lagna* is the 11th House which signifies Native is older sibling. From the 5th House signifying children, *Lagna* is the 9th House which signifies the Native is father. From the 7th House signifying wife, *Lagna* is the 7th House which signifies the Native is spouse. From the 9th House signifying Father, *Lagna* is the 5th House which signifies the Native is a child. From the 11th House signifying older siblings, *Lagna* is the 3rd House which signifies Native is younger sibling.

12	1 NATIVE ARIES: LAGNA/RISING SIGN/ASCENDANT	2	3 YOUNGER SIBLINGS
11 OLDER SIBLINGS	ZODIAC (RASI CHART)		4
10			5 CHILDREN/ PUTRAKARAKA
9 FATHER/ PITRUKARAKA	8	7 SPOUSE	6

Fig 14: Native’s Family Members and House Significations as Mathematical Maxim

Thus, the significations of the houses from *Lagna* in respect of the relationship of the native with his family members are irreversible and inflexible similar to the Mathematical Maxim where the sum of the three angles of a triangle sum up to 180 degrees irrespective of the size, shape and area of the triangle.

Rationale of Special Aspects of Planets, Mars, Jupiter and Saturn, in *Jyotish*

Drishti in Sanskrit means 'sight'. It is an aspect of the entire house by Planets. Planets cast only forward aspects. While all planets have *drishti* or aspect towards the 7th house from their position, Exterior Planets namely, Mars, Jupiter and Saturn, have in addition, special aspects. Ancient Hindus stated that Exterior or Superior Planets situated outside the orbit of the Earth *viz.*, Saturn, Mars and Jupiter have special aspects angularly on the 4th & 8th, 5th & 9th and 3rd & 10th Houses from their position respectively [13].

All aspects are very important for prediction in *Jyotish*. The rationale behind these special aspects rests on Einstein's General Theory of Relativity which predicts that the path of light is bent in a gravitational field; light passing a massive body is deflected towards that body. Mars, Jupiter and Saturn are behind the Earth and the Earth (a massive body) receives direct sunlight bends towards it and admits sunlight fall on these three exterior planets which in turn is reflected on to the Earth, obeying Einstein's Theory of General Relativity and Deflection of Light by a massive body.

It is already said that all the Planets were in celestial

conjunction in Aries 0° except *Rāhu* 0° in the Sign Libra at the beginning of *Sveta Varāha Kalpa*, being the existence of the universe. We also know that the genesis of all the principles of astrology are based on this concept with Aries as the *Lagna* or Ascendant or Rising Sign and later applied these principles uniformly applicable to all signs as Ascendants. The sights of these Exterior Planets, Saturn, Jupiter and Mars, get deflected angularly about both sides of the Earth and go off tangentially towards their stated Houses. Lords of the 8th, 9th and the 10th Houses Mars, Jupiter and Saturn respectively are fixed as the lines of sight in one direction from Aries 0° to one side of the Earth while Saturn, Mars and Jupiter also being *Karakas* or signifiers of the 3rd, 4th and the 5th Houses respectively are fixed as the angular lines of sight from Aries 0° to the other side of the Earth.

The logic behind the special aspects of Exterior Planets, Mars, Jupiter and Saturn, is purely based on Astronomy, Physics, Natural Significations and Lordship of Houses of Planets of Vedic Astrology. The rationale is that Saturn, *Āyushkāraka*, the natural signifier of Longevity, has special aspect on the 3rd House signifying longevity. Similarly, Mars being *Kshetrakāraka* or signifier of land, has special aspect on the 4th House signifying land. Likewise, Jupiter being *Putrakāraka*, natural signifier of children, has special aspect on the 5th House signifying children. Thus, Mars aspects the 4th and the 8th houses, Jupiter aspects the 5th and the 9th houses and Saturn aspects 3rd and 10th houses from their positions (Figure 15).

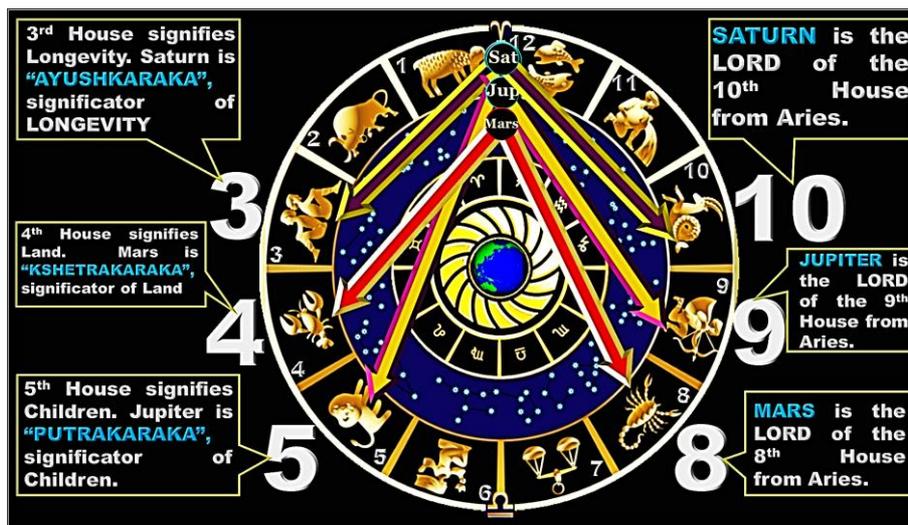


Fig 15: Special Aspects of Mars, Jupiter and Saturn

The rationale of special aspects has logical assessment of the Lordships and natural significations of these Planets and utilised in fixing their special aspects on the principle of Einstein's General Theory of Relativity. The sights of special aspects of these Exterior Planets, Saturn, Jupiter and Mars, get deflected angularly about both sides of the Earth and go off tangentially towards their stated Houses. Saturn, Mars and Jupiter with special aspects of 3rd, 4th and the 5th Houses respectively are fixed as the angular lines of sight to one side of the Earth. Mars, Jupiter and Saturn with special aspects of 8th, 9th and the 10th Houses respectively are fixed as the lines of sight from Aries 0° to the other side of the Earth.

Ancient Hindus stated that Exterior or Superior Planets situated outside the orbit of the Earth *viz.*, Saturn, Mars and Jupiter have special aspects on the 3rd & 10th, 4th & 8th, 5th & 9th Houses from their position respectively. Thus, Saturn aspects the 3rd and the 10th houses; Mars aspects the 4th and

the 8th houses; and Jupiter aspects the 5th and the 9th houses and from their positions.

Conclusions

Jyotish, a *Vedānga*, belonging to the four *Vedas* has scientific reasoning in the genesis of the principles of *Jyotish*. Astrology is the derivative and life side of astronomy. It has been proved beyond doubt and established that the genesis of all the principles of *Jyotish* in the design of Zodiac, and adaptation into it for its study through substitution, inclusion and exclusion of planets, in distances of planets, in deciphering the positions of *Rāhu* and *Ketu* in the sequence of *Vimsottari Dasas*, in the assignment of lordship of signs by planets, in the basis of exaltation of planets, in assigning the *Dasa* years to planets in *Vimsottari Dasa* System, in the special aspects of planets, significations of houses, are all based on sunlight which is electromagnetic wave of radiation.

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