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SUN AS A SOURCE OF ALL ENERGY IN TAITTIRĪYA SAMHITĀ

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Vedic dr̥śinḥ worshipped the forces of Nature as Gods. Their gods are not evil, heartless, threatening and detesting troops like some gods of early middle ages. Their gods are wellhead of energy and effulgent, they are omniscient and omnipotent. The word Deva is derived from the Verb DIV which means brilliance. They know that the effulgent or brilliance of these gods would enter them and give them energy and good health. They never prayed these gods for their own selfish ends. They to petition of behalf of the community, village, nation and even the whole universe, the following mantras – “*viśvam̐puṣṭamgrāmeasminnanturam*”^२. Let all the living being in this village be free from diseases – “*Asminrāṣṭrerājanyaisavyaśśūromahārathojāyatām dogdyrīdhenurvoḍhānadānās ussaptihpurandhiryoṣājiṣṇūrathesthāssabheyoyuvāsyayajamānasyavīrojāyatāmni kāmēnikāmēnaḥparjanyaovarṣatuphalinyonaosadhayaḥpacyantāmyogakṣemonahk alpatām*”^३

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^२. विश्वं पुष्टं ग्रामे अस्मिन्ननातुरम्। तै.सं., 4.5.1.3

^३. अस्मिन् राष्ट्रे राजन्य इषव्यशभूरो महारथो जायतां दोगधीधेनुर्वोढानड्वानाशुस्सप्तिः पुरन्धिर्योषाजिष्णूरथेष्टस्सभेयो युवास्य यजमानस्य वीरो जायतां निकामे निकामे नः पर्जन्यो वर्षतु फलिन्यो न ओषधयः पायत्तां योगक्षेमो न कल्पताम्। तै.सं., 7.5.18.

In this nation, let the king be a great warrior capable of all modes of warfare; let the cows give plenty of milk; let the bullocks be strong to carry loads; let the horses be strong to run fast; let the women be happy and healthy be this king beget a son, who will be a great warrior; let there be plenty of rain to suit the needs of the people; let there be bumper crops every season; let us all live happily with health and wealth.

Their motto is reflected in the following prayer, which is the essence of social co-existence and harmony – “*Sahanāvavatu. Sahanaubhunaktu. Sahavīryamkaravāvahi. Tejasvināvadhītamastumāvidviṣāvahai. Omśāntiḥ śāntiḥśāntiḥ*”^४. Let the God protect us. Let us enjoy the fruits of our study together. Let us succeed in our endeavour by united effort. Let our study be endowed with brilliance. Let us quarrel with each other. Let there be no misery of the body. Let there be no misery caused by the elements. Let there be no misery caused by the gods.

Among number of gods that we encounter in T.S, the sun occupies a special place. Even to the uneducated men and women, even to the animals and smaller creatures – “*Utainaṃgopādr̥śannadr̥śannudahāryaḥ. Utainaṃviśvabhūtāni*”^५ (actually the shepherd boys see him. The village ladies carrying water pots see him. All creatures see him).

The glory of Aditya is sung throughout the vast T.S., Brahmana, Aranyaka, in *Karma sidhanta* and *jnanasidhanta* like this. He is the presiding deity of the

^४. सह नाववतु। सह नौ भुनक्तु। सह वीर्यं करवावहै। तेजस्विनावधीयमस्तु मा विद्विषावहै। ॐ शान्तिः शान्तिः शान्तिः।, 7.11

^५. उतैन गोपा अदृशन्नद्रुदहार्यः। उतैन विश्वा भूतानि। तै.सं., 4.1.1

most famous and sacred Gayatri mantra^६--“*Tat savitur.....Pracodayāt*”, this mantra – we meditate upon that majestic shining quality of the sun god, who inspires our thoughts. The Sruti itself admits to this ex-cessive praise of the glory of Aditya when it says^७: “*mahīdevasyasavituhpariṣṭutiḥ* ” (Vast is the affirmation in all things of savitri, the divine creator). But S.B^८. – “*Paritassarveṣuvedeṣuśrūyamāñāsabiturdevasyastutirmahaatī*” (A lot of praise is bestowed upon the sun god throughout the Vedic literature)

The various mantras and brāhmaṇas describing the glory of Ādityawere routinely interpreted by sāyaṇa in his commentary strictly in accordance with kalpasūtras. But many of these Mantras deserve a closer scrutiny, as they are not the cravings of a superstitions mind, but they are the spontaneous mind, but they are the spontaneous outpourings of a scientific brain of realised soul in their super conscious state. The scientific outlook in some of these beautiful mantras in as glaring as the sun god himself. An interpretation is provided for some of the mantras in Sanskrit and the contrast of this interpretation versus that sāyaṇa is also presented, of course, with great reverence to the Ācārya.

It is proposed to establish – (1) all energy for sun on the globe is as well recognised in KYV or T.S. as in Morden texts of science. (2) The beneficial effects of the sun’s rays were clearly predicted in KYV or T.S. much before such

६. क) तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि। धियो यो नः प्रचोदयात्। तै.सं.,4.1.11.7; 1.5.6.12

ख) ऋ.वे., 3.62.10

७. क) मही देवस्य सवितुं परिष्टुतिः। तै.सं., 4.1.1.4

ख) ऋ.वे., 5.81.1

८. परितस्सर्वेषु वेदेषु श्रूयमाणा सवितुर्देवस्य स्तुतिमहती। शत.ब्रा., 3.2.1.3

effects were recognised by the modern science. (3) The credit for the discovery of solar system and cosmic rays should be given to KYV or T.S. rather than western scientists like Newton.

But first point my research paper in this article: these subject two types –

1. All energy for sun:

The following graphic account of how sun is sustaining this globe gives as Encyclopaedia of science and Technology. ^९

Important natural process is photosynthesis; it involves the manufacture in light, of organic compounds (carbohydrates) from inorganic materials of oxygen, by chlorophyll containing plant cells. This process requires an apply of energy in the form of light, since its products (Carbohydrates and Oxygen) contain much more chemical energy than its raw materials water and carbon-dioxide. The light energy taken up by the green pigment, chlorophyll, is partially converted by photosynthesis into stored chemical energy. Together the two aspects of photosynthesis – the conversion of inorganic into organic matter and the conversion of light energy into chemical energy, make it the fundamental process of life on earth. It is the unique source of all living matter and of all life energy on our planet.

The elements carbon, oxygen, and hydrogen are exchanged through photosynthesis, in an endless cycle, between the organic and inorganic world. Therefore, life on earth can be maintained only by the constant supply of solar energy and its utilisation through photosynthesis. The description of Āditya

^९. E.S.T., p.184

in T.S, as shown below, can be very favourably compared with the above account of EST.

T.S describes the human beings as the offspring of Āditya–
“*Tasyavaiyamprajāyanmanuṣyāḥ*”^{१०} (The human beings are the children of the son). Even the animals are described as Āditya himself –
“*Pasavovāeteyadādityaḥ*”^{११} (The animals are none other than the sun).

A good number of mantras recognise sun as the perennial source of Amṛta, which is indeed the life-sustaining energy some of: 1) T.A. -
“*Idamahāmāmṛtayonau.Suryejyotiṣijuhomisvāḥ*”^{१२}. This mantra –I offer myself as an oblation in the brilliance of the sun God, who is the source of life. b)
T.S. - “*yenemāviśvābhuvanānitasthuḥ. Tataḥkṣatrambalamojaśca.....jātaḥ*”^{१३},

This world is as it is due to the sun god. The living beings get their strength and energy from him.c) Another mantra
T.A. “*Adityenavavasarlokāmahīyaante*”^{१४} (this mantra of – all they are living well due to the sun god).

^{१०}. तस्यवा इयं प्रजा यन्मनुष्या। तै.सं., 6.5.6

^{११}. पशवो वा एते यदादित्यः। 6.5.6

^{१२}. इदमहं माममृतयोनिः। सूर्ये ज्योतिषि जुहोमि स्वाहा। तै.आ., 1.24.

^{१३}. क) येनेमा विश्वा भुवनानि तस्थुः। तै.आ., 3.11.11

ख) ततः क्षत्रं बलमोज..... जातम्। तै.आ., 3.11.12

^{१४}. आदित्येन वावसर्वे लोका महीयन्ते। तै.आ., 7.5.1

The flow of energy from sun to vegetation to animals is implied in the following T.B.,^{१५} which identified the animals with sun-
“Tasmādāmāpakvam̐duhepaśavovāeteyadādityaḥ”. After S.B.^{१६}-
“āmāpākarahitāgauḥpakvam̐dhāroṣṇarūpam̐kṣramduheprayacchati” (actually this mantra – the milk of the cow is warm even without heating as the animals are none other than the sun god). T.S. has clearly recognised that the energy of the human body is entirely the product of sun’s rays. The following Brahmana describes that the offering to Aditya is indeed an indirect offering to the life forces of one’s own body. T.S.^{१७} other mantra –
“svāhātvasubhvassūryāyetyāhaprānavaisvabha vasadevāsteṣveva parokṣamjuhoti” (the forces of the body are no different from Sun. hence an oblation to sun is an indirect offering to the vital forces of one’s own body).

2. Aruna -prasna and sun God:

The first chapter of T.A. is popularly known as Arunaprasna among Vedic scholar. It describes a fire ritual called ArunaKetuka and the presiding deity is Aditya. This name Arunaketuka is quite suggestive since rising of the sun in the east is preceded by reddening of that part of the sky. It is as though huge red flag is the eastern sky announcing the impending arrival of Āditya. The Arunaprasna

^{१५}. तस्मादामापक्वं दुहे पशवो वा एते यदादित्यः। तै.सं., 6.5.6

^{१६}. आमापाकरहितागौः पक्वं धारोष्णरूपं क्षीरं दुहे प्रयच्छति। शत.ब्रा.

^{१७}. स्वाहात्वा सुभवस्सूययित्याह प्राणा वे स्वभवसोदेवास्तेष्वेव परोक्षं जुहोति। तै.सं., 6.4.5.

is a haphazard mixture of scientific thought and ritualistic details. The seers of this prasna rely on four sources in describing the glory of sun god. They are^{१८} –

“ *Smṛtiḥpratyakṣamitiḥyam. Anumānaścatuṣṭayam.
Etairādityamaṇḍaiam .sarvairavidhāsyaṭe*”

a) Smṛtiḥ: the scriptures that are already available. b)pratyakṣam : direct observation. c)Aitiḥyam : the folklores or the stories that are prevalent among the people. d)Anumānaḥ: the inferential knowledge.

This is a remarkable display of the scientific temper of seers, who made a majestic synthesis of verifiable knowledge with the knowledge handed down from earlier generations. The sequence of four sources is also significant. Smṛti associated with direct perception and Aitiḥyam coupled with reasoning power makes any study thoroughly scientific and rational.

The same cannot be said about the commentary of sayana who entirely relied upon smṛti and Aitiḥyam. The scientific knowledge of the Vedic period was just not available for sāyana due to deterioration of scientific thought in the latter period. Hence he was totally influenced by the Apastamba and Bodhayana. According, his commentary though the best tool to understand vedas, is not convincing in some places.

Aruna-prasna a seer by name sayana praises the glory of the sun. They are – “*tatsaviturvṛnīmahe. vayamdevasyabhojanam. Śreṣṭhamsarvadhātaman*”^{१९}. But

^{१८}. स्मृतिः प्रत्यक्षमैतिह्यम्। अनुमानश्चतुष्टयम्। एतैरादित्यमण्डलम्। सर्वैरेव विधास्यते। तै.आ., 1.2.1

^{१९}. तत्सवितुर्वृणीमहे। वयं देवस्य भोजनम्। श्रेष्ठं सर्वधाततम्। तै.सं., 1.11.8

S.B.^{२०} – “*vayamsūryasyate-
jahvrñīmahekidrśantejaḥ.Bhojanambhogasādhanamsarvadhātāmam.Sarvasyajag
ataḥatiśayenadhārayitr.....*”(We seek with devotion the radiation of the sun.
This light energy is the basis of our health and happiness. It sustains this whole
life on earth).

In essence the life on earth entirely depends upon the energy poured over
by the sun. It is appropriately described by sruti that the sun is Atman of this
universe. T.S.^{२१}Other –

“*āprādyāvāprthivīantarikṣamsūryaātmājāgatastathuśaśca*” (The sun pervades the
interplanetary space, the atmosphere around the globe and the globe with his rays.
He is indeed the soul of the living as well as the non-living on the earth).

This mantra implies that even the non-living things are an important link
in the cycle of energy emanating from the sun. T.S.^{२२}-
“*vāmamadyasavitarvāmamuśvodivive divevāmamasmabhyamsā- vīh. Vāmasya
hi kṣayasyabhurerayādhināvāmabhājassyāma*” (vama: happy result of past
actions karma phala, according to sun delight of riches like gold, delight or joy of

^{२०}. वयं सूर्यस्य तेजः वृणीमहे। कीदृशं तेजः। भोजनम् भोगसाधनम्। सर्वधातमम्। सर्वस्य जगतः अतिशयेन
धारयितुं। शत.ब्रा.

^{२१}. क) आप्राद्यावापृथिवी अन्तरिक्षं सूर्यं आत्माजागतस्तस्थुषश्च। तै.सं., 1.4.43

ख) ऋ.वे., 1.115.1

^{२२}. वाममद्यसवितुर्वामुश्चोदिवेदिवे वाममस्मभ्यं सावीः। वामस्य हि क्षयस्य देव भूरेरया धिया
वामभाजस्याम्। तै.सं., 1.4.23.1

ख) ऋ.वे., 6.71.6

beauty). But S.B.^{२३} explains this mantra as: “He *savitaḥadyāsmabhayaṁvāmaṁvananīyanm karma phalaṁsāvīḥprerayadehityarthaḥ. Svopivāmaṁsāvīḥ. Tata urdhvaṁ dive divevāmaṁsāvīḥ.Hisdeva vāmasyāvananīyasyabhure-rvistīrṇasyakṣayasyasvarganivāsasyaicchayāyāAnayādhiyāśraddhāyuktayābuddhyavāmaḥājajḥvananiyakarmanuṣṭhānavantassyāma*”.The sun bestows on us the result of our past actions today, tomorrow and every day after wards. We want to attain the great heaven.So, wearer performing this rite with devotion.

In this commentary, the expiation is far-fetched and unsatisfactory. This words Adya,svah, dive and adjectives ksayasya, bhureh of vama indicate something which continuously and abundantly flows from the sun, which is very essential for our existence namely, the solar energy. Also, it is pertinent to note that the word vama in T.S.^{२४} T.S was interpreted by sayana himself as srestham that is excellent.

The following alternate explanation of the above mantra maybe considered. T.S.-^{२५} “He *savitaḥ, adyāsmabhayaṁjivanahetablūtamśreṣṭhamśaktimsavīḥprasāraya. Śvopisāvīḥ dive*

^{२३}. हे सवितः अद्यास्मभ्यं वानं वननीयं कर्मफलसावीः प्रेष्टय देहीत्यर्थः। श्वोऽपि वामसावीः। तत ऊर्ध्वं दिवे दिवे वामसावीः। हे देव वामस्य वननीयस्य भूरेर्विस्तीर्णस्य क्षयस्य स्वर्गनिवासस्य इच्छया अया अनया धिया श्रद्धायुक्त्या बुद्ध्या वामभाजः वननीयकर्मानुष्ठानवन्तस्याम्। शत.ब्रा.

^{२४}. अग्नौ वामं वसु संन्यदयत्। तै.सं., 1.5.1.1

^{२५}. हे सवितः, अद्यास्मभ्यं वामं जीवनहेतुभूताश्रेष्ठंशाक्तिंसावीः प्रसारया। श्वोऽपिसावीः। दिवेदिवे प्रतिदिनं सावीः। हे देव क्षयस्य प्रतिक्षणं रूपान्तरपरिवर्तनेन अदृश्यभावं गतस्य भूरेः ग्रहमण्डलं पूरयितुः विस्तीर्णस्य वामस्य प्राप्तिद्वारा अनया भवतैव प्रेरितया धिया वामभाजः शक्तिमन्तः स्याम्। तै.सं.

divepratidināmsāvih.He *deva,kṣayasyaprati-*
ṣaṇām̐rūpāntaraparivartanenaadr̥śsyabhāvāṅgatasyabhūreḥgra- *ham*
ṇḍalam̐pūrayituh̐vistir̐nasyavām̐asyaprāptidvārā *Anaya* *bha-*
vataivāpreritayadhiyavānabhājah̐śaktimantaḥsyāma”.

Oh sun! You are extending to us every day the energy required to sustain life. This energy is all pervading and continuously by virtue of this energy we are happy. The interpretation of the above mantra is well supported by the following statement of Arunaprasna which says that all the energy on the earth is sun him T.A ^{२६} – “*Ādityassarvognih̐pr̐thivyām*”.

Thus sun as a source of all energy on the globe on the is very well recognised in T.S.

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