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ICPR New Delhi , India.

Azadi Ka Amrit Mahotsav

FIRST INTERNATIONAL CONFERENCE

PHILOSOPHICAL RESEARCH, SCIENCE AND LITERATURE

(ICPRSL-2022) September 5-6, 2022

PROCEEDINGS

VSK. Reddy
M. Anjanayulu
D. Pramod

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Note: For a paper to be considered for publication it is a pre-condition that it is not submitted for publication elsewhere. Contents and results that are new significant of interest to a wide section of Philosophical Research community. Editors may invite papers on special topics of current interest.

FIRST INTERNATIONAL
CONFERENCE
PHILOSOPHICAL RESEARCH, SCIENCE AND LITERATURE

CALL FOR PAPERS :

Research Papers/ Articles are related to Philosophical Research, Science and Literature, themes/subtopics as shown below for Paper as well as a Poster presentation.

SCIENCE AND SPIRITUALITY

VEDIC SCIENCE

- Exploring Science and Technology from Vedic Scriptures
- Origin of Life and Universe
- Human Values and Life Skills in Vedic Scriptures.
- Innovations in Vedic Science

METAPHYSICS

- Metaphysical Thoughts
- Body, Soul & Consciousness
- Man's Eternal Inquisitiveness
- Space, Time & Energy
- Ecological Ethics
- Existence and Non-Existence
- Self-Realization
- Purpose of Life
- Freewill
- Causation

MIND, POWER & MANAGEMENT

CREATIVE LITERATURE

- Story telling
- Poetry
- Singing songs
- Plays
- Folk Tales

Any other relevant topics.

IMPORTANT NOTES :

Languages - Hindi and English

Presentation Mode :

Hybrid Mode - Online and Off-Line (Physical)

Registration Fee: NO

Proceedings of Conference:

The research papers and articles will be published in the Proceedings of the Conference.

Chief Patron

Sri. CH. Malla Reddy
Founder Chairman, MRGI
Hon'ble Minister,
Govt of Telangana.

Patrons

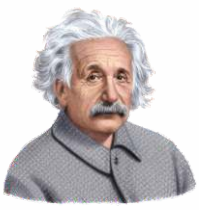
Sri. CH. Mahender Reddy
Secretary, MRUH

Dr. CH. Bhadra Reddy
President, MRUH

Conference Chair

Prof. VSK Reddy
Vice-Chancellor



IMPORTANT DATES

Full Paper Submission Last Date	-	July 16, 2022
Paper Acceptance	-	August 13, 2022
Conferences Dates	-	September 5-6, 2022

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Message

Sri Ch Malla Reddy
Founder Chairman

It gives me immense pleasure to know that the University has come up with an initiative to organize an International Conference on “Philosophical Research, Science and Literature”. I strongly believe that this theme is highly pertinent to the present times. MRGI has always believed in value-based education, and modern quality education is imparted in an environment which is in conformity with our rich culture and heritage.

I hope this conference will open up new vistas of intellectual discussions and meaningful debates that would enrich the thought process and knowledge of all the participants.

My best wishes to the organizers and the participants of the conference.

September 5, 2022 **(Sri Ch Malla Reddy)**

Message

Prof. Sachchidananda Mishra
Member Secretary, ICPR,
Ministry of Education,
Govt. of India, New Delhi.

नासदासीन्नो सदासीत्तदानीं नासीद्रजो नो व्योमा परो यत् ।
किमावरीवः कुह कस्य शर्मन्नम्भः किमासीद्गहनं गभीरम् ॥ १॥

Nasadasetraosadasithdanimnasedrajaonaovayomaparoyath I
Kimavarivahkuhakasyasarmrtmabhkimasidrahanamgabeeram II 1 II

The non-existent was not, the existent was not; then the world was not, not the firmament, nor that which is above (the firmament). How could there be any investing envelope, and where? Of what (could there be) felicity? How (could there be) the deep unfathomable water?

- Rigveda Mandala10, Sukta 129.

I'm very happy and delighted in participating the first ever **International Conference of Philosophical Research, Science and Literature (ICPSL-2022)** being conducted by Malla Reddy University.

I have been told that Malla Reddy University, Hyderabad (MRUH) is the only Private University under green field category established in the year 2020, as per Telangana State Private Universities Act by Government of Telangana State; approved by University Grants Commission (UGC). The campus spread over in 100 acres of beautiful land with built-up space covering academic, administrative and amenities block with "State of Art Infrastructural Facility". The programs include "New Age Technologies and innovative".

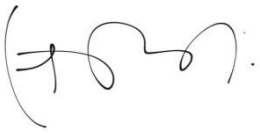
I have gone through objectives and themes of the conference which are well explained, exploring Science & Technology from Vedas, Origin of Universe, Human Values, and Life Skills in Vedic Scriptures. Besides metaphysical thoughts such as Body, Soul, Consciousness etc. Space, Time & Energy, Ecological Ethics, Existence and Non-Existence, Self-Realization, Purpose of Life, Freewill, Causation, Mind, Power & Creative Literature are also being debated in this conference.

I would like to state that the present Universe consists of Galaxies, Stars, Planets, and other celestial bodies, particles and their interactions. Present scientist believed that, the Universe came into existence more than **thirteen billion** (13) years ago in a colossal explosion called the **Big Bang**. Our home Galaxy is the **Milky Way** which includes Solar system that contains Earth and eight other Planets, along with celestial bodies. Earth is the third planet in the Solar System where biosphere (life) exists. All planets exert tremendous influence on Earth. These modern thoughts are embedded in our scriptures also.

This seminar is sponsored by ICPR Ministry of Education, to propagate Indian Philosophical thought to modern generations.

I wish and congratulate the Malla Reddy University authorities for successfully completion of the seminar and proceedings may be published in the formal souvenir, which can be circulated.

|| Jai Hind ||



September 5, 2022 (**Prof. Sachchidananda Mishra)**

Message

Prof. VSK Reddy
Vice Chancellor

At the outset, I congratulate the team for bringing out a basic and relevant theme for discussion as the conference subject. Literature is continuously evolving from one phase to the other phase merging with the culture, science and ultimately ending up with a philosophical approach.

With globalization and digitalization of our world, we as a human species are getting increasingly integrated and all of us have begun to understand the need for having shared values and beliefs. I hope that the two-day international conference by bringing about scholars of cross-cultural and interdisciplinary streams on one platform, will conduct fruitful deliberations contributing meaningful outcomes.

I extend my heartfelt wishes to the organizing team and all the participants of the conference.

September 5, 2022 (**Prof. VSK Reddy**)

PREFACE

ॐ पूर्णमदः पूर्णमिदं पूर्णात्पूर्णमुदच्यते ।
पूर्णस्य पूर्णमादाय पूर्णमेवावशिष्यते ॥
ॐ शान्तिः शान्तिः शान्तिः ॥

That is whole, this is whole; from the Whole, the Whole becomes manifest. From the Whole, when the Whole is negated, what remains is again the Whole.
[It means the entire universe came into existence from the whole and goes back into the whole]

- Isavasya Upanishad.

This First International Conference on Philosophical Research, Science and Literature conceived by this University with great enthusiasm, support from Management, Vice Chancellor and with the help of several faculty members spear headed by Dean R&D.

The back drop of the conference is deeply rooted in Indian Culture and Tradition. The core values have been enshrined in the Indian Philosophy embedded in our Ancient Scriptures viz, Vedas, Vedangas, Upanisads, Upavedas, Sastras, Puranas, Upapuranas, Ithihasas (Ramayana and Mahabharata) Shiva agamas and Shakti Puranas. All these serves as a basic fulcrum of the Indian Philosophical process.

The present conference revolves around the following broad themes viz: Exploring Science & Technology from vedas, Origin of Universe, Human Values, and Life Skills in Vedic Scriptures. Metaphysical thoughts such as Body, Soul, Consciousness, man's Eternal Inquisitiveness, Space, Time & Energy, Ecological Ethics, Existence and Non-Existence, Self-Realization, Purpose of Life, Freewill, Causation, Mind, Power & Creative Literature are also being debated in this conference.

This conference has been mainly sponsored by **Indian Council of Philosophical Research (ICPR), Ministry of Education, Govt of India, New Delhi.** However, the University is providing all the required infrastructure for the participants. We extend whole hearted thanks to Honourable Chairman, Sri Ch. Malla Reddy garu for facilitating the seminar and the entire management team for supporting this. Besides the honourable Vice Chancellor, Prof. VSK Reddy who gave meticulous guidance at each and every stage of this conference. At the end I wish Prof. D. Pramod; Dean R&D and his dedicated team who worked relentlessly for the last few months in making this conference a grand success. I wish all of them Good Luck.

September 5, 2022

Dr. M. Anjaneyulu, IDAS
Registrar

Overview

Prof. D. Pramod
Dean, R& D
Convenor of the Conference

"**You are known by Your Country, but Country should be known by You …"**

Universities play major role in providing the value-based education and hub for research activities, which inculcate and attract students to have inquisitive scientific temper in various domains to explore the unanswered questions of humanities, science and technology for the benefit of the society. Since the human civilization, the ancient and present philosophers, and thinkers are pondering on main two aspects – 1) exploring the existence of God and 2) human survival on the earth planet. These two are broad research areas in the present world of scientific community and for the spiritual scientists.

Our Indian culture is as old as civilization began on our holy land. Our sages have enshrined human values which have become obsolete may be lack of knowledge in understanding them or mere ignorance. The whole world is looking for value-based education system and ethical research activities.

The research scientists need to understand philosophy of various subjects such as literature, social sciences and science and technology and purse the philosophical research in their fields to establish ethical research activities for benefit of the society and global harmony.

This spark has ignited us to organize this "**First International Conference on Philosophical Research, Science and Literature (ICPRSL-2022)"**on the occasion of Teachers Day, the birth day of **Bharat Ratna Dr. Sarvepalli Radha Krishnan**, **Philosopher**, **for two days on 5th -6th Sept 2022.**Our request has been kindly considered accepted by **Indian Council of Philosophical Research (ICPR), Ministry**

of Education, Govt of India, New Delhi for sponsoring this conference to organize at Mall Reddy University Hyderabad.

The theme of the of the conference is to inculcate the Philosophical science, ancient Vedic concepts, human values, self-realization, purpose of life, body and soul and research ethics in the minds of young faculties and research scholars that would motivate them to pursue their research activities which would enhance their teaching abilities to impart the best education to students**.**

The faculty members, research scholars and Philosophers working in different organization in India and abroad responded enthusiastically and sent their full research papers and agreed to patriciate physically in the conference. The organizing committee has received seventy-eight (78) research articles and invited ten (10) specialized topics from subject experts/ Philosophers / Thinkers of various organizations such as ISKCON, Brahma Kumari foundation, Swamy Vivekananda Institute of Management and Sanskrit Academy, Hyderabad.

We are thankful to **Indian Council of Philosophical Research (ICPR), Ministry of Education, Govt of India, New Delhi** for sponsoring to organize this conference and **Prof Sachchidananda Mishra Member Secretary, ICPR** for accepting our invitation to be a Chief Guest for the inaugural session and share his immense contribution in the field of Philosophy. This conference would not have been organized without their financial support

I appreciate Honourable Chairman, Sri Ch Malla Reddy, for providing excellent infrastructure for education and facilitating research activities and for his desire to make it one of the best Universities in India.

I am thankful to Honourable Vice Chancellor, Prof. VSK Reddy as Conference Chair and Dr M Anjaneyulu, the Registrar and Organizing Secretary for encouraging and supporting at every point in organizing this conference and the faculty to pursue their research activities.

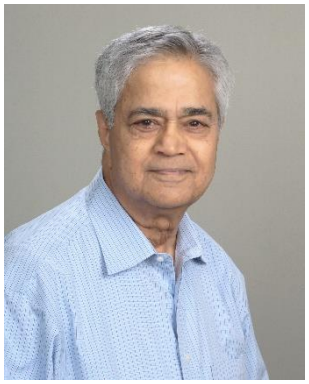
I extend my sincere thanks to all my organizing committee members Dr V Dhanunjana Chari, Dr T Suneethi and Dr A Raju and Dr V. Samptah Kumar, and other Deans /HoDs and all other the faculty members and technical staff members for assisting, coordinating and sharing the responsibilities of various committees to make this conference successful.

I extend my sincere thanks to all Indian delegates for attending the conference physically and foreign speakers on-line to share their experiences with young research scholars.

I trust this conference would unite philosophers and thinkers, and writers to share their ideas and motivate the students and faculty members to purse Philosophical Research in their respective domains.

September 5, 2022 **(Prof. D. Pramod)**

Message



Pradeep B. Deshpande
Professor Emeritus,
Former Chair, Dept of Chemical Engineering
University of Louisville,
USA

I am writing to convey my felicitations and offer my best wishes for the success of the ICPR-sponsored **First International Conference on Philosophical Research, Science and Literature** that your University is hosting during September 5 - 6, 2022.

Ancient Indian wisdom/philosophy in the Vedas, Upanishads, the Bhagvad Geeta, Puranic stories etc., is vast, profound and unparalleled. Modern scientific principles have the tools with which to corroborate it. This is a welcome development as proper interpretation and validation of ancient philosophical wisdom and modern scientific principles together can transform the nation and the world. The conference will facilitate these objectives.

Sd/-

September 5, 2022 (**Pradeep B. Deshpande**)

Message

Prof. Sumita Roy (Retd)
Dept. of English
Osmania University, Hyderabad.

I congratulate Malla Reddy University for taking a lead in contemporising Ancient Indic Thought for the 21st century through this international conference. Many innovative ideas are lying buried in the hinterland of Indian philosophy which can add synergy to all human efforts for sustainable development as we advance in time.

Our system of thought encompasses all branches of learning and the conference is the right place to showcase these and bring out newer thought currents to enliven research. Through scholarly deliberations many lost treasures can be unearthed during this conference and these will not only help India but strengthen its global leadership potential.

I wish the organizers all success.

Sd/-

September 5, 2022 **(Prof. Sumita Roy)**

Message

Dr. Braja B Nayak
Former Executive Director, ECIL.
Academic Council Member, Malla Reddy University

It gives me immense pleasure to note that our Malla Reddy University is conducting its first International Conference on Philosophical Research, Science and Literature **"ICPRSL-2022"** on 5-6, Sep 2022. It is further hearting to learn that the conference is poised to be held on both offline and online platforms which will exhibit the presence of eminent dignitaries, researchers, academicians, industry practitioners, and peers to enable our students for enhancing their networking skills, improvising communication, amplifying presentation and learning from both national and international experts.

Conferences provide the perfect platform for professionals in any academic institution to meet people face to face in their field of preference, exchange details and align to work together in the future. Hence, the conference having a theme of specific nature shall culminate adequate domain knowledge with the confluence of philosophical research, science, and literature as the core of the education system, moral and wisdom embodied to these disciplines.

I praise the efforts made by the authority of the University for identifying such a unique concept to be deliberated at the International forum through this conference. This will not only enlighten and enrich immense benefits to the students' community but also to the faculties and all other participants. I am sure, the two days of intense interactions and sequels will enable holistic development and attempt a 360-degree approach in bringing the best from everyone.

I wish the conference **"ICPRSL-2022"** a grand success.

Yash Praptihi Asti Niyatihi.

Sd/-

September 5, 2022 (**Dr. Braja B Nayak**)

Message

Dr. Srinivasan K Iyer, M.A. M.Sc. M.Phil. Ph.D.
Retired Dy. Manager.
Independent Academician

"Am very much delighted to be associated with this First International Conference on Philosophical Research, Science and Literature on Sep 5th and 6th, 2022.

My Heartiest thanks goes to all the Organizers of this wonderful event. Infact, I wanted to personally but due to preoccupation could not do so. I beg your pardon on this. My special thanks go to Shri. Pramod Ji, Dean, R&D, Malla Reddy University for inviting me for this conference.

The conference implies to most important aspects of life. It is more essential to do research on Philosophy. Which is in the contemporary world, is disappearing. We need to focus our best attention in propagation of our Indic studies long with Vedic Scriptures. Philosophy and Vedic scriptures are the two eyes of the Human beings. They are Dharma and Karma.

In Srimad.Bagawad Gita, Lord.Shri. Krishna has explained both as we see in B.G. 3:19, that one who does Karma with out expecting the karma phala, will always enter the domain of Lord. Sri.Krishna. Scriptures, say, "Dharmo Rakshati Rakshataka", that if one protects Dharma, Dharma will protect you. This can be understood by a person with Healthy Mind. Hari! Om! Tatsat.

Sd/-

September 5, 2022 (**Dr. Srinivasan K Iyer**)

Message

Dr. K. Om Narayana Rao
Editor, Philosophy Family Publications,
Puri, Odisha.

It gives me immense pleasure to know that Malla Reddy University, Hyderabad, Telangana is going to host the ICPR Sponsored First International Conference on Philosophical Research, Science and Literature (ICPRSL-2022) on the 5th and 6th of September, 2022.

While thanking the authorities of the University for coming forward to host such a large-scale conference, I congratulate all the members of the Organizing Committee for getting such a good opportunity to work together for the benefit of researchers, scholars, faculty members, resource persons, students and all those directly or indirectly connected to philosophy, science and literature.

I am sure that this International Conference would serve as a great platform to think differently, search something new and enter a bit more into the field of the unknown.

I wish the University authorities and the organisers a grand success.

Sd/-

September 5, 2022 (**Dr. K. Om Narayana Rao**)

Identity and Attributes of Humans in the Material World: The Goal of Human Life

D Pramod

Dean, Research & Development
Malla Reddy University, Hyderabad, Telangana, India

Abstract

Since times of immemorial the birth of a human being has become a great riddle. Out of eighty-four lakhs types of creatures created by the God, the greatest gift, gifted to mankind is the intellect which makes a human distinct from other creatures. To establish a connect between human and materialistic tendences is the need of the hour. Human attributes are highly complex to be interpreted by the philosophers and scientists. Humans are trapped in the material world for self-gains and sense gratification. The precious birth of human form, their characteristics, the declining of humanity and the goal of life are systematically analyzed and presented in this paper.

Key words: Living entities, fortunate, body, soul, super soul, attributes, decay and goal of life.

1) Introduction

Material science is an experimental science whereas spiritual science is experiential science or self-realization science. The Vedic scriptures are eternal and they describe galaxies, universes, planetary systems, living entities, and human values. The corresponding cosmic elements are created according to the environment of planet for the survival of living species. As per Vedic scriptures, there are 84 lakhs living species in the universe[1]. They are identified with certain characteristics, which are well described in the literature. They are continuously taking the birth and death cycle as per the law of karma and free will. The law of nature says any living entity, once taken birth in the materialistic world, has to undergo birth and cycle.All scriptures connote the human form is the best platform from which one can easily fly to higher planets as humans possess the highest consciousness and the most intelligence. This human form is obtained due to the many pious activities and the victory over many evil and cruel activities during the previous births. Millions and billions of living entities are competing and aiming to take human birth. We, humans, are the only victorious. All living entities aim to avoid the birth and death cycles and reside in the vicinity of God eternally. They can be achieved by proper dedication and devotional services. Those who realize this aspect will be highly successful and may escape from this miserable material world (dukkalayam). The human body is a field of activity that possesses all necessary twenty-eight attributes, like working senses, knowledge acquiring senses, mind and intelligence, false ego, soul and super soul, etc.[1]

Correspondence: Prof D Pramod**: Email**: dpramod61@gmail.com

The senses are the most powerful enemies, they always look for sense gratification. They are permanent tenants in the body and they never get satisfied, and finally decay and create the environment in such a way to evacuate the soul from the body, without going to higher planets. The selfish nature, self-satisfaction, ignorance of the purpose of life, and negligence of spiritual activities are causing more harm to humanity which is continually decreasing from Sataya yuga to Kaliyuga. The metaphysical analysis of space, time, and energy coordinates of living species, the field of activity, the complexity of their attributes, representative, knower of the human body, and decline of humanity are studied systematically and presented in this paper,

2) Metaphysical Analysis

The metaphysics is the subject which deals about science and society, and interrelation between the science and society. It deals about objects beyond the physical objects and describes abstract qualities of existence of universal objects and their nature, what sort of things exist, cause and changes undergo in the system. It analyses about self, self-awareness and self- reflection, and deep thinking of materialism and spiritualism; existence and non-existence .[1,5,6]

a) Living Entities

As described in the Vishnu purana and Padma purana, the living entities are identified as

jalaja nava-laksani sthavara laksa-vimsati krmayo rudra-sankhyakah ।
paksinam dasa-laksanam trimsal-laksan i pasavah catur-laksani manusah ॥

It says there is a total of 84 lakhs species spread into 30 Lakhs quadrupedal animals, 10 Lakhs birds, 11 Lakhs insects, and reptiles, 9 Lakhs marine creatures, 20 Lakhs trees, and plants, and 4 Lakhs human species (Fig.1). Some of the species may exist on one planet and may not be on another. As in Vedic literature, living species do exist on other planets according to their atmosphere conditions. This is also confirmed in Bhagavad-gītā (2.20). This is a vital research topic for exploration by philosophers, astrophysicists, and space scientists. The developed countries are spending enormous research grants for the exploration of living species on other planets.

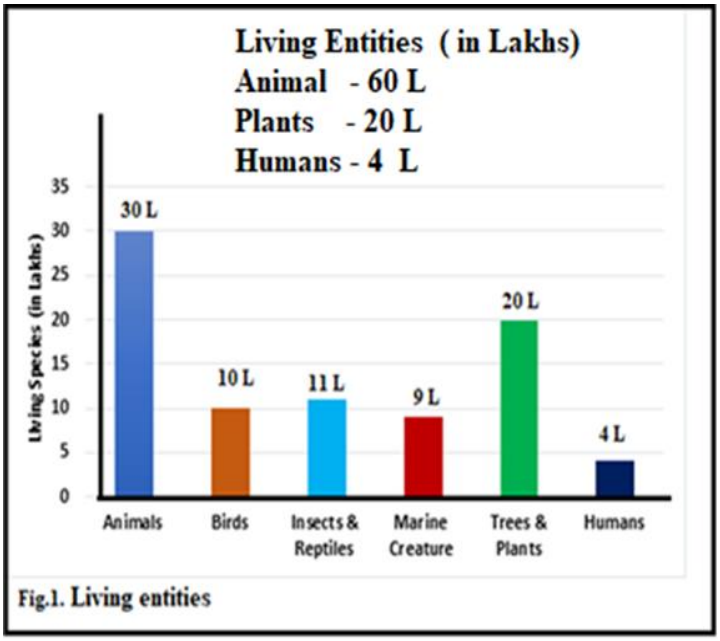


Fig.1. Living entities

The total animal kingdom species population of 60 lakhs is more prominent than that of the human species. The 80 Lakhs of other species are struggling and undergoing birth and death cycle, as per their law of Karma, and in regular competition among themselves to take birth as the human form. The spiritual science is so beautifully and accurately designed in such a way that the living entities are created elegantly and scientifically that their bandwidth of memory power is very short so that they can only remember the incidents of the present birth and no information about the previous births and future births. Otherwise, things would have been difficult in the material world. The highly intelligent humans would have been in, a more chaotic situation knowing the history of previous births.

b) Enormous Competition – Fortunate

As per Vedic scriptures, among many living entities, the human form is very rare to obtain. Getting human form means we must have overcome many hitches and adventures in previous births. We had completed the mission for our vision to take birth as a human form. It is the accumulation of many positive deeds as per the law of karma. There are many millions and billions of souls of living entities (humans, animals, birds, and plants) competing with us to take birth to the human form. But we are victorious to take birth as a boy or girl, maybe in scholars family or rich or poor families at any place in the world as per our deeds and prayers in the previous births which are fulfilled to the Lord.

Thus, in this contest, we are highly fortunate that we are born as humans after undergoing 84 million births or may be more or less came across through many hatreds or jealousy or many pious living entities. Thus, once such a great opportunity of the human form is obtained. One must utilize the God gifted form to raise further to higher levels of heavenly planets by fulfilling the purpose of our life and the assignment given to us, i.e. good deeds, otherwise we are the fooler than the foolest people in the world. We may fall back in the animal or plant kingdom as per deeds one performs in this birth. Again, it would take millions of births to get this human.

c) Contributions of Ancestors

This is one of the reasons, why our ancestors, kings, and authorities constructed pilgrimage centers and temples throughout India and the world, because the successive generations, would pave the way to visit temples and get the blessings from Gods, Goddesses, rishis and saints, and scholars. During this process, the owners who constructed religious places obtains three positive deeds –i) constructing temples and thereby facilitating ii) helping other devotees for spiritual upliftment and show path to higher levels, and iii) devotees also pray to the Lord for further purification of their souls, who sacrificed their valuable time and money in constructing religious places, and direct beastly souls These three are added in their accounts of positive karma.

Glorified India for its culture has 108 dhams (religious places). These are the tradition and culture of our Vedic system. People visit the temples regularly and get their disturbed souls to get mollified into

positive deeds. It is the tradition in India, people generally visit the pilgrimage places every year and on any auspicious functions for blessings and for purifying the souls in this birth and next successive births.

d) Identity

As per Vedic literature, every place and activity have specific coordinates and identification in the universe in terms of space, time, and energy coordinates, and activity and actions are also recorded in the spiritual world.

Every living entity has a body, Soul, and Super soul. The body is a shelter or a home for the soul and Super soul. Humans also have body and soul and super soul. The human body is identified by a particular material name given by the parents at the time of birth in this materialistic world. That will be carried out throughout life and he/she will always be called by that name only. This just identifies the type of body, body language, knowledge, and speech to the society. This name pertains to this material world only, but it has no sanctity in the spiritual world. The person's history is identified through the transmigrating soul depending on the law of karma. In the Vedic scripture, they are recognized by Space, Time, and Energy coordinates which determine the place of birth, time of birth, and what type of body form (Jiva, Energy) is born at the time of birth in the universe. The mantras (Hymns) are recited as Sankalpam as mentioned below.

Sankalpam

As per Vedic literature, a sankalpam is a kind of sending coordinates of a performer in terms of space, time, and energy, which is generally performed before starting any rituals and spiritual functions.

Space coordinates

Shubeh Sobane Sri Mahav Vishnu Ragnaya Pravartha Manysa, Adya Brahmane dviteeya parardhe (in the 2nd half of Brhama's life), Sveta varaha kalpe Vaivaswatha manvantare (in the 28th mahayuga), Kaliyuge (in this kali yuga) Prathame Padhe (in the first quarter of this yuga), *Jamboodveepe (place of performing. India), Bharata Varshe, Bharata Kande (in the land of Bharat), Mero Dakshine Digbhage , krishna- Godavari Madhya dishe (exact location between the two rivers)*

Time coordinates

Asmin Varthamane Vyavaharike, Chnadramanen Shubhu kruth nama Samvatsare (name of year, Hindu calendar) Uttarayane Ayane (or Dakshinayane) Vasanth (one of the six seasons), Mase (Month), Shukla Pakshe (or Krishna), Subha Thithou (thithi) , Shubha Nakshatra (star of the day) shubha deny (day of the week).

Energy (Jiva) coordinates

Shubha karane Evam Guna Vishistyam Shubha thithu Sriman Gotra, Star and Name (name of person) sharma , Srimath Gitrasaya Srimathi Dharma Pathani (wife's Name), Samathesaya (all family members) Mamopata Durthyas dwara , Sri Parameswar Prithyartam , asmakam, sha kutubanam ,shem shtrya, vijayrohgaya, ishwarayabi vrudyaartham , dharamaarth kama mokhsha chaturvidha pala purushratha pala sidhayratham , putra poutrabi vrudhaytrathm , skakal vidha mano vancha pala sidhyartham Sri Satayanarayana (type of worship) pujam kareshe.

Pra-vara (About self)

It describes about self and ancestors details such as rishis about race, tribe and descendants of families linage.[7] When one is asked to inform about the self- introduction, It is explained with proper posture by touching two ears with two hands and bending the body before him as:

"*Chatussāgara paryantam go-brahmaṇebhya subham bhavatu* ।
kaundansya vasisthta, maitra varan , triyarishya pravaranvita ॥
kaundansya gotraḥ , apasthanba sutraḥ, sri krishna yajur veda ॥
mehendra jnam nama (sri pramod nama) sharma nama deya ahambho abhivadaye ॥

They represent the geographical location of the performer the universe with respect to the mother earth planet, the time of performance with respect to the origin time of Lord Brahma, and astrological details of the performer (Jiva); and his family, rishis and self; and informing the respective God to whom he worships so that he gets boons and blessing for materialistic and spiritualistic benefits for himself and family. These three space, time, and energy coordinates of a particular human, are generally informing the God while performing religious functions, saying there is a particular Jiva (soul) in this materialistic world to intimate as well as invite the God to attend the function and bless that Jiva. These are in fact, the postal communication address of the Jiva so that they may visit or bless the performers from their heavenly planets through audio or video mode presentation or may appear physically or any representatives on their behalf. As per scriptures, it is a system of maintaining records and minutes of a meeting or rituals and devotional activities in a file in the spiritual world and in individual's souls of living entities. Thus, the souls will carry the information and be used for degerming the successive births as per the law of karma, till the final destination is reached, that is liberation.

Thus, humans are identified by a particular given name in this materialistic world whereas they are recognized by the particular soul code in the spiritual world. There are billions of souls in the material and spiritual world, they are accurately identified and located by their method of the convention (with different codes) of the spiritual world. This spiritual knowledge of identification is beyond our human material intelligence. This needs to be explored further using the Vedic scriptures.[1]

e) Field of Activity – Ksetram

During the Mahabharata war, the king Dhrtarastra asked his secretary Sanjaya ,

"dhritarashtra uvacha
dharma-kshetre kuru-kshetre samaveta yuyutsavah |
mamakah pandavashchaiva kimakurvata Sanjaya ||

"After assembling in the place of pilgrimage at Kurukshetra, what did my sons and the sons of Panadu in the battlefield of the Mahabharat war." The battlefield place is located at Kurukshetra, in Haryana, India. It was the war to establish dharmic righteous values in the society. In that war, great warriors, Lord Sri Krishna, Pandavas, Kauravas, Bhisma, Dronacharaya, relatives, friends, many more, and lakhs of soldiers were present. Arjuna, the great warrior was bewildered about how to take an appropriate decision to participate in the war and kill or not kill his grandparents, cousins, and relatives, which was a complex decision to take.

The problems were more intricate and anomalous to Arjuna than to anyone in the present world. Thus, the same situation on the battlefield does occur in everyone's mind. Thus, the human body is like a battlefield or field of activity (ksehtram) at any time. The human body constitutes twenty-eight parameters like great warriors, which actively take part in decision-making and gives the orders like arrows to the senses for shooting. As a metaphor, the Supersoul asks the soul "What my senses are doing in the ksehtram field of activity (human body)."

f) Migration period of Soul

As soon as the human baby comes from the mother's womb, the infant baby (soul) is unhappy to see the material world, and then the baby cries but the people surrounding the baby are happy to see the baby it is contradictory to the time of death, relatives cry whereas and the human soul is happy to disappear the material world. In other words, at birth time soul cries and relatives happy whereas at death time soul is happy and relatives cry. Thus, the baby cries for leaving the previous world and entering material world.

g) Attributes

The human body is entangled by the twenty-eight (28) attributes (Table.1).The components are the five cosmic elements (Panch-mahabutas) -air, water, fire, earth, and ether. The human body is made up of five elements with 72% water, 12% earth, 6 % air, 4 % fire and the rest is ether. The percentage of first elements are remain constant but the ether (space) varies. Each element is responsible for different structures in the body. Solid parts such as teeth, bones, muscles and skin etc. are due to the earth.

Saliva, urine, blood and sweat are due to the water. Fire forms hunger, thirsty, sleep, vision and complexion of the skin. Air is for all movements of expansion, contraction, vibration and suppression. Space is the hollow cavities medium for light radiations and cosmic rays etc. [8]

Table.1: The Attributes of field of Activity

SN	Attributes		Number
	English	**Sanskrit**	
1	Cosmic Elements	Panch bhutas	5
2	Working Senses	Karmendriyas	5
3	Knowledgeable Senses	Ganendriys	5
4	Objects of Knowledgeable Senses	Tatvam	5
5	Mind	Manas	1
6	False Ego	Ahankar	1
7	Intelligence	Buddi	1
8	Soul	Atama	1
9	Super soul	Param Atma	1
10	Modes of Nature	Prakrithi Gunas	3
	Total		**28**

The attributes of field of activity of humans are shown in the Table.1. The five working senses (karmeindrays) – tongue, legs, hands, anus, and gentle; and the five senses for acquiring knowledge (Ganneidryas) – eyes, ears, nose, tongue, and skin, the five objectives of senses (Tatvam) -see, sound, smell, sound, and warmth; the three special attributes of humans are - mind, intelligence, and false ego; and the spiritual identity of the body is soul, and the spiritual observer within in the body with whom we discuss is Supreme Lord, known as Super Soul. The entry and exit doors of the material energy to the human body are through two eyes, two nostrils, two ears, one mouth, the anus, and the gentile, known as nine gates (Nawa Dvara), and the body is called a city of nine gates.

Thus, one can categorize the human body into three domains in terms of material and spiritual 1) material body, 2) proprietor of the body, the individual soul (the representative Supreme Lord) and 3) observer Supreme Lord in the form of Supersoul. It is similar to the Supreme Lord is the proprietor of all bodies (Universe), a king is the original king of the kingdom and the citizen is the secondary proprietor[1]. The mind always interacts and chats with the super soul to take appropriate decisions such as, in favor or against, go or not to go, approve or reject, diverse or union, such complicated issues and their repercussions on the constituents of the body and with the society. Sometimes the field may be like a playground or maybe a battleground During the stress or angry period, the body becomes battlefield, velocity of impulses decreases and release the stress hormones will increase, heart beating rate and blood pressure will increase, unable to think properly, most of the negative replies come when the person is under stress. Whereas during the happy mood muscles and nerves system will be relaxed,

heart beat and B P will be normal. The decisions by and large will be favourable to both self and others. Hence the decisions may be categorized into six types, such as accept - reject, desire - hatred, pleasure-pain. Thus, the judgements will be purely depended on internal as well as external attributes of the human body (Fig.2).

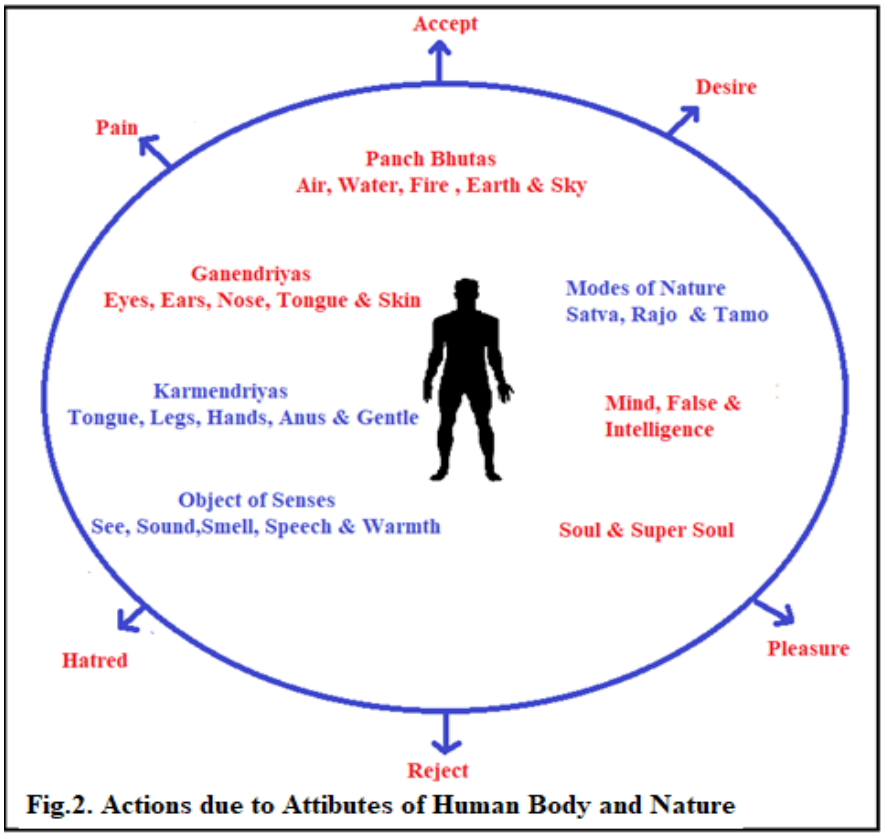


Fig.2. Actions due to Attibutes of Human Body and Nature

These decisions will enforce the person to move in the material world and entangle with three modes of nature – the mode of goodness, (Satvik), the mode of passion (Rajo), and the mode of ignorance (Tamo). The mind controls and uses and all constituents. The senses are the most powerful enemies to the mind. The mind always works to satisfy senses and make them happy, but they never get satisfied.as they are greedy. During this process, the body gets deteriorated slowly. The soul decides to leave the body and suddenly disappears with no indications or symptoms. Thus, the body is said to be a dead. Then suddenly name of the body (person) goes along with soul. The time and place of birth and death are noted to perform the safe journey of the soul in the material world and spiritual world respectively.

h) Mind, Body and Consciousness

Mind (Manas) is a friend as well as an enemy. It all depends on how; one is thinking about another person or an object. It has cognitive power about the opposite person, object, surroundings, space and time. It visualizes, analyses, accepts or denies and then order the senses. The senses are like serpents and wander in different directions and provoke the mind and body. The mind is restless and turbulent like ocean, always because of the greedy senses. The mind needs body and soul to function, in other words it cannot function if the body and soul do not exist. Infact the soul needs a body to reside and both come into existence for the sake of functioning of mind only. Therefore, in order to have the concentration of the mind, the senses need to be controlled. One who controls the mind is called Gosvami and one who is controlled by the senses is called Godasa or servant of senses.[1]

The combined effect of the mind and senses is called the consciousness (Chitha). The power of analyzing things or discriminating between the good and bad, is known intelligence (Budhi). The thinking and intellectuality of a person combine with body and senses yields uniqueness, is called ego that represents the proud of a person, termed as false ego. These can be further exemplified as moving chariot. The human body is like a chariot, senses are like horses, intelligence is a charioteer (driver), mind is the rein (straps attached to horses) and the soul is the owner of the chariot, travelling in it. Thus intelligence (driver) controls the senses (horses) through mind (straps).[9] Therefore, to drive a chariot a good driver is required. Hence Lord Krishan was a charioteer to Arjuna in the Mahabharat war.

i) Decline of Humanity

Though humans are highly intelligent and conscious, unfortunately, people are not realizing their fortunes and their intelligence for upgrading their lives to higher levels, but committing towards more sins for self-gratification rather than doing the pious activities for satisfying the Supreme Lord. The sin is not necessarily due to external acts , it depends on internal (self) , intentions,, state of mind and attitudes of senses. The sin or negative thoughts gets generated from the body due to the combined efforts of mind, senses, intelligence and false ego and modes of nature. Then the mind directs the karmendriys to act externally against the wishes of super soul. This act is stored as bad karma in the soul, hence the vasan (nature of bad karma) is carried through soul and that determines next birth and it may continue as bad deed till it is purified in the birth and death cycle. This trend, in Kaliyuga is continuously decreasing and it is more rapid for the past three to four decades. We find more demonic and corruptive people are taking birth on this earth as per their previous karmas or may be using the free will of human life for sense gratification and personal gains by torturing others or killing humans and animals, and more dependent on animal food. One who eats meat, the animal of the that meat will eat him. The continuing of this process yields more non - satvik births. The sastras also confirm this and connote, that the whole world will have demonic nature by the end of this kaliyuga. The Fig.3 shows the decreasing of satvik (pious activity) and increasing of demonic nature , Tamo (Sins) from Satyayuga to Kaliyuga . The one-fourth of dharma that exists in the kali yuga will continue to fall further by the end of this yuga. People will suffer, and face poverty

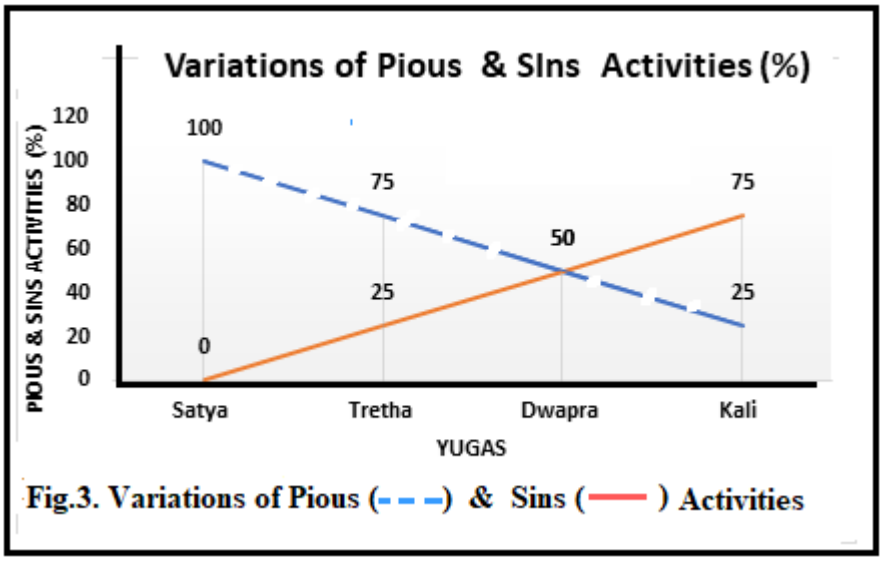


Fig.3. Variations of Pious (- - -) & Sins (——) Activities

and hunger. One day, the man may eat man's flesh. This is not too far to see. It is seen in some undeveloped countries.

j) Goal of Life

Every work has a particular aim, in other words, there is no work without a goal. Every work needs force. The force is exerted by the energy. Every energy is controlled by an agency or system. Hence universe is also controlled by an external agent, known as Supreme Lord. In brief, the system is creating work and gives direction to complete assignments. Going to the market means to buy articles, going to a marriage function means to bless the couple and to have food, going to college means to get knowledge and a job, and participating in the games means to get a medal. Thus, question arises what is the goal of human life? Every activity has a goal. One should think, who am I, what am I, why come here, who sent me here, what is my goal?

Yes, there is a goal. One must search it out by his skills and his passion for society. There are two goals in human life - one to live comfortably in the material world and another one is, to use the material platform to go to higher levels in the next birth, and especially to reside in the vicinity of God. That is what we say when a person is dead, the soul be rest in peace. All the Vedic scriptures say the human form is very a rare to get it. Once obtained it must be utilized properly without wasting a single minute to continue the previous journey for completing the mission to reach the higher planets, especially to the highest plants Vikutam from where the souls will not come back or fall on this material planet of earth.

All people may not get a chance to participate in the cricket or football world cup. One must put 100 % efforts to complete and win the cup, otherwise they will be sent back to ground level. These examples say that all souls may not get a chance to be born as humans to play in the game of human life.

3) Conclusion

The attributes of the human body are fabulous but complex. The individual proprietor (soul) is a representative of one's body throughout the birth and death cycle. It is like register or a chip. The knower (Super soul) is an observer and advisor to the mind. The complexity of material nature and the components of human attributes will trap senses in the material world for self-gains and sense gratification. The human form is the gifted platform to attempt to bypass the birth and death cycle and can reside in the heavenly planets if one goes systematically towards pleasing nature, and other living entities and against the desires of the senses. But the humanity in the present global scenario is decaying very rapidly due to many reasons such as selfish nature, self-benefits, degradation of devotional activities, killing animals for self-gains which will lead to unhappiness due to the increase of negative karma, and facing miserable life in the present birth as a well as successive births due to the action - reaction theory.

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Creation of Universe: Modern Thoughts &Vedic Concepts

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Abstract

The Universe consists of all the galactic space that includes visible horizon, particles and their interactions. A group of stars, dust and gas held together by gravitational force is the Galaxy. A self-luminous body in the galaxy is a star (Sun). Modern scientists believe that, the Universe came into existence more than thirteen billion years ago in a colossal explosion called the Big Bang. Our home Galaxy is the Milky Way which includes Solar system that contains Earth and eight other planets, along with celestial bodies. Earth is the third planet in the Solar System where biosphere exists. All planets exert tremendous influence on Earth.

Rigveda describes the birth of this universe from a state of non our ancient scriptures i.e. existence. The non-existent was not, the existent was not; then the world was not, not the firmament, nor that which is above. There was darkness covered by darkness in the beginning, all this (world) was undistinguishable water; that empty united (world) which was covered by a mere nothing, was produced through the power of austerity. Truth and truthfulness were born of arduous penance, then was night generated, lather the oceans. Purusha-suktam means "embodied spirit" as human being, it also means the aggregate of all living beings; spirit embodied in the egg of Brahma, i.e., the universal spirit animating all creations of universe.

Keywords: Big Bang, Biosphere, Comets, Cosmology, Galaxy, Hiranyagarbha, Milky Way (Akash Ganga), Planet, Prajapati, Satellite, Universe, Upanishad, Virat Purusha.

1) Introduction about Universe

The encompasses all the space, which includes visible horizon, particles and their interactions. A Galaxy is a group of stars, dust and gas held together by gravitational force. The Galaxies are scattered in the universe. A star is a self-luminous body in the galaxy. Sun is a star in the Solar System, wherein Earth is a member. Earth is the third planet, where biosphere exists. Human beings are one of the living creatures of Earth. Cosmology is the branch of astronomy that includes the study of structure, dynamics, and development of the Universe. It tries to explain how the universe was formed, and what happened to it in the past and what might happen to it in the future. Most of the scientists believe that the universe came into existence after a big explosion from a 'single point' and has been expanding ever since, which is known as Big- Bang.

a) Birth of the Universe-The Big Bang concept

Most astronomers & scientists believe that, the Universe came into existent about thirteen (13.8) billion years ago in a colossal explosion known as the Big Bang. No one knows exactly what happened but it is thought that the Universe formed from a tiny, dense, intensely hot center. The young Universe began to expand rapidly and first atomic nuclei formed. Over billions of years, this matter began to cluster together and develop into galaxies. (See figures 1 & 2).

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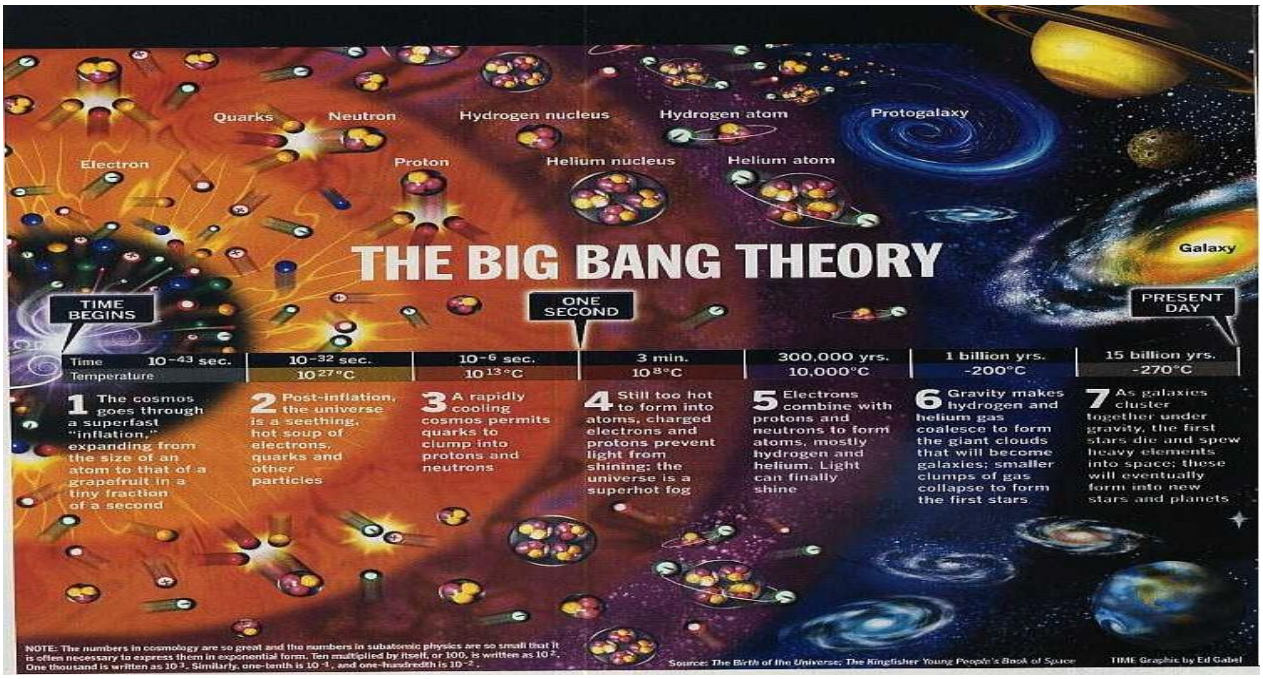

Figure 1: -Big Bang theory concept. (Artistic view)

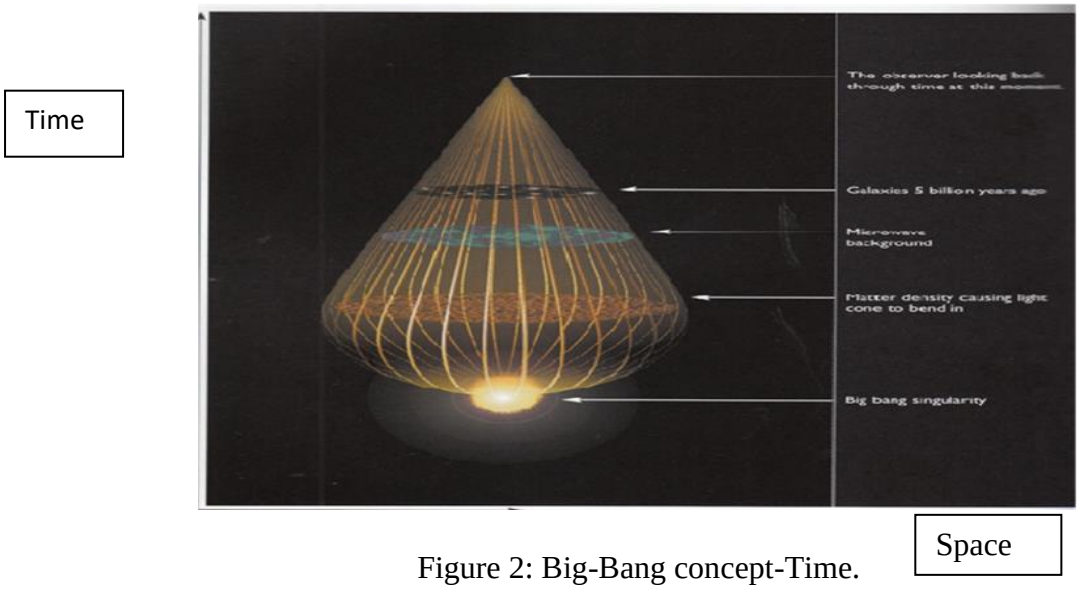

Figure 2: Big-Bang concept-Time.

After the expansion, the temperature came down and the neutrons combined with protons to form the universe's deuterium and helium nuclei in a process called **Big Bang nucleosynthesis**. As the universe cooled after about 300,000 years the electrons and nuclei combined into atoms (mostly hydrogen); The radiation decoupled from matter and continued through space which is known as the **Cosmic Microwave Background Radiation (CMBR)**.

b) Galactic evolution and distribution/Primordial gas clouds:

Astronomers found (2011) pristine clouds of primordial gas and these gas contain no elements heavier than hydrogen and deuterium. Since the clouds of gas have no heavy elements, they were likely formed in the first few minutes after the Big Bang. Their composition matches the composition predicted from Big Bang nucleosynthesis. This provides direct evidence that there was a period in the history of the universe before the formation of the first stars, when most ordinary matters existed in the form of clouds of neutral hydrogen.

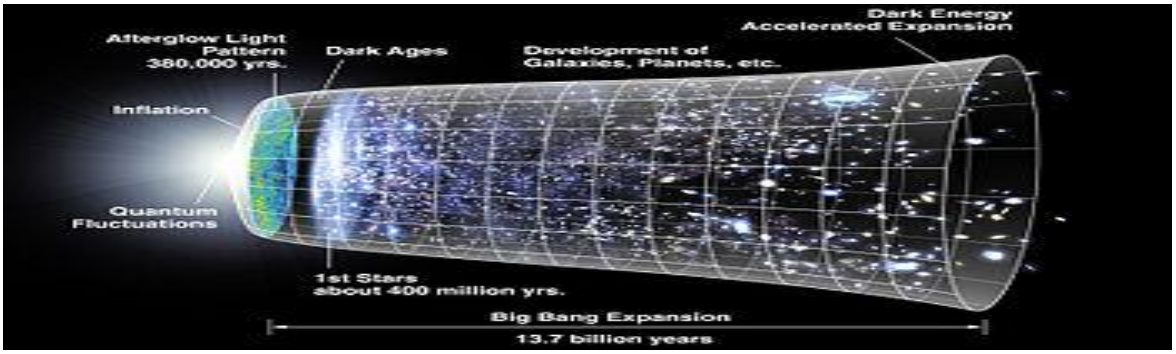

Figure **3:** A artist's concept of **metric expansion of space** universe & its

(i) <u>The Galaxies</u>& its <u>formation:</u>

Figure 4: Artist's impression of a young galaxy.

The Present cosmological models of the early Universe are based on the Big Bang theory. About 3,00,000 years after this event, atoms of hydrogen and helium began to cluster in an event called **recombination** then formed gas clouds. These primordial clouds would eventually become the galaxies as onesie today.Galaxies are huge conglomerations of stars, dust and gas held together by gravitational force. These are scattered throughout the Universe. Broadly there are three types of Galaxies viz: Spiral, Elliptical and Irregular. The Milky Way is our home Galaxy, which is classified as a Spiral Galaxy (see figure 5)

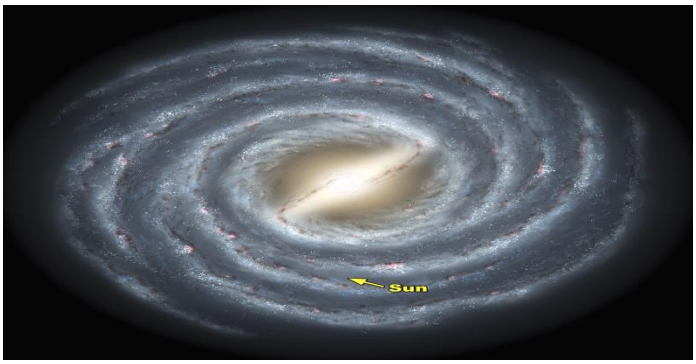

Figure 5: Milky Way (Spiral-Galaxy)

(ii) Formation and Evolution of stars

A **massive**, luminous sphere of **plasma** held together by its own **gravity.** The nearest star to **Earth** is the **Sun**, which is the source of most of the planet's energy, is the star. Many stars are visible from

Earth during the night, appearing as a multitude of fixed luminous points due to their immense distance. Historically, the most prominent stars were grouped into **constellations** and **asterisms**, and the brightest stars gained a proper name.

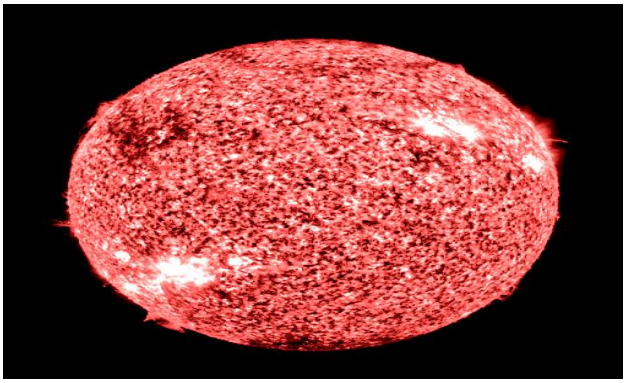

Figure 6: The Sun, a G-type main-sequence star.

(iii) Star Formation

The formation of a star begins with gravitational instability within a molecular cloud, caused by regions of higher density often triggered by shock waves from nearby **supernovae** (massive stellar explosions), the collision of different molecular clouds, or the collision of **galaxies**. Once a region reaches sufficient density of matter, it begins to collapse under its own gravitational force.

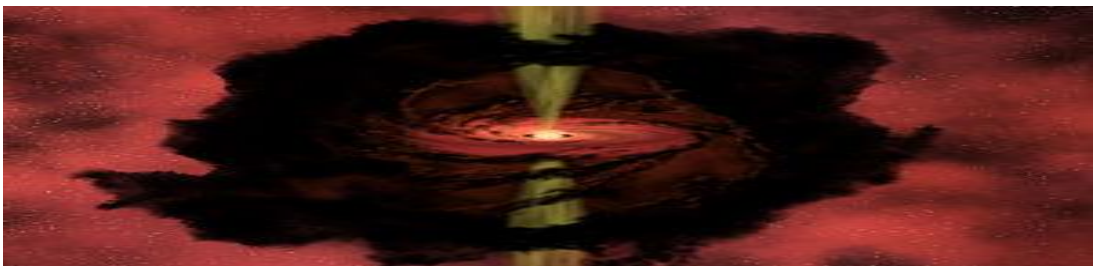

Figure 7: The birth of a star within a dense molecular cloud.

As the cloud collapses, individual conglomerations of dense dust and gas form what are known as **Bok globules**. As a globule collapses and the density increases, the gravitational energy is converted into heat and the temperature rises. When the protostellar cloud has approximately reached the stable condition of **hydrostatic equilibrium**, protostar forms at the core.

(iv) Solar System and its formation:

The current accepted theory is that they are formed during the collapse of a **nebula** into a thin disk of gas and dust. A **protostar** (for example sun) forms at the core, surrounded by a rotating **protoplanetary disk**. Through **accretion** (a process of sticky collision) dust particles in the disk steadily accumulate mass to form ever-larger bodies, known as **planetesimals.** These accelerate the accretion process by drawing in additional material by their gravitational attraction, diameter form **protoplanets**. After a planet reaches a diameter larger, it begins to accumulate more planetesimals by means of **atmospheric drag,** becomes a planet.

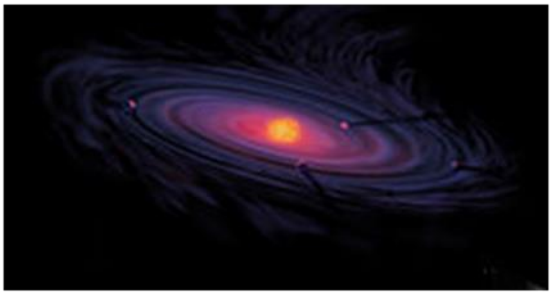

Figure 8: Protoplanetary disk

c)The Solar System

The Solar system consists of a Sun; a star, all other objects revolve around Sun. It includes the Earth and eight other Planets, along with their Satellites (Moons); Asteroids; Meteoroids; Comets; interplanetary dust and electrically charged gas known as Plasma.

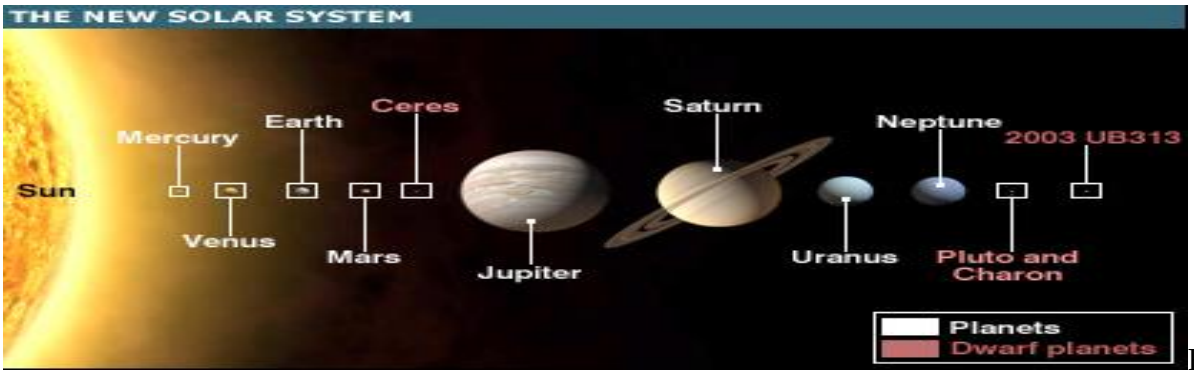

Figure 9: The Solar System

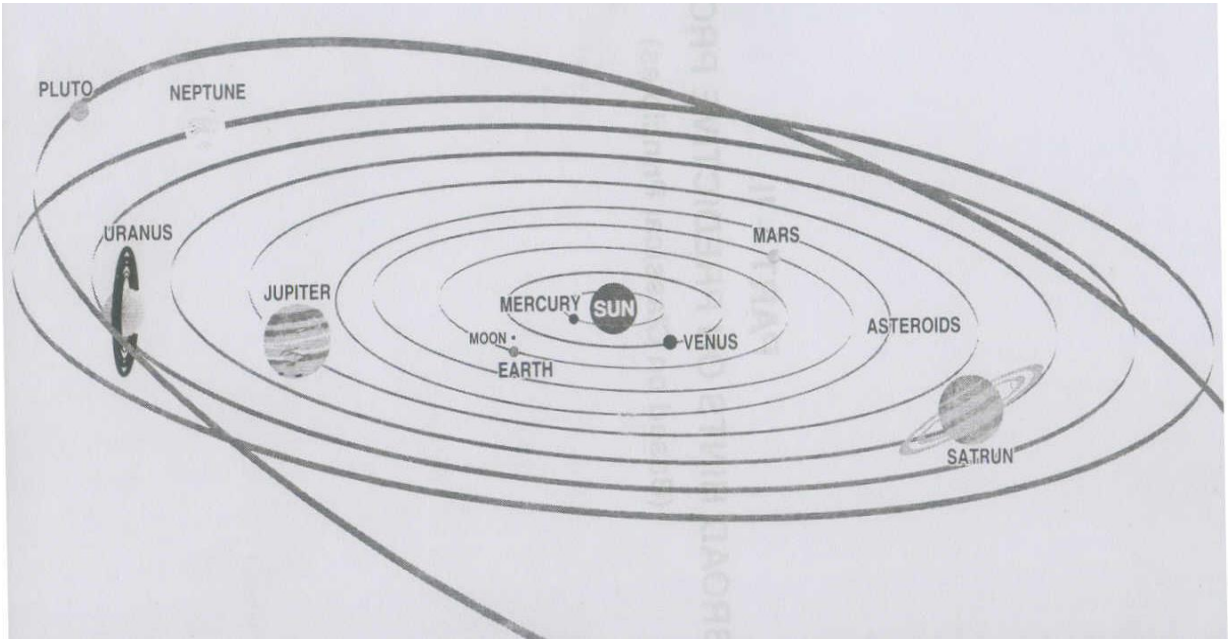

Figure 10: Solar System

Sun is the centre of solar system. It makes up more than 99% (Ninety-nine Percent) of all the Mass of the SolarSystem. This huge mass of the Sun creates the gravitation that keeps the other objects

(Planets etc) revolving around it in an orderly manner.The planets do not produce their own energy. Instead, the planets reflect heat and light produced by the Sun. The nine planets in its order from Sun are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto. The Earth has one satellite i.e. Moon.

d) The Moon

Any object orbiting a planet is called satellite, popularly called moon, of the planet. The well-known satellite of our Solar system is Moon, orbiting around Earth. This is the only one celestial object in the Solar system, where humans have walked. Most of the moon surface is covered with dust. Moon does not have its own light and it only reflects the light received from the Sun. Its surface gravity is about 1/6 that of the Earth.

Figure 11: Full moon

e) Gravity and the Forces of Nature

Physical science involves the study of matter, its motion through space, time, along with related concepts such as energy and force. Broadly, it is the general analysis of nature, conducted in order to understand how the universe behaves/exists. **Albert Einstein** contributed the framework of General theory of relativity, which replaced notions of absolute time and space with space time and allowed an accurate description of systems whose components have velocities approaching the speed of light. **Max Planck, ErwinSchrödinger**, and others introduced **quantum** mechanics, a probabilistic notion of particles and its interactions that allowed an accurate description of atomic / subatomic particles. Sir **Isaac Newton** (1687) has proposed **universal law of gravitation**.It is the standard theory on gravity until the publication of Albert Einstein work on General relativity.

2) Creation of Universe - Vedic Concepts

Ancient knowledge is codified in four Vedas viz: *Rigveda, Samaveda*, *Yajurveda* and *Atharvaveda* and six Vedangas viz: *Shiksha, Kalpa*, *Nirukta, Chhanda*, *Vyakarana* and *Jyotisha*. Further we have four Upavedas viz: *Dhanurveda* (Archery), *Sthapatyaveda* (Architecture), *Gandharvaveda*(Music) and *Ayurveda* (Medicine) and more than 200Upanishads. The Essence of this ancient knowledge is remarkable and knowing and studying this is helpful to the society at large.

The word ‘Rta’ is derived from the verbal base √r(ऋत(which means “to move towards the course of things/established the way of the world”.The concept of Rta was probably born in theminds ofVedic seers (intellectuals) from thecontinuous observationof regular movements ofSun, Moon, Stars,thealternatives of day and night and of the regular succession of seasons.Rta thus denotes the universal order / theunalterable lawsbehind the running of the universe. (RV.X.190)

a) Nasaditya-Suktam of Rig Veda

(Important slokas given under)

Rigveda mandala 10, Sukta 129, describes the birth of this universe from a state which was neither existence nor non-existence.

नासदासीन्नोसदासीत्तदानीं नासीद्रजो नो व्योमा परो यत् ।

किमावरीवः कुह कस्य शर्मन्नम्भः किमासीद्गहनं गभीरम् ॥1॥

Nasadasetraosadasithdanimnasedrajaonaovayomaparoyath I

Kimavarivahkuhakasyasarmrtmabhkimasidrahanamgabeeram II 1 II

The non-existent was not, the existent was not; then theworld was not, not the firmament, nor that which is above(the firmament). How could there be any investing envelope,and where? Of what (could there be) felicity? How (couldthere be) the deep unfathomable water?

तम आसीत्तमसा गूळहमग्रेऽप्रकेतं सलिलं सर्वमा इदम् ।

तुच्छ्येनाभ्वपिहितं यदासीत्तपसस्तन्महिनाजायतैकम् ॥3॥

Tame astimasagunaahmagropraketamsalilamsarvamaidam I

Tuchaonabhvapihitamyadasithopasthanmahinajayatokam II 3 II

There was darkness covered by darkness in the beginning, allthis(world)was undistinguishable water; that empty united (world) which was covered by a mere nothing, was produced through **"the power of austerity. (Heat)"**

ऋतं च सत्यं चाभीद्धात्तपसोऽध्यजायत।

ततो रात्र्यजायत ततःसमुद्रो अर्णवः ॥1॥

RitamchasatyamchabhidatapasodyajayatI

Tato ratryajayattatahsamudroranvah II

b) Creation of Universe –Purusha-Suktam of Rig Veda

The Purushasuktaof Vedas occurs in the Rig, Yajur and theAtharvaVedas(SayanacharyaBhasya,Wilsontranslation,edited by Raviprakasharya 2001: 422to 426).Purushameans "embodied spirit".Sayana and Mahidharaconcur in identifying itwith Virat, the aggregate of all living beings, spiritembodied in the egg of Brahma, i.e. theuniversal spirit animating all creation.

सहस्रशीर्षा पुरुषः सहस्राक्षः सहस्रपात्

स भूमिं विश्वतो वृत्वात्यतिष्ठ÷शाङ्गुलम् ॥1॥

Shastrasershapurushsahsratrakshasahsrapatah I

Sa bhimamvisvatovrtvatyatishatahsannogulam II

Purusha, who has a thousand heads, a thousand eyes, a thousand feet, investing the Earth in all directions,exceeds (it by a space)measuring ten fingers.

As one with all creatures, Purusha Virat may besaid to have athousands of heads, eyes, etc. athousand beings put for an infinite number. It may also mean that the human soul, extendingfrom the navel, takes up its abode in the heart. Adoctrine to be found in theUpanishad.All, it intended is that the supreme soul, havinganimated the universe, is moreover present in man, either in a minute form or of definite dimensions, a doctrine taught in the Upanishads and by the Vedantins.

In Rigveda, Sage Viswamitra gave Gyatri Mantra(3.62.10)viz:-

ऊँभूर्भुव :स्व :तत्सवितुर्वरेण्यम्
भर्गोदेवस्यधीमहि।
धियोयोन :प्रचोदयात्।।
Oṃ Bhurbhuvaḥ svaḥ tat̀savitur̀var̀eṇ(i)yaṃ

bhar̀godevas̀yadhimahi

dhìyoyò naḥ pracodàyat

It means; Om, let our intelligence dwell on the beloved light of that creative God head, the Sun who is the creator, so that he may endeavors with right intelligence. This prayer protects those who recite it. With the savior name (Sun) the Supreme most luminous not only what we see but what we are to be, life must had be an endless progression.

The essence of this hymn is to worship the natural God – Sun, who is considered as a prime force for the existence of the world; who protects us on this Earth. It means without Sun, there is no existence of life. The role of sunlight in photosynthesis need not be emphasized more; as it is the source of all food chain in the Biosphere. So the Vedic Seers undoubtedly know this, hence the above verse is in the protection of all on this earth.

4) Conclusion

The above few verses from Vedas are gems &jewels of our intellectual history. With their wisdom our ancient seers personified the nature Gods; invoked and prayed them profusely for protecting us on the Earth against the nature's onslaught.

It will not be amiss if one tries to understand here the real significance in a liberal sense, to ponder over the intellectual thought process of Vedic time; On one side and present scientific astronomical thinking on the other side.

KEY WORDS

(Meaning)

Astronomy : Astronomy is a branch of science that deals with heavenly bodies.
Big bang theory : It postulates the origin of Universe.
Comets : It is celestial object composed of gases & dust.

Cosmology : It is a branch of science that explains structure, dynamics & evolution of the universe.
Galaxy : It is massive gravitationally bound system consisting of stars, gas, dust & matter.
Hiranyagarba : Its literal meaning is golden womb/ golden egg.
Meteoroids : A piece of rock / metal moving in space.
Milky Way (Akash Ganga) : It is the galaxy that contains our solar system.
Planet : A heavenly body without self-luminosity that orbits a star.
Prajapati : It is Sanskrit word meaning Lord of creatures (protector of life)
Satellite : A heavenly body that orbits a planet.
Universe : It is the inter-galactic space that contains planets, stars and galaxies.
Virat purusha : Hindu god, means cosmic m

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Importance and Method of Self-Realisation

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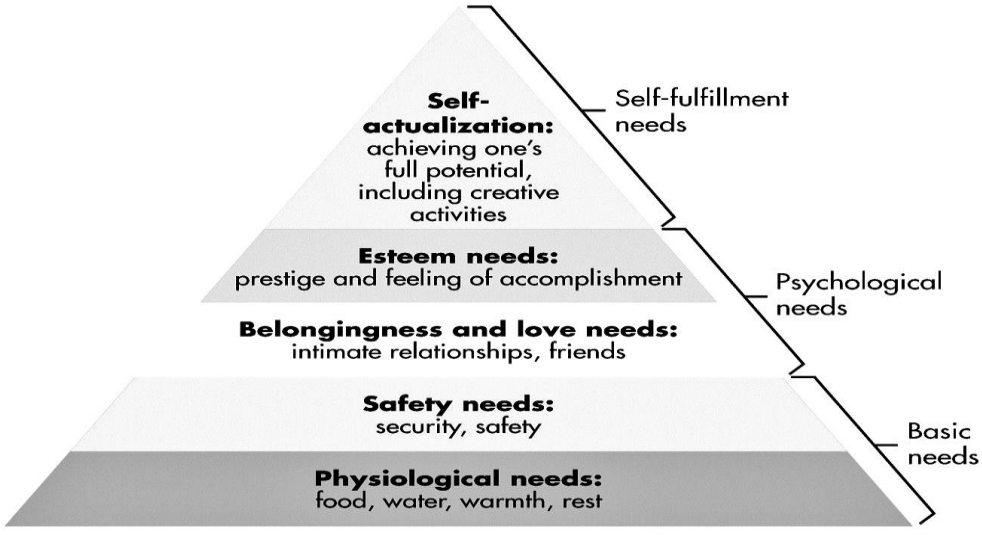
Abstract

Self-realization, also known as self-actualization, is a concept that is as old as humankind. It is a part of all cultures, religions, and philosophies in some way or the other. This concept is a major aspect in both the eastern as well as western cultures. The way one defines it is different, but the end goal remains the same. The goal of self-realization is to have a peaceful and fulfilled life; a life of virtue and abundance. If one achieves self-realization, it brings many benefits to them. It affects all areas of life. Spiritual wisdom, initiation, and sadhana are the most important aspects of self-realization in all classical spiritual traditions.

1) Introduction

Life today is chaotic and far from perfect. It is very easy to get lost in an ocean of conflicting messages about how our life should be and what we should do. Though some personal development may be good, most of the suggestions we receive are superficial. In addition to this, we might already be struggling to satisfy our needs and the needs of others around us. The list is long – score well in school, perform well at work, be a good child, a good spouse, a good parent, and a good friend. All this can be really stressful.



Abraham Maslow's hierarchy of needs

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However, there is one solution – Self Realisation, which puts our life in context and perspective, so that we navigate through our life more meaningfully and joyfully. Self-realization is one of the most powerful tools when it comes to unleashing your full potential. There are several aspects of self-realization, mainly wisdom, Sadhana (japa & meditation), and being in the awareness (mindfulness).

2) Aspects

a) Wisdom

When it comes to acquiring spiritual wisdom, the truth is that while many of us may desire it there are probably few who know what it really is. Wisdom is not the same thing as knowledge. As a matter of fact, you can very easily be acquainted with facts, truths or principles, but if you don't apply this information to your life, you are actually the opposite of wise. Wisdom, especially spiritual wisdom, is not just about *knowing* what's good for you, but *applying* that knowledge to your everyday life. When you do that, this is when you know that you are truly wise. Classical scriptures and literature by enlightened masters and saints are a great source of wisdom. The Bhagavat Geetha is the most comprehensive timeless classic for wisdom, both in theory and practice.

b) Japa

'Japa' literally means "muttering" in Sanskrit. This "muttering" refers to the reciting of mantras, which have been an important aspect of yoga practice since Vedic times. Japa Yoga practitioners repeat a mantra (a sound or word or group of words) to calm the mind and as a path to transformation. Om is the seed mantra - described in the Upanishads (an ancient Hindu text) as the essence of Brahman – the state of the highest reality, in which we exist only as awareness, at peace with ourselves, with all beings, and with the universe, in eternal bliss. In this type of yoga practitioners usually hold a mala - a string of 108 beads - in their right hand, repeating the mantra once for each bead. *Japa* is an ancient practice in which a mantra or the name of a deity is recited either silently or aloud. The Sanskrit word is derived from the root, *jap*, meaning "to repeat quietly and internally." Japa yoga combines yoga with Japa. The practice of Japa yoga removes the impurities of the mind.

c) Meditation

Meditation can be defined as a set of techniques that are intended to encourage a heightened state of awareness and focused attention. Meditation is also a consciousness-changing technique that has been shown to have a wide number of benefits on psychological well-being. Meditation has been practiced in cultures all over the world for thousands of years. Nearly every religion, including Buddhism, Hinduism, Christianity, Judaism, and Islam, has a tradition of using meditative practices. While meditation is often used for religious purposes, many people practice it independently of any religious or spiritual beliefs or practices. Meditation can also be used as a psychotherapeutic technique. There are many different types of meditation. Meditation can take on many different forms, but there are two main types:

concentrative meditation and mindfulness meditation. Concentrative meditation involves focusing all of your attention on a specific thing while tuning out everything else around you. The goal is to really experience whatever you are focusing on, whether it's your breath, a specific word, or a mantra in order to reach a higher state of being.

d) Mindful Awareness

Mindfulness has to do with fully and openly embracing the present moment. But if you think about it, we spend our time doing anything but. First of all, to embrace the present moment you have got to be able to recognize it, whereas most of the time we are pulled into the future by our hopes and fears, or we ruminate about the past and what needs to happen again or what should have been different. Or we simply give in to our dependence on distractions and daydreams to get us through. But none of that's real. The past is gone and the future never unfolds how we imagined it. The only thing that's real in any way is the here and now. By making friends with stillness and presence, we learn that the here and now are much more satisfying than we suspected. In fact, it's all we've got and it's all we need. When we practice mindfulness meditation, we're training in recognizing the thoughts, sensations, and emotions that arise at the moment and letting them pass by like clouds in a blue sky. To do this, we settle the mind on a focal point that is decidedly in the here and now, such as the rhythm of breathing or immediate physical sensations. Every time we realize that the mind has drifted away from its focal point, we gently but firmly bring it back. With a little practice, this form of meditation becomes a haven, a homecoming.

3) Conclusion

According to all classical spatula traditions, self-realization is the sole and highest purpose of life to manifest our fullest potential. Which results in true peace, freedom, and happiness, which we all deserve and seek earnestly.

"Our own self-realization is the greatest service
We can render the world." -Ramana Maharshi

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A Flaw in the Theory of Evolution: A Perspective

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Abstract

According to the theory of evolution, all life on Earth began with a single-cell organism, billions of years ago which eventually evolved into ape-like creatures over millions of years, who then evolved into human beings. Regression in evolution, like for example from humans back to ape-like creatures, metaphoricallyspeaking, is not permitted, and yet, this is precisely what has happened.

Today, India is perhaps a hundred years behind the most advanced civilization. The article demonstrates that ancient Indians possessed knowledge that the most advanced civilizations do not yet possess, or they have acquired it only in recent years which means the theory of evolutionis flawed.

The Bhagvad Geeta can accommodate this flaw. The tweaked theory of evolution is, "*From time to time, civilizational evolution comes under siege due to a decline in emotional excellence that may last thousands of years. Thereafter, emotional excellence begins to rise again and the civilizational evolution continues*."

Not only does the tweaked theory conform to historical observations, it explains how the world can become more peaceful. This is because emotions can be measured and a shift from negative emotions towards positive emotions can be brought about with yoga known for thousands of years. And how tweaking it can lead to a more harmonious world.

1) Introduction

There is a consensus in the scientific community that all life on Earth has evolved froma single-cell organism several billion years ago and that humans have evolved from ape-like creatures over millions of years. Studies also suggest that humans first evolved in Africa and later moved to other parts of the world. These studies are backed up by substantial evidence. All of these studies suggest that human capabilities have continually improved over time, side-by-side with their evolutionary progress. For example, as humans evolved and began to walk upright, they learned how to light a fire,hunt, and grow food all the way to the present time when humans have mastered the science and know-how of how to build airplanes, send spacecraft to distant planets, build powerful computers, and self-driving automobiles, harness nuclear power, etc., etc. This explanation of evolution implies that the most advanced civilization today has to be farmore advanced than any civilization of the distant past. Just compare where humanity is today and where it was just a century ago. In the process of evolution, the theory of evolution does not permit regression of evolutionary progress, as for example, humans regressing into ape-like creatures,

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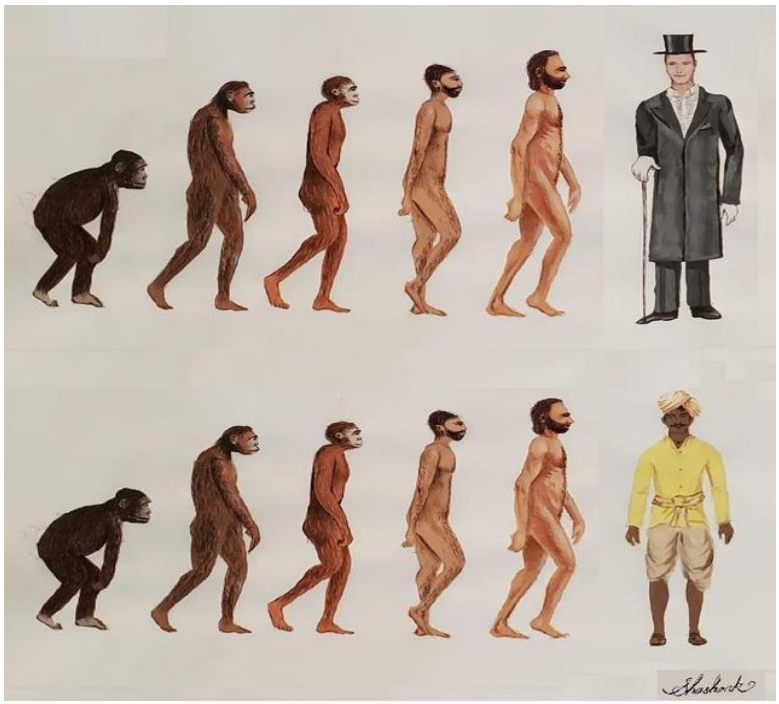

Theory of Evolution [Whites (Top), Indians (Bottom)] Sketch, Courtesy, Shashank Dhadphale

metaphorically speaking, but this is exactly what has happened. In the following paragraphs, I present several examples involving a civilization from the distant past which apparently possessed know-how not known to the most advanced civilization today or it has been developed only in recent years, thus contradicting certain aspects of the current theory of evolution. Therefore, the theory needs to be tweaked.

2) How the Universe was Created

In her 2014 New York Times best-seller, "Trespassing on Einstein's Lawn," Amanda Gefter showed that the universe came out of nothing, a void. From that nothingness of the void evolved the energy phase of the big bang event, incredibly small (about the size of Plank length, 10^{-33} cm in diameter), unbelievably hot, and immensely dense some 13.8 billion years ago, which then **created** the universe.

Later that year, Jim Kowall, MD (Neurology, Internal Medicine), PhD (Theoretical Physics), a friend and coauthor of an earlier book on the Nature of Ultimate Reality, published his finding that only something nonphysical must have been present in the nothingness of the void and that nonphysical entity cannot be anything else but undifferentiated consciousness. That is, undifferentiated consciousness produced the energy phase of the big bang event by its own desire, which then created the universe.

Physics can explain how the energy phase of the big bang event created the universe but cannot explain how "nothing" can create "something," the energy phase of the big bang event. Ancient Puranic stories assert that creation requires two things: Shiva (Undifferentiated consciousness) and Parvati-Adyashakti

(primordial energy). Says Shiva, *Adyashakti is incomplete without me, and I am like a corpse without her*. Shiva is also known by several other names: Shunya-zero, Ardhanareshwa – half male-half female.

3) How Life was Created

The Saamkhya hypothesis states that all creation, including life here on Earth, comprises of five principal elements: Prithvi (matter), Jal (water), Agni (fire, heat), Air (oxygen) and Space, which, in turn, comprises of consciousness and energy.

Saamkhya hypothesis was probably developed sometime between the Vedic period and the time of the Bhagvad Geeta which has a chapter on Saamkhya Yoga.

Successive generations of human beings have procured their consciousness and energy from their mothers when they were born and inhaled for the first time, but from where did the first single cell organism get its consciousness and energy? It must have been from the undifferentiated consciousness just as the Saamkhya hypothesis proposes.

The theory of evolution explains how humans evolved from the single-cell organism but cannot explain how the single-cell organism sprang to life.

His Holiness the Dalai Lama explains, "When an ordinary person dies, there is a dissolution of the five principal elements, but, when an accomplished meditator enters "thukdam," his body can remain warm and free from decomposition for many days after clinical death implying that the Earth, Water, and Fire elements have remained." His Holiness received the Nobel Prize in Peace in 1989.

Inculcation of Intuition

Intuition is instant cognition without the benefit of the five senses and the rational mind. Modern civilizations have no means to purposefully inculcate intuition. Yogic processes exist that can enhance intuition provided the training is given at a young age. This is consequential since intuition is important to leadership as leaders are often called upon to make split-second decisions at a moment's notice.

a) Sanskrit Mantras Can Bring About Positive Changes in the Human organism

The Rig Veda is the most ancient storehouse of knowledge of humanity. Scholars have found gems of wisdom in the Vedas.

One such gem is Gayatri mantra, listed in the Rig Veda, Mandala 3.62.10. A Cambridge trained scientist specializing in nuclear magnetic resonance at the All India Institute of Medical Sciences in New Delhi has investigated the effect of Gayatri mantra and found that it removes the asymmetry in neurochemicals between the right-half and left-half hemispheres of the human brain.

An American researcher based in Spain who specializes in brain science has published an article in Scientific American showing on the basis of MRI scans that memorizing ancient Sanskrit mantras increases the size of the brain regions associated with cognitive function. Ancient Indian seers developed a large number of mantras most of which remain to be scientifically investigated. They may hold the key to acquiring superhuman abilities.

b) CIA's The Gateway Process

While communicating its report, "Analysis and Experience of Gateway Process" to the USArmy in 1983, the Central Intelligence Agency acknowledged that the agency found it exceedingly difficult to understand why and how the process works.

The CIA report cited an ancient Indian example reflective of the profound wisdom. Said the report, "*In the heaven of Indra there is said to be a network of pearls so arranged that if you look at one you see all the others reflected in it."* (The Holographic principle).

The report writer continued, "*I have cited this quotation because it shows that the conceptof the universe which some physicists are coming to accept is identical in its essential aspects with the one known to the learned elite in selected civilizations and cultures of highattainment in the ancient world*."

The report acknowledged the choice of transcendental meditation and yogic processes as means to transcend the realm of reason for the purpose of solving problems and discussed the usefulness of tapes that it has developed to accelerate progress.

c) $E = mc^2$

In 1905, Albert Einstein realized that energy and matter are manifestations of the same thing. He proposed that they were related to each other through the famous equation $e = mc^2$. Here, c represents velocity of light, 186,000 miles/sec. Since c is so large, a tiny amount of mass holds a tremendous amount of energy.

4) Conclusions

Since then, scientists have learned how to convert mass into energy (atom bomb) but most do not know how to transform e into m. One scientist who does, is W. A. "Bill" Tiller,renowned Professor Emeritus of Materials Science and Engineering at Stanford, and a former Chair of that Department. Bill, now in his nineties, had liked my article, The Brahma Uncertainty Principle.

Indian seers have preserved the knowhow of how to transform m into e and e into m formillennia.

That said, humans can only transform one form of energy into another, but, they being creatures with differentiated consciousness, cannot create something from nothing. Thatprivilege is reserved for the undifferentiated consciousness.

These examples are but a small sample of the accomplishments of Indians in ancient times. In contrast, modern day India is probably one hundred years behind the most modern culture.

The Bhagavad Geeta is the Missing Link

In the Bhagavad Geeta, Sri Krishna says, "All civilizations, no matter how great, eventuallydecline only to rise again sometime later. The phenomenon of rise and decline is cyclical." Rise and decline of civilizations occur due to the corresponding rise and decline in emotional excellence. Emotional excellence has nothing to do with race, religion, caste, gender or national origin. After making profound contributions to human civilization, ancient India declined severalthousand years ago, and it has only now begun to rise.

The Tweaked Theory of Evolution

The foregoing discussion leads to a tweaked theory of evolution:

> *From time to time, civilizational evolution comes under siege due to a decline in emotional excellence that may last thousands of years. Thereafter, emotional excellence begins to rise again and the civilizational evolution continues*.

How the Tweaked Theory of Evolution Can Lead to a Better, More Harmonious World

The tweaked theory of evolution reveals that the X-factor for a more peaceful world is emotional excellence. Emotional excellence can be enhanced through meditation, or, more generally, yoga and, since emotions can now be measured, progress can be audited. Appendices I and II shed additional light on this topic. Also, the articles listed in the References provide additional details.

Acknowledgments

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Meta Philosophical Understating of Aurobindo's Integral Yoga and Metaphysics: Resolving the Dichotomy of Dualism and Advaitism

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Abstract

The philosophy of Yoga is an everlasting metaphysical and pragmatic way of life that evolved over thousands of years, dealing with all aspects of human life. It encompasses the physical, moral, mental, and spiritual well-being of man as a whole. There has been lots of saint and sages all around the globe, particularly from India, who have envisioned over the Yogic subject matter and have provided some great wisdom. In this regard, Sri Aurobindo's contribution is also worth mentioning as he depicted the philosophical fundamentals of Yoga and integrated the traditionally accepted contrary schools, i.e., Samkhya and Advaita-Vedanta, via his unique integral methods. The present paper is also an attempt to discuss the integral and philosophical aspect of Yoga (Yogamīmāṃsā) by way of Sri Aurobindo insights. It will help us gain fresh insight into the philosophy of Yoga as it has been gaining more and more empirical meaning. Philosophy research and questions are often different from mythical and religious demands; therefore, we would like to limit ourselves to the critical inquiry that Sri Aurobindo essentially promoted. Furthermore, it would be required to explain 'yoga' and its background for this task. The methodical approach that we will use will also employ the metaphilosophical attitude of Sri Aurobindo that hasn't gained much emphasis in most of the research concerning him.

Keywords: Metaphilosophy, *Yogamīmāṃsā,* Sri Aurobindo, Dichotomy, Method

1) Introduction

At first glance, it might seem an impossible task to take two distinct schools of Thought which are fundamentally different or contrasting. It would be against the very law of Thought (law of non-contradiction) as accepted by the world thinkers. But few thinkers took such a challenge and aimed to refute the dichotomies of Thought and ideas without falling the trap of any particular ideology such as idealism or realism. Sri Aurindino's life mission was also the same. We may look into his life works and observe how his methodological and metaphilosophical approach assimilated the age-old contrasting issues of advaitism and dualism, idealism and realism (in the

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metaphysical sense). His very mission and ambition to integrate the philosophy of Yoga and Vedanta reflect the essence of this paper as well. The realms of philosophy belong to the idea of progress as both cannot be perfect for every time and space, or it will die. No settled matter belongs to the philosophical realm as it deals with endless questions, arguments, dichotomies, etc. However, it doesn't mean that philosophy is all about relativism; instead, it opens up the scope for fresh interpretation and critical question which often arises with the new era and social complexities. With this introductory note that — the fundamentals idea upon which the whole structure of Sri auribindo's philosophy rests is that matter as well as spirit is to be looked upon as real (the dichotomy between realism and idealism is false)[1] (Maitra,1993) — let's highlight the Aurobindo's holistic and integral philosophy. Our tentative finding also consist in the idea that it will not do for philosophy to ignore matter as it will not do for it to ignore spirit. In short, it has to be inclusive.

2) Analysis

Sri Aurobindo's integral approach towards Yoga also expresses the same metaphilosophical attitude as he didn't shy away from proposing the new question and insights on every philosophical issue, including the philosophy of Yoga (Yogamīmāṃsā). The works of Sri Aurobindo on Yoga apparently communicate the new perspective and its relevance to current time and space. Our thesis also endorses that if Yoga is studied in the light of both ancient and modern flavors, which Sri Aurobindo correspondingly practiced, it would be much easier for us to understand and appreciate them. So we would like to employ every possible insight, including everyday psychological observation, to grasp Yoga's fundamental essence and utility on the one hand and Sri Aurobindo's agenda to overcome the age-old dichotomy of "Dualism and Advaitism on the other."[2] (Ghose, 1960)

In recent times, the revival of Yoga has sharply fortified a special place in the all-around human endeavor. Surprisingly, Yoga in modern times has been embraced as a philosophy of holism that comprises Ethics, Spirituality, metaphysics, holistic health, etc. Of course, these elements were sharply embodied earlier as well, which we are also not negating, but the ancient Yogamīmāṃsākas such as Patanjali and Vyasa appropriated the Yoga philosophy in a different sense. Yoga for them was a way to spiritual liberation (Moksha). As Vyasa writes in the commentary on Yogasutra:

"YogaSamādhi !!"[3](Taimini, 2010)

i.e., Yoga is way to Samādhi (a state of spiritual perfection). Sri Aurobindo also took Yoga in this sense as he found this way of life (Yoga) complimenting the holistic project of achieving absolute (Satchitananda). The evolution project that Sri Aurobindo rediscovered for every living being had to have a clear path which he searched within the tradition. And then he came up with the Yoga and exclaimed that it is for sure that someday we all will reach our destination, but if we wish to

accelerate the whole process, we may take the help of Yoga. It is also the essence of Sri Aurobindo's 'Synthesis of yoga' and 'the life Divine' As Shri Aurobindo writes:

> Essentially, Yoga is a generic name for the processes and the result of processes by which we transcend or shred off our present modes of being and rise to a new, a higher, a wider mode of consciousness that is not that of the ordinary animal and intellectual man. Yoga is the exchange of an egoistic for a universal or cosmic consciousness lifted towards or informed by the supra-cosmic, transcendent Unnameable who is the source and support of all things. Yoga is the passage of the human thinking animal towards the God-consciousness from which he has descended.[4](Ghose, 1998)

Although only the physical aspect of Yoga is exposed to the world for various reasons, such as Yoga has lost its pristine form, world consciousness is much more materialistic today, and India, the land of Yoga origin, has seen hundreds s of years of invasion and imperialism. But eventually, it has been moving forward, revealing its spiritual and ethical aspects as the world has tasted the animosity of consumerism and hardcore materialism. Modern Indian thinkers such Swami Vivekananda and Sri Aurobindo carefully observed this aspect and came up with their synthetical and integral approaches. And it would not be wrong to say that due to their methodological and holistic approach, a large number of thoughtful people, both in the east and the west, have been sincerely engrossed in the philosophy of Yoga. This is, off-course, natural because a man is a question being who has been instigated to the question of life and its more profound problems. He wants something more definite and vital for his psycho-spiritual needs than a mere promise of heavenly joys or eternal life. What is the meaning of life? Who are we, indeed? What is Swaraj? What is left after death? Is there a way to find a permanent solution for human suffering? What about the intellectual conflict we often have with our fellow beings? Furthermore, Sri Aurobindo's integral approach echoed the idea of Yoga that may provide great insight into such critical issues.

It is also a worth noting fact that one of the central philosophical burdens of our human evolution, as affirmed by Sri Aurobindo as well, has been an attempt to escape from the suffering of life, bondage to the body, and effervescent impulses. Sri Aurobindo observed that the so-called scientific world, particularly naturalists concepts, consider that the human being brings into being as an animal, advanced through the savage and effectuated way of life but doesn't give a good explanation of how the consciousness may emerge from mere Matter. Similarly, the spiritualistic position also faces criticism for its exclusivist position. Nevertheless, Shri Aurobindo's approach in this regard had been slightly different as per his integral method to look at the nature of reality and being. As Aurobindo writes:

> If we push the materialist conclusion far enough, we arrive at insignificance and unreality in the life of the individual and the race, which leaves us, logically, the option between either a feverish effort of the individual to snatch what he may from a transient existence, to "live his life," as it is said or a dispassionate and

> objectless service of the race and the individual, knowing well that the latter is a transient fiction of the nervous mentality and the former only a little more long-lived collective form of the same regular nervous spasm matter. We work or enjoy under the impulsion of material energy that deceives us with the brief delusion of life or with the nobler delusion of an ethical aim and a mental consummation. Materialism, like spiritual Monism, arrives at a Maya that is and yet is not—is, for it is present and compelling, is not, for it is phenomenal and transitory in its works.[5] (Ghose, 1970)

But why did Sri Aurobindo and other modern Indian thinkers necessitate integral and synthetical methods? The answer is simple ancient Indian philosophy primarily practiced the exclusivist position. Samkhya-yoga school of Thought stands for a dualistic position to explain the nature of reality and being, while the Advaita school of Thought formulated a pantheistic position but still required the three-level of reality and the existence of Maya for the consistent explanation. It was actually a big challenge for modern Indian thinkers to explain how Indian philosophy is actually a life-affirming pursuit or how we may develop a philosophy that may inculcate materialism and spiritualism. As Sri Aurobindo echoed the necessity of the martensitic world for the well-ordered life-affirming philosophy:

> The affirmation of a divine life upon earth and an immortal sense in mortal existence can have no base unless we recognize not only eternal Spirit as the inhabitant of this bodily mansion, the wearer of this mutable robe, but accept Matter of which it is made, as a fit and noble material out of which he constantly weaves His garbs, builds the unending series of his mansions recurrently.[6] (Ghose, 2001).

In a point of fact, the problem with looking at this material world with a typical reluctant attitude has been typical throughout the history of philosophy, whether eastern or western. Philosophy and world religions, for instance, have a very long history and a close relationship with the 'true world' theory that sharply looks at the materialistic world with a reluctant attitude and represents a life-negating way of life as questioned by many humanist thinkers. We have seen this theory in various forms, from critical distinctions of Plato's 'forms and ideas' to Kantian' phenomena and noumena' to Indian' Pratibhasika (apparent) and Paramarthika(real) ' to the Greeks' being and becoming' and so on.[7] We also grasp its essence in most religions where we find the dictums related to 'the true world' or 'two worlds' in one way or another. One of the main physiognomies of true world theories puts forward that life has an intrinsic purpose beyond this apparent and absurd world and provides hope that there are possibilities to overcome the flow of everlasting earthly suffering. Sri Aurobindo and other neo-Vedantist didn't negate the possibility of such a theory; instead, they constantly worked to prove the reality of this world. Sri Aurobindo's critique of Maya theory is one of the best examples of this approach. In short, they thought of developing a philosophy that may embrace the idea of spiritualism and materialism, idealism and realism altogether. As Aurobindo writes:

> …And still, there is a beyond. For on the other side of the cosmic consciousness there is, attainable to us, a consciousness yet more transcendent— transcendent not only of the ego but of the Cosmos itself—against which the universe seems to stand out like a petty picture against an immeasurable background. That supports the universal activity—or perhaps only tolerates it; It embraces Life with Its vastness—or else rejects it from Its infinitude. If the materialist is justified from his point of view in insisting on Matter as reality, the relative world as the sole thing of which we can in some sort be sure and the Beyond as wholly unknowable, if not indeed non-existent, a dream of the mind, an abstraction of Thought divorcing itself from reality, so also is the Sannyasin, enamored of that Beyond, justified from his point of view in insisting on pure Spirit as the reality, the one thing free from change, birth, death, and the relative as a creation of the mind and the senses, a dream…[8](Ghose, 1960.

Sri Aurobindo and other Neo-Vedantist closely examine the nature of true world theories. In particular, they reviewed their structure while looking at the existential qualms they help to suppress. And then formulated a unique world view that comprised a holistic approach. Throughout Sri Aurobindo's masterpiece 'The life Divine,' we see this picture of holism. Returning to Sri Aurobindo's integral method and Yogamīmāṃsā, we find that he didn't radicalize the philosophy of Yoga instead used it as a way to strengthen the foundation of inclusive understanding. The good thing about Sri Aurobindo's integral method and overall Yogamīmāṃsā is that the scope of interpretation of Yogic liberation is widely open as this very union of soul (*Atman*) with the Absolute reality (*Brahman*) may be of the individual or all, as in Vedanta philosophy; or with a specific deity or divinity, as in theistic forms of Hinduism and some forms of Buddhist philosophy as well and so on. And it is here we find how "…the age old dichotomy of Dualism and advaistism, realism and idealism collapses."[9] (Maitra, 1993)

So this form of harmony among all Indian philosophical traditions is rare to find, and it is also the essence of the integral method that looks into the subject matter in an amalgamation form. Some critique interprets that Understanding Sri Aurobindo's Yogamīmāṃsā in the traditional sense, which resonates with the idea of transcendent freedom, doesn't give an exact look of his philosophy. They claim that Sri Aurobindo's concept of integral Yoga noticeably departs from its conventional meaning. The purpose of integral Yoga is to actualize Divine life in the phenomenal world, which had been often looked at with metaphysical distaste by thinkers.[10] (Maitra,1993)But Sri Aurobindo's project hasn't been that much conservative since he didn't aim for exclusivist objectives that may leave any sort of intellectual lacuna. As he concludes 'The life Divine':

> Our endeavor has been to discover what is the reality and significance of our existence as conscious beings in the material universe and in what direction and how far that significance, once discovered, leads us to what human or divine future. Our existence here may indeed be an inconsequential freak of Matter itself

> or of some Energy building up Matter, or it may be an inexplicable freak of the Spirit. Or, again, our existence here may be an arbitrary fantasy of a supra cosmic Creator.[11] (Ghose, 1960).

3) Conclusion and finding:

To conclude, we may say that dichotomies, dialectics, and other conventional philosophical maybe considered as the fundamentals of overall theoretical pursuit. In addition, any philosophical progress may not be possible without them; but many thinkers compete with this metaphilosophical approach via their integral and synthetical methods. Sri Aurobindo was also the thinker who could be put into this category as his approach always had been to look at things comprehensively and integrally. Of course, it is hard to say whether he accepted the Advatin position or not as he didn't accept the foundational thesis of Advaitin, which is Mayavada, but still, it can be proclaimed that his approach had never been to look in a binary manner. Moreover, it is also the essence of his philosophy and of our paper that thinkers may adopt to resolve the big philosophical glitches. In that case, we may be reminded again that the ultimate destiny of Aurobindo's metaphysical exploration, known as " 'Divine Life"[12] (Maitra, 1993),' i.e., :the goal of evolution is a kind of aspiration deeply embodied in consciousness irrespective of specism. Sri Aurobindo focused on how we can bring it to the earth? or in other word , how can a philosophy be life-affriming ? Sri Aurobindo considers, as noted above that such a state is bound to emerge sooner or later, but its philosophical lineage can be accelerated by the very practice of Yoga(in a holistic sense) and practice integral metaphysics. As Aurobindo explains,

" all being is one and to be fully is to be all that is. to be in the being of all and to include all in one's being, to be conscious of the consciousness of all, to be integrated into force with the universal force, to carry all action and experience in oneself and feel it as one's self, to feel all delight of being as one's own delight of being, is a necessary condition of the integral divine living…this fullness of life must be the goal of development towards which we are tending and which will manifest at an early or later stage of our destiny."[13] (Ghose, 1960)

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2) Ghose, Aurobindo. *The Life Divine*. India, Sri Aurobindo Ashram, 1960. pp.8-20
3) Taimni, I K. *The Science of Yoga*. United States, Quest Books, 2010. p.13
4) Ghose, Aurobindo. *Essays in Philosophy and Yoga*: Shorter Works 1910-1950. India, Sri Aurobindo Ashram Publication Department, 1998. p.119
5) Ghose, Aurobindo. *The life divine*. India, Sri Aurobindo Birth Centenary Library, 1970.p.20
6) Ghose, Aurobindo. The Essential Aurobindo. United Kingdom, Lindisfarne Books, 2001. p.262

7) The theory of the two truths has a twenty-five-century-long history behind it. It has its origin in the sixth century BCE[1] India with the emergence of the Siddhārtha Gautama. It is said, according to the Pitāpūtrasamāgama-sūtra, Siddhārtha became a buddha "awakened one" because he fully understood the meaning of the two truths—conventional truth (saṁvṛti-satya) and ultimate truth (paramārtha-satya)—and that the reality of all the objects of knowledge, the text says, is exhaustively comprised of the two truths (Sde Dge, dkon brtsegs nga, 60b). The theory of the two truths, according to the Samādhirāja-sūtra, is a unique contribution made by the Buddha towards Indian philosophy. This text states: "the knower of the world, without hearing it from others, taught that there are the two truths" (Sde dge, mdo-sde da 174b–210b). Nāgārjuna, in his Mūlamadhyamakakārikā [MMK], attributes the two truths to the Buddha as follows: "the Dharma taught by the buddhas is precisely based on the two truths: a truth of mundane conventions and a truth of the ultimate" ([MMK] 24:8). see- https://plato.stanford.edu/entries/twotruths-india/ First published Thu Feb 17, 2011; substantive revision Thu Oct 20, 2016 . accessed on 19/11/2021
8) Ghose, Aurobindo. *The Life Divine*. India, Sri Aurobindo Ashram, 1960. p.17
9) Maitra, S. K.. *An Introduction to the Philosophy of Sri Aurobindo*. India, Sri Aurobindo Ashram Publication Department, 1993.p.7-8 Ibid.p.62

10) I Ghose, Aurobindo. *The Life Divine*. India, Sri Aurobindo Ashram, 1960. p.1015
11) Maitra, S. K.. *An Introduction to the Philosophy of Sri Aurobindo*. India, Sri Aurobindo Ashram Publication Department, 1993.p.62 Ibid, p.947

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Understanding Vedic Eco-Spiritualism Through the Lens of Environmental Ethics

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Abstract

In the contemporary time where western eco-spiritualists are discussing the intrinsic value of nature and critical view of anthropocentrism, Indian spiritualists have a rightful authority to say that these ideas were in vogue thousands of years back in Vedic civilization. It has the notion of *'Vasudhaiva Kutumbakam'* in the VI-72 mantra of *Maha-Upanishad* belongs to *Samaved* tradition, with a thought-provoking message that the whole earth is one family and every tiny being and entity on this earth is a part of this family. Thus, we ought to preserve and respect nature with reverence and maintain interdependency with a symbiotic relationship. In Vedic civilization, the realm of ethical thinking was extensive, which always conceived the intrinsic value of nature and presented the idea that the well-being of entire human and non-human existence that is the ecological community for all is most important. Vedic science of ecology addresses eco-spiritualism from cosmological and ontological unity in nature and the ethics of natural law as *ṛta*, *satya,* and *dharma.* In the first section, this paper intends to trace and identify the ecological divinity from a Vedic perspective and how they treated nature. Second, this paper will go with the application and evaluation of whether these ancient scriptures are plausible in understanding the environment in terms of the intrinsic value of nature and its relation to humans. Is there any possible understanding of Vedic environmentalism in contemporary society? The intention within the paper is descriptive, prescriptive, and philosophical ecological passages on nature found in scriptural sources were a method of indoctrinating environmental awareness.

Keywords- Vedic, Eco-spiritualism, *Ṛta*, *Satya***,** Intrinsic value, Reverence, Environmental ethics.

Introduction

"I believe in a spiritual world – not as anything separate from this world – but as its innermost truth. With the breath we draw we must always feel this truth, that we are living in God."

– Rabindranath Tagore

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Vedic tradition presents a transparent concept about the earth's ecosystems and reverently shows the need to maintain balance and stability. *Vedas* have joined or explained nature-culture with the philosophy of integrity in terms of eco-spirituality. These narratives show the integral relationship between nature and humans. *Vedas* tried to convey the eco-spiritual notion of 'nature, ultimate reality, and human' relation with the hymns dedicated to the environment with metaphors as creativity, power, essence, and purity which signify the different natural deities. First, this paper will try to identify the environmental notions in Vedic tradition. In the second section, this paper will explain the Vedic perspective on eco-spiritualism as how these ancient scriptures are still relevant in understanding the environment, with plausible ethics in current and its integral relationship to humans. Is there any possibility to imply that knowledge in the current society or not? The paper intends to be descriptive, prescriptive, and ecological passages on nature found in scriptural sources were a method of indoctrinating environmental awareness. Their significance lies within the proven fact that the metaphors provide methodologies adopted in the past to sustain the imbalances and threats posed to the natural environment.

Vedas use several terms to connote nature or the environment; each term encompasses a specific meaning and importance. Significant words like *Jagat*, *Prapancha*, *Prakriti*, and *Vishwa* have different implication in explaining nature. *Jagat* refers to the perishable nature of the ecology; *Vishwa* defines environment as all-pervasiveness and the capacity to exist in every smallest part of the universe. The term '*Prakriti*' could be taken as '*Pra*' and '*Kriti*', indicating that the environment is a purposeful or teleological creation. *Prapancha* can be defined as the combination of *panch mahabhut*, *agni*, *ap*, *vayu*, *prithvi*, and *akash*. We need to understand the deep and comprehensible meanings of cultural and scriptural practices; to re-evaluate attitudes towards the environment. The era of scientific human civilization is using-misusing and over-exploiting nature with a technical, industrial, and wholly materialistic approach. The concepts such as sustainable development and conservation that contemporary environmentalists propose and are forced to adhere to may have been inspired by what has already been said in the ancient scriptures. All four '*Rig, Sama, Yajur, Atharva*' *Vedas* and many other *Vedas* recognize the importance of maintaining the seasons' cycle that is likely to get altered due to climate change owing to inappropriate human actions.[1] *Vedas* have urged that we live in nature in a more stable and equitably, not for the generations to come but for nature itself. Moreover, this leads to the non-anthropocentric view; we can extract two views from the non-anthropocentric approach in eco-spiritualism- *first*, we should always attribute intrinsic value to nature. S*econd*, nature is divine and sacred, and we should have reverence for nature. The aim is to see whether Vedic texts and traditions entail the reverence for ecology, give intrinsic value only, or both go together. There are several concepts related to spiritualism, but this paper will try to find the relevance of mantras and evaluate these concepts to ecological discussions. This paper will be limited to some salient verses and hymns that advocate eco-spiritual thinking.

[1] Sarmah, Rajib (2015). Environmental Awareness in the Vedic Literature: An Assessment, *International Journal of Sanskrit Research*, 1 (4), p 6.

1) Understanding eco-spiritualism in Vedic tradition

Writings on eco-spiritualism assume that plausible ecological ethics indicate direct moral standing to individuals, human and non-human, and all other entities. Human beings are part of nature, and we should not take them fully independent authority from nature, and should not treated nature as apart from us. Humans are not over and above nature. Therefore, they should not try to rule on other species or the environment; everyone has their natural rights, whether we recognize them or do not. This thought of *Īśopaniṣad* presents the non-anthropocentric intrinsically valuable nature.[2] For better understanding of Vedic ecology, we need to go into eco-spiritualism. Human is born from nature, is an integral part of nature, and does not own nature exclusively for its ends and purposes, and this consciousness is needed to arise again, as presented in Vedic tradition.

1.1 What is eco-spiritualism?

The eco-spirituality incorporates an intuitive and embodied awareness of all life and engages a relational view of the person to the planet, inner to outer land-scape, and soul to the soil.[3] Spiritualism cannot be well-defined, but philosophers describe it as per convenience. A nature-culture dichotomy was not present at that time, as everything was nature only. To realize eco-spirituality, it is crucial to be aware of oneself to be united with nature. Eco-spirituality is not another worldly but inbuilt in nature. The concept of eco-spiritualism is not equal to the renowned term 'religious environmentalism' (not as *dharma*) fancy in contemporary times.[4] Spirituality is a kind of experience of divinity and sacredness, which reduces the notion of the correct way of living, and escalates the integral connection between all organisms. So, everyday life actions to conserve the earth should be taken as a spiritual activity, the unity with all. On the other hand, religion became the institutionalization of such beliefs and customs, which adopt some text and dogmas; this could not be free from the political and social phenomena, whereas spirituality is the purity of transcendental unity of experience. Hence, the desire for the divineness of the environment is commonly promoted as a core spiritual value. Vedic traditions were not the authority of any particular institutional religion.

The Vedic scriptures were not only the mirror of philosophical conceptions of that era but also had the potential to revolution power to make changes in society, where people had the freedom to the realization of supreme unity with humans to nature. Shri Aurobindo's thoughts on spiritualism propose that "Truth of being was not seized by the Indian mind only as a philosophical speculation, a theological dogma, an abstraction contemplated by the intelligence. It was not an idea to be indulged by the thinker in his study, but otherwise void of practical bearing on life. It was not a mystic sublimation which could be ignored in the dealings of man with the world and Nature. It was a living spiritual Truth, an Entity, a Power,

[2] Satyanand, Kaulacarya (1958). *Īśopaniṣad*, Jnanendralal Majumdar (Trans.), Madras: Ganesh & Co. Publication.
[3] Lincoln, Valerie (2000). Ecospirituality: A Pattern that Connects, *Journal of Holistic Nursing*, 18 (3), pp. 227, https://doi.org/10.1177/089801010001800305.
[4] This paper is not intended to use the term eco-theology and religious or hinduism eco-spiritualism as somehow, not in a strict sense, however, it refers to the contemporary eco-crisis, and theology sounds like a western or christian approach.

a Presence that could be sought by all according to their degree of capacity and seized in a thousand ways through life and beyond life…the Infinite alone justifies the existence of the finite and the finite by itself has no entirely separate value or independent existence."[5] Thus, it was all living spiritual experience; everything is an integral relation with nature, with freedom to realize its own way. We can say that even in contemporary times, a new dimension of spiritualism has been proposed but at the core of spiritualism is the unity and firm belief of the integral soul and soil. The spirit, *māyā, shakti* and *prakiti* were presented in the form of the natural world. The existence of *ṛta* as cosmic order unites all-pervading *satya* and *beings* in the world. These philosophical concepts in-principle also show the spiritual deepness of Vedic tradition and vision of integral unity in nature.

1.2 The role of *satya* and *ṛta* in eco-spiritualism

Ṛta is a cosmic and moral order defined in the Vedic period that advocated the idea of the non-duality of *satya* and *ṛta* as well as the moral obligation of human beings, including the whole of existence and the desire-less performance of duty in the right *yajna*. The concept of *ṛta* and *ṛna* in Indian ethics is unique in the sense that morality is not to be understood alone with human-to-human relations or with social entities. There is a distinctive concept that the whole existence is the expression of *satya*. However, human ethicality depends on the fact that they attain the *satya* through *ṛta* because the sustenance of *ṛta,* which creates all the existence, is the *satya* at its base, which is eternal, infinite, uncaused, and indistinguishable. When *satya* manifests itself in the form of *ṛta*, it manifests itself as limitless limits. Therefore, we feel the knowledge of the infinite in the finite. The ultimate *satya* expresses itself as a natural phenomenon.

Etymologically *ṛta* in the Vedic tradition is formed by the addition of '*ta*' *halant* in the root '*ṛ*', which means stability in motion. One of the meanings of *ṛta* is moral and cosmic equilibrium.[6] Vedic tradition proposes that the ideal of human life is to perform actions while maintaining equilibrium in nature. Conceive the truth that transcendental force or *satya* is an eternal truth; the world is not a machine that operates by a mechanical law, but the existence of *satya* that pervades the entire existence by *ṛta* as a moral and cosmic law. It has been classified that there is no duality between *satya* and *ṛta*, *satya* is *ṛta* and *ṛta* is *satya* "ऋतं च सत्यं च".[7] I shall call you *ṛta* or I shall call you *satya* "ऋतं वदिष्यामि | सत्यं वदिष्यामि |" [8] It is not like God is Nature or Nature is God, but Satya is one supreme truth, that expresses itself in many forms. Therefore, it is the basis of all creation, sustain, and destruction. *Satya* in *Vedas* is law, whereas *ṛta* is moral, social, natural, or ultimate cosmic order and execution of the law. Therefore, both form cosmic or natural law and order. *Ṛta* upholds law, justice, and harmony. Similarly, the concept of *Virat purusa* of *Rigved* advocates that there is nothing other than the

[5] Sri Aurobindo (1997). *The Renaissance in India: with A Defence of Indian Culture*, Pondicherry: Sri Aurobindo Ashram Publication, pp.182-83.

[6] Ganesh, R. (2015). *The Pillars of Indian Culture: Ṛta, Ṛṇa, Dharma*, http://indiafacts.org/the-pillars/, accessed on 10th May, 2022.
[7] Sharma, Ram (2005). *Rigved Samhita*, Mathura: Yug Nirman Yojna, Gayatri Tapobhumi Publication, Hymn-10/190/1.
[8] Swami Sharvanada (1921). *Taittriya* Upaniṣad, Madras: The Ramakrishna Math, Verse-1.1.

Virat purusa, only this could explain from where earth, water, air, and cosmos come. Again, the concept of *Yaksha* as nature's spirit was created to protect and restrains poison in nature. It gives a chance to humans to perform and participate in maintaining order in nature. In *Atharvaved*, the non-duality of *satya* and *ṛta* and the divine existence has been explained on the basis of the term *Asu*.[9] *Asu* is metaphysically the ultimate cause of the spiritual mystic power that causes existence, sustenance, and destruction. *Asu* is the animating principle of life, discussed in various Vedic hymns;[10] it was an important part of nature both during its earthly life and after the death of entities. It is not accurate to say that it corresponds to air or atmosphere, for the Sanskrit original often, if not exclusively, designates inner region or inner space, that is to say, the dimension of spiritual life.[11] *Asu* is not the demonic power; it comes from the root that means the destruction of all evil. *Asu* is the pure divine form in *Rigved*. Further, *Atharvaved* held the non-duality of *satya* and *ṛta* includes the non-duality of *ṛta* and *dharma*, which uphold the entire existence. *Ṛta* is *dharma*, and human *dharma* or duty is to act by the idea of non-duality means to uphold the perfect divine harmony in nature. *Adharma* or unethicality is to go against harmony. Vedic traditions for nature have the notion of *bhutadi ṛna* to show obligation to natural phenomena. So, it is a human's duty to pay through *dharma*. Therefore, we can say that *ṛta* combined with *satya* has a very dynamic power and representation of natural-spiritual consciousness in Vedic tradition and this consciousness leads us towards the divinity of nature.

1.3 Presence of eco-divinity notion in *Vedas*

In Vedic tradition, the study of consciousness is the basis of everything, including the creation and purpose of the universe. *Vedas* states that the supreme Lord, Who is the supreme among all conscious beings, manifests in various integral subjective forms for the aim of creation and expresses in the form of nature. We have great mythological stories in Indian culture about nature through which they promoted eco-spiritualism. In philosophical discussion, *prakriti* has two forms- subtle and gross, as the primary condition of anything, which asks to revere every form of nature. Vedas speaks extensively about the sanctity of the rivers, the mountains, the forest, and so. The text on *dharma* earnestly exhorts people to practice non-violence towards all beings and enjoys a harmonious relationship with nature.[12]

In the *Rigved*, the following hymn (10/97/23) interprets that plants and trees have life and destroying plants should be the most unethical. Indian thinkers had this unique spiritualist ethics in which rights were given to both humans and non-humans. The ideas of deep ecology[13] and Gaia theory[14] conceive the oneness and symbiotic relationship between biotic

[9] Sharma, Ram (2005). *Atharvaved samhita*, Haridwar: Brhamvarchasva Shantikunj Publication, Hymn-6/104/1.
[10] See Sharma, Ram (2005). *Rigved Samhita*, Mathura: Yug Nirman Yojna, Gayatri Tapobhumi Publication Hymns- 1/113/16; 1/140/8; 10/15/1
[11] Werner, K. (1978). The Vedic Concept of Human Personality and its destiny, *Journal of Indian Philosophy*, 5 (3), p. 277.
[12] Narayanan, Vasudha (2001). Water, Wood, and Wisdom: Ecological Perspectives from the Hindu Traditions, *Daedalus*, 130 (4), p. 183.
[13] First promoted by Arne Næss, in contemporary times (1973). *The Shallow and the Deep, Long-Range Ecology Movements: A Summary*; that is, in general, earth-centric intrinsic value approach.
[14] Originally the term comes from *Greek* mythology, means Mother Nature or Earth; Lovelock defines the idea of self-regulating earth, which maintained by the community of all biotic-a biotic natural organism.

and abiotic. But we should not misconstrue deep ecology with Vedic eco-spiritualism. *Vedas* gave authority to higher transcendent cosmos and have seen nature as a power that maintains and preserves all entities. It would not be truly justified to say that *vedas* are only a sacred text of rituals, rules and sacrifices, but metaphorical and symbolic language in nature, having multiple analysis and interpretations open for all. There is both a pragmatic and transcendental approach to Vedic knowledge. The Pragmatic act expresses the importance of the environment and why we should take care and not harm nature; at the same time transcendence aspects force to think deep about nature as sacred. We are an integral part of nature, and our conscience acknowledges the fact that we are all part of green spirituality. The similar notion we can see in the work of Panchavati Banwari[15] as he said that "We know that God pervades the whole universe…It is due to this knowledge alone that we never have thought of nature as inanimate and never did we make the mistake of over exploiting it for our own benefit…That is why an average Indian has always had an inclination to worship everything in nature…This knowledge of the divinity of nature which has been with us as part of our nature and tradition ought to be protected."

Further, *Bhumisukta* of *Atharvaveda* says that the muni prayed to mahabhumi to forgive because the earth mother has been terribly disturbed by human beings with agricultural work. The sense of respect towards nature and the performance of ethical duty have been explained in 11 and 12 of *Bhumisukta*'*s* mantra[16].

गिरयस्ते पर्वता हिमवन्तोऽरण्यं ते पृथिवि स्योनमस्तु ।
बभ्रुं कृष्णां रोहिणीं विश्वरूपां ध्रुवां भूमिं पृथिवीमिन्द्रगुप्ताम् ।
अजीतेऽहतो अक्षतोऽध्यष्ठां पृथिवीमहम् ॥११॥

The mother earth your snow-clad mountains, the green forest should be pleasurable, mother in your multifarious variations you are the one like a firm, poles and protected by Indra, please let us be undefeated, and flourished in your shelter.

यत्ते मध्यं पृथिवि यच्च नभ्यं यास्त ऊर्जस्तन्वः संबभूवुः ।
तासु नो धेह्यभि नः पवस्व माता भूमिः पुत्रो अहं पृथिव्याः ।
पर्जन्यः पिता स उ नः पिपर्तु ॥१२॥

Much like Gaia theory, this verse said that it is you, whose upper part, middle part, and lower part have been transformed into the different forms of existence, you are self-regulating; we are all your children, please fulfill and purify us. Nature has always been the one, eternal, and divine in Indian tradition, and we have transmitted a deeper ecology that is spiritual ecology.

In the *Vedas*, green spirituality has been discussed, and they have mentioned the rights of the land. Most interestingly, the saints had the vision that during the war, the land should to be safeguarded from critical destruction, so there was a vision of ecological destruction from the war, and they tried to escape from those situations. Further, *Bhumisukta*[17] mentioned that every *chit* and *achit* is the child of *mata bhumi*. This sukta also explains that people full of pride and selfishness cannot sustain and conserve nature. Hence, it mentions the unity and

[15] Banwari, Pancavati (1992). *Indian Approach to the Environment*, New Delhi: Shri Vinayaka Publications, pp. 7-8.
[16] Sharma, Ram (2005). *Atharvaved Samhita*, Haridwar: Brhamvarchasva Shantikunj Publication, Verse-12.1.
[17] Ibid., Verse-1.

duty of humans towards nature. Similarly, in *Mahabharata*, we can find elaborate discussions on biodiversity, its restoration, and sustainable development. For instance, the importance of conservation and restoration of *panchmahabhoot*, namely, *Kshitiz*, *Ap*, *Tez*, *Vyom*, and *Marut*, and the obligation towards biotic and abiotic members of the ecological community have been discussed. In terms of *bhutadi ṛna*, the importance of eco-conservation has been underlined and said that the land in which vast bodies of rivers and seas exist we should revere, refers that there is the concept of nature conservation.

1.4 Concepts of nature conservation in Vedic spiritualism

Numerous Vedic hymns celebrate the world and water, posing for protection and glorifying the fundamental constituents of nature. *Purusa Sukta*, one of the most effective known hymns of the *Rigved*, proclaims continuity between humans and the cosmos, stating that the gods, the heavens, and therefore the earth arose from the primal *Being*[18]. This assertion of relationship carries an innate message of interconnectedness that would be accustomed advocate respect for nature and the elements. These notions extensively propose eco-spirituality.

These Vedic hymns appeal to divine intervention to bliss and protect the environment.
Rigved advocate that the environment provides bliss to humans and non-humans for leading their life ideally, as rivers bliss with sacred water and, night, morning, and vegetation, sun bliss us with peaceful life. They gave much importance to mountains and emphasis to live with nature as an integral part, not isolated from nature. They present the concept of bio-divinity and appeal not to poison any natural phenomena.

त्रीणि॒छन्दाँसि क॒वयो॒ वि येँतिरे पु॒रु॒रूपँ॑ दर्श॒तं वि॒श्वच॑क्षणम्।
आपो॒ वा॒ता॒ओष॑धय॒स्तान्येक॑स्मि॒न्भुव॑न॒ आर्पि॑तानि ॥18.1.17॥

'Trini chandasi' refers to three things covered everywhere, water, air, and herbs or flora. And these things are present everywhere in divine form, and we should conserve, revere and admire them.[19]

श॒तं वो॑ अम्ब॒ धामा॑नि स॒हस्र॑मु॒त वो॒ रुह। अधा॑ शतक्रत्वो यू॒यमि॒मं मे॑ अग॒दं कृ॑त ॥10/97/2

The *Osodhi sukta* of *Rigved* addresses plants and vegetation, as O mother! Hundreds of your birthplaces and thousands of your shoots please take shelter of all entities. They pray for the forest to be alive always.[20]

उ॒भे इति॑ । द्यावा॑पृथि॒वी इति॑ । वि॒श्व॒म्ऽइ॒न्वे । अ॒र्य॒मा । दे॒वः । अदि॑तिः । वि॒ऽधा॒ता । भगः॑ । नृऽशंसः॑ । उ॒रु ।
अ॒न्तरि॑क्षम् । विश्वे॑ । दे॒वाः । पव॑मानम् । जु॒ष॒न्त॒ ॥ 9/81/5

Diulok, Prithviloka, and *Antarikshaloka* are all the *loka-lokantars* of ultimate reality, and all these world-*lokatars* are also the glory of that reality. This universe is very pure, and we should maintain this purity.

मधु॒ वाता॑ ऋताय॒ते मधु॑ क्षरन्ति॒ सिन्ध॑वः। माध्वीर्नः॑ स॒न्त्वोष॑धीः ॥ 1/90/6

[18] Sharma, Ram (2005). *Rigved Samhita*, Mathura: Yug Nirman Yojna, Gayatri Tapobhumi Publication, Hymn-10/90/16.
[19] Sharma, Ram (2005). *Atharvaved Samhita*, Haridwar: Brhamvarchasva Shantikunj Publication, Hymn-18.1.17.
[20] Sharma, Ram (2005). *Rigved Samhita*, Mathura: Yug Nirman Yojna, Gayatri Tapobhumi Publication, Hymn-10/97/2.

मधु नक्तंमुतोषसो॒ मधु॑म॒त्पार्थि॑वं॒ रजः॑। मधु॒ द्यौर॑स्तु नः पि॒ता ॥ 1/90/7
मधु॑मान्नो॒ वन॒स्पति॒र्मधु॑माँ अस्तु॒ सूर्यः॑। माध्वी॒र्गावो॑ भवन्तु नः ॥ 1/90/8

In the context of environmental protection and sustainability, we can refer to verses 6, 7, 8 of *Rigved*[21] as do not harm any entity of environment, do not harm the water and flora. As you are a part of every tiny atom of the earth, as bless us in which there is sweet pleasure. Such a group of flora, fauna and clouds etc. worthy of protection, and the sun in the universe, or the soul that reside in the body, which has the light of sweet qualities, bless us with the same knowledge as the light and the rays of the sun. Let us together do purusharth that is beneficial for all…tranquillity be to the atmosphere, water, crops, and vegetation.

They did not praise animals for purpose only, but they did talk about animal ethics and morality. तस्मा॑त् । य॒ज्ञात् । स॒र्व॒ऽहुतः॑ । सम्ऽभृ॑तम् । पृ॒ष॒त्ऽआ॒ज्यम् । प॒शून् । तान् । च॒क्रे॒ । वा॒य॒व्यान् । आ॒र॒ण्यान् । ग्रा॒म्याः । च॒ । ये ॥ 10/90/8. The Vedic seers have mentioned the characteristics and activities of animals and birds as part of the environment which reflects the desire to work for their welfare. Vedic sages classified animals and broadly divided into three groups, sky animals like birds, forest animals, and animals in human habitation. Every animal and creature has their own different environment, but when we see from the human's perspective they thought that animals constitute with humans environment only, so *Vedas* proposes that animals or any creature should be safe and protected, and humans should not look at them from their perspective only. Animals have their rights and integrity with nature.

The knowledge of Vedic sciences is meant to be aware of or save human beings from falling into the utter darkness of ignorance and should have been an insight of oneness with nature. The unity in diversity (not only cultural but with the environment also) is the message of Vedic knowledge. Physical and metaphysical sciences, the essence of the environmental ethics and sustainability in the *Vedas* can be drawn here by citing a partial mantra of the *Īśopaniṣad*.[22]

ईशा वास्यमिदं सर्वं यत्किञ्च जगत्यां जगत्। तेन त्यक्तेन भुञ्जीथा मा गृधः कस्यस्विद्धनम्॥1

'One should enjoy with renouncing or giving up others part'. One should therefore accept only those things necessary for himself, which are set aside, and one should not accept other things, knowing well to whom they belong and should not harm or poison them. They should live as part of nature and sustain without any pride to be a higher authority in nature. Therefore, human being was not at the apex of the environment, even if they personified nature to elaborate and explain to others.

2 The applications of Vedic eco-spiritualism in the contemporary world

Contemporary eco-spiritualists claim that the destruction of the world is near not actually due to a cosmic anomaly but, because humans are losing their morals and destroying their nature and environment. Contemporary eco-philosophers raise the questions and criticize whether

[21] Ibid., Hymns- 1/90/6; 1/90/7; 1/90/8.
[22] Satyanand, Kaulacarya (1958). *Īśopaniṣad*, Jnanendralal Majumdar (Trans.), Madras: Ganesh & Co. Publication, Verse -1.

Vedic eco-spirituality is still playing any role in conserving nature? Does the Vedic tradition, in its conceptions of creation, time, and moral responsibility, provide the type of teleology that might support a positive environmental ethic or inspire eco-activism? What are the implications for environmental ethics of the ideas of *lila* the planet as God's frivolous play, or the *yugas*, the cosmic ages that are declining toward destruction and recreation? What connections do they see between human morality and environmental decline, and the way might these perceived connections influence environmental activism?

The arena of eco-spiritualism gets criticism on the basis of efficacy and practicality in today's scenario. Many find this field isolated and limited which fails to work with multiple aspects of any society. To go into environmental problem require people of vibrant backgrounds to work together. We can see the pollution level increases due to religious rituals. It is not enough to only acknowledge the environmental crisis in the world, but more important to get into and understand how individuals and communities are affected and taking crisis; to find out how they are trying to address it. There are many simple solutions to environmental problems, but they demand radical shifting in our thoughts, values, perceptions, and understanding. Modern scientists and industrialization's quantitative notions create a massive gap between nature-culture. Now, the worldview is changing, and science is reaching extremes, so we need as radical changes as the Copernican revolution. Regrettably, political leaders and policymakers have not been able to connect all the links and do so accordingly.

A discussion of eco-spiritualism in the form of religious environmentalism may have a renewed significance in the 2000s, but is not a contemporary debate. Lynn White Jr. argued that religion is both a cause and a potential solution to environmental problems. This conceptualization of the environmental crisis as a religious problem, both in terms of its cause and its remedy, has become an element of contemporary environmentalist discourse.[23]The core spirit of Vedic wisdom with contemporary thinking, like deep environmental notions, suggest that the essential purpose behind linking the ancient with the modern is to bring out the fact that the dominant ideologies of ancient Indian sages are in line with the modern notion of intrinsic value. Moreover, how did they come close and interconnectedness and the two converge at a certain point when the essential question of existence and survival is concerned. Now, this paper intends to deal with the Vedic spirituality as plausible environmental ethics.

2.1 Is there anything called anthropocentric environmental ethics in Vedic eco-spiritualism?

One fundamental question emerges when we deal with environmental ethics, the place of a human in nature. How humans see themselves in nature defines the relation and interaction between humans and nature. The emergence of anthropocentrism has led us to recognize that our relationship with the world around us has been self-centered and one-sided. Thus,

[23] White, Lynn (1967). The Historical Roots of Our Ecological Crisis, *American Association for the Advancement of Science*, vol. 155, pp. 1203-1207.

philosophers and eco-ethicists have attempted to reconceptualize our ethical relationship with the world around us in a more holistic and non-anthropocentric manner. Our ethical system must be capable of extending moral consideration to the non-human. It was initially done via the concept of sacred-intrinsic value, the meaning of living as an integral part of nature. As Thomas Berry also mentioned, "There is now a single issue before us: survival. Not merely physical survival, but survival in a world of fulfilment, survival in a living world, where the violets bloom in the springtime, where the stars shine down in all their mystery, survival in a world of meaning."[24]

This survival is not for humans only in anthropocentric form, but for the whole ecology. Vedic ideology as deep ecology has been charged from specific sort of instrumentalism that ensued from pragmatism. Metaphorically *Rigved* says that earth is like mother, the sky is father, and everything in this space is like a child that makes a whole family, and nothing is outside of these. Nobody wants to harm their family, so any damage will lead to a universe imbalance. *Atharvaved* advocate that humans should treat the earth as a mother with oneself as the child of the earth but should act in a spirit of trusteeship. If human do faulty things or do anything against nature, they will suffer from their own actions. Further, *Yajurved* mentions about plants and animals, the ill effects of cutting of trees; and the poisoning of the atmosphere. "No persons should kill animals helpful to all" (13.37).[25] "O King you should never kill animals like bullocks useful in agriculture or like cows which gives us milk and all other helpful animals and must punish those who kill or do harm to such animals" (13.49). The oceans are treasure of wealth protect them" (38.22); "Do not poison (pollute) water and do not harm or cut the trees (6.33); "Do not disturb the sky and do not poison the atmosphere" (5.43). About the flow of energy in the global ecosystem *Yajurved* says "the whole universe is full of energy in which the sun is at the centre and the ultimate source of energy for all living organisms on earth, useful for humans. *Atharvaved* mentions some medicinal plants which are useful for treatment of various diseases of human being, like, *tulsi, haldi, vilva, peppal* etc.

More specifically, Vedic environmentalism was mainly conditioned by fear for survival as well as attainment of prosperity and bliss. Natural powers were glorified since they were thought to contribute to human utility. In some way the verses are referring the use of environment for human. One astonishing feature of Vedic culture and civilisation was sacrificing various animals and birds to appease different natural forces. In later Vedic tradition the sacrifices of animals took place while doing *yajna*, for human sustenance and well-living. To put it in other words, in spite of ascribing considerable moral significance to all in the cosmic order, the practice of offering various creatures, in order to obtain favour from different natural forces was a regular feature of that tradition.

[24]Vaughan-Lee, Llewellyn (2013). Eco-spirituality: Towards a Values-based Economic Structure, *The Guardian*, https://www.theguardian.com.
[25] Sharma, Ram (2005). *Yajurved Samhita*, Mathura: Yug Nirman Yojna, Gayatri Tapobhumi Publication, Hymns-13.37; 13.49; 38.22; 6.33; 5.43.

Vedas did not have an anthropocentric approach, but later with society's development, humans gradually started using nature pragmatically. However, Vedic hymns are not radical in nature, as they prayed and apologized if they took anything from nature. Vedic tradition believes that for a *jivatma*, to be a human being among the myriad species of life is a blessing within the arduous journey of countless births. Vedic ontology presents the inseparable unity with reality, where humans cannot be over and above nature. Human birth provides an exclusive opportunity to pursue *Purushartha*, to perform duties. We need to bring again an egalitarian approach, not only within humans but in the whole ecology. For any inadvertent action leading to earth's excessive exploitation the seers prayed for forgiveness in, *Atharvaved's Prithvi Sukta* (12.34) 'Whatever I dig from thee, O Earth, may that have quick recovery again. O purifier, May we not injure thy vitals or thy heart'.

Whilst in India, for example, it is common to protect particular species of plants and trees which are sacred and associated with particular deities, there is little indication that this worship and protection of sacred species is automatically extended to all of nature. Current ecological movements take the lead from empirical sciences, data collection, and external socio-political actions. These all will be good enough as far as it goes, but these things do not go far enough. We need to re-develop care for the soul with soil. However, what is substantively 'new' about modern environmentalism is its vital ideological and identity component; a strong moral content that transcends material aspects (it is more ecocentric than anthropocentric). This does not mean to say that expressive or post-materialist environmentalism has no material dimension but that it is more-or-less trumped by a moral vision about how one should treat nature ethically.[26]

2.2 Can eco-spiritualism be plausible for environmental ethics?

To understand the nature and issues in environmental ethics properly, we need to understand ecology and its relation to environmental ethics. In contemporary times thinkers argue that ecology and environmental studies are basically scientific in nature; how can it be related to something like ethics? It would be plainly a scientific catastrophe, but when we deal with the nature and structure of the environment, we are concerned with facts, things, and events. In a way, we deal with what things are, what should be or ought to be, a fundamental concern with ethics. There are a number of problems related to nature those are not only practical problems but also value-loaded practical problems. In addition to this, other moral thinkers conceived to the inherent value of nature. Inherent value is implicit in an object or a thing irrespective of the evaluation by an evaluator. In this sense, inherent values are evaluation transcending values. If none of the moral agents get ever evaluates the value of nature, nature will still be valuable because value inherence in it or the very idea of the value goes to it. "In the ancient spiritual traditions, human [sic] was looked upon as a part of nature, linked by indissoluble spiritual and psychological bonds with the elements around him. This is very much marked in the Indian tradition, probably the oldest living religious tradition in the world…[T]he natural environment also received the close attention of the ancient scriptures. Forests and groves were considered as sacred, and flowering trees received special reverence…The Indian tradition of

[26] Tolmin, Emma (2009). *Biodivinity and Biodiversity: The Limits to Religious Environmentalism*, England: Ashgate Publishing Limited, p. 78.

reverence for nature and all forms of life, vegetable or animal, represents a powerful tradition which needs to be re-nurtured and re-applied in our contemporary context."[27]

As per the above passage, where everyone is trying to re-applied eco-spirituality, the question of plausibility becomes important. If we are treating nature as divine or intrinsically valuable, the true meaning and implication of intrinsic value are vague. In order to evaluate, whether the Vedic tradition entails plausible environmental ethics or not, there could be interpretations like human agents morally have an obligation towards nature. Eco-spiritualists claim that Vedic texts and traditions incorporate the proper treatment of nature, but philosophers should take these claims to mean that human agents have certain moral obligations to nature. If these claims do not imply that human agents have some moral obligation to nature, then they are irrelevant to the question of whether Vedic traditions incorporate a plausible environmental ethic. The inference could be drawn that the intrinsic value of nature entails that morally human agents ought to consider nature in deciding what to do. Another argument as moral agents ought to consider nature for its sake as intrinsically valuable in deciding what to do in nature. They could show by performing the actions that they could treat nature in any way they want to fit, destroy, degrade and use it. If *Yamuna* river or any other river is holy in itself, then we should take it for its own sake in deciding what should we do, we can pollute more, but as contrasting at-least in-principle we will talk about removing toxic industrial wastes and other wastes from cities largely from rivers. In context to this *Bhagavad-Gita* says that all parts of nature have an intrinsic or sacred value, so nature should be treated with dignity, kindness, and righteousness.[28]

Indian co-spiritualists attribution of inherent worth to animals and plants entails that animals and plants or nature have rights and that all moral agents have corresponding duties to respect those rights.[29] If we take nature as sacred or divine and human beings ought to consider the environment as intrinsically valuable, why are we suffering from degradation and depletion of the environment? It indicates in a way that the eco-friendly Vedic tradition is limited in historical scriptures and fails to make a realization that nature is sacred and intrinsically valuable. One reason could be that the thought of the intrinsic value of nature is not necessarily implied by the examples of scriptures and worship only. Elements of the environment could also be considered sacred without explicit consciousness about the relevance of textual knowledge to nature conservation, for example, tribal communities living very close to natural environment as an integral part of nature. The existence of eco-spirituality is evidence that certain communities were/are environmental friendly. The reason why religious environmentalists tend to confuse nature religion with conscious spiritual

[27] This has been said in 1986 Assisi Declarations, when representatives of five of the world's major religions (Christianity, Buddhism, Islam, Hinduism and Judaism) met in Assisi, Italy, to make statements concerning the environmental nature of their religious traditions. This meeting was jointly organised by WWF (the World Wide Fund for Nature) and the International Consultancy on Religion, Education and Culture (ICOREC), an organisation based in Manchester, UK. www.arcworld.org, pp. 17–19.
[28] Gupta, Leena (1993). Ganga: Purity, Pollution, and Hinduism, In C. J. Adams (Ed.), *Purity, Pollution, and Hinduism: In ecofeminism and the Sacred*, New York: Continuum, p. 113.
[29] Findly, E. B. (2009). *Plants Lives: Borderline Beings in Indian Traditions*, Delhi: Motilal Banarsidass, p. 343.

environmental protection is an unquestioning acceptance of 'the myth of primitive ecological wisdom'.[30]

Vedic eco-spiritualism, in its way, proposes or elaborates some unique set of moral values and reverence for the environment to guide humans to ease their relationship with the environment. The problem emerges when people start following blindly without getting into the rationality behind any particular knowledge. In Tagore's view the actual quality of life emerges from a respectful and co-operative attitude towards nature. He believed that if it is introduced through education at an early age, the experience of the richness of vast nature would be enough to limit the desire for unnecessary possession of material things.[31] They will grow as integral part of nature, as *Vedas* teaches us. This does not mean that nature is for human use only and has instrumental values; rather environment has its own set of standards and is intrinsically valuable. In the Vedic period they did not see nature as intrinsically valuable but sacred and divine in itself, and does provide plausible eco-spirituality.

3) Conclusion

There are aspects certainly valuable of Vedic eco-spiritualism, and the importance of ecology presented in Vedic tradition. The need is to reinterpret textual sacredness in ordinary language and implement it in a consciously practical way. People have been interpreting and practicing for centuries without getting into the wisdom of that knowledge, and instead of cleaning and preserving the environment they are polluting more through unreasonable rituals. Theory without practice does not impact much, but practice without reason is more dangerous and leads to degradation. We need to re-evaluate human relationship with natural phenomena. People respect nature because they get influenced early by certain beliefs systems and practices, Vedic traditions are eco-friendly or nature conservation is an interpretation of a tradition rather than traditional interpretation in contemporary times. There were no anthropocentric and individualistic approach, instead *Vedas* gives holistic and intrinsic life to every entity on the eco-system.

Hence, the concept of the sacredness of nature or bio-divinity and symbiosis exists in Vedic traditions, but on the other hand, the idea of intrinsic and sacred value of nature in a truly applied sense is difficult to find in this industrial and scientific realm, especially in developing countries where people cannot be forced to afford 'earth or nature as first' for both individual and common reasons. But this does not imply that people do not care, they have different reasons for engaging in activities related to the environment. Vandana Shiva, whose book, "*Staying Alive: Women Ecology and Development*" contributed to world environmental theory, acknowledges the indigenous environmentalist resources available deep within the Indian psyche, but prefers a more political and pragmatic approach to the various problems that India faces. She criticizes the Western model of mal-development, and within the process conjoins a contemporary feminist perspective with traditional Indian views

[30] Tolmin, Emma (2009). *Biodivinity and Biodiversity: The Limits to Religious Environmentalism*, England: Ashgate Publishing Limited, p. 5.
[31] Tagore, R. (1933). *My School*, London: Macmillan

regarding feminine power (*shakti*). She states that the fashionable consumerist model, enhanced by technology, disrupts traditional practices.[32]

As per the above discussions, this paper comes to a position to conclude that the ontological shift for an ecologically sustainable future has much to gain from the world-views of ancient Vedic civilizations and diverse cultures those survived sustainably over centuries. In terms of Shiva, ancient traditions were based on the ontology of the feminine as the living principle and on an ontological continuity between society and nature – the humanization of nature and the naturalization of society. Not merely did this result in an ethical context that excludes possibilities of exploitation and domination, it allowed the creation of an earth family.[33] With the depletion of land or ecology, we are undermining the life-support system. This degradation of the environment is going on under the name of development, but it is clearly seen that the notion of development has something wrong with it that is a threat to existence; we are doing violence to nature which is inherent to the dominant progress models. Vedic tradition shows us the direction to how to live with nature and maintain the balance of ecology.

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[33] Ibid., pp. 6-7.

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Why the Foundations of Physics are Built on Nothing but God

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Abstract

The foundations of physics are built on two logically incompatible premises. The foundation of relativity theory is built on the principle of equivalence, while the foundation of quantum theory is built on the premise of unitary time evolution. The problem is that these two premises are not logically consistent with each other. The idea of unitary time evolution implies that there is a universally valid definition of time that all observers will agree upon, while the principle of equivalence tells us that there can be no such universal definition of time in a curved space-time geometry with gravity. The only valid definition of time in a curved space-time geometry is the observer's own proper-time. Which of these two premises is true? The holographic principle of quantum gravity demonstrates that only the principle of equivalence is a valid assumption, and that unitary time evolution can only have an approximate degree of validity in the sense of an effective field theory, like a thermodynamic equation of state. Once we understand that the only valid definition oif time is the observer's own proper-time and that the only valid underlying principle of quantum theory is the nature of entropic information, we are naturally led to the holographic principle as an observer-centric and observer-dependent description of the observable reality of the observer's own holographic world. That holographic world naturally arises in the observer's accelerated frame of reference as entropic information is encoded on the observer's event horizon that acts as its holographic screen. Different observers can only share a consensual reality to the degree their holographic screens overlap and share information. The observer itself is nothing more than the observing consciousness present at the central point of view of its own holographic world. There are three big questions: Where does the observer's consciousness come from? Where does the energy inherent in the observer's accelerated frame of reference come from? Where does the information encoded on the observer's holographic screen come from? We are then led to the conclusion that the whole thing is built on nothing but God. What we call God is the Source of all information, energy and consciousness.

Keywords: unitary time evolution, principle of equivalence, information loss paradox, entropic information, holographic principle, quantum gravity, de Sitter space, observer, accelerated frame of reference, proper-time, event horizon, source of information, energy and consciousness, God.

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1) Introduction

All attempts to formulate physics in a foundational way are fraught with logical contradictions that result from false assumptions, circular reasoning and paradoxes of self-reference. This is the problem of the first principles of our theories and the lack of logical consistency among the first principles. Where do those first principles come from? Can those first principles be logically consistent? A first principle of quantum theory is unitary time evolution, which assumes there is a universally valid definition of time that all observers will agree upon. A first principle of relativity theory is the principle of equivalence, which tells us that an observer's accelerated frame of reference is equivalent to the nature of gravity in a curved space-time geometry, within which there generally is no universally valid definition of time that all observers will agree upon. Only the observer's own proper-time has any validity as a definition of time. Until we reconcile this logical contradiction, there can be no hope of unifying quantum theory with relativity theory.

2) The Information Loss Paradox

The information loss paradox was discovered because Stephen Hawking was able to show that the information for everything that falls into a black hole becomes disentangled from the information for the Hawking radiation that carries thermal energy away from the black hole as the black hole appears to evaporate away. Hawking radiation depends on the properties of a killing vector defined at the event horizon of the black hole. The killing vector replaces the ordinary time derivative, which is only possible when time and space decouple and positive and negative frequencies can be separated, which is the case at the event horizon of a black hole. In quantum theory, $E=hf$, and so negative frequencies carry negative energy. This is related to unitary time evolution since the defining equation of quantum theory at an operator level is $H=i\hbar\partial/\partial t$, which tells us the quantum state evolves in time according to $\psi(t)=\exp(-iHt/\hbar)\psi(0)$.

The decoupling of space and time within a curved space-time geometry is understood to only occur in a stationary space-time, for which there is a continuous family of time displacements that preserve the metric of the space-time geometry. These time displacements are generated by a time-like killing vector, which allows for a natural time parameter to be defined. Only in such a stationary space-time geometry can positive and negative frequencies be separated. Unitary time evolution is only a valid concept in such a stationary space-time. The essential nature of this logical argument can be found in Roger Penrose's book The Road to Reality.

The nature of Hawking radiation at a black hole event horizon is that virtual particle-antiparticle pairs appear to separate at the event horizon. The virtual particle is radiated away from the event horizon toward an external observer and appears to become a particle of thermal radiation that carries positive heat energy, while the virtual antiparticle falls into the black hole and carries negative energy that reduces the mass of the black hole as the black hole appears to evaporate away. This is only possible because the black hole event horizon has a killing vector that decouples space from time and separates positive and negative frequencies. When considered in isolation, this

process appears to cause information loss within the black hole and violate unitary time evolution because the separation of positive and negative frequencies at the event horizon is equivalent to a quantum state reduction that disentangles the quantum state.

In quantum field theory, the virtual particle-antiparticle pairs are entangled in a quantum state. Information is encoded in a quantum state of potentiality in terms of that quantum entanglement. A quantum state reduction disentangles the quantum state as an observable state is actually observed, and in the process of observation, information is lost. As considered in isolation, information appears to become lost at the black hole event horizon as virtual particle-antiparticle pairs appear to separate and become disentangled, which is equivalent to an observation or a quantum state reduction. That's how Hawking understood the information loss paradox, which seems to violate unitary time evolution. The whole paradox is a red herring since unitary time evolution only applies to the quantum state if there is no observation or quantum state reduction.

By its very nature, an observation reduces the quantum state, which disentangles whatever was entangled within the quantum state, and resets the process of unitary time evolution. Only if we consider unitary time evolution without quantum state reduction and observation is there an information loss paradox. This is a red herring since the very nature of events in time are observations that reduce the quantum state and disentangle whatever was entangled within the quantum state. When we talk about observing Hawking radiation, we're talking about reducing and disentangling the quantum state. There's only an information loss paradox if we consider things at the level of unitary time evolution, which means no observations are being made.

The holographic principle was discovered because it is just not correct to consider the black hole in isolation. We can't just consider what's happening to information at a black hole event horizon. We also have to consider what's happening to information out at a cosmic event horizon. The cosmic event horizon is like a holographic screen that projects all the images of whatever is observed to happen in a holographic world, which includes the black hole. The information that characterizes the black hole is ultimately encoded on the cosmic horizon. Everything perceivable in a holographic world can ultimately be reduced to entangled qubits of information encoded on a cosmic horizon. The AdS/CFT correspondence solves the information loss paradox because the boundary of anti de Sitter space also has a time-like killing vector that decouples space from time and allows for the separation of positive and negative frequencies. This means that unitary time evolution is valid at the boundary of anti de Sitter space, which is like a cosmic horizon. In the sense of unitary time evolution, there never is any information loss in anti de Sitter space, but the AdS/CFT correspondence is a special case that only applies to anti de Sitter space.

A unique time variable can be defined on the boundary of anti de Sitter space because there is a uniquely defined time-like killing vector at the boundary that decouples space from time and allows a conformal field theory to be defined on the boundary that undergoes unitary time evolution. The conformal field theory is equivalent to the effects of gravity as experienced within anti de Sitter space. In the sense of the holographic principle, all the effects of gravity that can be experienced

within anti de Sitter space are a holographic projection of the way entangled qubits of information are encoded on the anti de Sitter boundary, which acts as a holographic screen.

The boundary of anti de Sitter space is a conformal boundary. The killing vectors defined at the boundary of anti de Sitter space are the killing vectors of a sphere that generate a rotation group, similar to the Lorentz group of Minkowski space. The boundary of anti de Sitter space is a conformal Minkowski space. This includes a time-like killing vector that allows for a definition of time in the sense of a time translation. That's why a conformal field theory can be defined on the boundary of anti de Sitter space that undergoes unitary time evolution, just like the quantum field theories defined in Minkowski space. The geometry of de Sitter space is very different in that de Sitter space is not a stationary geometry and no unique time-like killing vector can be defined in de Sitter space that all observers will agree upon that allows for unitary time evolution in the sense $H=i\hbar\partial/\partial t$. The basic problem is the de Sitter cosmic horizon is observer-dependent. The nature of dark energy tells us that every observer is at the central point of view of its own accelerated expansion of space and every observer has its own de Sitter cosmic horizon. The only valid definition of time in de Sitter space is the observer's own proper-time.

There's recently been a great deal of interest in how the AdS/CFT correspondence solves the information loss paradox in terms of entangled black holes that are connected by wormholes. This is called ER=EPR. The wormhole is an Einstein-Rosen bridge that connects a pair of black holes, which are entangled like an EPR pair of spin variables. When we don't consider the black hole in isolation, but consider how the information the black hole encodes on its event horizon is entangled through wormholes with the information other black holes encode, there is no loss of information as Hawking radiation appears to be radiated away from the black hole. The quantum entanglement of black holes through their connection by wormholes preserves all the information at the level of unitary time evolution and an entangled quantum state. The ultimate solution for the information loss paradox in anti de Sitter space is the way entangled qubits of information are encoded on the conformal boundary of anti de Sitter space that defines that holographic world.

There are several reasons why the information loss paradox is a red herring. First, the paradox only applies at the level of unitary time evolution, which assumes the quantum state is never reduced and no observations ever occur. By its very nature, an observation of Hawking radiation is a quantum state reduction that disentangles the quantum state. Information is always lost when an observation is made and the quantum state is disentangled. When we talk about the events that occur in time, we're talking about things at the level of observation, which implies quantum state reduction and information loss. Second, we always have to consider how information is encoded on a cosmic horizon. Whatever is being observed in a holographic world, like a black hole, that information is ultimately encoded on the cosmic horizon. The information for everything perceivable in a holographic world can ultimately be reduced to information encoded on the cosmic horizon. This was the whole motivation for the discovery of the holographic principle in the first place. We can't consider the black hole and its Hawking radiation in isolation. The information for the Hawking radiation and the information encoded on the black hole event horizon are both

ultimately encoded on a cosmic horizon. Third, we don't live in anti de Sitter space. We live in de Sitter space. We live in an expanding universe characterized by dark energy and the accelerated expansion of space. Unitary time evolution does not apply to de Sitter space because there is no uniquely defined time-like killing vector in de Sitter space that all observers will agree upon as a definition of time. Every observer has its own unique point of view from which space appears to expand, every observer observes its own unique de Sitter cosmic horizon, and every observer has its own uniquely defined proper-time. The whole concept of unitary time evolution is invalid in de Sitter space when an observer's de Sitter cosmic horizon is understood to encode information for everything that observer can observe in its own holographic world.

3) The Fallacy of Formulating Quantum Theory in Minkowski Space

Minkowski space is characterized by the symmetries of the Lorentz group, which are symmetries of space-time translations and rotations in the geometry that underlie the physical conservation laws of energy, momentum and angular momentum, including spin angular momentum. The generators of the Lorentz group are 4x4 matrices similar to the Pauli spin matrices, and their commutation relations obey a Lie algebra. There are 10 generators of the Lorentz group, which correspond to 4 space-time translations and 6 space-time rotations. There are also 10 killing vectors in Minkowski space that can be understood as the generators of the symmetries of the space-time geometry. The killing vectors also have commutation relations that obey the same Lie algebra, and so the killing vectors are equivalent to the generators of the Lorentz group.

Minkowski space allows for a definition of a time variable in terms of a time-like killing vector that generates a time displacement that preserves the metric and leaves the spatial dimensions unchanged. All observers in Minkowski space will agree upon the same definition of time, which is why unitary time evolution and quantum field theories can be defined in Minkowski space. There has to be a universally accepted definition of time that all observers will agree upon. This is not the case in a dynamically curved space-time geometry with gravity. In general, the only valid definition of time in a dynamically curved space-time geometry is the observer's own proper-time, as the observer follows a world-line through that space-time geometry. Each observer has its own definition of time given in terms of its own proper-time, and in general different observer's will not agree upon the definition of time.

This is the situation in de Sitter space. Every observer in de Sitter space is at the central point of view of its own accelerated expansion of space and observes events in that space-time geometry from that point of view. Every observer observes its own observer-dependent de Sitter cosmic horizon. Every observer defines time in terms of its own proper-time as the observer follows a world-line through that space-time geometry. Different observers simply do not agree upon the definition of time. My point of view is not the same as your point of view. My cosmic horizon is not the same as your cosmic horizon. My proper-time is not the same as your proper-time.

This is the basic reason why unitary time evolution and quantum field theories cannot in general be defined in a dynamically curved space-time geometry, and the reason why gravity cannot be understood as a quantum field theory and unified with the other quantum field theories. There simply is no definition of time that all observers will agree upon, and so unitary time evolution is generally not a valid concept in a dynamically curved space-time geometry with gravity.

In the general case of a dynamically curved space-time geometry, there is no time-like killing vector that represents time translation invariance and allows for a definition of a time variable that all observers will agree upon. The only definition of time that is generally valid in a curved space-time geometry is the observer's own proper-time that the observer experiences as the observer follows an accelerated world-line through that curved space-time geometry, which literally arises from the observer's own acceleration. The principle of equivalence tells us that the effects of gravity are equivalent to the observer's own acceleration in its own accelerated frame of reference. Different observers in different accelerated frames of reference observe different effects of gravity because they observe a different dynamically curved space-time geometry.

The very idea of relativity theory is as a description of the different effects different observers observe in different frames of reference that move relative to each other with either uniform or accelerated motion. A frame of reference is an observer and its coordinate system, which can be represented in terms of spatial and time coordinates. The observer itself can only be understood as the central point of view that arises at the origin of that coordinate system and observes whatever effects appear to happen in that coordinate system. The word relative literally refers to the different effects that different observers observe in different coordinate systems that move relative to each other. Minkowski space only describes uniform relative motion, while the notion of gravity or a curved space-time geometry implies accelerated motion.

In general, different observers do not agree upon the different effects of gravity that they observe in different accelerated frames of reference. This is the reason a universally valid time variable cannot be defined that all observers will agree upon. The only valid definition of time in a curved space-time geometry with gravity is the observer's own proper-time as the observer follows a world-line through that curved space-time geometry. Only the observer's own proper-time is invariant in relativity theory. This is the fundamental reason unitary time evolution is not a valid concept in a curved space-time geometry. In the general case of a curved space-time geometry with gravity, there is no universally valid time variable that can be defined that all observers will agree upon. Each observer only knows about its own proper-time. What this means is that the whole foundational structure of quantum theory, as mathematically represented by unitary time evolution, is invalid in a dynamically curved space-time geometry with gravity.

4) An Observer Centric and Dependent Formulation of Quantum Theory

How do we rectify this fundamental problem? The answer is we have to understand quantum theory in an observer-centric and observer-dependent formalism. Instead of mistakenly assuming that a

universally valid time variable can be defined that all observers in a dynamically curved space-time geometry with gravity will agree upon and that unitary time evolution is a valid concept, we have to reformulate quantum theory in an observer-centric and observer-dependent way by recognizing that the only valid definition of time is the observer's own proper-time.

This is exactly what the holographic principle accomplishes. We have to begin with the observer in its own accelerated frame of reference. The observer has to come first. In the holographic principle, the observer is only understood as the central point of view of a holographic world that arises in the observer's own accelerated frame of reference. That holographic world only appears to come into existence because of the observer's own accelerated motion that gives rise to the observer's event horizon that acts as its holographic screen when the horizon encodes qubits of information. The qubits of information are mathematically represented by matrices, which are two dimensional arrays of numbers that must be encoded on a two dimensional surface. That surface is the observer's own event horizon that acts as its holographic screen and displays all the images of its own holographic world. The observer itself can only be understood as the central point of view of that holographic world that observes all the events of that world.

Ultimately, the holographic principle tells us that nothing is invariant for all observers. There is no observation that all observers will ultimately agree upon. Nothing that can appear to happen in any observer's holographic world is invariant for all observers. This strange state of affairs is best exemplified by the nature of Hawking radiation from the event horizon of a black hole.

An accelerated observer that hovers just outside the event horizon of a black hole observes thermal radiation radiated away from the surface of the event horizon, which is called Hawking radiation. This observer is in an accelerated frame of reference since the observer must accelerate away from the black hole with an equal but opposite acceleration as that caused by the force of gravity from the black hole in order to maintain its stationary position just outside the event horizon. The separation of virtual particle-antiparticle pairs at the event horizon gives rise to the observation of this thermal radiation. On the other hand, a freely falling observer that falls into the black hole experiences no acceleration, and therefore observes no event horizon and observes no Hawking radiation. For the freely falling observer, these things simply do not appear to exist. Only the accelerating observer observes the apparent existence of the Hawking radiation.

How can the apparent existence of Hawking radiation be observer-dependent? The simple answer is that's the nature of a holographic world, where everything that can be observed in that world is observer-dependent. This is inherently an observer-centric and observer-dependent description of observable reality, in which the existence of the observer in its own accelerated frame of reference must come first. Nothing that the observer can observe in its own holographic world can be invariant for all observers. Other observers observe their own holographic world from the central point of view of their own world as events in that world are displayed on their own holographic screen, and what one observer observes in its own world need not be the same as what another observer observes. There can only be limited agreement among the observations of different

observers to the degree that their holographic worlds share information, which is only possible because their respective holographic screens can overlap like a Venn diagram.

This strange state of affairs is really no different in kind than a computer-generated virtual reality. Each observer plays the virtual reality game on its own computer as images of the game are displayed on its own computer screen, and what one observer observes only agrees with what another observer observes to the degree that there is information sharing among the different computers, which is possible because their respective computers are connected by the internet.

The lesson of the holographic principle is that the nature of an observable holographic world can only be understood in an observer-centric and observer-dependent way. The observer in its own accelerated frame of reference must come first. The observer's acceleration gives rise to its event horizon that becomes its holographic screen when the horizon encodes qubits of information, and everything the observer can observe in that holographic world is like an image displayed on its own holographic screen that can be reduced to qubits of information encoded on the screen. There is no valid way to define time in that holographic world other than the observer's own proper-time. Every observer arises at its own point of view at the center of its own holographic world. Every observer experiences its own proper-time as it follows a world-line through that holographic world. Every observer observes events in its own holographic world as displayed on its own holographic screen that arises as its own event horizon due to its own acceleration.

The whole formalism of quantum field theory is based on the mathematical structure of Minkowski space. What we call fields in quantum field theory, like the spin ½ spinor field of the electron or the spin 1 vector field of the photon, are irreducible representations of the Lorentz group. In a dynamically curved space-time geometry with gravity, this mathematical formalism breaks down. The only known way to solve this problem is the holographic principle.

There are other related reasons why gravity, in the sense of Einstein's field equations for the space-time metric, cannot be understood as a quantum field theory. Quantum field theories can only be defined in gravity-free, flat Minkowski space. There is something logically inconsistent with the idea of quantizing Einstein's field equations in gravity-free, flat Minkowski space when the very nature of gravity is understood as the dynamical curvature of a space-time geometry.

The holographic principle is what we are naturally led to if we really want to understand the nature of quantum theory in a dynamically curved space-time geometry with gravity. The concepts of unitary time evolution and a universally defined time variable that all observers will agree upon, as assumed in all quantum field theories, are simply not valid concepts in a curved space-time geometry. Once we take the leap into an observer-centric and observer-dependent description of observable reality, we are forced into considering the holographic principle.

5) The Discovery of Holographic Entropy

The other problem with the usual formulation of quantum theory in the sense of unitary time evolution is that when we combine quantum theory with gravity, we discover that there is a shortest distance scale that we can measure, which is the Planck length. We measure distances by focusing energy into a region of space. We have to focus energy in terms of light waves into a region of space to measure a distance scale, and the energy of that light wave is given in terms of its wavelength as $E=hc/\lambda$. To measure smaller distance scales we have to use smaller wavelengths, which means higher energies. At some point, we focus so much energy into such a small region of space that we create a black hole. If we focus even more energy into an even smaller region of space, we only make the black hole bigger with a larger event horizon. The distance scale at which the black hole must form is the Planck length, and so the smallest distance scale that we can ever measure is the Planck scale. A Planck-size event horizon is the smallest event horizon that can ever be created. We only make the black hole bigger when we focus more energy into it. Combining gravity with quantum theory tells us that there is a fundamental limitation in our ability to measure distances smaller than the Planck scale.

This is how Jakob Bekenstein discovered holographic entropy. Bekenstein imagined adding a single qubit of information to a black hole, and asked what happens to the event horizon. That single qubit of information is carried by a photon that we know nothing about except for its polarization state. The photon is polarized in either a right-handed or left-handed polarization state, which is the same as a spin variable that is either spin up or spin down, and so carries a single qubit of information. When that qubit of information is added to the black hole, the event horizon of the black hole increases in size by about a single Planck area. It is as though each Planck area on the event horizon encodes a single qubit of information, like pixels on a computer screen. A Planck-size event horizon is the smallest possible event horizon because it encodes a single qubit of information, which is the smallest amount of information we can ever measure.

Larger event horizons encode more qubits of information, but always in terms of an integral number of Planck areas. This is the basic idea of the holographic principle that says the number of qubits of information encoded on the two dimensional surface of an event horizon is given in terms of the surface area, A, of the event horizon and the Planck area, $\ell^2=\hbar G/c^3$, as $n=A/4\ell^2$.

A single qubit of information is defined on a Planck-size event horizon. A qubit is defined by an SU(2) matrix, like a Pauli spin matrix, and encodes information in a binary code, like a switch that is either on or off, because the eigenvalues of the SU(2) matrix define observables in terms of spin up and spin down states. This information is inherently entangled because the SU(2) matrix also gives a mathematical representation of rotational symmetry on the surface of a 2-sphere. At the level of qubits, quantum entanglement is a mathematical representation of this rotational invariance, which is fundamentally defined on the surface of an event horizon.

6) Entropic Information as the Foundation of Quantum Theory

Unitary time evolution is not the only defining principle for quantum theory. There is also the idea of entropic information as the foundation for quantum theory. If we abandon the idea of unitary time evolution as fundamental and accept the observer's own proper-time is the valid definition of time, we can then adopt an observer-centric and observer-dependent description of observable reality and reformulate quantum theory in terms of entropic information.

What exactly is entropic information? The simple answer is a qubit of information. A qubit is mathematically defined by an SU(2) matrix, like a Pauli spin matrix. The eigenvalues of the matrix give the observables in terms of spin up and spin down states, but the matrix also gives a mathematical representation of rotational symmetry on the surface of a 2-sphere, which is the basic nature of quantum entanglement as expressed at the level of qubits. A qubit of information is mathematically represented by an SU(2) matrix, which is a two dimensional array of numbers that can only be encoded on a two dimensional surface. Where does that encoding surface come from? The simple answer is that the encoding surface is a two dimensional surface of space that arises as an event horizon in an observer's accelerated frame of reference. That encoding surface is the observer's holographic screen that defines its own holographic world.

It's worth discussing the nature of event horizons in greater detail. Every accelerating observer has an event horizon, which is a two dimensional bounding surface of space that limits the observer's observations of things in three dimensional space. Nothing is observable to an accelerating observer beyond the limits of its event horizon because a light ray that originates on the other side of the event horizon can never reach the observer as long as the observer continues to undergo its acceleration. An event horizon is a direct result of the constancy of the speed of light for all observers, independent of their relative states of motion. The speed of light is not about light per se, but is about the maximal rate of information transfer in three dimensional space, similar to how information is transferred within a computer network. Since the holographic principle in effect gives a way to construct the network of a quantum computer, the rate of information transfer plays an important role in that construction. An event horizon acts as a holographic screen when it encodes qubits of information, like a computer screen, which is the output device of a computer. Information is being outputted to an observer. That construction process begins with the observer's own acceleration that gives rise to its event horizon.

There are several kinds of event horizons. A Rindler horizon is an event horizon that arises when an observer follows an accelerating world-line through its space-time geometry. A de Sitter cosmic horizon arises due to the accelerated expansion of space that expands relative to the central point of view of an observer. At the observer's cosmic horizon, space is moving away from the observer at the speed of light, and since nothing can travel faster than the speed of light, nothing is observable beyond the limits of the cosmic horizon. Observations of our own universe demonstrate that we live in an expanding universe that is characterized by dark energy and the accelerated expansion of space, which is the nature of de Sitter space. A black hole event horizon arises due to the force of

gravity at the horizon, which is so strong that even light cannot escape. Escape velocity at the black hole event horizon is the speed of light. An important point is that all the effects of the black hole event horizon, like Hawking radiation, are observer-dependent, and are only observed by an accelerating observer that maintains a stationary position outside the event horizon. A freely falling observer experiences no acceleration and no effects of an event horizon. For the freely falling observer, there is no event horizon and no Hawking radiation. The situation with a Rindler horizon and a de Sitter cosmic horizon is similar. Only an accelerating observer observes the effects of an event horizon, like the thermal radiation of the Unruh effect.

In all cases, a light ray that originates on the other side of the observer's event horizon can never reach the observer as long as the observer continues to accelerate, and so nothing is observable to the observer beyond the limits of its event horizon. This is simply a consequence of the nature of accelerated motion and the constancy of the speed of light. The holographic principle is built on the nature of event horizons, which act as holographic screens when they encode qubits of information. The event horizon always arises in an observer's accelerated frame of reference and it is the observer itself that is observing the effects of the event horizon, like the thermal radiation of the Unruh effect. Once we understand the nature of holographic entropy in terms of qubits of information encoded on an observer's event horizon, and understand the nature of the Unruh effect that gives the event horizon a temperature, then the laws of thermodynamics explain the nature of gravity, as formulated in terms of Einstein's field equations for the space-time metric, as thermodynamic equations of state that are only valid near thermal equilibrium. Instead of quantizing Einstein's field equations like a quantum field theory, the holographic principle turns the very idea of quantum gravity completely around, and gives us Einstein's field equations as an effective field theory that is only valid near thermal equilibrium. The holographic principle is not really a theory of quantum gravity, but a way to completely avoid the problem of field theories. There is a very good reason to avoid field theories all together if we're trying to formulate physics in a fundamental way. All quantum field theories are built upon the invalid premise of unitary time evolution. Field theories can never be fundamental because time is not fundamental.

Instead of trying to quantize Einstein's field equations as a quantum field theory, the holographic principle assumes that information is encoded on event horizons in terms of qubits. A qubit is mathematically represented by a two dimensional array of numbers called a matrix that must be encoded on a two dimensional surface. That surface arises as an event horizon in an observer's accelerated frame of reference. Every observer observes events in its own holographic world as defined by the way qubits of information are encoded on its own event horizon that acts as its holographic screen. The observer's holographic world is characterized by a dynamically curved space-time geometry that can be reduced to the way qubits of information are encoded on its own event horizon. Every observer carries with itself its own sense of proper-time that arises from its own accelerated motion that can be understood as a world-line that it follows through that curved space-time geometry. The observer itself can only be understood to be a point of view that arises

at the center of its own holographic world. Fundamentally speaking, the whole thing has to begin with the observer and its own accelerated motion in an accelerated frame of reference.

Relativity theory doesn't attempt to explain what the observer is, only that the observer is at the central point of view of its own coordinate system that defines a frame of reference and that the observer observes whatever events appear to happen in that frame of reference. In effect, the observer is at the central point of view of its own space-time geometry that arises in that frame of reference, which is a curved space-time geometry if that frame of reference is accelerated. The holographic principle tells us that curved space-time geometry is defined on the observer's own holographic screen that arises as an event horizon in its accelerated frame of reference.

The holographic principle tells us that the observer's curved space-time geometry is not really a fundamental thing. That curved space-time geometry can be reduced to more fundamental information and energy. The nature of that fundamental information are qubits of information encoded on the observer's own holographic screen that arises as an event horizon in its own accelerated frame of reference. The nature of that fundamental energy is the energy inherent in the observer's own acceleration. The observer's curved space-time geometry is characteristic of its own holographic world that can only appear to come into existence due to the observer's own acceleration, which is more fundamental than the appearance of that holographic world.

Even the elementary particles that appear to exist within and to move through the space-time geometry of the observer's holographic world, as characterized by their position in space and their motion through space, can be reduced to the same kind of more fundamental information and energy. The position and momentum coordinates of a particle can also be reduced to qubits of information encoded on the observer's own holographic screen that arises as an event horizon in its own accelerated frame of reference and the energy inherent in that accelerated motion.

7) Formulating the Laws of Physics in a Holographic World

Unitary time evolution is not a valid fundamental concept for a holographic world constructed in de Sitter space. At best, unitary time evolution can only have approximate validity in the sense of an effective field theory, like a thermodynamic equation of state, which is only valid near thermal equilibrium. This is exactly what Ted Jacobson was able to show when he derived Einstein's field equations for the space-time metric from the laws of thermodynamics by assuming that thermal entropy is given in terms of a holographic entropy that only depends on the surface area, A, of an observer's event horizon, $S=kn=kA/4\ell^2$, where the Planck area is defined as $\ell^2=\hbar G/c^3$, and that the temperature of the event horizon at thermal equilibrium is given in terms of the observer's acceleration, a, by the Unruh temperature, $kT=\hbar a/2\pi c$. In this scenario, unitary time evolution is only approximately valid at the level of such an effective field theory. Einstein's field equations only describe the gravitational events that appear to happen inside a holographic world in terms of its dynamical space-time geometry. Those perceived events can always be reduced to qubits of

information encoded on a holographic screen that arises as an event horizon in an observer's accelerated frame of reference and the thermal energy inherent in that accelerated motion.

The laws of thermodynamics tell us that $\Delta E=T\Delta S$, where holographic entropy is given in terms of the surface area of the observer's event horizon as $S=kn=kA/4\ell^2$, and the temperature of the observer's event horizon at thermal equilibrium is given in terms of the observer's acceleration as $kT=\hbar a/2\pi c$, which is the Unruh temperature. A change in energy implies a change in entropy, which implies a change in the surface area of the observer's event horizon, which implies a change in the space-time geometry of the observer's holographic world. That's how Ted Jacobson derived Einstein's field equations from the laws of thermodynamics. Einstein's field equations are not really fundamental, but are more like an effective field theory that describes gravitational events in the observer's holographic world when things are near thermal equilibrium.

We can extend this argument along the lines of the work of Tom Banks and Willy Fischler, who have shown that holographic entropy is a natural result of encoding qubits of information on an observer's event horizon, which then acts as the observer's holographic screen. The number of qubits of information encoded on the holographic screen is always given in terms of the surface area of the observer's event horizon as $n=A/4\ell^2$. This way of encoding qubits of information on an observer's event horizon that acts as its holographic screen is called a matrix model, and this formulation of the holographic principle is valid in both anti de Sitter space and de Sitter space.

The key aspect of all matrix models is the encoding of qubits of information on an event horizon. Qubits of information are mathematically represented by the eigenvalues of a matrix, which is how information is encoded in a binary code. A matrix is a two dimensional array of numbers that must be encoded on a two dimensional surface. That two dimensional surface arises as an event horizon in an observer's accelerated frame of reference. That surface acts as the observer's holographic screen when it encodes qubits of information. Qubits are encoded on the surface of the event horizon in a rotationally invariant way because an SU(2) matrix gives a mathematical representation of rotational symmetry on the surface of a sphere. At the level of qubits, quantum entanglement is a mathematical representation of this rotational invariance. The smallest possible event horizon is a Planck-size event horizon that encodes a single qubit of information. Larger event horizons encode more qubits, but always as an integral number of Planck areas. The Planck distance is the smallest distance we can measure because a single qubit is the smallest amount of information we can measure, which is encoded on a Planck-size event horizon.

The holographic principle and the nature of dark energy and the accelerated expansion of space tell us every observer has its own holographic world defined on its own de Sitter cosmic horizon that acts as its own holographic screen. Every observer is at the central point of view of its own holographic world. Everything the observer can observe in its own holographic world can be reduced to entangled qubits of information encoded on its own cosmic horizon. Everytime the observer makes an observation of something in its holographic world, the entangled information encoded on its holographic screen is disentangled as the quantum state of that holographic world is

reduced, and information is lost. Instead of unitary time evolution, which is not a valid concept for a holographic world constructed in de Sitter space, we can only talk about a sequence of observable events that occur in time as observed by the observer at the central point of view of its own holographic world. Only the observer's own proper-time is a valid definition of time.

How do we explain the other laws of physics, like the electromagnetic and nuclear forces? The answer is the usual unification mechanisms of extra compactified dimensions of space and super-symmetry of space. When we add an extra compactified dimension of space to Einstein's field equations, Maxwell's equations for the electromagnetic field naturally pop out of Einstein's field equations. This mechanism gives a natural explanation for all gauge theories. A U(1) gauge transformation is a rotation around the extra compactified dimension of space. Gauge theories are understood as fiber bundles, which are vector spaces, like the vector space of the electromagnetic field, that sit on top of a space-time geometry, and are invariant under a gauge transformation. If there is an extra compactified dimension at each point of space-time, a gauge transformation is a rotation around the extra dimension, and gauge fields are extra components of the space-time metric. The nuclear forces are understood to arise in the sense of SU(2) and SU(3) gauge theories, which means we need a total of six extra compactified dimensions of space. These extra compactified dimensions of space don't even have to be dimensions of space. In the sense of non-commutative geometry, the extra dimensions of space can be understood as non-commuting variables that are defined at every point of ordinary space-time geometry.

With super-symmetry of space, we assume that space has both commuting and anti-commuting dimensions. An anti-commuting dimension is characterized by anti-commuting numbers. When we add anti-commuting dimensions of space in addition to extra compactified dimensions of space to Einstein's field equations, Dirac's equation for the electron field naturally pops out of Einstein's field equations. This mechanism gives a natural explanation for the nature of all the spinor matter fields. This is a natural result of adding anti-commuting dimensions of space to the usual commuting dimensions of space, which have both extended and compactified dimensions.

These mechanisms allow us to formulate quantum electrodynamics as an effective field theory, which like a thermodynamic equation of state, is only valid near thermal equilibrium. All quantum field theories are only valid as effective field theories. When we quantize an effective field theory, the quantum fluctuations that we call virtual particles are only a valid description of a holographic world in the sense of small quantum fluctuations around thermal equilibrium.

For a physicist, these are all natural mechanisms because they are mathematical mechanisms. At the level of the laws of physics, nature is mathematical. We're certainly entitled to ask: Why is nature mathematical? The answer is actually quite simple. The world we perceive is a holographic world, which is really no different in kind from a computer-generated holographic virtual reality. That holographic virtual reality is defined by qubits of information encoded on a holographic screen, which arises as an event horizon in an observer's accelerated frame of reference. Everything an observer can perceive in its own holographic world can be reduced to qubits of information

encoded on its own holographic screen. In effect, the observer is creating a quantum computer as the observer enters into an accelerated frame of reference and its event horizon arises that acts as its holographic screen when the horizon encodes qubits of information, just like a computer screen in a computer-generated virtual reality. Even the flow of energy that energizes the quantum computer arises as thermal energy from the observer's own accelerated motion. The observer's own accelerated motion is what creates the quantum computer that gives rise to the appearance of the observer's own computer-generated holographic virtual reality. The operation of that quantum computer is governed by computational rules, which we call the laws of physics, which are like the operating system of the quantum computer. The laws of nature are all computational in nature because they all arise in a computer-generated holographic virtual reality. That's why at a fundamental level, nature is computational or mathematical.

How do we explain a consensual reality shared by multiple observers? The answer is information sharing. Every observer observes events in its own holographic world from the central point of view of that world as defined by the way information is encoded on its own holographic screen, but when those holographic screens overlap in the sense of a Venn diagram, they can share information, like the information sharing we see in a network of connected computer screen.

The holographic principle clears up a number of other puzzles. The Higg's mechanism is an example of spontaneous symmetry breaking that gives masses of all the matter particles. The Higg's mechanism tells us that quantum field theory is not really fundamental, but only has the validity of an effective field theory. In the Higg's mechanism, we give a scalar particle, which is formulated in terms of a scalar field φ, a Higg's potential. We have to assume the parameters in this Higgs potential are temperature dependent, which is why this description is only valid at the level of an effective field theory. These parameters have to be parameterized in terms of a critical temperature at which the phase transition occurs. When the temperature is above the critical temperature, the parameters are all positive, and we have an ordinary quantum field theory. When the temperature is below the critical temperature, some of the parameters turn negative, and the scalar field takes on a non-zero ground state value at every point in space, like a magnet that spontaneously magnetizes when the microscopic spin variables begin to align. Since the scalar field couples to all the matter fields in terms of an interaction, a non-zero value for $\varphi=\varphi_0$ gives masses to all the matter particles. This mechanism is only valid as an effective field theory.

Spontaneous symmetry breaking tells us that mass is not really a fundamental parameter, since all masses arise through the Higg's mechanism. All particle masses are temperature dependent and spontaneously emerge in the universe as the universe cools in temperature. Massless quantum field theories have no inherent length scale, which gives rise to a conformal symmetry. This is the case for both gravity and electromagnetism since the graviton and the photon are both massless. A conformal symmetry means the theory is invariant under a conformal transformation that rescales the length scale. This kind of symmetry is at work in the holographic principle. The $1/R^2$ force law of gravity tells us that the graviton has no mass. If we imagine a point source of gravitons, then the intensity of the gravitational flux must fall off as $1/R^2$ in three dimensional space since the flux is

constant across the surface of a 2-sphere. When we understand that all the qubits of information for a graviton are encoded on the surface of an event horizon, then this conformal symmetry has a natural origin. The gravitational field in three dimensional space is reducible to qubits of information encoded on the two dimensional surface of an observer's event horizon. The holographic principle tells us that all field theories in three dimensional space can be reduced to qubits of information encoded on the two dimensional surface of an event horizon.

Spontaneous symmetry breaking tells us that all the parameters in field theories that describe the nature of elementary particles in three dimensional space, like masses, are temperature dependent and spontaneously emerge in the universe as the universe cools in temperature. The big question is where does temperature or thermal energy come from in the first place? Again, the holographic principle gives a natural answer in terms of the accelerated expansion of space, which is the nature of dark energy or a cosmological constant. The irony is that the cosmological constant is not really a constant, which is again telling us that Einstein's field equations only have the validity of thermodynamic equations of state or effective field theories that are only valid near thermal equilibrium. The cosmological constant transitions from one false vacuum state to another false vacuum state. With each transition, the cosmological constant takes on a lower value, which gives rise to a larger de Sitter cosmic horizon as $R^2=3/\Lambda$. As the de Sitter cosmic horizon increases in radius, its Unruh temperature, $kT=\hbar c/2\pi R$, decreases, and its holographic entropy, $S=kn=kA/4\ell^2$, increases. This scenario explains the second law of thermodynamics as heat flows in a thermal gradient from hotter to colder objects and thermal entropy increases. This also explains the nature of time's arrow as heat flows in a thermal gradient. The flow of time is directly related to the flow of thermal energy. Ultimately, the cosmological constant transitions to the true vacuum state, in which its final value is zero, the radius of the de Sitter cosmic horizon becomes infinite and the Unruh temperature becomes absolute zero. This is called the heat death of the universe in which both the flow of heat and the flow of time come to an end.

Spontaneous symmetry breaking tells us that mass is not really a fundamental aspect of nature, and that there must be a more fundamental kind of energy that underlies the appearance of mass in the universe. That more fundamental energy is dark energy, understood as the accelerated expansion of space. Early in the history of the universe, dark energy was very hot because the cosmological constant was very big. A large cosmological constant gives rise to a small radius of the de Sitter cosmic horizon, which has a very hot temperature. This heat can generate very high energy photons, which can create proton-antiproton pairs. At high temperatures, the protons and antiprotons are unstable and can decay into electrons and positrons through the nuclear force, but there is an asymmetry in these decay rates due to chiral symmetry breaking. The Lorentz group, understood as SU(2)XSU(2), allows us to break up the spinor wave-function into right-handed and left-handed components, and chiral symmetry breaking allows for a difference in the strength of the nuclear interaction between these different components. This means the decay rate for antiprotons can be higher than for protons, and so more antiprotons decay than protons. The universe was initially only characterized by dark energy and the accelerated expansion of space, but then transitions to a

universe full of protons and electrons. The protons and electrons are initially massless, and only obtain masses through spontaneous symmetry breaking and the Higg's effect as the universe cools, which naturally happens as the cosmological constant transitions to a lower value and the radius to the de Sitter cosmic horizon increases in size.

The whole idea of quantum theory is based on the idea of constructing a quantum state, which is best understood as a sum over all possible paths in a curved space-time geometry. The observer itself is following the path of an accelerated world-line through that space-time geometry. The quantum state is naturally entangled because the probability amplitude for each path depends on a quantity called the action as $P=\exp(iS/\hbar)$, which is directly related to unitary time evolution in terms of the probability amplitude for that quantum state as $\psi(t)=\exp(-iHt/\hbar)\psi(0)$. If we think of the Hamiltonian as total energy H=KE+PE, the action $S=\int dt(KE-PE)$. The problem is there is no natural definition of time that all observers will agree upon in a curved space-time geometry. The only valid time variable is the observer's own proper-time, $\tau=\int ds$, where $ds^2=g_{ab}dx^a dx^b$. The observer's own proper-time plays the role of the action, integrated along its own path. This is easiest to see for the Schwarzschild metric. If proper-time is calculated for the Schwarzschild metric in the non-relativistic limit, it is easy to show that proper-time is equivalent to a classical particle action that describes the classical motion of a particle in a gravitational field. Instead of unitary time evolution as the defining principle of quantum theory, the correct way to formulate quantum theory is in terms of the observer's own proper-time that plays the role of the action.

The holographic principle tells us that the quantum state is entangled because all the qubits of information encoded on the observer's own holographic screen are entangled. That holographic screen arises because of the observer's own acceleration, which gives rise to its event horizon. When the observer makes an observation of something in its holographic world, the quantum state is reduced to an actual observed state, which means the quantum state is disentangled. In terms of a sum over all possible paths, the most likely path in the sense of quantum probability that the observer can follow through its space-time geometry is the path of least action. The path of least action is the classical path that naturally arises when the quantum state is disentangled. The path of least action maximizes the observer's proper-time, and is like the path that measures the shortest possible distance between two points in the observer's curved space-time geometry.

Quantum entanglement is best understood at the level of qubits of information encoded on the surface of an event horizon. A qubit is mathematically represented by a two dimensional array of numbers called a matrix, which must be encoded on a two dimensional surface. That two dimensional surface of space arises as the observer's own event horizon whenever the observer enters into an accelerated frame of reference. The observer's event horizon acts as its holographic screen when it encodes qubits of information. Quantum entanglement is a natural property of encoding qubits of information in a rotationally invariant way on the surface of the event horizon. This rotational symmetry is mathematically represented by matrices.

The nature of qubits of information encoded on the surface of an event horizon that acts as the observer's holographic screen fundamentally explains the puzzle of quantum entanglement that Einstein called spooky action at a distance. We imagine that we have two particles with entangled spin states, so that the total spin adds up to zero. This means if the first particle spins up, the second particle must spin down, and vice versa. When those two particles appear in the space-time geometry of the observer's holographic world and appear to become separated in space, the measurement of the spin of the first particle instantaneously determines the spin state of the second particle. There is really no puzzle here in terms of the holographic principle, since the appearance of both particles in the observer's space-time geometry can be reduced to qubits of information encoded on the observer's own holographic screen, and the qubits are inherently entangled until the observer makes an observation of its own holographic world, at which time the qubits become disentangled and the particles appear to take on definite spin states.

The holographic principle solves all these puzzles because the essential nature of the dynamical degrees of freedom for a holographic world are not particles defined in a space-time geometry, as assumed by quantum field theory, nor even the nature of the gravitational field as defined in a curved space-time geometry. The fundamental nature of the dynamical degrees of freedom for a holographic world are qubits of information encoded on a holographic screen that arises as an event horizon in an observer's accelerated frame of reference. At thermal equilibrium $\Delta E=kT\Delta n$, and the equal partition of energy tells us that each qubit carries the same amount of thermal energy, which is given in terms of the observer's acceleration as $E=kT=\hbar a/2\pi c$. The holographic thermal entropy of that holographic world is given in terms of the surface area of the observer's event horizon as $S=kn=kA/4\ell^2$. When we add dark energy and the accelerated expansion of space to the holographic principle, all the mysteries of the world have a natural explanation.

This tells us that at a foundational level, physics is not really fundamental. The laws of physics are like the computational rules that govern the operation of a quantum computer that gives rise to the appearance of the observer's own computer-generated virtual reality. That quantum computer is created when the observer enters into an accelerated frame of reference and its event horizon arises that acts as its holographic screen when the horizon encodes qubits of information.

The holographic principle tells us that the observer must come first. First the observer comes, then its holographic world appears to come into existence due to its own accelerated motion that gives rise to its event horizon that acts as its holographic screen when qubits of information are encoded. The observer's holographic screen is displaying images of everything the observer can observe in its own holographic world. All the information for all those things can be reduced to qubits encoded on the screen. This gives an observer-centric and observer-dependent description of the observable reality of the observer's own holographic world. In no significant way is this description of the observer's own holographic world different from a computer-generated virtual reality. The observer itself creates the quantum computer that gives rise to the appearance of its own holographic world whenever the observer enters into an accelerated frame of reference.

The odd thing about this explanation is that there really is nothing inside a holographic world. Everything that an observer can perceive in its own holographic world is like the projection of a holographic image from its own holographic screen to its own point of view at the center of that holographic world. The observer's holographic screen arises as an event horizon in its accelerated frame of reference when the horizon encodes qubits of information. Even the animating energy that animates those holographic images arise from the observer's own accelerated motion. In reality, there is nothing inside the event horizon and nothing outside the event horizon. Things only appear to exist inside the event horizon because of the holographic projection of images of that holographic world from the observer's holographic screen to its central point of view.

Remarkably, this is exactly the nature of our world. Evidence from measurements of the background cosmic microwave radiation tells us the world we perceive is asymptotically flat. An asymptotically flat world is like escape velocity, for which the total energy is zero. Escape velocity is defined for a particle that escapes away from a gravitational field when the particle has just enough positive kinetic energy to overcome the negative potential energy of gravitational attraction. When the particle reaches infinity, its motion comes to an end and the force of gravity also comes to end, which means its total energy is zero. For escape velocity, E=KE+PE=0. An asymptotically flat universe has a total energy of zero, just like escape velocity. This is possible since the negative potential energy of gravitational attraction can exactly cancel out all forms of positive energy, like mass energy, kinetic energy and dark energy. That's the nature of a holographic world, in which everything exactly cancels out to zero. There really is nothing inside a holographic world since that world is only a holographic projection of images.

What about the observer that perceives all the projected images of that holographic world? The observer itself can only be understood as a point of view that arises at the center of its own holographic world. The observer is nothing more than that central point of view. The observer's holographic world only appears to come into existence because of its own acceleration that gives rise to its event horizon. Just as the observer is nothing more than the central point of view of its own holographic world, the observer's event horizon is also arising in nothingness. There is nothing outside the observer's event horizon and there is nothing inside its event horizon. There only appears to be something inside the observer's event horizon because its horizon encodes qubits of information that give rise to the appearance of its holographic world as holographic images are projected from the observer's own holographic screen to its central point of view and are animated in the flow of energy that arises from its own accelerated motion.

In reality, the observer at the central point of view of its own holographic world arises from the same nothingness that its holographic world is created within as the observer's event horizon arises within that nothingness due to the observer's own accelerated motion and encodes qubits of information. The observer's accelerated motion is not really within the space-time geometry of its own holographic world, which only appears to exist as a holographic projection of images from its own holographic screen to its own central point of view as its holographic world appears to come into existence. The observer's accelerated motion is relative to that nothingness, which is

motionless. Both the observer and its holographic world arise from and within that all-pervading nothingness. The mystery to be unraveled is the true nature of that nothingness.

8) The Problem of Time in a Holographic World

The whole concept of unitary time evolution in de Sitter space is invalid because there is no uniquely defined time-like killing vector in de Sitter space that allows for it. The basic problem is the de Sitter cosmic horizon is observer-dependent. The observer is literally at the central point of view of the accelerated expansion of space that gives rise to the observer's own cosmic horizon. Instead of unitary time evolution, we can only consider the observer's own proper-time as the observer follows a world-line through de Sitter space. The observer's own proper-time is the only valid definition of time in de Sitter space. If the observer follows an accelerated world-line through de Sitter space, with the observer moving with an acceleration, a, along that world-line, then the observer perceives an Unruh temperature of $kT=\hbar c\sqrt{(1/R^2+a^2/c^4)}/2\pi$, where the radius of the de Sitter cosmic horizon is given in terms of the cosmological constant as $R^2=3/\Lambda$. The accelerating observer perceives an observer-dependent Unruh temperature of de Sitter space, just as the observer's own de Sitter cosmic horizon is observer-dependent.

If unitary time evolution is not a valid concept for a holographic world constructed in de Sitter space, then what exactly is our perception of time? The only experience of time that anyone can ever have of time is one's own experience of one's own proper-time, which is always experienced now, in the present moment. Everything anyone can perceive is perceived now, in the present moment. When anyone remembers the past or anticipates the future, those perceptions of past and future are only an emotional projection from the present moment to an imagined past or an imagined future, which are always perceived now, in the present moment. One also perceives the emotional energy that connects the present moment to the next moment or to the prior moment. It's only one's perception of that flow of emotional energy that connects the imagined past and future to the present moment and makes one falsely believe that an imagined past or future really exists. In reality, the imagined past and future are no more real than the projected and animated images of a holographic world. The only thing that really exists is what is in the present moment, which includes oneself as a presence of perceiving consciousness at the central point of view of one's own holographic world, which one always perceives now, in the present moment. In the sense of potentiality, as in the sum over all possible paths of quantum theory, the present moment is a decision point about which path one will follow through one's own holographic world. In the sense of the emotional animation of one's own body, one always has a choice to make about which path one will follow through one's own holographic world, and only the expression of that emotional energy connects the present moment to the remembered past or anticipated future.

The holographic world one perceives only appears to come into existence because of one's own accelerated motion that gives rise to one's own event horizon that acts as one's holographic screen that projects all the images of one's holographic world from one's own holographic screen to one's own point of view at the center of that holographic world. That holographic world only appears to

come into existence because one's own holographic screen arises as an event horizon as one follows an accelerated world-line. The only experience of time that one can ever have as one follows that accelerated world-line is one's own proper-time, and everything one can perceive in that holographic world is perceived now, in the present moment. Even the animating energy that animates all the projected images of one's holographic world arises from the energy of one's own accelerated motion as one follows an accelerated world-line. In reality, it all has to begin with one's own existence as a presence of consciousness. In reality, one is that presence of perceiving consciousness at the central point of view of one's own holographic world.

In reality, there is no objective physical reality of the world out there, only a holographic world that appears to come into existence whenever one enters into an accelerated frame of reference and an event horizon arises that acts as one's holographic screen when the horizon encodes qubits of information. That holographic world is no more real than the projected and animated images of a computer-generated virtual reality. One creates the quantum computer that gives rise to the appearance of that holographic virtual reality with one's own accelerated motion, and everything one can perceive in one's own holographic world is perceived now, in a subject-object relation of perception. In reality, that holographic world only appears to exist in the eye of the beholder.

9) The Observer and its Holographic World

Every observer perceives its own holographic world in terms of the projected images of that world. We only share a consensual reality to the degree that overlapping holographic screens share information. The observer itself can only be understood as a point of view that arises at the center of its own holographic world. The observer is nothing more than that central point of view. Everything the observer can perceive is like a holographic image projected from its holographic screen to its point of view. The observer's holographic world only appears to come into existence because of its own accelerated motion that gives rise to its event horizon that acts as its holographic screen when its horizon encodes qubits of information. Just as the observer is nothing more than the central point of view of its own holographic world, the observer's event horizon is also arising in nothingness. There is nothing outside the observer's event horizon and there is nothing inside its event horizon. There only appears to be something inside the observer's event horizon because its horizon encodes qubits of information that give rise to the appearance of its holographic world as holographic images are projected from its own holographic screen to its central point of view and are animated in the flow of energy that arises from its own accelerated motion. It all has to begin with the observer in its accelerated frame of reference.

The big question is where does the observer come from? This is the same question as to ask where does the energy inherent in the observer's accelerated frame of reference come from? The big clue we have is to ask: What happens to the observer when its accelerated motion comes to an end? In relativity theory, the end of that accelerated motion is called a freely falling frame of reference. In an ultimate freely falling frame of reference, when all acceleration comes to an end, the observer no longer has an event horizon, and no longer has a holographic screen that displays images of the

observer's own holographic world. In an ultimate freely falling frame of reference, the observer's own holographic world disappears from existence from its own point of view.

What happens to the observer? The answer is the observer returns to the nothingness from whence it came. That return to nothingness is described as a dissolution, like a drop of water that dissolves back into the ocean. If we think of the observer as a point of perceiving consciousness at the central point of view of its own holographic world, the nothingness from whence it came and to which it must return is like an undivided ocean of pure undifferentiated consciousness. That ocean is called the void, which can only be understood in terms of negation as absolute nothingness. The basic problem is that the void is not perceivable. The void is what gives rise to the experience of perception. The void as an ocean of pure undifferentiated consciousness is what gives rise to the observer as a presence of perceiving consciousness at the center of its own holographic world. The void is the source of the observer's perceiving consciousness.

The perceiving consciousness of the observer must divide and separate itself from its source of pure undifferentiated consciousness in order to perceive its own holographic world, which it perceives from the central point of view of that world. In the process of perceiving its own holographic world, the observer must also enter into an accelerated frame of reference. The energy of that acceleration also arises from the void, as in the accelerated expansion of space. The void in-and-of itself is motionless, and the accelerated motion of the observer always arises relative to the motionless void. That accelerated motion is how the observer's event horizon arises within the void. When that acceleration comes to an end in an ultimate freely falling frame of reference, the observer's holographic world disappears from existence from its own point of view and the observer itself must return to and dissolve back into the void from whence it came.

The basic problem with understanding the nature of the void is the problem of perception. Perception always occurs in a subject-object relation. The true nature of the subject is the observer itself, and the nature of all the objects of perception the observer can perceive are forms of information encoded on the observer's own holographic screen. Those objects of perception are projected like images from the observer's own holographic screen to its point of view at the center of its own holographic world and are animated in the flow of energy that arises from its own accelerated motion. The void cannot be understood as another object of perception. The void in-and-of itself is not perceivable. The void cannot even be understood as the perceiver. The void is the source of perception in that the void gives rise to the observer as the perceiving consciousness present at the central point of view of its own holographic world and also gives rise to the energy that underlies the observer's accelerated motion relative to the motionless void.

Perception always occurs in a subject-object relation. The observer itself is the subject and whatever the observer perceives in its own holographic world is its object of perception. Those objects are projected forms of information animated in the flow of energy. The observer is able to perceive both the form of things and flow of things. All perceivable forms can be reduced to qubits of information encoded on the observer's own holographic screen. Those forms are projected like

images from the observer's own holographic screen to its own point of view at the center of its own holographic world and are animated in the flow of energy that animates that world. The observer's projecting holographic screen arises as an event horizon in its accelerated frame of reference and the animating energy arises from the observer's own accelerated motion.

A critically important point is the observer always perceives things now, in the present moment. Whatever events the observer perceives in its own holographic world are like projected and animated images of that holographic world, which the observer perceives now, in the present moment. How do we explain the perception of the memory of past events and the anticipation of future events? The answer is emotional projection, which is always projected from the present moment. Emotional projection is like imagining where a particle has been in the past or where it will be in the future if we know where the particle is now and its motion now. If we know the position of the particle now and its motion now, we can imagine where the particle has been in the past or where it will be in the future as the particle follows the path of its trajectory.

In the same way, if we know the form of things now and the flow of energy that animates those forms now, we can make a projection to how those forms appeared in the past or how those forms will appear in the future. When we remember the past or anticipate the future, we are able to make an emotional projection from the present moment because we know how things appear now and how things are animated now. We are able to imagine how things appeared in the past or how they will appear in the future because we know the form of things now and how the flow of emotional energy is animating those forms now. We need to know both the form of things now and the flow of energy that animates things now to make this emotional projection to an imagined past or an imagined future. That emotional projection of memory and anticipation can only arise in our imagination, which is an emotional projection from the present moment. Since everything we perceive in our own holographic world is imaginary in the sense of the projected and animated images of a holographic world, the imagined past and the imagined future are really nothing more than an emotional projection that arises within a holographic projection.

The nature of memory as an emotional projection also helps explain another peculiar aspect of living in a holographic world, which is the nature of emotional or personal self-identification. Perception always occurs in a subject-object relation. The true nature of the subject is the observer, which is the perceiving consciousness present at the central point of view of its own holographic world, while all the observer's objects of perception are forms of information that appear in its holographic world. The observer perceives both the forms of things, which are projected like images from its own holographic screen to its point of view at the center of its own holographic world, and also the flow of energy that animates those forms. Just as the observer's holographic screen arises as an event horizon due to its own acceleration, the animating flow of energy also arises from the observer's own accelerated motion. That accelerated motion gives rise to the expression of emotional energy that animates the form of the observer's own body. The observer's body is just a form of information that appears in its holographic world, but its body is animated by the flow of emotional energy that arises from the observer's own accelerated motion. The

expression of the emotional energy that animates the form of its body relative to the form of other things that appear in its holographic world is what makes the observer emotionally identify itself with the form of its body, which is called personal self-identification.

As the observer perceives the flow of emotional energy that emotionally animates the form of its body relative to the form of all other things that appear in its holographic world, the observer feels emotionally self-limited to that personal form, which makes the observer emotionally identify itself with that personal form. When the observer emotionally identifies itself with its body and takes itself to be its body, it is as though its body is the subject in the subject-object relation of perception. The observer's body is taken to be the perceiving subject, and all other objects that appear in the observer's holographic world are perceived as objects of perception.

In reality, the observer itself is the subject, and its body is just another object of perception that appears in its holographic world among all the other objects of perception, but when the observer emotionally identifies itself with its body and takes itself to be its body, it is as though its body is the perceiving subject and everything else that appears in its holographic world is an object of perception. The only thing that makes the observer's body different from all other forms is that its body is the central form and is always emotionally animated relative to the other forms, which creates feelings of self-limitation and leads the observer to identify itself with its body. This strange state of affairs is called personal self-identification, which gives rise to the observer's experience of self and other. The observer's experience of self and other within its holographic world is only possible because the observer emotionally identifies itself with the emotionally animated form of its body that appears as the central form within its own holographic world.

This explanation for personal self-identification is not new. The basic idea for this explanation was given in the 1950's, 60's and 70's by a group of psychoanalysts, who called the explanation object relations theory. In the 1990's, the neuroscientist Antonio Damasio gave a similar explanation based on the findings of neuroscience. The linguist Noam Chomsky understands the nature of language in a similar way. The basic idea is that perception always occurs in a subject-object relation, where the true nature of the subject is the observer and the object of perception is whatever the observer observes. When the observer emotionally identifies itself with its body, it is as though its body is the perceiving subject. The observer's body is always emotionally related to all other objects that appear in its world. The observer's perception of the emotional energy that animates the form of its body is what makes the observer feel emotionally self-limited to that personal form and emotionally identify itself with its body. Personal self-identification only happens as the observer perceives the flow of emotional energy that animates its body in relation to the form of all other things that appear in its world, which leads the observer to emotionally identify itself with the form of its body.

The only thing that is lacking in this explanation for self-identification is an understanding of the true nature of the observer. The holographic principle tells us the observer can be nothing more than the perceiving consciousness that arises at the central point of view of its own holographic world. That holographic world can only appear to come into existence when the observer enters

into an accelerated frame of reference and the observer's event horizon arises that acts as its holographic screen when the horizon encodes qubits of information. Even the flow of emotional energy that animates the observer's body arises from its own accelerated motion.

The observer is nothing more than a point of perceiving consciousness that arises at the center of its own holographic world, and all the images of its holographic world are displayed on its own holographic screen that arises in a void of nothingness. The observer's holographic screen is the boundary of its own holographic world. That boundary is an event horizon that arises due to the observer's own accelerated motion, which limits its observations of things in space and becomes its holographic screen when information is encoded. That holographic world only appears to come into existence due to the observer's accelerated motion. In reality, there is nothing inside that holographic world and nothing outside that holographic world. There only appears to be something inside the observer's holographic world due to the holographic projection of images from its own holographic screen to its point of view at the center of that holographic world.

Where does the observer come from? The observer comes from the same nothingness that gives rise to the energy of its accelerated motion. The observer comes from the same nothingness within which the boundary of its own event horizon arises due to that accelerated motion. The observer comes from the same nothingness within which its own holographic world appears to exist. The observer comes from that nothingness, and must ultimately return to that nothingness.

In some mysterious way, the perceiving consciousness of the observer, present at the central point of view of its own holographic world, is able to separate and divide itself from its source of pure undifferentiated consciousness, which is the void of nothingness that its holographic world is created within. That holographic world only appears to come into existence because of the observer's own accelerated motion relative to the motionless void, which is how its event horizon arises in that nothingness that acts as the observer's holographic screen. When that acceleration comes to an end in an ultimate state of free fall, the observer's holographic world disappears from existence from its own point of view, and the individual consciousness of the observer must return to and dissolve back into the void of undifferentiated consciousness from whence it came.

10) The Problem of the Foundations of Physics

At the foundational level, there must be a source of the observer's own consciousness and a source of the energy that places the observer in an accelerated frame of reference. Since everything the observer can perceive is observed in a subject-object relation of perception, the Source, in-and-of-itself, is not perceivable. The Source cannot be an object of perception. The Source cannot even be the perceiver. The Source is what gives rise to the experience of perception as the Source gives rise to the perceiving consciousness of the observer at the central point of view of its own holographic world and also gives rise to the energy that places the observer in an accelerated frame of reference that creates and animates that holographic world.

The Source is the source of the perceiving consciousness of the observer, present at the central point of view of its own holographic world. The Source is also the source of the energy that places the observer in an accelerated frame of reference that gives rise to the observer's event horizon that acts as its holographic screen when the horizon encodes qubits of information, which is the same energy that animates everything in the observer's holographic world. The Source cannot be described at the level of the laws of nature because the laws of physics only apply at the level of that holographic world. The laws of physics are like the computational rules that govern the operation of a quantum computer that gives rise to the appearance of the observer's computer-generated virtual reality, which the observer itself creates as it enters into its accelerated frame of reference. The observer and its holographic world always arise together in a subject-object relation of perception, but the Source is beyond that holographic virtual reality.

The Source can only be described in terms of negation as absolute nothingness, which can be understood as a void of undifferentiated consciousness. In some mysterious way, the void divides itself up into the perceiving consciousness of all the observers, each present at the central point of view of its own holographic world. Different observers can only share a consensual reality to the degree their holographic screens overlap and share information. The Source also gives rise to the expression of energy that places each observer in an accelerated frame of reference. This energy can be understood as the expression of dark energy that gives rise to the accelerated expansion of space that expands relative to each observer's central point of view and gives rise to its cosmic horizon that acts as its holographic screen when qubits of information are encoded. This mechanism explains how each observer's holographic world appears to come into existence.

There is no way to scientifically explain how or why the Source gives rise to this expression of dark energy, just as there is no way to scientifically explain how or why the Source divides itself up into the perceiving consciousness of each observer, present at the central point of view of its own holographic world. We can only describe this creative process as a spontaneous expression of creativity that arises from the Source, or as the potentiality of the Source to express itself in this creative way. We can only call this expression of creativity by the Source God's will.

This expression of creativity by the Source is described in the first few lines of Genesis:

In the beginning God created the heaven and the earth
And the earth was without form and void
And darkness was upon the face of the deep
And the Spirit of God moved upon the face of the waters
And God said 'Let there be light'; and there was light
And God saw the light, that it was good
And God divided the light from the darkness

The Source is referred to as the void, the formless, the darkness and the deep, or as the waters, which refers to the Source as an undivided ocean of pure undifferentiated consciousness. For lack of a better word, we can call the Source God. The Spirit of God refers to the observer at the center

of its own holographic world. The face of the deep refers to the observer's holographic screen that arises as an event horizon in the void due to the observer's own accelerated motion relative to the motionless void. The Spirit of God must move over the face of the deep for that holographic world to appear to come into existence. The light refers to the light of consciousness that illuminates the observer's own holographic world. That light of consciousness must be divided from the darkness of the void for the observer's world to appear to come into existence.

This expression of creativity by the Source is symbolized by the All-Seeing-Eye of Providence. The triangle represents the hierarchy of consciousness, with the undifferentiated consciousness of the Source at the apex or highest possible level of consciousness. Only the highest possible level of consciousness is free of the illusion of duality, which is to say, free from the bondage of false personal self-identification. The central eye represents the individual consciousness of the observer at the central point of view of its own holographic world, which is subject to the illusion of duality through its false self-identification with the form of a person that appears in that world. The rays emanating from the central eye represent the light of consciousness that illuminates the observer's own holographic world, and the encompassing circle represents the boundary of that holographic world, which is the observer's holographic screen that arises as an event horizon due to the observer's own accelerated motion relative to the motionless void.

The qualia problem demonstrates consciousness cannot have a scientific explanation, but must be spiritual in nature, which is beyond any scientific explanation. Perception always occurs in a subject-object relation, where the true nature of the subject is consciousness itself. All objects of perception are forms of information animated in the flow of energy, and as such, have a scientific explanation that is inherently mathematical in nature. The problem is, we don't perceive things in terms of mathematical quantities, like the wavelength of a light wave. We perceive things in terms of qualities, like the color red. The nature of our perception is not so much an aspect of the mathematical quantities that characterize all the objects of our perception, but of the spiritual nature of our consciousness, which has no mathematically based scientific explanation. The forms we perceive are illuminated by the light of consciousness, which is spiritual in nature.

There is a reason the first few lines of Genesis are so revered and the Eye of Providence is such a powerful symbol. The first few lines of Genesis and the symbolism of the Eye of Providence are referring to the Source, which is not only the Source of the observer's own world and the Source of the laws of physics that govern events in that holographic world, but also the Source of the observer's own individual consciousness. The observer's individual consciousness is divided from the Source when the observer's holographic world appears to come into existence, which can only happen due to the observer's accelerated motion. When that accelerated motion comes to an end in an ultimate state of free fall, the observer's individual consciousness must return to the undivided consciousness of its Source. That return is described as a dissolution, like a drop of water that dissolves into the ocean. The observer's return to the Source is called spiritual enlightenment, which is the only way the observer can become free from the illusion of duality.

The nature of the illusion of duality is the experience of self and other that an observer can only experience in its own holographic world. The observer only has an experience of self and other when the observer emotionally identifies itself with the emotionally animated form of a person that appears in that holographic world due to the observer's perception of emotional feelings of self-limitation to that personal form. That personal form appears as the central form of the observer's body in its own holographic world. As that personal form is emotionally animated relative to all other forms that appear in its holographic world, the observer has the experience of self and other. This experience of self and other only becomes possible when the observer emotionally identifies itself with the form of its body, which is the central form that appears in its holographic world. When that personal self-identification comes to an end, the observer's experience of self and other also comes to an end, and the illusion of duality comes to an end.

The observer lives in a state of emotional bondage due to its emotional self-identification with the emotionally animated form of a person that appears in the holographic world it perceives. The observer falsely identifies itself with the central form of a person that appears in its own world due to its perception of emotional feelings of self-limitation to that personal form. When the observer returns to the Source and discovers the truth of its own existence as pure undivided, unlimited and formless consciousness, it becomes free from this state of emotional bondage. Only consciousness itself has real being, the sense of I-Am-ness, the sense of being present. Even that sense of I-Am-ness is not the ultimate state of existence that can only be described as pure undivided, unlimited, timeless being. The forms that appear in a holographic virtual reality are unreal, no more real than projected and animated images of a holographic world, and have no being. In the words of the Bhagavad Gita: *The unreal has no being; the real never ceases to be*.

In reality, there is no objective physical reality of the world out there, only a holographic world that appears to come into existence whenever the observer enters into an accelerated frame of reference and its event horizon arises that acts as its holographic screen when the horizon encodes qubits of information. That holographic world is no more real than the projected and animated images of a computer-generated virtual reality. The observer itself creates the quantum computer with its accelerated motion that gives rise to the appearance of its holographic virtual reality. As the Matrix says: *There is no world. It is not the world that moves, but only yourself.*

11) On the Nature of Spirituality and Spiritual Enlightenment

All the self-inflicted problems of human society can be traced back to the loss of spirituality. Even our religions have lost their spirituality. The problem with the loss of spirituality is the problem of ego and personal self-identification. As Pierre Teilhard de Chardin stated, *We are not human beings having a spiritual experience; we are spiritual beings having a human experience.* At the level of our own individual spiritual being, we are a presence of consciousness, which can scientifically be understood as the observer at the central point of view of its own holographic world that is very much like a computer-generated virtual reality. The experience of time is only possible with the energetic or emotional animation of that holographic virtual reality. In reality, our spiritual being

has timeless being. There is only an illusion that we exist in time because we are emotionally identifying ourselves with our own emotionally animated character that appears in the holographic world we perceive, which is our avatar in the virtual reality. Our character in the holographic virtual reality takes the form of our own emotionally animated body.

How can the spiritual being of our consciousness have timeless being? Plato gave the answer over two thousand years ago in the Allegory of the Cave. The experience of time is only possible with the animation of a holographic virtual reality. That animation is inherently energetic in nature, which at the level of the body is experienced as the emotional animation of the body. The presence of consciousness that perceives the animation from the central point of view of that holographic world has timeless being. Consciousness timelessly exists no matter what appears to happen in the animation. There can only be an illusion that consciousness exists in time when consciousness emotionally identifies itself with the emotionally animated embodied form of its character that appears in the animation of the holographic virtual reality that it is perceiving.

Emotional self-identification is a problem due to the nature of emotional self-defensiveness. When consciousness emotionally identifies itself with the emotionally animated form of its character that appears in the animation of the holographic world it perceives, consciousness feels compelled to defend the survival of its body as though its existence depends on it. Emotional expressions of self-defensiveness are at the root of all the self-inflicted problems of human society. When carried to an extreme degree, consciousness feels compelled to defend the survival of its own body at the expense of everybody and everything else that appears in its own world.

Most people live in a state of the denial of death. They just don't want to think about their own looming death, which in reality is a fact of existence that cannot ultimately be denied. People deny death by distracting themselves, by trying to build a monument to their own immortality, or by trying to control things and have power over others, but at the end of the day, death is a fact of existence that cannot be denied. Death is the most important fact of existence.

When death can no longer be denied, people become self-defensive. They feel compelled to defend the survival of their own body as though their existence depends on it. When this self-defensive tendency is carried to an extreme degree, they see everybody and everything else in the world as a threat to their own survival. This is when self-defensiveness is carried out to the point of absurdity. People feel the need to destroy all possible threats to their own body survival, even if that requires them to destroy everything in their own world except for their own body.

The problem of emotional self-defensiveness is a result of consciousness emotionally identifying itself with the emotionally animated form of its own body due to its perception of emotional feelings of self-limitation to that emotionally animated personal form. The body will ultimately die due to the disorganization of that emotionally animated form. Disorganization of form is an inevitable result of living in a holographic world due to the relentless increase in entropy or disorder that occurs as heat flows in a thermal gradient. The body can only appear to survive in a coherently organized self-replicating form due to the addition of potential energy to that form that

counterbalances the natural increase in entropy. The addition of potential energy to the body allows useful work to be performed that maintains the integrity of body structures. That use of energy is the only way the body can hold together as a coherently organized self-replicating form. Eventually, the relentless increase in entropy wins out over potential energy and the form of the body becomes disorganized. We call that disorganization of form the death of the body.

Body death is only a problem if consciousness emotionally identifies itself with the emotionally animated form of its body. The body is only an emotionally animated self-replicating form that appears in the animation of the holographic virtual reality that consciousness perceives from the central point of view of that holographic world. In reality, consciousness has timeless spiritual being, and its existence is never threatened by whatever appears to happen in the holographic world that it perceives. Body death is just another event that appears to happen in that world.

When consciousness comes to understand and accept the true nature of its timeless spiritual being, then body death is no longer a problem and self-defensiveness serves no useful purpose. This is the critical role that spirituality plays in our lives. We have to come to understand and accept that the true nature of our existence is as a timeless spiritual being, which is a presence of consciousness at the central point of view of the world we perceive, and not as the emotionally animated form of a body that only appears to exist in that world.

Ultimately, we come to understand that our timeless spiritual being is not an individual being, but the undivided being of our Source. We come to understand this through the experience of spiritual enlightenment. Our individual spiritual being, which we experience as a presence of individual consciousness, ultimately returns to its Source of pure undivided being. Individual consciousness ultimately returns to and dissolves back into its Source of pure undifferentiated consciousness, like a drop of water that dissolves back into the ocean. This can only happen in an ultimate state of free fall when our own holographic world is no longer animated and disappears from existence from our own point of view. The end of that animation, which is the end of time, can only happen when our own accelerated motion comes to an end. Only in an ultimate state of free fall, when our own accelerated motion comes to end and we no longer have an event horizon that acts as our holographic screen, can time come to end as our holographic world is no longer animated and disappears. That's when we discover the true nature of our timeless spiritual being.

When one becomes spiritually enlightened, one no longer has the perspective of the individual consciousness of the observer at the central point of view of one's own holographic world, but one's perspective ascends to the highest possible level of consciousness, which is the ascended perspective of the undifferentiated consciousness of the void. This highest possible level of consciousness is described in the Bhagavad Gita:

In the knowledge of the Atman, which is a dark night to the ignorant,
The recollected mind is fully awake and aware.
The ignorant are awake in their sense life, which is darkness to the sage

In the language of Advaita Vedanta, Atman refers to the presence of individual consciousness at the center of its own holographic world, which one becomes aware of from the ascended perspective of Brahman when one becomes enlightened. Brahman refers to the undifferentiated consciousness of the void. This ascended perspective is also described in the Tao Te Ching:

In the silence and the void
Standing alone and unchanging
Ever present and in motion
I do not know its name
Call it Tao

Tao refers to the Atman, which is the presence of individual consciousness of the observer at the central point of view of its own holographic world that is in a state of perpetual motion relative to the motionless void. The silence and the void refers to the ascended perspective of Brahman.

The Tao Te Ching describes that this ascended perspective only becomes possible when one becomes desireless, which is the ultimate state of becoming motionless. As long as one continues to express desires through one's own continued motion relative to the motionless void, one will perceive the manifestations of one's own holographic world. Only when one becomes desireless and motionless can one see the mystery of one's own individual consciousness from the ascended perspective of the darkness and the deepness of the undivided Source of consciousness:

Ever desireless, one can see the mystery
Ever desiring, one can see the manifestations
These two spring from the same source
This appears as darkness
Darkness within darkness
The gate to all mystery

The Tao Te Ching describes the path of return:

Tao in the world is like a river flowing home to the sea

Returning is the motion of the Tao

It returns to nothingness
It leads all things back to the great oneness

Mu-mon describes the gateless gate paradox:

The great path has no gates
Thousands of roads enter it
When one passes through this gateless gate
One walks the universe alone

Passing through the gateless gate can only happen when one becomes motionless in an ultimate state of free fall. Enlightened beings describe this experience as falling into the void and the dissolution of their own individual consciousness into the undifferentiated consciousness of the void, like a drop of water that dissolves back into the ocean. After this dissolution experience, when one again perceives one's own holographic world, one knows that one is all-one. One is truly alone in one's own world.

Chuang Tzu describes that the enlightened man remains unknown, has no-self, and is nobody. When one becomes enlightened, one no longer perceives things from the dualistic perspective of self and other, but from the ascended perspective of one undivided consciousness. Perfect virtue is the virtue of becoming desireless and motionless, which produces nothing:

The man of Tao remains unknown.
Perfect virtue produces nothing.
No-self is true self
And the greatest man is nobody

The Buddha succinctly stated the nature of spiritual enlightenment:

Truly, I have attained nothing from total enlightenment

Being at-one with the Tao is eternal because there is no place for death to enter:

Being at one with the Tao is eternal
And though the body dies, the Tao will never pass away

Because there is no place for death to enter

12) Conclusion

There is no scientific explanation for the Source of consciousness, just as there is no scientific explanation for the ultimate Source of energy and information. People who try to give scientific explanations for the source of these things are like computer scientists who try to explain the origin of a computer in terms of computer science. Computer science can never explain where the computer comes from. Computer science can explain how information is mathematically encoded inside a computer, how that information is mathematically processed as energy flows through the computer, and the computational rules that govern the operation of the computer in the encoding and processing of information, but computer science cannot explain the origin of the computer. There must be a source of the structures inside the computer that encode information and a source of the energy that flows through the computer that allows for the processing of information, which is beyond the scope of computer science. In a similar way, our scientific theories, even at the level of theoretical physics, can never explain the ultimate Source of the information encoded in the universe or the flow of energy animating the universe.

Similarly, our scientific theories can never explain the ultimate Source of our consciousness. In terms of the computer analogy, the computer has an output device called a computer screen that allows for the output of information, which can be observed and utilized by the user of the computer. The output device is a computer interface that displays forms of information on the computer screen. Those forms are projected like images from the screen to the point of view of the user, and are animated in the flow of energy. Computer science can never explain the Source of the consciousness of the user of the computer, nor even the nature of the light that illuminates and projects the images. In terms of this computer analogy, just as there must be an ultimate Source for the information encoded in the universe and the energy that animates the universe, there must be an ultimate Source for the consciousness that perceives the universe and for the light of consciousness that illuminates the universe. That ultimate Source, as the origin of all the information and energy that characterizes the universe and the consciousness that illuminates and perceives the universe, is forever beyond anything our scientific theories can tell us about the nature of the universe. Our scientific theories are forever stuck at the level of computer science.

This is exactly what the holographic principle demonstrates. A holographic world only appears to come into existence, like a computer-generated virtual reality, when a quantum computer is created. The creation of that quantum computer requires the accelerated motion of an observer that gives rise to the observer's event horizon that becomes the observer's holographic screen when the horizon encodes information. The holographic principle demonstrates there must be an ultimate Source for all the information and energy underlying the creation of that holographic world and for the consciousness that perceives and illuminates that world. Like a computer scientist, we can never give a scientific explanation for the ultimate Source of that information, energy and consciousness. We are only deceiving ourselves whenever we attempt to do so. We are not being good scientists when we attempt to give scientific explanations that are logically impossible to give. We are only creating logical contradictions and inconsistencies that arise from our false assumptions, circular reasoning and paradoxes of self-reference.

If we really want to know the true nature of that ultimate Source, which is the true nature of our own being and the ultimate nature of existence and reality, the pursuit of science is not the path. At best, scientific concepts are only useful to demonstrate the logical contradictions and inconsistencies of our concepts. One concept can be used to destroy another concept. The only path to the Source is to destroy all of our false concepts, including our own self-concept. Instead of knowing something, we have to become willing to know nothing. Instead of doing something, we have to become willing to do nothing. Instead of being something, we have to become willing to be nothing. The only true path to the Source is spiritual enlightenment, which is the path of return. Our individual consciousness and being must return to its Source of pure undivided consciousness and being. In that return, we have to bring ourselves to the point of nothingness.

One last word on the nature of God. The world we perceive is built upon three fundamental ingredients: information, energy and consciousness. Perception of the world always occurs in a subject-object relation as an observer perceives its objects of perception. In physics, we call the

perceiver the observer and call the objects of perception the observables. Modern physics tells us the observables are constructed out of nothing more than information and energy. Spirituality tells us that the observer is nothing more than a point of consciousness. Spirituality also tells us that what we call God is the Source of all information, energy and consciousness. Take away all that information, energy and consciousness, and what remains? The answer is nothing. What we call God is that ultimate nothingness, which is the Source of everything, including consciousness.

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The Upaniṣadic Philosophy As A Way Of Good Life: A Study And Some Reflections

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Abstract

The world has hardly seen any generation so lost, depressed, reckless, suicidal like this of the 21st century. The world-wide flourishing business of the Self-help books proves how desperate and lost this generation is inside. If we observe closely the recent movies then we will find a common chord behind their messages, i.e. a cry for a life of freedom. Standing in the platform of 21st century when I see a strange inertia and ignorance is engulfing this generation, I think the most significant contribution that a student of Philosophy can make right now is by focusing on the way to *good life* which has long before been taught by our mother *Upaniṣads*. Hence, the principal objective of this paper is to show how a *good life* can be ensured to each of us if the ideology of the *Upaniṣads* is followed by and implemented in our society. An attempt is also made to explore the different aspects of the question of *good life* from the point of view of the *Upaniṣadic* philosophy.

1) Introduction

"Thee, I pray may touch my soul with the fire
that the life becomes auspicious".
("*Aguner parasmani choao prane e jiban punyo karo*") [1]

In *Geetali*, Rabindranath Tagore has beautifully expressed the eternal prayer of mankind, the constant craving of the human heart to live an auspicious life - a *good life*.

Now the question is: what is *good life*? Billions of people who are counting their last days, if asked today, "how would you like to define your life? Will you call it a *good life* that you led?" The majority of reply will come in the form of a "sigh!" and eyes numb and helpless wishing if they knew how to live a *good life* when they had time in hand. It will be too blunt a simplification to assume from this that they lived their lives callously, because if we go back to their history then no doubt in the majority of cases

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we will find they also made efforts to live a good life just like us, the new batch. It's so heart breaking to see how the billions of eyes have dreamt of something but lived something else.

Behind every chapter of human history there works certain beliefs which shape the very lifestyle or the way we live our life. And 21st century is not an exception. Today, the hedonistic conception of the good life is arguably dominant in our culture. Even in everyday speech, if we say, someone is "living the *good life*," we probably mean that they are enjoying lots of recreational pleasures: good food, luxurious dress, world tour, skiing, scuba diving, etc. This hedonistic conception of the *good life* emphasizes *subjective experiences*. On this view, to describe a person as "happy" means that they "feel good," and a happy life is one that contains many "feel good" experiences.

Then does *good life* constitute of only some self-centered or subjective 'feel good' moments really? Or are we so much habituated with these beliefs that we feel too lazy to examine them? I think the second is true against which Socrates would say – "An unexamined life is not worth living."[2]

Now if we focus on the very root of Indian Philosophy, i.e. the *Upaniṣads*, then we find that thousands of years ago, even prior to Socrates, it has given us a well-examined, a deeply speculated philosophy of *good life.*

"*Asato mā sadgamaya*
Tamasomā jyotirgamaya
Mṛtyormāmṛtaṁ gamaya"[3]

This śloka beautifully represents the very core of the *Upaniṣads*, i.e. *"Lead me from the unreal to the real, from the darkness to the light, from death to immortality"*. In this context, my aim is to establish how the whole *Upaniṣads* is nothing but an inward journey or onward march towards a life of self-growth or self-perfection, i.e., towards a *good life*.

2) *Śreya* vs. *Preya* - The Way to a Balanced Life or the Middle Path

In our day-to-day life we face the conflicts between different desires. The *Kaṭha Upaniṣad* beautifully distinguishes desires into two on the basis of their very nature - *śreya* and *preya*.
Preya is motivated by the limited self-interest or the *'choṭo āmi'*. It is more attractive to an individual hence it is called '*preya*'. In the case of an individual the attraction of bodily satisfaction is more than the attraction of mental satisfaction, that's why it is *preya*. Again, in the case of society, individual-interest is more attractive than the social-interest or the interest of the community, hence it is *preya*.

On the other hand, *śreya* is motivated by the bigger or collective interest or *'boro āmi'*. We know that it's not only bodily satisfaction, but in the long run, both the bodily and mental wellbeing constitute the wellbeing of an individual. And in the same way the wellbeing of both individual and community can

only assure the wellbeing of society. *Śreya* is that which brings total wellbeing. From the individual perspective it assures the wellbeing of both mind and body, and from the social perspective it brings wellbeing to individual and community as well.

The *Kaṭha Upaniṣad* states –

"Anyat śreyoḥnyadutaiva preyaste ubhe nānārthe puruṣaṁ sinītah|
Tayoh śreya ādadānasya sādhu bhavati hīyateḥrthād ya u preyo bṛṇīte||"[4]

Meaning, "*One is good, while another is pleasant. These two having different objects chain a man. Blessed is he, who between them, chooses the good alone, but he who chooses what is pleasant, loses its true end.*"[5]

The point to be noted here is that śreyavāda is different from sannyāsavāda or the doctrine of renunciation. The *Upaniṣads* do not advise us to renunciate the society or world. Rather it shows us how a *good life* can be led by balancing between renunciation (*tyāga*) and enjoyment (*bhoga*). Its ideal is to train our sense organs in such a way that they always chose the path of *śreya* instead of *preya*. The *Upaniṣads* like our Mother teaches us self-training or self-discipline, rather than self-restraint.

"*ātmānaṁ rathinaṁ viddhi śarīraṁ rathameva tu|*
Buddhiṁ tu sarathiṁ viddhi manaḥ pragrahameva ca||"[6]

It says, "*Know the Ātman as the Lord of the Chariot, the body as the Chariot; know the intellect as the charioteer and the mind again as the reins*"[7]

"*Indriyāṇi hayānāhurviṣayāṁsteṣu gocarān*"[8]

Again the senses are compared with the horses and their objects are compared with the grassy fields towards which they move. In order to bring them in the path of *śreya* one has to train them and control them like the good charioteer.

Hence, the *Kaṭha Upaniṣad* states,

"Yastu vijñānavān bhavati yuktena manasā sadā|
Tasyendriyāṇi vaśyāni sadaśvā iva sāratheḥ||"[9]

But who has right understanding, whose mind-rein is firmly held, his senses are under control like good horses of a competent charioteer.

Just the way ploughing land is necessary in order to enjoy good crops, the *Upaniṣads* teaches us, in the same way self-training and self-discipline is a necessary pre-condition of enjoyment (refined). Neither only enjoyment (hedonism) nor total renunciation (asceticism), but a middle path has been shown by the *Upaniṣads*, i.e. the path of a balanced or self-disciplined life. And only a balanced life can ensure us a *good life*.

3) Universal Love and Sacrifice – The Path to Harmonious Living

Now one may ask that, well I understand that *śreya* is superior and benevolent than *preya*. But the allurement of *preya* is so strong that even self-discipline wants to go to a holiday in order just to enjoy it. Thus we constantly face a conflict between selfishness and unselfishness. And when self-discipline is not firmly habituated (as in most of the cases) it's easy for an individual to slip away from the path of *śreya* to that of *preya*.

Now the question comes that how can the gravity of *preya* be reduced or how can the gravity of *śreya* be strengthened so that we can ensure a *good life* to ourselves and also make room for the same to others?

If we give a close look to our day to day experiences then we find some cases where *śreya* wins over the allurement of *preya* spontaneously without any effort, e.g. a mother sacrifices her little interests for her child happily without thinking twice. A lover sacrifices everything for her beloved. This happens because there is a sense of love and oneness (like 'me' or 'mine').

Suppose one gave a bar of chocolate to a little girl. Now if one of her friends asks for a share she might not give it to him. But she will give a share of it to her brothers and sisters without waiting for them to ask. Why is it so? This happens because she feels a stronger bond of love and oneness with her siblings.

The *Upaniṣads* have beautifully resolved the conflict between selfishness and unselfishness through the concept of 'universal love' and 'oneness'. It takes us to one unity or one reality underlying everything. *Īśa Upaniṣad* says –

"Īśā vāsyamidaṁ sarvaṁ yat kiñca jagatyāṁ jagat"[10]
"All this – whatsoever moves in the universe (and those that move not) – is covered by the Lord."[11]

The *Bṛhadāraṇyaka Upaniṣad* says –

"Idaṁ sarvaṁ yadayamātmā"[12]

All this is the same reality, the same *Ātman*.

Thus gradually the *Upaniṣads* take us to the truth that in reality we are not separate from each other but we all are organically inter-related, we all are the manifestation of one and the same *Ātman*. The one who realizes this truth becomes elevated by the sense of unity or oneness with everything. The whole world becomes his family. He awakes in the sphere of universal love and freedom. All his actions follow from it, and he never gets slipped away from the path of *śreya*.

Hence the *Bṛhadāraṇyaka Upaniṣad* quotes –
"Ātmanastu kāmāya bhutāni priyāṇi bhavanti"[13]
It is because of the universal soul (*Viśvātmā*) dwelling in everything, everything becomes our object of love.
Keeping this oneness of everything in view, *Īśa Upaniṣad* advices us –
"Tena tyāktena bhuñjithā"[14]
Enjoy through renunciation, i.e. enjoy delight through sacrifice (of *preya*) just like a mother delights by sacrificing for her children, a lover delights by sacrificing for her beloved.

Now one may ask that why the question of sacrifice is coming at all? Is sacrifice necessary to live a *good life*?

It is worthy to note that it's not about any one's *good life* but the *good life* for everyone is aimed at here. Since each individual is connected in one fabric, a partial sacrifice is necessary from the part of each individual to live and let live a *good life.* If we look at the food chain of our environment then we find that it is not a utopian theory or belief, but it's the fact. What makes us survive? It is nature which sacrifices a portion of itself in different forms (e.g. grain, fish, meat, etc.) each day so that we live. Let us take another example, a Professor retires from his post after a certain period, only then a fresher can enjoy the post. Now if the Professor rejects to sacrifice his post and thinks only about his interest (*preya*), then the fresher will be deprived from his right to enjoy the post and thereby a good life .
Hence we see sacrifice is the very principle to live and let live.

Most importantly if one's mind setup is shaped by the teachings of the *Upaniṣads* then sacrifice (of *preya*) won't be a matter of effort to him. His every action will follow spontaneously from the sense of universal love and duty towards his fellow beings.

4) Self-knowledge – The Path to a Life of Freedom

We all dream of a life in which we are free from all pains, fears, anxiety, depression, anger, war etc. But in real life we face the opposite and we keep on suffering. The *Upaniṣads* is of the opinion that we are suffering because we are having a wrong identification of ourselves with the body and the mind. The *Upaniṣads* is the strong philosophy which teaches us that we are not the limited body or mind, but we are something more and higher than this. And this is what we have to know in order to be free. Hence like our mother the *Upaniṣads* advises us –

"*Uttiṣṭhata jāgrata prāpya varān nivodhata*"[15]
Dear man, arise and proceed towards the attainment of Self-knowledge, awake from your deep slumber of attachment and attraction towards the material world. Know the true nature of you, your soul, from the great spiritual teachers.

The *Upaniṣads* is the roaring lion's courage which holds,
"*Tattvam asi*"[16]

"Thou art that". Here 'that' stands for the same *Ātman* which underlies in everything.

"Yasmin sarvāṇi bhūtāni ātmaivābhūd vijānataḥ|
Tatra ko mohaḥ kaḥ śoka ekatvamanupaśyataḥ||"[17]

One who sees himself in everything and everything in him goes beyond the touch of bewilderment and suffering.
Realizing this truth, Tagore beautifully says,

"Tomaro asime pranamana laye jatadure ami dhai
kothao dukkha, kothao mrittu, kotha viccheda nai||
Mrityu se dhore mrityuro rup, dukkho hoi he duhkhero kup
Toma hote jove hoie vimukh apnar pane chai||"[18]

In Your infinitude if I move there is no suffering, no death, no separation. But when I turn myself from You (i.e. the *Brahman* or *Ātman*) death becomes intolerable, sufferings engulf me. So, in the infinitude of the *Ātman* when we awake there is no suffering, there is nothing to lose, hence nothing to fear. This is the moment when we become free and begin to live a life of freedom. It is the *Upaniṣads* which can alone lead us to the life where 'our hearts will be free from fear and heads will be held high'. In the words of Tagore,

"Citta jetha voisunya, uccha jetha sir"[19]

5) Conclusion

Now through the analysis of the paper above we can come to the conclusion that a *good life* must fulfil three criteria as follows –

i. First of all, it must be a balanced life. The wellbeing of the agent (*ātmamokṣārtham*), as well as that of the others (*lokasaṁgrahārtham*) should be the aim of our each and every action.

ii. And why will we act so? Because we are not separate from each other. We are the One appearing as many. In the words of Tagore – "…when by physical and mental barriers we violently detach ourselves from the inexhaustible life of nature; when we become merely man, but not man-in-the-universe, we create bewildering problems"[20]. Hence Swami Vivekananda says, "Therefore in all our actions we have to judge whether it is making for diversity or for oneness. If for diversity we have to give it up, but if it makes for oneness we are sure it is good."[21]

iii. Thirdly, a *good life* is a life of freedom from all sorts of fear, weakness. It is a life elevated by self-knowledge (*ātma-jñāna*) and thereby flooded with tremendous self-courage or inner-strength (*ātma-viswās*). Swami Vivekananda says, "…the greatest error, says the Vedanta, is to say that you are weak"[22]. "The Vedanta teaches men to have faith in themselves first…Vedanta says, a man who does not believe in himself is an atheist…It is we who have put our hands before our eyes and cry that it is dark. Know that there is no darkness around us. Take the hands away and there is the light which was from the beginning. Darkness never existed, weakness never existed."[23]

So, a *good life,* according to the *Upaniṣadic* philosophy, is a life lived like a lion, not like a sheep. Regarding the necessity and relevance of the human values and life skills, as contained in the *Upaniṣads,* Mr. Edmond Holmes writes, "The Metaphysics of the *Upaniṣads,* when translated into the ethics of self-realisation, provided and still provides for a spiritual need which has been felt in diverse ages and which was never more urgent than it is today."[24]

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The Misnomers of Universe, Gravity and Black Holes

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Abstract

Knowledge rides on the words. If the names do not correctly represent the knowledge then it is bound to create hurdles in conceptualization, intuition, and further enhancement of knowledge. The languages evolved through deep meditations and intelligent thought processes. The words need to be correct to the context and should not be used as if they are part of a trend or fashion.

Keywords: Universe, gravity, mass, Rig Veda, dark matter, dark energy, Big Bang, Galaxy, intergalactic space.

1) Introduction

The language is considered as old as the cosmos. The language is connected to the origin of the cosmos. It is known as Nadbrahma (expansive vibrations of musical notes). If you follow #nasahubble page on Instagram then you can hear the music of the universe. The Hubble telescope can pick up the radio, optical and other frequencies from distant stars and galaxies, and these are given equivalent sound notes and the music is assembled. The frequencies are also like mathematical infinite series and they can be compared to the sound spectrum to make it compatible with human reception. Some of the basic laws of waves whether machinal or electromagnetic or cosmic rays are the same for all. This indicates that the basic intelligent structure of the Cosmos is simple, repetitive, and layered.

Speech emanates from Para. Developing in Pashyanti, its two branches grow. In Madhyama it is laden with flowers and in Vaikhari it bears fruit. The order in which it develops is reversed to that rhythm as well. The vowels and consonants have their origin in primordial cosmic sounds. As per Sankhya Philosophy, the ego and the mind originate from nature. When the galaxies form, the communication between conscient beings (higher intelligence) takes place at the highest level 'Para'. Depending on the medium of communication of the Jeeva in various bodies, Prajapati creates the speech from his mind. He gives it to Devas and then to the mortals.

बृहस्पते प्रथमं वाचो अग्रं यत्प्रैरत नामधेयं दधानाः ।
यदेषां श्रेष्ठं यदरिप्रमासीत्प्रेणा तदेषां निहितं गुहाविः ॥(*ऋ.* 10.71.12)

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O lord of Infinite Speech, Brihaspati, the first and original form of eternal speech, which is the integration of name, word, and factual reality, which the sages receive and bear in mind and articulate at the dawn of human creation, lies immanent in the universal mind. It is borne in the best and immaculate minds of the sages who make it manifest from there by divine inspiration in a state of grace.

2) The Universe and its Origin

The word universe (uni-verse or one verse or a stanza) etymologically refers to one galaxy but today it is being used s a substitute for the word cosmos. The verse may contain many words and words are made of consonants and vowels which may point to different wave strings and fundamental partticles of existence. The one verse may, therefore, point to a galaxy and many different verses mean different galaxies. The theory of the Big Bang is the theory of the creation of our galaxy and similar is the process for other galaxies and the cycle of collapse and creation for individual galaxies. The theory of the creation of the cosmos is different, it will entail the history of the formation of five basic dimensions of the universe viz consciousness, time, space, energy, and matter.

The Big Bang theory is about the evolution of the universe. The idea of Hirayangarbha (Golden Womb) has been referred to in Puranas in many places. The description is also the same. The word universe (uni-verse or one verse or a stanza) etymologically refers to one galaxy but today it is being used s a substitute for the word cosmos. The theory of the Big Bang is the theory of the creation of our galaxy and similar is the process for other galaxies and the cycle of collapse and creation for individual galaxies. The theory of the creation of the cosmos is different, it will entail the history of the formation of five basic dimensions of the universe viz consciousness, time, space, energy, and matter.

The timelines for the Big Bang[1] are 10-43 seconds in which the Universe took shape in 10-6 seconds, the formation of basic elements happened in 3 seconds, the radiation Era that lasted 10,000 years, and so on.

The Big Bang - 10-43 seconds: The universe begins with a cataclysm that generates space and time, as well as all the matter and energy the universe will ever hold. For an incomprehensibly small fraction of a second, the universe is an infinitely dense, hot fireball. The prevailing theory describes a particular form of energy that can suddenly push out the fabric of space. At 10-35 to 10-33 seconds a runaway process called "Inflation" causes a vast expansion of space filled with this energy. The inflationary period is stopped only when this energy is transformed into matter and energy as we know it.

The Universe Takes Shape - 10-6 seconds, after inflation, one-millionth of a second after the Big Bang, the universe continues to expand but not nearly so quickly. As it expands, it becomes less dense and cools. The most basic forces in nature become distinct. The particles smash together to form protons and neutrons.

Formation of Basic Elements- 3 seconds: Protons and neutrons come together to form the nuclei of simple elements: hydrogen, helium, and lithium. It will take another 300,000 years for electrons to be captured into orbits around these nuclei to form stable atoms.

The Radiation Era- 10,000 years: The first major era in the history of the universe is one in which most of the energy is in the form of radiation -- different wavelengths of light, X rays, radio waves, and ultraviolet rays. This energy is

The interpretation of these timelines by the scientists lacks a perspective when they decide the age of the universe. The primaeval atom from where the big bang happened was containing all the compressed matter in whichever form and therefore had a tremendous amount of gravity. This aspect has not been catered to by the scientists. These timelines when applied to such a time system (of a Black Hole) will give nonlinear timelines.

Sagittarius A* is a supermassive black hole (400 million times the mass of the Sun) at the centre of our galaxy. It is 26,000 light-years from the Solar System. Emma Osborne, an astrophysicist at the University of Southampton told an audience at New Scientist Live, "Anything mass will stretch space-time. And the heavier something is, or the more mass it has, the more it will stretch space-time. "If you were to stand just outside the event horizon of Sagittarius A*, and you stood there for one minute, 700 years would pass because time passes so much slower in the gravitational field there than it does on Earth."

The phenomenon of different speeds of time has also been described in Puranas. The book, 'Beyond Common Sense' narrates the story of King Kakudumi and his daughter Revathi visiting the galactic centre. If we apply the kind of nonlinear timeline to the age of the Milky Way, the preset timeline of the universe being 14-18 billion years old would stretch to great lengths. It may come close to 432 billion years[2].

3) Gravity

Sir Isaac Newton (1643-1727) was an English mathematician and physicist. In 1687, he presented the inverse square law of gravitation in "Philosophiæ Naturalis Principia Mathematica. The legend goes that Newton discovered Gravity when he saw a falling apple while thinking about the forces of nature. He termed it as spooky action at a distance.

The words, sometimes, act as authentications seals and point to the source of knowledge. The word 'gravity' has a similar case. Our word gravity and its more precise derivative gravitation come from the Latin word gravitas, from 'gravis' (heavy), which in turn comes from a still more ancient root word thought to have existed because of numerous cognates in related languages. From 'gwerh' and 'gwrhu' comes the Latin 'gravis' and 'gravitas' meaning 'heavy' 'weighty' 'important' and the Latin 'gravity'[3]. The Sanskrit cognate is Gurutva (weighty, venerable), These words have common meanings of heaviness, importance, seriousness, dignity, grimness, etc.

It is believed that the modern, physical sense of a field of attraction did not appear until Newton's time. Indeed, for Galileo, Newton, and scientists up to the beginning of the twentieth century, gravity was no more than an empty name for the phenomenon, a fact that they were well aware of. Newton's law of universal gravitation states the following. $F=G\ m_1m_2 / r^2$. Whereas

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the remnant of the primordial fireball, and as the universe expands, the waves of radiation are stretched and diluted until today, they make up the faint glow of microwaves which bathe the entire universe.

F is proportional to M_1M_2 / r^2, (directly proportional to both masses and inversely proportional to the square of the distance between them). The proportionality becomes equal by inserting a value, a constant G. Value of G balances the equation with unknown factors which seem to affect the equation. It would not be wise to discard G despite all its theoretical limitations because it's a practical constant. It represents the forces that balance out at a distance. The equation for Gravitational force was a theoretical deduction and Newton only solved the proportionality aspect by inserting G, he did not assign any numerical value to G. The universal constant G was calculated by observation (practical empirical experiments) and not theoretically. The practical values of G vary slightly during different measurements.

5) Ancient References to Gravity

Rishi Kanad (pre-Mahabharta, 4000-6000 BC) propounded Visheshika Sutras (special knowledge or science) about the throwing of an object. He mentions gravity (Gurutva) and its effects in Visheshika Sutras about throwing an object….

गुरुत्वप्रयत्नसंयोगानामुत्क्षेपणम् ॥ १ ॥ १ ॥ २६ ॥

The motion of throwing upwards is due to the conjunction (resultant) of force and gravity.

Falling of that object

संयोगाभावे गुरुत्वात् पतनम् ॥ ५ ॥ १ ॥ ७॥

In the absence of conjunction, falling is due to gravity. In the section where he describes forces acting on the launch of an arrow, he explains how the arrow falls.

संस्काराभावे गुरुत्वात् पतनम् ॥ ५। १ । १८ ॥

In the absence of the efficacy of previous resultant actions, the arrow falls due to the effect of gravity.

In the section where he describes forces acting on the flow of water, he explains how water falls.

अपां संयोगाभावे गुरुत्वात् पतनम् ॥५॥२॥३॥

In the absence of conjunction, the water falls due to gravity.

5th-century scholar Aryabhata has also mentioned gravitational force. He referred to spherical earth drawing things to it on all sides. He did it poetically by likening the earth to the florets of the spherical Kadamba flower. Brahmagupta, a 7th-century astronomer, was another mathematician who knew about the effects of Gurutva. Brahmagupta postulated correctly that there is an attraction towards the centre of Earth. Brahmagupta did not say anything about the inverse square law. He had not used gravity to predict the orbits of planets.

"[Indian astronomers] used this argument to justify the concept of a self-sustaining spherical earth which did not need to be supported from the 'bottom' by Sesha or elephants or any other cosmological underpinnings, and which also would not be subject to beings falling off the 'bottom'

of it," said Kim Plofker[4], assistant professor of mathematics at Union College in New York, in an email to Scroll[5]. Plofker has researched Sanskrit texts, including Aryabhata's work, for the origins of mathematics in India.

The equivalence principle states that two fundamentally different quantities, inertia, and passive gravitational mass, always be exactly proportional to one another.

Inertia comes from the Latin word 'iners' meaning idle, sluggish[6]. Inertia is one of the primary manifestations of mass, which is a quantitative property of physical systems. Vis Insita- The innate force of matter; another name for vis inertiæ. It is that by which a vessel "keeps her way. The word 'vis insita' means an innate force of matter, is a power of resisting by which everybody, as much as in it lies, endeavours to persevere in its present state, whether it be of rest or of moving uniformly forward in a right line.

The word gravity reflected common meanings of heaviness, importance, seriousness, dignity, and grimness whereas mass comes directly from Latin massa meaning "kneaded dough, lump, that which adheres together like dough, "probably from Greek maza "barley cake, lump, mass, ball," which is related to masse in "to knead," from PIE root *mag- "to knead, fashion, fit."[7] The modern sense of the word mass in English was extended in the 1580s to "a large quantity, amount, or number". Meaning "bulk" in general is from c. 1600. As "the bulk or greater part of anything" from the 1620s. The strict sense in physics, "quantity of a portion of matter expressed in pounds or grams" is from 1704.

The important fact is that both Gurutva (gravity) and Mahatva (mass) have been described quite well in Vedas and ancient works. The word Mahatva is used most commonly today in a sense of importance. The root word for Mahatva is Mahat. The Cosmos has been created in the principle of Mahat. The order of evolution of the universe according to Sānkhya and evolution of Prakṛti (Nature) in its Vikaras (special attributes). Mahat contains all individual buddhis and all potential matter of the gross universe in its cosmic extent as the first manifest principle (tattva). Mahat in turn produces ahaṃkāra, the ego principle. That is how it comes to meaning as importance and ego of matter as to stay where it wants.

The Anutva is subtle and subtler and Mahatava is gross and grosser. The entire creation is manifested in smaller existence (Bhuta) combining with different permutations and combinations under influence of different forces and making it bigger, stage by stage. At every stage, so combined smaller existence forms bigger existence and so on.

The Gurutva is considered the opposite of the Mahtva. In the traditional sense, it is a quality that makes the mass behave with certain intelligent attributes. Jupiter is known as endowed with high Gurutva and has been granted as Guru of all Devas.

Gurutva may reflect the intelligence (Buddhi) of a heavenly body. Earth is also conscious and follows the astronomical laws and maintains balance. The movement of magma, plate tectonics, magnetic field, winds, ocean currents, and cyclic activities of various elements and occurrences indicate that Earth is conscious in a unique way. Recently papers were published showing water has memory, the dunes communicate with Earth other so do the star systems, we may not know it yet. The interaction of a satellite to a planet system, their effects, and mutual dependence could be some of the intelligent features. The ability of the Moon to affect life on Earth and the stabilization it provides to the Earth's orbit are well known. Io (a satellite of Jupiter) and Jupiter constitute a moon-planet system. Io influences Jupiter by supplying heavy ions to its magnetosphere, which dominates its energy and dynamics. Jupiter influences Io by tidally heating its interior, which in turn drives the volcanic activity on Io. The role of Io and Jupiter in their mutual interaction and the nature of their coupling have been studied by scientists.

Savita- a Controlling Force of the Milky Way. The flow of spacetime has been described as Savita (with special attributes). Savita is the force of universal firmament that has been described in Rig Veda. The difference is spacetime as proposed by Einstien is without any intelligent attributes whereas Savita is with intelligent attributes. This is merely a change of perspective whether we can call matter having unique intelligence as it can follow Padarth Dharma (properties of matter). This intelligence is not interpretative as in the case of humans but more like passive intelligence as a property of their design as reflected in mathematics and science in their creation and behaviour. Rig Veda 1.35.9

हिरण्यपाणिः सविता विचर्षणिरुभे द्यावापृथिवी अंतरीयते ।

अपामीवां बाधते वेति सूर्यमभि कृष्णेन रजसा द्यामृणोति ॥

The gold-handed, all-beholding, Savitā is spread between the two regions of heaven and earth, dispels pain brings the sun, and overspreads the sky with control and radiance destroying darkness.

Rig Veda 10.149.1

सविता यन्त्रैः पृथिवीमरम्णादस्कम्भने सविता द्यामदृंहत् ।

अश्वमिवाधुक्षद्धुनिमन्तरिक्षमतूर्ते बद्धं सविता समुद्रम् ॥

Savitā has fixed the earth with fetters; Savitā has made the heaven firm in a plural place where there was no support; Savitā has milked the cloud of the firmament bound to the indestructible (ether) like a trembling horse.

It is now evident that it may not be gravity alone that is responsible for making the earth go around the Sun. The ancient scriptures such as the Veda and Vaishesika Sutra of Kanad give an insight into a continuously controlled Cosmos based on Nature's laws and also by intelligent interference of universal force.

In many places, the translation of the word 'Savitur' is referred to Sun but that may not be proper. Savitur and Savita are found at many places in Veda (Knowledge). Savitur also cognates with

Sagitur which could be a root word for Sagittarius. The same is also related to sagacious, sage, and also Sagita[8]. Sagita means arrow in Latin.

Sagittarius[9] is usually depicted as a centaur holding a bow and arrow. The constellation's symbol is ♐. It represents the archer. It is also associated with Crotus, the satyr who kept the company of the Muses on Mount Helicon. Sagittarius is one of the largest southern constellations. Sagittarius is the 15th largest constellation in the sky. It is easy to find because it lies in the centre of the Milky Way and its brightest stars form an asterism known as the Teapot. Sagittarius is known as Dhanu (in the Indian zodiac) and that also represents a bow.

Karl Jansky, considered a father of radio astronomy, discovered in August 1931 that a radio signal was coming from a location in the direction of the constellation of Sagittarius, towards the centre of the Milky Way. The radio source later became known as Sagittarius A[10].

Sagittarius or Savitur is considered the seat of Brahma. This is also the origin point which is described as Hiranyagarbha (golden womb) or golden egg as is in the theory of the Big bang. All radio signals, gravitational waves, and time-base signals (spacetime fabric) are controlled by Sagittarius. Sagittarius is the provider of intelligence as indicated by the most important and powerful hymn of Rigveda known as 'Gayatri Mantra'.

Ushas- a Controlling Force of Sun. Usha is considered the daughter of the Sun representative of the Dawn, Usha is said to travel in a shining chariot drawn by ruddy horses or cows. Like a beautiful maiden dressed by her mother and covered with jewels. She is young, being born every day; and yet she is old, being immortal, wearing out the lives of successive generations, which disappear one after another, whilst she continues undying. She is young, being born every day; and yet she is old, being immortal, wearing out the lives of successive generations, which disappear one after another, whilst she continues undying. The souls of the departed are said to go to her and to the sun. Rigveda 6.64.1

उदु शरिय उषसो रोचमाना अस्थुरपां नोर्मयो रुशन्तः |

कर्णोति विश्वा सुपथा सुगान्यभूदु वस्वी दक्षिणामघोनी ||

The radiant Dawns have risen up for glory, in their white splendour like the waves of waters. She makes paths all easy, fair to travel, and, rich, hath shown herself benign and friendly.

It is no wonder that the Sun's rays fly to interact with the Heliosphere- the region surrounding the Sun and the solar system that is filled with the solar magnetic field and the protons and electrons of the solar wind. **The heliosphere acts as a shield that protects the planets from interstellar radiation. This is not just a random protection shield that enables life in the solar system.**

Bhaga- a Controlling Force of the Cosmos. In Hindu philosophy, it is Bhagwan who is the preserver of the cosmos. He runs the show in which he influences his mechanism through other

divine beings. The word 'Bhaga' means movement of light. Therefore the Bhagawan is who controls the movement of light and in that essence the one who controls time. In the cosmological sequence of evolution, the unseen energy reaches a state where it becomes forever (in both ways space and time). Control of this energy essentially enables control in the cosmos. The force in between the intergalactic space is Bhaga, in the galaxies, it is Savita, in the solar system it is Usha and on a planet it is Gurutva. Therefore, any being on any planet or anywhere in the cosmos is affected by the result of these forces. The interplay of these forces is the root cause of vacuum energy which is underlying background energy that exists in space throughout the cosmos. Vacuum energy is a special case of zero-point energy that relates to the quantum vacuum.

Though it may appear that the force of 'Bhaga' moving the galaxies would be stronger its otherwise, 'Savita' is stronger than 'Bhaga' and 'Ushas' is stronger than 'Savita', only then they can make the difference within the galaxy and the Solar system respectively.

4) Black Hole or Dark Star

The first real evidence for dark matter came in 1933 when Caltech's Fritz Zwicky[11] used the Mount Wilson Observatory to measure the visible mass of a cluster of galaxies and found that it was much too small to prevent the galaxies from escaping the gravitational pull of the cluster. Something else, concluded Zwicky, was acting like glue to hold clusters of galaxies together. He named the substance Dunkle Materie in German, or dark matter.

Matter can be invisible only if it does not interact with light in terms of emission, reflection, refraction etc. The photons hold zero mass and anything that holds mass less than zero would not qualify as matter in a classical sense. Dark matter is a substance that is pre-matter.

Only 4.6% of the universe's energy comprises the visible baryonic matter that constitutes stars, planets, and living beings. The rest is thought to be made up of dark energy (68%) and dark matter (27%).

Hydrogen is the most abundant element (73-74%) in the cosmos followed by Helium (23-25%), Oxygen, Carbon, Neon, Iron and Nitrogen. It is the first stable element and acts as fuel for the stars. The stars convert the lighter matter into the heavier matter and the remaining matter of the fused nuclei may be responsible for the emission of energy. In 1895, Rowland, studied the intensities of 39 elemental signatures in the solar spectrum. Leaving hydrogen and helium, the rest of the seen matter comprises less than 0.5% of the total cosmos.

The Standard Model of Physics talks about fundamental particles The nucleus (protons and neutrons) contains almost all the mass of the atom, while the electrons are responsible for the chemical properties of the atom. These are further made up of 6 types of quarks, 6 types of leptons and 5 categories of many different types of Bosons (force interaction particles).

Neutrinos are likely the most abundant particles in the universe and may be more common than photons, the basic unit of light. Neutrinos are a type of leptons, which are also fermions, and together with quarks make up matter. The difference between leptons and quarks is that leptons exist on their own, whereas quarks combine to form baryons. A neutrino is an exponentially small particle with no electrical charge. As other particles traverse galactic and extra-galactic distances, they can become deflected, scattered, or even stopped altogether by matter, gravitational and magnetic fields. Neutrinos can pass through all of these uninhibited, which makes them excellent sources of information from the far reaches of the galaxy.

These subatomic particles are not stable and particles such as leptons and baryons decay by either the strong force or weak force (except for the proton). Neutrons have a mean life of approx 881 seconds. The life of Proton is {16.7 billion yottayears (6.6 × 1028 yr)}. The μ and τ muons, as well as their antiparticles, decay by the weak force. Neutrinos (and antineutrinos) do not decay, but a related phenomenon of neutrino oscillations is thought to exist even in vacuums. The electron {66,000 yottayears (6.6×10^{28} yr)} and its antiparticle, the positron, are theoretically stable due to charge conservation. These particles are made up of energy and they come to life depending on wave interaction. These are caused essentially by a collapsed wave function or a quantum excitation of a field or just an entangled vibrating string. Vyasa Muni in his teachings to Rama tells about many types of wave structures as 'Pata' (2D fabric like cloth) made up of threads (energy channels), 'Ghata' (3 D spherical Structures), and 'Kunda' (hollow wells).

The presence of a black hole can be inferred through its interaction with other matter and with electromagnetic radiation such as visible light. Black holes are considered objects whose gravitational fields are too strong for light to escape. This understanding is bound to change with the correct understanding of the force of gravity. Every formation of the cosmos has a definite objective.

The nucleus of an atom is about 10-15 m in size, this means it is about 10-5 (or 1/100,000) of the size of the whole atom. A good comparison of the nucleus to the atom is like an apple whereas the nearest electron will be approx. 3 km away. This is what explains the density of the Black holes, that they cannot be made up of normal matter with electrons orbiting around but are made up of solid nuclear particles and their pre-matter forms kept together by the stronger nuclear force.

The pre-matter is a product of the Black Holes as the matter is produced by Stars. The force which may attract and attach photons may be a different kind of fundamental force other than gravity. The Black holes are not holes but essentially Dark stars or black stars.

The Black holes may churn out the fundamental particles such as protons and neutrinos, which after interaction with other particles or wave functions may lead to the creation of the basic element hydrogen. The external accretion disk forming quasars may be the input-output mechanism. The galaxies have originated from their central Black Holes which may act in cycles of expansion and contraction over huge time scales. These black holes also exert forces which are natural but which may also contain intelligent control mechanisms. More about the central black holes of the milky way is discussed in the last section.

5) Dark Energy

The cosmological constant is a homogeneous energy density that causes the expansion of the universe to accelerate. The cosmological constant is the simplest realization of dark energy, which is the more generic name given to the unknown cause of the acceleration of the universe[12]. There was a difference in the observed and predicted value. If the value of the constant is different then the cause is referred to as 'Dark Energy'. We know how much dark energy there is because we know how it affects the universe's expansion. It turns out that roughly 68% of the universe is dark energy.[13] **Intergalactic spacetime and spacetime inside a galaxy may have different formatting leading to the difference in values.** This would come into perspective if we consider different space-time fabrics for every galaxy which arises out of the central black hole.

Incidentally, in Hindu philosophy, this energy is depicted a Kali Shakti, the principal goddess, another form of Shiva, and (dark) energy of the Cosmos. For matter to appear, there is a state which is pre-matter and in a similar way for energy to appear there is a state called pre-energy. This state is of energy which is unseen or not capable of being attributed to and therefore known as Dark Energy.

The forces in the Cosmos are resultant of the interplay of energy. These are referred to as 'Bhava' (affinity) and are the result of wave characteristics like coherence, spin or polarity of the wave function which continuously forms and decays and may become a stable structure spanning across the cosmos forever. These Bhava (forces) may have a disposition from the strongest to the weakest. That is integral to the structure of the universe and these forces are applied to similar types of interactive participants. For example, there is a strong nuclear force inside an atom but it doesn't affect other things.

6) Conclusion

Philosophy paves the way for theories and theories combined with mathematics and/or experimental proof pave the way for science. The human mind carries out interactions with nature to understand and evolve. These interactions take place not only through the human sense organs or scientifically extended sensors but also through human perception. Human perception contains higher algorithms for receiving knowledge through the higher languages of Para and Pashyanti. The human mind needs to have correct conceptualisation with correct words for it to have better abstract imaging (pictographic processing by the brain, Pashyanti) of concepts and hence the concepts may be represented by the appropriate and correct words.

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8) Southern constellation; ninth sign of the zodiac, late Old English, from Latin, literally "archer," properly "pertaining to arrows," from sagitta "arrow," which probably is from a pre-Latin Mediterranean language.
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sage (adj.) "wise, judicious, prudent," c. 1300 (late 12c. as a surname), from Old French sage "wise, knowledgeable, learned; shrewd, skillful" (11c.), from Gallo-Roman *sabius, from Vulgar Latin *sapius (also in Hindi- Sadhu)

with **-ous** + stem of Latin *sagax* "of quick perception" (see **sagacity**). The sense of "skilled at discovering truths," especially as regards human natures,

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The Nature of Reality

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Abstract

In this paper, an attempt is made to analyze the term 'Reality' from a variety of philosophical viewpoints and the various questions and concerns regarding reality will be methodically addressed by evaluating several philosophical schools of thought, such as idealism and materialism. The two different perspectives on reality, namely the objective and the subjective, will next be described. The consequences of evading reality will also be presented.

1) Introduction

The question of 'what reality is?' is an ancient one and its origin can be traced back to the time when man's faculty of consciousness developed into a conceptual form of awareness. From that time onwards there have been many answers given to this question. Some of the questions concerning reality that mankind has been perplexed with for ages are: What is reality? What is its nature? Is there something called reality out there or is it merely a fiction invented by the mind? However complex and esoteric a philosophy might appear to be, its fundamental building block is whether it considers reality as an absolute or not. That is, whether reality is dependent or independent of the perceiver's consciousness is the starting point of any philosophy.

The two different contrasting attitudes towards reality are Idealism and materialism. Idealism considers ideas as real and primary whereas matter as dependent on ideas and secondary. They ascribe no independent objective reality to the material world other than through eternal ideas. They consider the mind or soul to be the essence of existence and without soul or mind one cannot perceive the reality of existence of the universe. It would be instructive to examine some of the ancient and modern philosophers who endorsed idealism.

2) Ancient Western Idealist Philosophy

We can see traces of primacy of ideas in the philosophy of **Pythagoras (c. 571 BCE to c. 497 BCE)**. Pythagoras was the first person to use the word "philosopher" and believes that the soul is immortal and that it reincarnates by entering different bodies. He was a precursor to Plato and influenced him greatly in forming his theory of ideas. His philosophy resembles the Upanishadic philosophy of the soul and the ascetic lifestyle. He pursued philosophy for knowledge's sake and considered philosophy as the study of ultimate truths about the universe.

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The ancient Greek philosopher **Plato (c. 429 BCE to c. 347 BCE)** was an important figure and proponent of the idealist tradition. Plato avers that reality is an unchangeable fact but the material world is ever-changing, therefore, he asserts that the world is not real. He proposes that every material object and its ideas have Forms which exist independently in reality. He calls them a world of being which has real existence. On the other hand, he considers the material world as the world of becoming which can be perceived through our senses. He says that the true reality of the world of being can be learned by reason. But Plato fails to integrate the concept of Form and matter and how they interact.

To explain further, according to Plato there is a world of Forms or ideas which is permanent and as a result more real than the fleeting world of relative forms and appearances. And this world of Forms is open for perception to only those who have refined their mental and intellectual equipment through rigorous and committed educational practices and who then become qualified for awakening (recalling) to the world of forms. However, most of the people are unaware of the nature of forms as they are unable to transcend the world of mundane experiences. To explain this Plato uses the "Allegory of the Cave" where people untutored in the theory of forms are analogous to prisoners chained in a cave who can only see shadows cast by real objects that pass behind them and mistake appearance for reality. For Plato, the ability to recognize the Forms is possessed by the class of people who are essentially directed by the "Reasoning" part of the soul. He says, it is the philosophers who are able to perceive the highest form which is the Good and are capable of being just and virtuous rulers.

3) Modern Western Idealist Philosophy

Bishop Berkeley, who is an important figure when it comes to the philosophers who support idealism, considers reality as mere perception of physical existence. He explains that an object is perceived through senses by a subject through an idea of that object. Hence, he alludes that all object materials are nothing but ideas. Initially Berkeley proposed that only ideas exist which are accessible to our consciousness. Later he slightly modified his idealism by not denying the existence of material objects perceived by our senses.

Eighteenth-century Philosopher **Immanuel Kant**, asserts the objective reality of the external world which is perceived through our senses. However, he argues that whatever we perceive through our experiences with senses, may not be an accurate representation of the reality of the world. The world as it is in itself is never accessible to our experiences as per his transcendental idealism. This limits our understanding of the reality of the world. As Kant writes, "what things may be in themselves I know not and need not know because a thing is never presented to me otherwise than a phenomena."[1] (*Critique of Pure Reason*) In Kant's view, it is of the utmost importance to make a clear distinction between the two separate domains of phenomena and noumena at all times. Phenomena are the appearances that make up human experience, while noumena are the (supposed) objects themselves that make up reality.

The German philosopher *Friedrich Hegel* explains about Phenomenology as to find proof of the reality of knowledge about the world. In his preface to the book *Phenomenology of Spirit*, he says that "Knowledge as it is at first, or the immediate spirit, is spiritless or sensuous

consciousness. In order to become real knowledge, to reach the element of science which is its pure notion itself, this sensuous consciousness has to work itself through a long way."[2] According to him, Phenomenology perfects our sensual experience which is the relationship between subject and its experience about the object world. Hegel claims that what is reality is reasonable and what is reasonable is real.

Another German philosopher *Arthur Schopenhauer* was greatly influenced by Kant and states that the world is my representation. According to him, the world as we experience it is structured by objects in space and time which have causal relationships with other objects. For this he advocates the principle of sufficient reason for knowing the reality. He maintains that any reality or fact must have a sufficient reason for its existence otherwise it cannot come into existence at all. He explained reality with four different concepts viz, material world, abstract notions, mathematical and logical formulations and psychological constructions which have different sets of mutually exclusive sufficient reasons. Building on the transcendental idealism of Kant, Schopenhauer developed his own system in which he explains the world as a product of a primeval 'will.' We can see Schopenhauer's argument in favor of idealism in the following quote, "…if accordingly we attempt to imagine an objective world without a knowing subject then we become aware that what we are imagining at that moment is in truth the opposite of what we intended namely nothing but just the process in the intellect of a knowing being who perceives an objective world, that is to say, precisely that which we had sought to exclude. For this perceptible and real world is obviously a phenomenon of the brain and so in the assumption that the world as such might exist independently of all brains there lies a contradiction."[3] (*The World as Will and Representation*)

4) Materialist Philosophical View of Reality

The diametrically opposite view of idealism is materialism, which asserts that matter is the only thing that exists in the universe and that everything that exists in it, including thinking, volition, and feeling, can be described in terms of matter alone. It will be beneficial to investigate the philosophical positions of some of the ancient and modern thinkers who supported materialism.

5) Ancient Materialist Philosophy

Many ancient Greek philosophers tried to find the primary cause of the universe in material things like water, air, fire and earth.

Thales (c. 625 BCE to c. 545 BCE) is considered the first western philosopher who tried to explain the origin of the universe from natural phenomena rather than from mystical or theological phenomena. Thales considers that water is the fundamental unit from which all other things emerged as he thought life is impossible without water. During his time, people believed that natural calamities like earthquakes, thunderstorms, and heavy rains were the creation of Greek Gods and tried to please them with rituals and prayers. Thales tried to explain natural phenomena like these with reason and rational thinking. He considers that the universe has some inner patterns which can be understood with reason. He argued that if we

understand nature, we can predict future outcomes and he is said to have predicted solar eclipse from his mathematical models.

Anaximenes (c. 586 BCE to c. 526 BCE) thought that everything in the world is made up of air. Herein also we can see rudimentary scientific thinking that all other forms of matter in the world like earth, water, fire, etc., were formed due to condensation of air or rarefaction of air. His views on the first cause of the universe influenced Pythagoras and Heraclitus. Whereas **Empedocles (c. 494 BCE to c. 434 BCE)** believed that there are four fundamental substances namely: earth, fire, air, and water. He states that all the matter in the universe is a by-product of various permutations and combinations of these four elements. But he also introduced non-physical entities like love and hate as guiding principles of the universe.

Democritus (c. 460 BCE to c. 370 BCE) states that the world is made up of indivisible matter of atoms which he holds as indestructible and eternal and also regards them as the ultimate building blocks of the universe. He proposes that many indivisible atoms are in constant motion in space and all the matter is made from permutations and combinations of these invisible atoms. He states that the space is infinite and as such there cannot be up or down in the space. He was the forerunner of modern scientific thinking in physics and materialism. He states that the soul does not exist independent of the body and is an aggregate of fire atoms. He upholds that through thinking and perception man acquires true knowledge about everything and rejects the Sophist view that we can never know the true nature of the world through our thinking and perception.

Another Greek philosopher *Parmenides (c. 514 BCE to c. 485 BCE)* thought about monism and claimed that the universe is eternal, indestructible, and made up of a single substance by which he recognizes the objective reality of the universe. He believed that there is only one eternal and unchangeable truth to understand nature and life. His disciple *Zeno (c. 489 BCE to c. 430 BCE)* further elaborated Parmenides' ideas about one unchanging reality of the world and formulated that "nothing can come from nothing".

Greek Philosopher *Heraclitus (c. 535 BCE to c. 475 BCE)* contradicts Parmenides' contention of one unchangeable being and proposes that everything in the universe is in constant flux. His famous example that no man can bathe in the same river twice, implies that everything in the universe 'is' and 'is not' at the same time, just as we bathe in the same river but not in the same water as the water flows constantly in the river. His teachings are similar to that of Buddha's teaching that everything is perishable and everything is in constant flux. He proposes that the universe is in constant motion and consists of the harmony of opposite forces. He also believed that the universe undergoes periodic creation and dissolution.

Xenophanes (c. 570 BCE to c. 480 BCE) is an important figure in Greek philosophy who did not believe in the immortal soul and transmigration of the soul and also ridiculed the anthropomorphic concept of Greek gods. He questioned orthodox Greek beliefs by saying "if oxen and horses or lions had hands, and could paint with their hands, produce works of art as men do, horses would paint, the forms of gods like horses, and oxen like oxen...The Ethiopians make their gods black and snub nosed."[4] (*Fragment* 15 D-K)

The Ionian philosopher **Anaxagoras (c. 500 BCE to c. 428 BCE)** attempts to approach philosophy with a rational perspective. He did not believe that one or four fundamental elements caused the universe but that it is the creation of an unlimited number of elements. He states that these innumerable elements are eternal and cannot be created. He holds the view that the world is created out of chaos because of '*nous*' (cosmic mind or world reason).

Aristotle (c. 384 BCE to c. 322 BCE) tried to reconcile the idealism of Plato with reason and logic and rejected ideas of Plato which are not consonant with his observations. Aristotle as a biologist believed that the soul is mortal and dies along with the body and as he denied the permanence of soul, he also did not believe in the transmigration of souls. Aristotle also changed the concept of the idealism of Plato, who considers that the ideas are universal, eternal, and the essence of all things. Aristotle contends that the 'universal' can exist only through particulars and the essence of anything cannot be found outside that thing. He gives an example of the idea of cowness, intrinsic to the individual cow that cannot exist outside it. But Aristotle makes an exception to the idea of God or gods which he considers as eternal and exists without particulars.

6) Modern Materialist Philosophy of Reality

Karl Marx and Friedrich Engels are prominent materialist philosophers who not only tried to explain the objective reality of the universe through the doctrine of Dialectical Materialism but also tried to explain the progress of society through their materialist interpretation of Historical Materialism. Marx considers that the material world exists independent of our consciousness and that it can be comprehended through reason. He asserts that reason always existed but not in a reasonable form. He asserts that matter is primary and consciousness is the by-product of matter in the course of evolution. He did not subscribe to the notion of eternal soul or God. He put forth dialectic methods to understand the objective reality of the universe. Also, Marx was the first philosopher who tried to explain society from a materialist point of view by postulating progress of society through class conflicts.

7) Reality, Existence and Consciousness: An Analysis

A simple and profound answer to the question of 'what reality is?' can be given with reference to existence because reality and existence are inextricably linked. That which is real, exists, and what exists is what is real. Existence can be defined as the totality of all things that exist. As a starting point, let's look at something which is basic, evident, undoubtable and unquestionable. The first and foremost of all statements of knowledge which is most general and presupposes every other statement is: 'There is something.' Notice that the question of 'what it is' or 'what this something is' is a matter of consequent discussion but here the focus is only on 'something' and 'is'. 'Something' specifies an entity and 'is' specifies that it exists.

The second statement which follows from the first statement which is also basic, evident, undoubtable and unquestionable but which pertains only to beings possessing consciousness is: 'There is something of which I am aware.' The question of 'what it is' or 'what this

something is' has to be determined and ascertained by the faculty of awareness of the being possessing it. In other words, our sensations and perceptions tell us that there is something but the answer to the question of 'what that something is?' is ascertained by using concepts. The beings that possess the faculty of awareness, for example: the living beings, depend on it for their survival.

To be conscious is to have the ability to comprehend what exists. And there are degrees or levels of consciousness. Living beings like plants directly appropriate that which is required for their life from nature in order to survive. Animals like earthworms function on the level of sensations. Higher animals like cats function on the level of percepts. And man who has the highest level of consciousness functions on the level of concepts.

Let us now consider the objective and subjective approaches of seeing reality. The subjectivist position on reality and truth can be summed up as follows: "There's no such thing as objective truth. We make our own truth. There's no such things as objective reality. We make our own reality. There are spiritual, mystical, or inner ways of knowing that are superior to our ordinary ways of knowing. If an experience seems real, it is real. If an idea feels right to you, it is right. We are incapable of acquiring knowledge of the true nature of reality. Science itself is irrational or mystical. It's just another faith or belief system or myth, with no more justification than any other. It doesn't matter whether beliefs are true or not, as long as they're meaningful to you…."[5] (A summary of New Age beliefs, from Theodore Schick Jr and Lewis Vaughn, How to Think About Weird Things: Critical Thinking for a New Age (Mountain View, CA: Mayfield Publishing Company, 1995)).

The subjectivist stance on reality cannot be true for the simple reason that existence has primacy over consciousness. Consciousness cannot create reality, it can only perceive it. The basis of all kinds of subjectivism can be traced back to the primacy of consciousness where the distinction between existence and consciousness is blurred. That is, one fails to recognise the difference between, 'it is' and 'I wish'. 'It is' comes under existence and 'I wish' comes under consciousness. One has to conform to the facts in order to fulfill one's wish. In other words, "nature to be commanded must be obeyed." The problem arises when one gives primacy to 'I wish' by ignoring the reality or 'it is'.

When the wish is given importance over and above reality and when one wants to fulfill one's wish (which is not consonant with the facts) at any cost then one tends to gravitate towards the philosophy of subjectivism. They want the universe not to be governed by laws and facts but by their wish and whim which prompts them to desire a universe where one is not burdened with facts, logic, reason and objective reality. This desire makes them create and live in an imaginary world and spin theories where consciousness is supreme. In such a world anything and everything can be obtained not by thought and effort but by just wishing. Their basic premise being: if I choose not to perceive reality then it will not exist for me. But reality will not cease to exist just because one chooses not to see. In other words, burying one's head in the sand is the psychological basis behind the philosophy of subjectivism.

Reality, the all encompassing term, for everything that exists, may seem strange and even confusing as there are so many views on what reality is. One may argue that reality is subjective or that reality is an illusion and that it is different for different people but the fact

remains that despite how you feel about reality there is something called objective reality which serves as the basis or the frame of reference for everything that can ever be known or discussed. Regardless of what one chooses to call a thing, that particular thing possesses a specific identity. This identity of an entity consists of the nature of that entity at that particular time or over a period of time. And this identity is objective i.e. it is not dependent on perception. All knowledge consists in finding the identities of various entities found in nature.

Beings with different sense organs may perceive an entity in a different form but that doesn't mean that the identity of that entity changes according to the being that perceives it. All the beings perceive reality according to the sense organs that they possess. And this reinforces the law of identity rather than negating or denying it. It shows that like all entities man also possesses identity and that all sensations are through some means and have some form. That is even the phenomenon of experiencing a sensation has an identity. For example, the phenomenon of experiencing a sensation of fragrance is through some means and has some form. Here the means is nose and the form is smell. Even if a being with different sense organs tries to acquire knowledge and develop Science and Technology then the knowledge that it arrived at and the knowledge that we have established using Science and Technology will not contradict each other. This is so, because all knowledge consists of discerning the identities of the entities and as established earlier the identities of the entities are objective in nature and not dependent upon perception.

Reality is not relative as the subjectivists claim but this does not contradict the statement that reality is in a constant state of flux. Because change implies changing from what and to what. Let's say X changes to Y. One needs to note that X has its unique identity and Y has its unique identity and that X becomes Y over time. But X is not Y at the same time and in the same respect. Change presupposes the identity of the elements involved.

Whether one acknowledges it or not, it is a fact that, for human beings the question of ‘what reality is?’ is very important because he cannot function (or deal with the world) without accepting some or the other answer to this basic question. One can either accept that the world in which he dwells is real and that it exists or choose a different view that the world presented to his senses is unreal and does not exist. There are different variants of the viewpoint that this world is an illusion but two of its sub cases are prominent. The first sub case is the view of the supernaturalists, according to whom this world is unreal and is a preparatory ground for the real world which is in another dimension where their wish would be granted at the cost of their dreaming about it. The second sub case is the view of the secularists who have replaced the term god with the term society and for whom the standard of value is that equally mystical term called society. So the ‘good’ for them is whatever is good for the society and everything is permitted and justified under this pretense. The secularists also deny living to enjoy in the present world and advocate sacrifice for the sake of society in future. Whatever may be the variant of denying the reality, they all serve a common purpose which is the destruction of life. And the rate at which one moves towards death is directly proportional to the rate at which one avoids reality. At any moment, if one

completely avoids reality then the next step is either madness or death. But most people do not reach such an extreme state but rather are fluctuating between the states of partially accepting reality. Although difficult, it is very much possible for man to consistently practice a state of awareness where he continuously chooses to be conscious of reality. And once one becomes used to this way of operating the consciousness, the rewards associated with doing so, namely happiness, will reinforce this way of functioning and a new psychological habit will be formed. It is this programming of the consciousness in the service of life and happiness that makes a person great and heroic and this is the state which everyman should aim at.

8) Conclusion

For a man to function sanely, atleast to a reasonable extent, in society, it is essential that he believe in the realness of the world around him. And the extent to which he believes and accepts reality is the extent to which he can be healthy and happy. It is to be noted that accepting reality is not a passive state of inaction but rather the first step towards rational action. Because only when one accepts reality can one try to change it. This is summed up in the quote by the American theologian Reinhold Niebuhr as: “God, grant me the serenity to accept the things I cannot change, courage to change the things I can, and wisdom to know the difference.”[6]

Ultimately, one may analyze reality as much as desired provided one does not lose sight of the single most significant aspect of reality: that it is mysterious. The first and foremost thing when it comes to anything in reality is that it is filled with mystery, that is, mysteriousness is a basic and a fundamental characteristic of reality. This is so because anything that can be known in reality cannot be known fully, that is, it cannot be known in its entirety. However small or large an object in our observation might be, we cannot determine and claim that we know everything about it. This basic trait of mystery applies to everything that exists in the world, from the smallest atom to the universe itself. This fundamental and basic aspect of existence might be referred to as the law of mystery, i.e., the world is filled with mystery. It is called a mystery because it can never be fully known or understood or solved or uncovered or unveiled. So anyone who claims absolute knowledge about something which explains everything commits an error as this violates the law of mystery. It is to be noted that I am not advocating that all knowledge is relative or that one can never reach or attain certainty. What I'm stressing is that one cannot claim to know everything about anything because knowledge is contextual.

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Prārabdhakarma and Liberation: An Exposition

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Abstract

Individuals lead their life through various deeds – virtuous or vicious. Through virtuous deeds, one acquires virtue or puṇya and through vicious deeds, one acquires vice or pāpa. The acquired virtues and vices, in turn, lead to various enjoyments in this life and after life. The virtues and vices acquired through lives are primarily of two categories – ones that have started bestowing their effect, or ārabdhaphalaka, and the ones that have not yet started bestowing their effects, or anārabdhaphalaka. Śruti asserts that the knower of the brahman attains the highest. This 'attainment of the highest' is characterized by the destruction of the acquired virtues and vices and thereby breaking apart the cycle of birth and death. Debates have taken place over centuries regarding the issue that whether both ārabdhaphalaka and anārabdhaphalaka karma are destroyed on the acquisition of the knowledge of brahman, or does it only lead to the destruction of anārabdhaphalaka karma and not ārabdhaphalaka ones. This ultimately leads to the debate on the possibility of jīvanmukti. At the root of this confusion lies various apparently contradicting śrutivākyas. At one place, śruti gives a general affirmation that all karmas of the knower of the brahman gets destroyed, while at another place, śruti speaks in specific terms that even the knower of the brahman has to wait until the death of his/her physical body in order to attain the ultimate and final liberation. Therefore, it is of utmost importance to logically analyze the matter and with this view, I have taken up this analysis where I shall attempt to investigate the problem following the path taken up by the Advaita Vedantins and establish that jīvanmukti is surely possible and on acquiring the knowledge of the brahman, only those karmas are destroyed which have not yet started bestowing their effects. With this, I shall also attempt to give an alternative explanation to those śrutivākyas which assert that both ārabdhaphalaka and anārabdhaphalaka karma are destroyed on the acquisition of the knowledge of brahman.

Keywords: prārabdha, brahmajñāna, jīvanmukti

1) Introduction

Śruti asserts – "*tarati śokam ātmavit*".[1] That is, the one who knows oneself transcendssorrows. Be it pleasures or sorrows, all are the upshots of one's own deeds.[2] On this issue, *karma* or deeds can be broadly divided into two categories – *anārabdhaphalaka* or the accumulated ones that have not yet started bestowing their effects and *ārabdhaphalaka* or onesthat have started bestowing their effect. The *anārabdhaphalaka karma* is also known as *sañcitakarma* and the *ārabdhaphalaka* ones as *prārabdha karma*.

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Yet another category can also be aptly thought of – the *āgāmī karma* or the future deeds and their farther results.

Further illustrations might portray the aforementioned concepts with greater limpidity. The *sañcita karma* can be thought of as unripe fruit, which hangs from the branch until it gets ripened and falls off. Acquired through infinite past births, they can be considered to be such *karma* which constitute the storehouse of one's virtues and vices, waiting to be bestowed upon the doer in future. The *prārabdha karma* can be conceived to be somewhat identical with the fully ripened fruit, which has disconnected from the branch and is on its way to hit the ground. These are such *karma* which have started bestowing their effects on the doer. It is almost unanimously accepted that the body of the present birth of an individual, along with the enjoyments and sufferings coming on their way, is necessarily the result of his/her *prārabdha*. On the other hand, the *āgāmī karma* can be opined to be alike the buds and flowers which might turn into fruits in future.

The *advaita-śāstra* explicitly puts forward an infrangible *abheda* or non-difference between *jīvacaitanya* or the individual consciousness and *brahmacaitanya* or the absolute consciousness. So *ātmajñāna* or *brahmajñāna*, which is said to bring an end to all endurances,

is nothing but *brahmātmaikya jñāna* or knowledge of the identity of the *brahman* and the *ātman*. On acquisition of the knowledge of one's identity with the absolute, the individual transcends both – accumulated virtues as well as accumulated vices,[3] and thereby attains *mokṣa* or liberation. Moreover, *śruti* gives a general affirmation on the issue that all of the *karma* gets destroyed on the acquisition of *brahmajñāna* when it says – *"kṣīyante cāsya karmmāṇi"*.[4] The knower of the *brahman* realizes his/her *akarttṛtva* regarding all *karma*s and thereby becomes free from the bondages caused by the virtues and vices acquired through various deeds, in this life and all past lives. So, as there would be nothing left for the *brahmajñānī* to endure, one might well assume the immediate destruction of all the *karma*s of the *jñānī* on the ground of presence of such generally asserting *śrutivākyas*.

But such assumption is contradicted by *śruti* itself when it specifically asserts that even the *brahmajñānī* has to wait until the attrition of his/her *prārabdha* for being free from the bodyand unifying with the absolute.[5] This implies that not all *karma*s get destroyed on theacquisition of *brahmajñāna*. Now, such contradicting statements lead to *saṁśaya* or a dubiouscognitive state as to whether all *karma*s get swept away on the acquisition of *brahmajñāna* orthe *prārabdha* still continues to function. Solution to such problem requires in-depth analysis and is highly necessary, as doubt regarding particular portions of *śruti* might provide adequate grounds for doubting the whole of *śruti*, and that is totally unintended from the perspective ofthe advaitins.

2) Primary Analysis of the Subject Matter

In the light of the general assertions by the *śruti*, one might assume that on *brahmajñānodaya* when there is an overall disintegration of *avidyā* or ignorance, virtues a

vices, which are technically the effects of *avidyā*, also get annihilated. In other words, it might be assumed that on the destruction of the cause *avidyā*, its effects virtues and vices too would cease to exist. So, *brahmajñāna* non-distinctively annihilates all *karma*s of the *jñānī*.

Such ratiocination is unintended on the advaitins' part. Maharṣi Vādārāyaṇa presents astaunch refutation of the aforementioned conclusion by saying that only the accumulated *karma*s throughout infinite past lives which have not yet started bestowing their effects are destroyed on *brahmajñānodaya*, on the ground that *śruti* asserts so.[6] The *karma*s which are *ārabdha* or whose effects have commenced impacting, the ones which have been partially endured so far and the ones that have produced the body as the *āśraya* of *brahmajñāna* , do notget destroyed. Chāndogya *śruti* (6.14.2) explicitly puts forward this fact when it asserts – *"tasya tāvadeva ciram yāvat na vimokṣe atha sampatsye"*. If the case had not been such and all *karma*s including *prārabdha* would have got destroyed on *brahmajñānodaya*, the *jñānī*'s body would have immediately perished and s/he would have immediately deceased thereby immediately attaining *videha mukti* or the ultimate liberation after death, thereby unifying withthe absolute. Moreover if it had been so, *śruti* would have never asserted in such stipulating tone the delimitation offered by the continuation of the body prior to the ultimate liberation.[7]

3) *Śrutivākyavicāra*

Śruti or *veda*s are heavily ladened with contradictory statements. That has always been a primary ground for arguing against the *prāmāṇya* or validity of the *veda*s. Taking up the example relevant to this analysis, Muṇḍaka *śruti* (2.2.8) gives a general affirmation that all *karma*s of the knower of the *brahman* gets destroyed, while Chāndogya *śruti* (6.14.2) speaks in specific terms that even the knower of the *brahman* has to wait until the death of his/her

thorough interpretation of the scriptures. In order to help the people get rid of such problems, the hermeneuticians of the Indian tradition, the Pūrva Mīmāṁsakas, have laid down more thana thousand principles of interpretation for flawless understanding of the *veda*s. Also known as *nyāya*s, these are purely logical methodologies which heavily contribute to unperturbed and tranquil interpretation of the *veda*s. One of such *nyāya* is *sāvakāśa-niravakāśa-nyāya*. It is famously applied at such places where a general principle or assertion is contradicted by one or more particular principle(s) or assertion(s) and this *nyāya* states that for the sake of the particular principle(s) or assertion(s), the applicability of the general principle or assertion must be throttled and compressed.

In this case, it must be understood that *brahmajñānodaya* destroys all *karma*s except for the ones that sustains the present body, i.e. the *prārabdha karma*. In that way, none of the *Śrutivākya*s would fall irrelevant and non-destruction of the *prārabdha* gets well established.

4) Final and Higher Order Analysis of the Subject Matter

It might still be surmised that just as fire destroys the fecundity of all seeds that have been introduced to it, in the same way *brahmajñāna* too deflagrates all *karma*s prior to its acquisition. The advaitins slam such hunch with undeniable logic. Firstly, they argue that even the *brahmajñāna* arises depending on the *prārabdha*. That is to say, favourable *prārabdha* leads to *brahmajñānotpatti* and it would be untenable to say that *brahmajñāna* in return destroys that *prārabdha*, as that would lead to the fallacy of *upajīvya-virodha* or bucking the cause of origination.[8]

Secondly, it is seen that the wheel of the potter once set in motion and an arrow releasedfrom the bow comes to rest only after their motion subsides gradually. In the same way, *prārabdha* too is opined to come to an end after it gets gradually weathered away through *bhoga* or

endurances even after *brahmajñānotpatti*.

Thirdly speaking from a metaphysical perspective, even after *brahmajñāna* destroys *avidyā* or ignorance to its root, traces or residues of it still remain and function for some time span.[9] That residual ignorance is called *avidyā-leśa*. Just as diffused sunlight still covers the sky even after the sun sets beyond the horizon and becomes invisible, ignorance too leaves back its traces and residues and that continues to be functional in case of *brahmajñānī.*

Fourthly at different places, *śruti* speaks of sages and beings who continue to live even after acquiring the knowledge of the *brahman*.[10] The *smṛtiśāstra* too characterizes the *jīvanmukta* or enlightened while living.[11]

Lastly, if *brahmajñānotpatti* would at once obstacle living, that would lead to a severe crisis of *upadeṣṭā* or spiritual advisor and that would lead to complete *uccheda* or extermination of spiritual and religious traditions.

5) Conclusion

Therefore, taking all of the above-mentioned arguments into consideration, it can be rationally and logically concluded that *brahmajñānotpatti* does not obstacle living and *jīvanmukti* or enlightenment while living is surely possible as death and *videhamukti* occurs only after complete *prārabdha-kṣaya*. It can also be logically derived that if *brahmajñānotpatti* and complete *prārabdha-kṣaya* occurs at the same moment co-incidentally, then that would directly lead to *videhamukti*.

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The Soul of a Nation: Education System
The Spine of any Education: Teacher-Student Relationship

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Abstract

If agriculture is the backbone of any Nation, education system is the soul. The emphasis that is laid on both these sectors (*agriculture* and *education*) decides the growth trajectory of any Nation. Most importantly, India being a Nation with high demographic dividend, both these sectors play a crucial role in terms of *employment* and *empowerment*. The benefits that both these sectors offer are significantly intangible and beyond our comprehension. In this article, we will focus primarily on the meaning and purpose of education. The focus of this article is to present the idea that education must be understood in a broader perspective than a tool to address mere livelihood concerns. We will also be discussing the basic ingredients to make a stronger education model with references from the great epics of Ramayana and Mahabharatha. As a bold step in this direction, *Thavaasmi: Life and Skills through the lens of Ramayana* was developed as a ready to use textbook based on Valmiki Ramayana.

Keywords: Thavaasmi, Life skills, Education, the Vedas, Ithihasas, Epicsi Ramayana, Mahabharatha, Bhagavadgeetha, Vishnu Purana, student – teacher Soul, Spine, karma and dharma.

1) Introduction

a:pada:m apahartha:ram, da:tha:ram sarva sampada:m |
loka:bhira:mam srira:mam bhu:yo: bhu:yo: nama:myaham ||
sri: raghunandana parabramhane: namaha |

Out of so many species that are present on this Earth, we talk about educating a human only. Why? Is it because he is an elevated soul when compared to others? Or is it because he treads the path of indiscipline and exploitation when compared to other species? *The answer is both.* Man is bestowed with wonderful faculty of *Manas*, the mind, which is totally dormant or not present in other species at all. Man can use this absolutely brilliant faculty for the universal well-being or to

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cause the ugliest and horrible destructions. *History has seen both the extremes of humans.* Being such an advanced soul among all the other species, a human must use his discrimination and use this opportunity of being a human for the right purpose. Then, what is the right purpose of this human life? We must also understand that *"durlabho: ma:nusho: de:haha".* This Vedic phrase informs us that the human life we are living now is a result of a lot of hardship in the past. Then, after earning such a wonderful present what must our yearning for? Another Vedic phrase "*paro:paka:rarttham idam sari:ram*" apprises us, without any doubt, that the purpose of this human body is to help others and for the universal well-being. In the light of these above Vedic guidelines, if we look at our lives, are we living up to this purpose? Is the purpose of life just to make livelihood?

Many of us know that it is more than that. Most of us, by now, have accepted that the *purpose of life is to live it.* When we go back to the history of the world, we find many who lived even after their lifetime. Why? This is because they did not just live their lives. They made an impact in the lives of others. They contributed for the upliftment of the needy and for universal well-being. They lived for a purpose. They lived larger than their lives. They remained forever. *This highlights that living a life of purpose is the very purpose of life***.** Is it possible for everyone to lead such a life? Yes. How? This reminds us of a principle highlighted by Swami Vivekananda, "*Take up one idea. Make that one idea your life. Think of it, dream of it, and live on that idea. Let the brain, muscles, nerves, and every part of your body be full of that idea, and just leave every other idea alone. This is the way to success."*

If at all one asks to define success in life, then an appropriate definition would be "*Success in life is decided by how many lives we have impacted during our lifetime".* As they say, "*Life is about making an impact, not just making an income*." If this perspective of life is ingrained in all our hearts, blood, and souls, we give meaning to what is a "human" and add value to what is "humane" life. Of course, the journey in this path would not be smooth. We must face a lot of resistance, turbulence, and acceptance from various corners. We must be ready to accept that "life is full of surprises, both pleasant and unpleasant", especially when we choose to tread this path. These challenges are as common as there are waves in the ocean. Life is all about, *how to steer through it without becoming complacent with success as well as without succumbing to the challenges*.

1) Analysis

In the light of above discussion, now the question is how do we make an impact in the lives of others? Entire research, knowledge and solutions pointed to one common thing, "*healthy human*" is the panacea to most of the ills, if not all. All the teachings and guidelines are intended to guide a human being on how to live a healthy life. To be impactful and effective, Any solution or initiative must be targeted to make the individuals healthy. How do we make a healthy man? Health is not just physiological. Health, in total, encompasses four dimensions i.e. physical, social,

emotional, and spiritual well-being. The recent rise of pandemic also highlighted that a strong immune system is the defense and cure for many ills. A strong immune system is both physiological and psychological. Immunity from fear, greed, lust, delusion, rage, arrogance, jealousy, and ignorance is as much important as immunity from pathogens. But how do we develop such immunity? Such immunity from internal and external pathogens will make an individual healthy. This immunity is referred to as *resilience* in individuals.

How do we groom such resilient, and positive individuals? For this grooming to be effective, beyond doubt, it must happen from a young age. Unless such grooming is taken care of, it would be difficult to adapt and respond to the challenging situations that the dynamic and competitive world poses you with. So, where do we start? *The best way to make this grooming effective and efficient is to make this grooming part of education.* This drives us to the point of "*purpose of education*". What is the purpose of education? *In simple terms, education must be helping the individuals and society to evolve as resilient and responsible entities.* Can we really develop and implement such education models which aspire to develop resilience in individuals and community? The answer is yes. Won't it become easy for us if there is a time-tested model on this?

Fortunately, we belong to such a culture which is time-tested, robust, dynamic, broad and ageless. The entire Vedic mass was intended for the same purpose. But it is difficult for all of us to by-heart the Vedic mass and understand the true essence of it on our own. To make it even simpler for us, the practical working models of Vedas were given to us in the form of Ithihasas (epics). *Ithihasa means "It happened like that."* So, Ithihasas are the documented histories of mankind. We have two such epics – *Sri Valmiki Ramayana* and *Sri Veda Vyasa Mahabharatha*. Both these epics serve as mirrors and lifelines for humanity. If these scriptures are already available as solutions and time-tested models to groom a healthy individual, why did we not implement them till now? What are the bottlenecks to implement them?

*The major roadblocks to accept and imbibe these scriptural guidelines are pseudo secularism at community level, and hypocrisy at an individual level***.** Other challenges that divert the focus are terrorism, unequal economic development, global poverty, hunger, malnutrition, environmental issues, human rights violations, lopsided education, atrocities against women etc. Across the globe, whole lot of energy and resources are being invested in addressing these pressing problems. Although commendable efforts are seen in dealing with these issues, most of them remained to address the periphery of these issues. What about addressing the root causes? Experts unequivocally opine that sensible and responsible leadership (SRL), universal brotherhood, global citizenship, gender equality, common but differentiated responsibilities (CBDR), conservation and protection of environment, resilient communities, dignity of man and labor, humanism etc. are the comprehensive measures to address these issues both at local and global levels. Do we have any practical models to implement these comprehensive solutions which could target the roots? Yes.

Targeting the roots is the need of the hour and not the symptomatic and peripheral quick fixes. We cannot ignore this dimension for long. There will be a time when we must deal with it. For example, the pandemic now has made the entire world realize to go back to the roots and set things right. *How do we target the roots***?** What is the root that we are talking about? If we drill down from the world at large to the smallest community of existence, *the root is an individual*. *Human conduct is the root that we must address. If a person is not groomed to be resilient,* accommodative, sensitive, responsive, and responsible right from a young age, it would totally be unrealistic to expect a dynamic and robust personality at later stages? *The aim of any individual, community and the education system must be to "Carve a personality out of a person"***.** The life around such a person would definitely be positive, peaceful, prosperous, and harmonious. Such people and families make up the society a better place to live, perform and excel.

In the context of above discussion, we can clearly understand that education is not just about making individuals literate. Education is not just about livelihood. *Education is about making a healthy individual***.** And also, one thing we can clearly understand is, education doesn't just happen in educational institutions. It happens day in – day out in every walk of life. According to Vishnu Purana, let us understand the objective of education or what is the term education referring to.

Vishnu Purana: 1.19.4	
1: तत्कर्म यन्न बन्धाय 2: सा विद्या या विमुक्तये। 3: आयासायापरं कर्म 4: विद्यान्या शिल्पनैपुणम्॥	1: tath karma yanna bandha:ya 2: sa: vidya: ya: vimukthaye | 3: a:ya:sa:ya:paraṃ karma 4: vidya:nya: **s**ilpanaipu**n**am ||

Let us understand each and every line of this great verse from *Sri Vishnu Purana* by our great seer *Sri Parasara Maharshi*. Parasara Maharshi is the father of Sri Veda Vyasa Bhagavan who documented Mahabharatha.

1: "tat karma yan na bandha:ya**"**: That (tath) is action (karma), which (yath) doesn't (na) bind you (bandha:ya). This line is about the "*doctrine of karma sanyasi***"** (performing one's duties by being detached).

3: "a:ya:sa:ya:paraṃ karma**"**: Any other action (duties) which is performed with attachment will land you in sufferings.

So, any action must be leading you to freedom but not to bondage.

2: "sa: vidya: ya: vimukthaye**":** That (sa:) is 'education' (vidya:), which (ya:) is for the freedom or liberation (vimuktaye). Liberation or freedom doesn't restrict only to freedom from the cycle of birth and death but it also refers to freedom from day-to-day adversities. What is the use of such knowledge or education which cannot help you come out of the adversities you face in this wonderful opportunity called 'life'?

4. "vidya:nya: **s**ilpanaipu**n**am": Any other (anya:) education (vidya:) is mere information and is of no use at all.

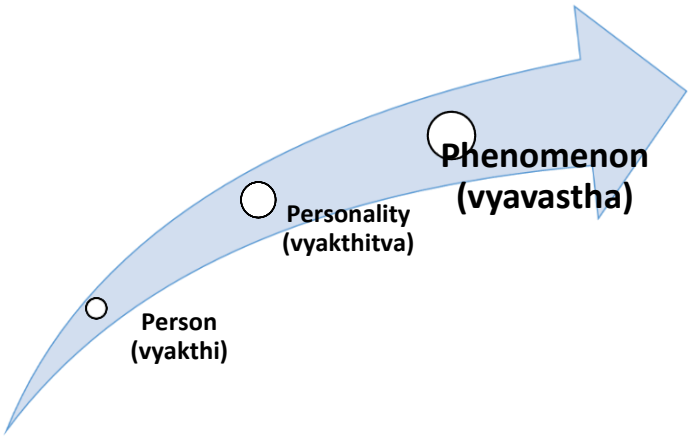
So, any education must tread the path of ultimate Truth and ultimate freedom.

If we analyze the above verse, it becomes clear for us that education must focus on teaching "how to perform action and inaction (*karma*)" and "*how to tread the path of knowing the ultimate Truth (*Bramha)". *When action (Karma) is performed with the knowledge of ultimate Truth (Bramha), it becomes Dharma of this human life.* Bramha is eternal (sat), complete in knowledge (chit) and joyful (a:nanda). Hence Brahma is the Truth that we must know. Education must lead us to this Truth (Satya). *Dharma is the path to reach Satya.* So, *education must focus on instilling the values of Dharma and Satya*. Are we making an attempt to make these to be part of our education system? Honestly speaking we must accept that our focus of education is just on the literacy and to an extent towards providing livelihood. But the focus has still not reached the level of providing the knowledge about action and inaction. Current education system is pushing towards bondage and defeating its own purpose. We are getting trapped into the world of consumeristic culture and losing the primary focus of education and hence freedom.

Even the Veda and its subsidiaries talk about the goal of education must not be just providing livelihood but it should be broader and teach us how live life larger. Vedas are the ultimate science. Entire Vedic mass has 2 parts. The former and the latter. While the former talks about the prescribed actions for us (*Dharma-Karma*), the latter gives us the path towards the Truth (*Satya - Bramha*). It is clear now that the education must focus on the purpose of life: *perform karma (Dharma) to reach Brahma (Satyam)*, rather than just livelihood concerns. Dharma (action oriented) and Satya (knowledge oriented) are essential ingredients of life and education too. How can we make these two part of our education?

Ramayana is the first recorded document about the history of mankind. This living document introduces us to such elements which are larger than life and livelihood. The recommendations and practical exposure that we gain through the length and breadth of this timeless masterpiece has multidimensional benefits. Every character in this timeless epic teaches us something directly and indirectly. While Ramayana served as a perfect case study to make a healthy human and harmonious living, Bhagavadgeetha served as the user manual for life and its subtleties. Sri Ramayana provides inputs to develop effective grooming models to make a healthy human. It is not just prescriptional knowledge that we derive out of these great epics of Sri Ramayana and Mahabharatha but we can also derive practical grooming models, real-life case studies to achieve the purpose of human life.

Sage Valmiki named Ramayana as "*si:tha:ya:ha charitham mahath*" (*the great story of Sitha*). But it became popular as Ramayana. Why? The word **Ramayana** is made up of two words, "*Rama" and "Ayana".* Ayana means conduct or the walk of life. Rama + Ayana means the



conduct of Rama. The conduct of Rama, along with other towering personalities, is documented in and as Ramayana. *This masterpiece has clearly documented the process of carving a personality out of a person**.** It clearly shows us the path of evolution from a person (vyakthi) to a personality (vyakthitva) and from a personality (vyakthitva) into a phenomenon (vyavastha**)**.* Rama always rooted his conduct in two eternal and robust principles of Dharma (*virtuous, action-oriented*) and Satya (*veracious, knowledge-oriented*). Anything and everything that he did never violated these two principles. This is the reason why Ramayana and Rama are being extolled since times immemorial. Ramayana is a robust dynamic practical prescription for life. Time and again, this document proved that, to be successful and peaceful in life, we must *be honest. Honesty in intentions, honesty in words, honesty in actions, honesty in relationships, honesty in efforts, honesty in spirit and honesty in being a human – life is all about being honest.* The challenges and respective solutions in all the dimensions of life - personal, professional, intellectual, emotional and spiritual – are presented in the most practical way in this masterpiece. *Honesty coupled with enthusiasm and contentment makes one's life complete.* While enthusiasm keeps you honest in your efforts, contentment makes you honest in dealing with vagaries of life. The quintessence of Ramayana is "*accept and act."* Accept challenges as an indispensable part of life and act appropriately. To put all these in one word, Ramayana strongly recommends being *resilient.*

A close watch about the life of Rama underpins that, "When we work for ourselves, we become narrow minded. But, when we work for others, society, Nation, and the World at large, we become more responsible, focused, and successful too." Harmonious and responsible coexistence is the need of the hour. Rama taught us how to live with people harmoniously. The very spirit of our Constitution, "Unity in Diversity" can be seen in the conduct of Rama. Ramayana provides us with many answers to a whole lot of our day-to-day questions. The conflicts and the solutions between *righteous actions and wicked thoughts, rights vs. responsibilities, consumerist lifestyle vs. minimalist mindset, sacrifice vs. pleasures etc.* are presented in the most practical form. All these are day to day conflicts in each one of us. Ramayana resolves these conflicts *between "I" and "We", "Mine" and "ours"* in an elegant and a balanced way. It unveils the "*hidden self***"** in each one of us. It helps reinventing ourselves. Ramayana is the path to progress, peace, and prosperity!

It makes us timeless and our character priceless. *Ramayana provides us enough strength to stand the test of time yet being rooted to virtue (Dharma), committed to Nation (Desa), and surrendered to the Almighty (Daiva).*

The best way to teach is to demonstrate it by ourselves: "*You teach, they will forget. You show, they will remember. You make them imitate, they retain forever"*. On these similar lines, if we observe, the very purpose of incarnation of Rama was to live like a perfect human being. The purpose of Ramayana is to serve as a mirror. Whenever we want to make ourselves better, we can peep into the mirror of Ramayana. Ramayana must be viewed as - *"a science that deals with the human character." It is popularly known by the name "sarva ma:nava sikshana: sa:sthra"*. Every instance, every verse, every word in Ramayana gives us a deep, broad, subtle and transformational message. For example, the very first verse in this masterpiece highlights the qualifications to be a teacher and a student. *These virtues or qualifications must be the primary goals of any education model.*

One day Valmiki, sitting in his hermitage, was contemplating and cherishing the name of Rama. Narada, the best among the sages, who was on his divine tour, visited Valmiki. With great reverence, Valmiki prostrated in front of Narada and offered his revered hospitality. After performing the necessary formalities, Valmiki anxiously inquired Narada about a virtuous human being. The way Valmiki inquired Narada has a lot of inputs *for student-teacher conduct*. The policy makers, educationalists, corporate leaders and parents must make an attempt to understand this verse in its fullest. *This question of Valmiki became the first four verses of Ramayana. The reply of Narada became the first chapter of Ramayana.*

The first verse is

thapa ssva:dhya:ya niratham thapasvi: va:gvida:m varam |
na:radam paripapraccha va:lm:kir muni pungavam || *1-1-*1

This verse means that "Valmiki curiously enquired Narada about certain things he would like to know." The most important things to observe are the adjectives used for Narada and Valmiki. *This verse clearly states that* Narada was always rooted in his practices and self-study. He was a knower of the sublime truths and an eloquent speaker. He was calm, composed, and the best among the meditative thinkers. (*thapah – sva:dhya:ya nirathaha – Va:gvida:m varam, Muni pungavam*). When it comes to Valmiki, it was mentioned that he was curious and in deep thoughts to know about certain things (*thapasvi*). In this context, Valmiki played the role of the student while Narada played that of a teacher.

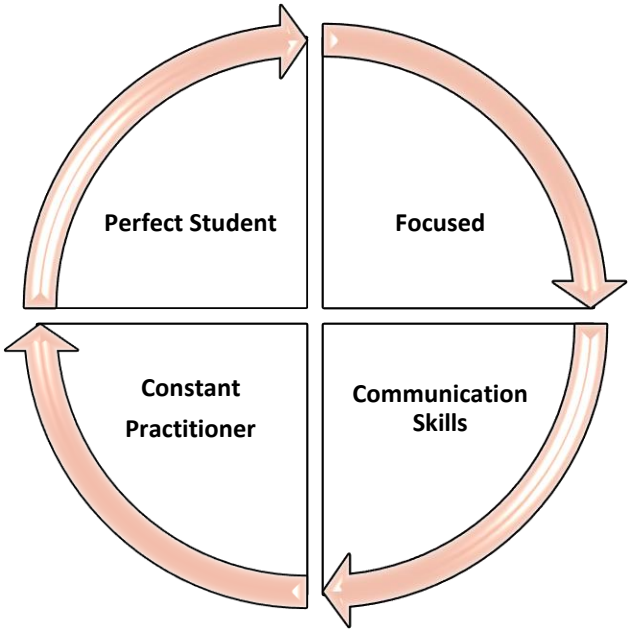
Essential qualifications of a teacher:

1. **Continuous learner and Constant Practitioner (thapaha + sva:dhya:ya nirathaha)** A teacher should be a continuous learner, and a scholar in his domain. He or she should have

practical experience of his knowledge. This qualification highlights, "*When you stop learning, you stop being a teacher*".

2. **Eloquent Speaker (va:gvida:m varam)**: If experiential knowledge is one qualification of being a teacher, the ability to express and teach it to the aspirants is another most essential skill that any teacher should possess. "*If knowledge is the soul, effective communication is the spine for any teacher".*

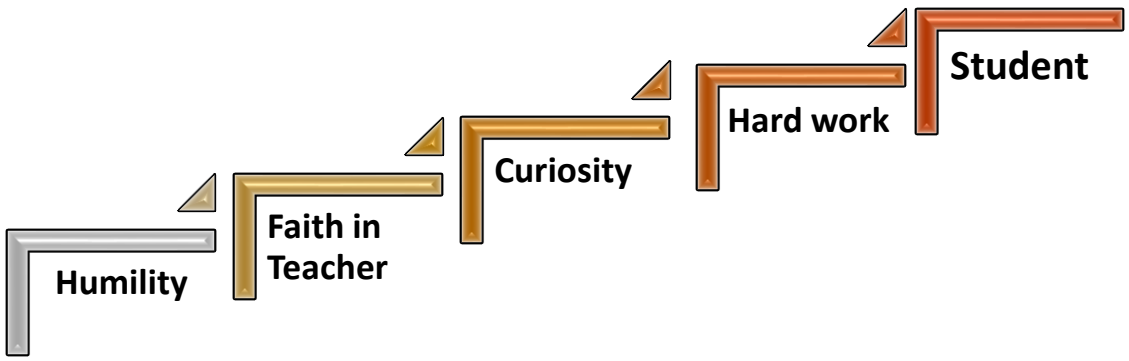
3. **Absorbed or focused (muni pungavam)**: A teacher should always remain focused while conducting himself. He or she must remain silent in unnecessary things. "Focus evolves an instructor into a teacher."



4. **Perfect Student**: Unless you are a good student first, you can never become a great teacher. The process of making a great teacher starts with being a good student. Also, a teacher must be a student to acquire, assimilate and practice the infinite amount of knowledge.

Essential qualifications of being a student:

When it comes to the qualifications of being a student, *humility and curiosity are exposed by the word thapasvi***.** The journey of Valmiki from a thief to the great sage (a:di kavi) is transformational and is an inspiration to all of us who want to achieve something in life. Particularly his transformational journey highlights the importance of having *faith in the teacher, and hard work to be a successful aspirant cum student.*



2) Conclusion

Any learning eco-system must first focus on grooming these traits in both teachers and students. Then any formal learning will happen effectively and efficiently. *While education is the soul of any Nation, student-teacher relationship forms the spine of education system***.** This relationship is the bedrock of any Nation. It is very important because this is where knowledge is imparted on a large scale. The health of future generations depends on the quality of this relationship. The first verse in Ramayana highlighted the need for having a strong foundation in imparting knowledge. *It highlighted the bare minimum necessities for learning to start.*

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An overview: how do existence, common sense and reasoning keep resemblance in philosophy and science?

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Abstract

We have no need to take the differences between any school against any school because every school has some specific keynotes and guide to make themselves. Although besides them, something is always similar in them because they come from on the basis of sensation- reflection, innate ideas, common sense, reason and logic all these are common in any case, we have needed to understand them. Science is the discipline of methods by which it is trying to see the reality try to come too close to the truth, another side love of wisdom is trying to criticize the language to make a specific understanding among facts and propositions. Belief, values, wisdom, morality and sources of knowledge are the basics discipline of philosophy.

Both are trying to reveal truth in favor of each other, common sense and logic are fascinating thoughts and derive under the specific method and judgemental theory where we can observe their validity and arguments. Science is not only the method for observation of nature, it might be used in ethics, sociology, political philosophy, and in mathematics also. Axioms which use in algebra, in logic it must be the replacement of things which is existing in the world, because the replacement of things what we use as an axiom on this time it takes there place and by logical concept we try to see the actual form of things as an axiom. As a scientist your opinion must be gone against or in favor, but on this basis we cannot say that both are similar of different from each other.

Keywords: Science, Philosophy, Common Sense, Reasoning, and Existence.

1) Introduction

Here, we are talking about the philosophical attitude in science, more than anything, philosophy is thinking. The main instrument that philosopher use in conducting their investigations is the human mind. Whereas, we have seen many concepts of science where we had been talking for natural science, but our concerns always come to their philosophical approaches. When we observe and experience the things in them we make intellectual and practical activity encompassing the systematic study of the physical and natural world that is called science.

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Well structured, well orgnisezed and well serialized form of the things give a scientific knowledge about the things and the world as well.

Either scientists take it usually as a law of science although it always use in other schools such as philosophy, sociology psychology and so on but we can't deny this argument when we use this method to know the event as soon as it convert into scientific form. As a method science works in the nature and its fundamental concept is "how." Science as a method provides us opportunities. Science the clarification of nature but the most instruments for science is sense organs, perception, sensation and reflection, common sense, reason, observation and experiment. But philosophy has no need of any experiments ordinarily because it is beginning of thoughts by sensation and reflection where innate ideas help them to explore the reality in ordinary form. In which its phenomena comes as a matter as same as we see, there is no ideal approach appear. Appearance of ideas and idealistic ideas both keep so far differentiation from each other. First is only ordinary explanation of things and second derives through the absolute which is creator of it.

2) a) Scientific methodology includes the following:

1. Objective observation: measurement and data (possibly although not necessarily
2. using mathematics as a tool).
3. Evidence.
4. Experiment and/or observation as benchmarks for testing hypothesis.
5. Induction: reasoning to establish general rules or conclusion drawn from facts or
6. examples.
7. Repetation.
8. Critical analysis.
9. Verification and testing: critical exposure to scrutiny, peer review and assessment.

If we see in the world we seen the approaches of things then we try to make a understanding of them. How much we talk about the things as a scientist we only be able to know by their names on the basis of their objectivity, names are only a mere sign of things. We can select any names for anything i.e. x ,y,z for 1,2,3; x,y,z for a,b,c but after naming with their attributes we can't change them, i.e.bananas' hybrid form is possible but its basic generic form will never be changed then therefore we can't say that mango is banana or banana is mango because both attributes are completely different in taste, color, shape, and so on. What is the things we cannot understand whenever be able to see the things we only understand there external and internal functions with in itself and sometimes with other things. My first example is that what is O (single atom of oxygen) and how does single oxygen atom make equisition with other oxygen atoms? Before any discussion for the above given questions, I would like to explain the existence of things. There are four types of existence of things.

b) Philosophical methodology includes the following

1. Methodological skepticism, also reffered to as cartesian, doubt, uses,systematic doubt as a method of philosophy
2. Geometrical method.
3. Phenomenological method.
4. Verificationism.
5. Conceptual analysis.
6. Common sense.
7. Intuition and thought experiments.

In both science and philosophical (methodology) have much more similarity between in them. Eventually all conceptual thoughts of things come from the things then we realize that it must be revealed in philosophy also. But observation of thoughts are not same as things exist, both mechanism are distinct from each other. In philosophy we are conceptualising concept from concepts butin science it can be possible in both form either by concepts or by mechanism of things. Although, induction, verification, intuition, doubt, reptition, and common sense these are very common in them.

3) Existence of things and its types

Suppose I shall leave you in a drawing room where you didn't go ever. But I know we are in my room. Suppose he hasn't known about Nelson Mondelais, he must be said he is a man but you already know he is a great person of this world meant we know the things as much as we understand them. Then I went with him in an emputy room where nothing exits, and then I asked what are you seeing in this room then he said, "nothing." Can you understand, what is the meaning of nothingness about the room. This means we can not uttere a word until we shall not see the things, but on the otherhand in conjectural things there is no concepts work to eloberate them. When two or more than two thing are having in a body and making purpose by the nature it must be existential. For example, a pond in a mirage is showing the property of sand, air and heat that air always runs from high pressure to low pressure in desert due to heat of the sun, so in this case it must be happened. But in the case of sky-lotus or barrened-son are the totally non sensical imagination of mind where any types of logic not involve.

a) Things: which can be existential or nonexistential.

That is the quality of our mind if we are able to see anything by sense organs it must be a thing. But in perception, by eye contact, sometimes we caught in deception. To make ensure yourself touch is the best sense experience where it must be clarified that what is this and it must be the

one form of solid, liquid and gas. In touch, sometimes we can trape in them but it must be one in three of them. We can see the mirage in the desert but we will never reach there to drink water from the illusive pond but it's a circumtance of sand in the presence of sun light; so here is the dillusion about drinking water but it does not the issue occurrence. As much as we try to disappear it but it will never disppear because it is occurrence of the Nature.

When we are saying that here is something which I know, then it must be definiable and otherside we say that here is something but we cannot define it this means it must be an illusive thing which cannot be definiable what it is, although we can explain it "why does it happen?" But the memory of a brave person and you imagine him as a brave person that his face is as bright as sun, he is as high as everest, he has taken a sword for safe justice and sitting on a horse, and his army follow him, then it would not be the conjectural knowledge because as this type of abstract is the attributes of motivation to make a person stead fast to his deeds. It's an imagination but it motivates us, so it is useful for everyone to make our life, society, better for the betterment of the universe and humanism. Another side we find the many types of conjectural knowledges.

b) Properties or features: which is the description of things.

Things is the properties of existentence. In the case of appearance we can imagine anything to give a form for them, in this situation it would be possible for the logical imagination. Even in those situation, it will be followed the natural form of nature. For our mind entertainment, we would like to start with examples of games. What is game? Game is nothing in itself, it is the practice of mind and come in our mind to build up and keep sound mind and also entertainment on the interest of winning and defeat. It is the question of mind, how to keep sound mind-body.

Meditation is the part of detachment from impuritical thoughts and actions, then mind become calm down and think highly to take a deepest presentation of thought. We are able to perceive the things but we are being able by our thinking. I like our president meant I like a person who will become a president of our country or for other country, because we are much more close to thoughts rather things. President is an abstract and adjective for an intellectual and genius person who has so much power to run a country but it is following theoratically in our country. What is going on in our it is not the point but we obviously can understand it under the social and political philosophy.

Football, hockey. Cricket, tennis, table tennis, polo and kabaddi and so on by these games we can understand the ability of a community. If you try to understand the system and functions of games according to their origin of demography then you will find, what is relation of table tennis and chinese, cricket with england or eouropean country, baseball and golf with americans, kabaddi and hockey with indian relation. Non sensically nothing exist in the world it is dependent on our understanding and acknowledgment. Interactions are very significant to become too close to anything. Anytypes of designation as an abstract says about qualities of matter and attributes of human beings.

c) Functions: which makes a system to take an understanding for their relationships.

This third form of existence provides us an opportunity to take the deepest understanding about things, human beings, numbers and Nature. Its philosophical importance is that we can destinguish the epistemological approach from metaphysics and can define the pragmatic knowledge by the functions of thing, i.e. if cycle is running on the road it must be someone riding it, he must be a person wound not be other creature except human being. By properties we can decide what is the use of football, fruits; numbers, we can talk in numbers most of the time, as russell had tried to translate mathematics in ordinary language, but we need to see the possibility of mathematics to its conversion. Possibility of mathematics after a point will be stopped because in this world many types of concept cannot directly refute anything in itself. For example, a dog and a banayan tree both are completely different from each other but one thing is common in them that is both are living things. So when, we are talking then feel that some numbers attitude look like a sentence so on this basis we cannot say all mathematics is the part of language. Mathematics is also a numerical words which subsitutes language in short by numbers.

d) Relationships: that is the last and important portion of things to make a relation in itself or with other things.

Here I'm not talking about biological kinship or relationship. Under the epistemology relation sometimes comes as a correspondence, as a coherance and as a pragmatic. And we can understand it by leibnitz's "laws of thought" such as law of identity: this principle asserts that if any statement is true then it is true. Using our notion we may rephrase it by saying that the principle of identity asserts that every statement of the form p implication p must be true, that every such statement is a tautology; law of non contradiction: this principle asserts that no statement can both true and false. Using our notion we may rephrase it by saying that the principle of noncontradiction asserts that every statement of the form p.-p must be false, that every such statement is self-contradictary; and the law of excluded middle: this principl asserts that every statement is either true or false. Using our notation we may rephrase it by saying that the principle of excluded middle asserts that every statement of the form p wedge –p must be true, that every such statement is a tautology. These laws of thought also define the logical form of facts. In my opinion fact is the logical form of things which exist in the reality.

Example-1:

Suppose we want to make coffee and I have taken hot milk coffee powder and some sugar, someone tell me why have I taken these ingridients to make coffee, why can't take petrol diesel or any oil? Somewhere is these ingridients are common in chemical reaction what if we can drink.

Example-2:

O + O3 = 2O2, here we observe that these both molecule and dioxide are same atoms but their properties are different. but on the property of oxygen both have some similarity or identiy. that is the relation between O and O3. Its philosophical aspect is that always same type people can make friendship.

O3 + UV = O + O2, here we find that there is some properties are present in ozone by which it is breaking itself in the presence of ultraviolet rays which comes from sun Its philosophical is that annyne can break your groups, dreams, attitudes who is more capable than you.

O + O2 = O3, here we see its philosophical aspects is that if you want a betterment of your life you must choose your partner as well as you. You can see the behaviour of ozone how does it save the earth from the ultraviolet rays.

2H2 + O2 = 2H2O, its philosophical perspective is that two or more two persons who are different in ideas but if their intention and target is same positively for all of them, then they must be achieved their goal for the betterment of their society and the world as well.

We can see the correspondence theory of truth by the explanation of individually four forms of existence. We can see the coherent theory of truth, how did all four forms of existence correlate with each other. We can see the pragmatic theory of truth by the properties of things because anything which exists in this world they correlate with each other by their properties, they cannot deny their roperties, no one can eat their book/s because these are not edible but literally it will possible because in literature, he is eating his book/s means he is preparing himself as much as possible he can give better response what you want to ask to him.

Game and puzzlement of love of wisdom and experiment is very intersting, when both are doing their on the same time then mind boost itself up. If we really want to understand the relation of philosophy science we must be taken a look of aristotalean matter and form. After that we can collaborate with this situation why is philosophy not a separate part of sicence. In his point of view we can conclude that the maximum time of things cannot give philosophical utterances but on the basis of natural world they cannot disappear relationships with other things. Like loveliness, cuteness, kindness and friendship basis a dog or a puppy always keeps their ability to be the friend of human; on the properties basis of burfy human cannot forget its sweetness; on the basis of function computer cannot make any mistakes in calculations. Always we are not able to proof the philosophical attitude in science suppose we have searched a medicine to kill mosquetoes, then how can we see the philosophical relation between mosquitoes and its killer, but we can prove its philosophical aspects on the behalf of mind that is case of “survival of the featest.”

4) The game of common sense and reasoning in both of them

I don't know common sense, reasoning, love of wisdom and science, then why are we trying to know? Obviously as these types of questions come in mind. Can you think what is come first in mind, if I don't know anything. Answer is Nothing comes in mind while whole world is before us. We can see the world as much as we undertand. It comes from sensation and reflection and reflection plays an magical game in mind with help of the understanding of a priori and a posteriori knowledge. Our whole knowledge are weaving in each other and it makes a cloth of knowledge with the help of sensation-reflection, common sense, reasoning and logic meant all new knowledge come by the help of previous knowledge and their axioms. After that we must use the inductive method to see in many for one or more than one perspective and then we make an objective about a specific thing, and then we can explain that thing confidently what we understood, it must be true or false by their correspondence.

You just try to understand it by this example-

Step 1 I know colors, solidity, shapes, weight, and so on….

Step 2 Then apply step 1on other thing such as human who has some other qualities with step 1such as rationality, intuition, meditation, spirituality, curiosity….

Step 3 Then, I found that I and they are same quality and we can talk with them and we can share our feeling and emotions. So we can see in us common sense and reasoning running our mind silently.

Consequently, we can define that common sense is the application of previous knowledge and reasoning is the arrangement of common sense, complexity of reasoning developes logic for abstrcat ideas what mind. That is the beginning of science and philosophy.

5) Conclusion

Mind is the best laboratory of this of world which is exist in body. In a critical situation mind observes and experiences things in the external world for the diagnosis and their treatment according to their mechanism. Philosophy is the internal experimental laboratary of mind although both of them are dependent on common sense, reasoning and logic. Consequently, in my opinion there is no difference between in them. In this world what exists exists in a logical form. Axioms are the internal world of logic, mathematics and science; philosophy take place with support of them, sometimes philosophy supports them. In my opinion there is no difference in knoledge of both of them. If you want to know, why is not any difference in them then see it and conclude it, one philosophy describes the sources of knowledge, morality, spirituality, values, wisdom and one the most thing about absolute, but everything is coming in philosophy as a phenomena on this basis they try to give their best about love of wisdom, but science try to give their by help of axioms

of phenomena and try to get a proper analysis of them explore it. Even we know that these are only abstract so in this point science and philosophy fridge themselve because how much we can analysis of abstract of abstract. For example, we want to analysis of God and we know that God is also a abstract. Then we define God that is omnipotence, omniscient, omnipresent, he is a creator, sustainer and destroyer while all attributes of god are also abstract. There is nothing in this world to know the god such as if we want to go to into the space then according that atmosphere we are creating in a lab then we practice in it. But for God, it would not be possible. I think god is the highest possibility of mind as an imagination in the form of spirituality.

"Science is the analysis of functions of things and philosophy is the diagnosis and modification of matter or substance."

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Dialectics of Existence and Non-existence

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Abstract

Like God, man can exist everywhere (*Purna Purusha*). Like God, man can exist nowhere (*Sunya Purusa*). Like *Lord Krishna*, man can become a *Karma Yogi* existing at a specific place, time and context and doing his *Svadharma*. Human existence is more psychic than physical. Dialectical possibilities and contradictions are significant so far as man exists physically in the empirical world. But in the psychological level of consciousness human existence is flexible and movable. The flexibility of mind is the root of human crisis as well as transformation. In other words, this flexibility of mind can move mind to bondage as well as freedom depending on its grooming. The psychic mind is sandwiched between physical and spiritual orientations. The former leads to bondage of attachment and the latter leads to the detachment or freedom. The *Bhagavat Gita*, as a manual of human life, deals with the dialectical possibilities and resolves the art of self-transformation by transcending the pairs of opposites.

Keywords: Dialectics, Psychic-flexibility, Spiritual discipline, Self-transformation, Freedom

1) Introduction

Existence and non-existence are dialectical opposites. Dialectical opposites cannot coexist without committing logical oddity and contradiction. The scientific explanation of natural laws, logical deduction and mathematical equations are all processed by this basic dialectical formula. Human thinking is dialectical. It is by and large based on a binary principle. It cannot have any cognizance of the third way. It is generally restricted to the understanding of the logical pairs of opposites such as ‘A and not A’ or ‘A or not A’ which leads to the logical consequences of contradiction or tautology. The binary process of thinking considers the co-existence of the two as meaningless because one of the two must be correct and both cannot be correct. One cannot exist at two places at the same time. If so, it would be contradictory. This is the common-sense view of spatiotemporal existence and non-existence. But human existence transcends such dialectical possibility. Man can exist everywhere. Human existence is pervasive like divine existence. As we say that God is omni-present, so also we can claim that man is capable of existing at all places at one specific time. How is it possible? For this we have to discuss the three dimensions of human existence, such as, physical, psychological and spiritual. Physically man lives with empirical conditionings and his existence and non-existence are restricted to space, time and context.

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Psychologically man can exist at many places and avoid to exist at any place according to his wishes. This psychic flexibility has double effects. Either it can make mind move towards a desired object and gets attached to it or it can make mind move without any attachment for anything. But in both the cases mind is movable and flexible. So is human existence. Human existence is more psychic than physical. Man can exist at his desired place by his psychic level of consciousness. Man differs from man with this flexibility of mind. This was the difference between *Lord Krishna* and *Arjuna* in the battlefield. Mind defines man. As is our mind, so is the nature and structure of our attachment and detachment. This practice is called *Yoga Sādhanā*. Here we land on the third dimension of human existence that is known as spiritual or transcendental existence. This is the state of synthesis of all dialectical possibilities. The psychic flexibility of mind can be groomed spiritually for self-transformation through the spiritual discipline of *Pratyāhāra* or the sense of withdrawal or the ability of non-existence. In the transcendental stance, "I exist and I do not exist" is not a concern of dialectical opposition. This is real freedom. This is the state of *Jeevana mukti*. The *Bhagavat Gitā* is the only treatise in Indian culture that has explained and resolved the dialectical conflicts of human existence. In this paper we shall discuss how dialectical opposites of existence and non-existence are ultimately resolved or synthesized by psychic transcendence and how it is relevant to self-transformation.

2) Science and Mysticism

The dialectics of existence and non-existence is well-discussed in both science and mysticism. Both physicists and mystics discuss the pairs of opposite of existence and non-existence and the transcendence of the dialectical possibilities from their respective perspectives. The *Vaishesika* system admits both existence [*bhava*] and non-existence [*abhava*] as categories of reality. There are six categories of existent reality, such as, substance, quality, action, particularity, universality and relation of inherence. The seventh category of reality is non-existence or *abhava*. Here non-existence does not mean absolute nothing or *sunyata*. The non-existence as a category of reality does not lead to nihilism. Rather, non-existence is construed as the absence of the existence. Such non-existence or absence is fourfold. It may be such as involves a reference to time – the denial of a thing with the suggestion that it has already been [*pradhvamsabhava*] or that it will only hereafter come to be [*pragabhava*] or it may involve a reference to space – the denial of a thing somewhere with the suggestion that it is somewhere else [atyantabhava] or it may mean mutual exclusion [*anyonyabhava*]. The dialectics of existence and non-existence discussed in the system of *Vaisesika* is restricted to phenomenal and logical domain. Mutual exclusion is a logical possibility and the non-existence relating to space and time is phenomenal. But beyond logical and phenomenal existence and non-existence dichotomy there is a scope for psychic existence and non-existence which regulates human psyche intensely.

Buddha is quite silent about the dialectics of existence [being] and non-existence [nothing], and has focused on the becoming. Buddhists call this world of ceaseless change as samsara, which means "incessantly in motion".

Fritjof Capra observes in his book "The Tao of Physics" as follows:

> "The world is conceived in terms of movement, flow and change. The cosmic web is alive; it moves, grows and changes continually. Modern physics has come to conceive of the universe as such a web of relations and has recognized that this web is intrinsically dynamic. The dynamic aspect of matter arises in quantum theory where the unification of space and time implies that the being of matter cannot be separated from its activity. The properties of subatomic particles can therefore only be understood in a dynamic context; in terms of movement, interaction and transformation. According to quantum theory, particles are also waves, and this implies that they behave in a very peculiar way. Whenever a subatomic particle is confined to a small region of space, it reacts to this confinement by moving around. The smaller the region of confinement, the faster will the particle "jiggle' around it." [1]

From this observation of Fritjof Capra, it is understood that the pairs of opposites of existence and non-existence is transcended by the atomic reality. We can never claim that atomic particle exists at a certain place, nor can we claim that it does not exist. The particle is not present at a definite place, not is it absent. It does not change its position nor does it remain at rest. That means the exact position of the atomic particle is indescribable. In atomic physics we have to go even beyond the concepts of existence and non-existence. Similarly, in eastern mysticism we can refer to the teachings of the Upanisads dealing with this realm of transcendence. In the logical pairs of opposites we find contradictions or tautology. But the metaphysical unity is beyond the contradictions even being applicable to the pairs of opposites.

The Isavasya Upanisad observes:

> Tadejati tannaijati taddūre tadvantike,
> Tadantarasya sarvasya tadu sarvasyāsya bāhyataḥ.[2]
> Yastu sarvāni bhūtani ātmanyevānupaśyati
> Sarvabhūteṣu cātmānaṁ tato na vijugupsate.[3]
>
> The Atman moves and It moves not; It is far and It is near;
> It is within all this, and It is also outside all this.[4]
> He who constantly sees everywhere all existences in the Self
> and the Self in all beings and forms, thereafter shrinks not from anything.[5]

When two contradictory qualities are attributed to any objective thing of the world it becomes self-contradictory and the statement becomes meaningless. But here the Supreme has been attributed contradictory attributes like moving and not-moving, being nearer and being far, being present within and also outside, etc. the transcendent reality cannot be confined to the rules of logic and language. The Supreme is beyond the categories of thought. With reference to the waves, the ocean is termed as surging, seething, heaving, roaring, and so on. But in its own true nature, the ocean is not the waves alone. It is tranquil and peaceful, motionless and majestic in its own depthless calmness and serenity. Similarly, the Atman, in its all-pervading nature, is motionless, and It neither acts nor works. With reference to the matter

envelopments around It, life can be defined as thinking, feeling, or acting just like the boat which moves but the lake does not move. It is distant and It is near – this alone can be the definition of the all pervading Absolute. The same state of mind has been described in the

Bhagavat Gita by the term 'samatvam' [samatwam yoga uchyate].

Thus, Ashvaghosha writes in his book "The Awakening Faith" :

> "Suchness is neither that which is existence, nor that which is nonexistence, nor that which is at once existence and non-existence, nor that which is not at once existence and non-existence"[6]

Both physicists and mystics admit a reality which lies beyond the pairs of opposite of existence and non-existence. Similarly, both physicists and mystics admit the fact that mind is not fixed in the rigid framework of classical logic, but keeps moving and changing its viewpoint.

3) Life and Death

In common parlance, the dialectics of existence and non-existence is very much related to the concepts of Life and Death which are two different aspects of the same reality. But life and death happen to body only. In this process of evolution and dissolution, nothing is lost, nor added. All beings remain unmanifested (*avayakta*) before their evolution, manifested (*vyakta*) in the middle and become unmanifested after death. Thus, the beginning and end are same. All things and beings are potentially contained in the Ultimate reality, manifested and sustained by it and merged into the source after death. Human body undergoes change every moment. It changes from boyhood to youth and youth to old age. But the same soul passes through childhood, youth and old age. It does not undergo any changes. Finally, the soul changes the body at death and transmigrates to another body. In this process, human evolution continues through new bodies. The life-cycle continues until one burns away the fruits of actions in the fire of right knowledge through right action.

In the *Bhagavat Gita*, Lord Krishna elaborates the true nature of the self before *Arjuna* who was reluctant to fight and kill his kith and kins. Lord said, life and death are two aspects of material bodies. Self which resides in material bodies is immortal and transcends both life and death. It is beginningless (*anādi*) and infinite (*ananta*). When death occurs to bodies, the embodied soul leaves the old body and migrates into a new body according to one's good or evil deeds. In this process of evolution and dissolution, life and death provide opportunity to the embodied soul to attain salvation and become free from the cycle of birth and rebirth. However, the righteous activities pave the way to liberation and evil deeds obstruct the self from getting liberation. Birth and death happen to a man who lives a life of action. It is the action which causes rebirth on account of the unrealized or unmanifested resultants (*prārabdha*). The karmic impressions take one from birth to birth till the last particle of reaction is lived through by the moral agent. As one goes on performing actions, the repository karmas go on increasing. Actions of the past are carried in the form of potency to the next life and the future life is determined by the merits and demerits which one accrues from the actions of the past. This accounts for the unmerited joys and sufferings in this life.

With the death of the body there is disintegration of the brain. Therefore, there is loss of cerebral memory. Hence, everything that one possesses is left behind. It is only the consequences of action, good or evil, that accompany one beyond death. Unrealized fruits of past actions lead to rebirth. *Katha Upanisad* says that as one goes from one life to another taking up new bodies, there is a gradual evolution of the soul (kath. Up II.2..7). So long as we are bound to the karmic cycle because of ignorance, we go on taking new bodies. But in course of our journey in a particular life, we have the freedom to expedite our progress towards the goal i.e., liberation or freedom from bondage.

The Kathoupanisad observes

> Na jāyate mriyate vā vipaścit nāyam kutaścinna babhuva kaścit,
> Ajo nityaḥ śāśvató yaṁ purāṇo na hanyate hanyamāne śarire.[7]
> Hantā cenmanyate hantum hataścenmanyate hatam,
> Ubhau tau na vijānito nāyam hanti na hanyate.[8]
> The intelligent Atman is not born, nor does He die.
> He did not spring from anything, and nothing sprang from Him.
> Unborn, eternal, everlasting, ancient, He is not slain although the body is slain.[9]
> If the slayer thinks 'I slay', and if the slain thinks, 'I am slain',
> then both of them do not know well. This slays not nor is this slain.[1O]

The potter makes a pot. The pot is born. But the space in the pot being itself eternally one with the outer space is neither created nor born. The pot may break. That which is made is perishable. But with the breaking of the pot, the pot space is not broken. The unbroken pot space knows no death. Similarly, the Self or the Truth is never born and naturally never dies. The false ego–center, through vulgar meditations and ignorant thinking, has moulded out a perishable body-mind-intellect equipment in which the all-pervading eternal Truth seems to be confined. The body equipment might perish, but not the Truth Principle. Similarly, the body is born in Atman, and this Truth Principle is ever the presiding deity within and without the body during its birth, growth, decay, disease and death. If a murderer feels that by wounding the body, the Atman is killed or if the murdered comes to despair on his deathbed that his Atman is dying, both of them are under a delusory conception that the body is the soul. The stupidity of such thinking becomes more poignantly apparent to us if we were to say that we have broken the space in the cup when we throw the cup down. The ignorance of our real identity has made us identify ourselves with the mind, intellect and body delusions and this is the start for our egocentric life of pains and limitations. One identifying with the Self during his life time here, gains the eternal deathless perfections. Having realized this real nature, there cannot be, for such an individual, any more of the pains of birth and death. After having woken up from dream, one need not run to the sideboard to get his rifle to shoot down the tiger that hunted him down in his dream. After a dream ride, when the dreamer wakes up, he need not run out to take his dream horse to water.

Death is a fact life. Understanding a fact as a fact is a true understanding. Fact should not be a fiction. Animals are ignorant of facts and humans are oblivious of facts. Death consciousness being the only human possibility, man should be aware of this fact as a fact of life. Death

becomes meaningful when life is lived fully without the fear of death and with death consciousness. Death is metaphysical only in the sense that it happens to man without his predictions. But death consciousness converts this metaphysical mystery to the physical awareness. This is art of living. We do not live properly as we do not know the art of living. We die many times before we really die. The real death is metaphysical but man experiences the fear of death in the physical world because of his own speculative fear of death. Living life is more important than fearing death. This is the difference between a soldier in the battle field and a common ignorant man who lives a worldly life with full of attachments to his self-centric ideas and possessions. The death of both is also different. The death of a soldier is honoured as Sahid who died for others and the death of a common ignorant man is thought of a helpless death signifying and yielding nothing. In the *Bhagavat Gita*, Arjuna was reluctant for fighting only for the fear of death of his relatives. *Lord Krishna* explained *Arjuna* the real fact of death which was a sort of metaphysics for *Arjuna* as he was ignorant. In *Katho Upanishad*, the Lord of Death has explained the secret of death to *Nachiketa* as *Nachiketa* had genuine interest to know the fact of death. If a soldier is ready to die in the battle field for saving the lives of all of us, then why not each and every citizen be ready to die for the cause of protecting righteousness. This is a mindset. This mindset makes one heroic and inspires one to live like a soldier. Once death is understood, life becomes meaningful for living with a genuine purpose. If every moment is a moment of death, similarly, every moment is also a moment of life which should not be missed or neglected in the fear of death. If one has death-consciousness, for him, every moment is precious, every relationship is precious and every action is precious. So man has to transcend his self-centric visions of life and death to the higher layer of consciousness which is the real transformation. Every man should have death consciousness and fearless attitude towards the natural fact of death. Living a meaningful life and dying a meaningful death make humans immortal.

4) Psychic conflicts

The dialectics of existence and non-existence is grounded in psychic conflicts. This is very well discussed in the treatise of the *Bhagavat Gita*. The *Bhagavat Gita* begins with *Visada Yoga* representing the inner conflicts and confusions of man as a basic psychological disorder. Inner conflicts and confusions are natural to man but very unfortunate when such disorders take place in the field of battle. Here the field of battle symbolizes the field of readiness where man should be action-oriented with full of wisdom and dedication. War-field is a field of detachment from the empirical attachments where one should not have any passion for personal relationship and any reactions of inner conflicts. But in the *Bhagavat Gita* it is shown that man is psychologically trapped even in the time of war and the place of war-field. This is the irony of human intellectuality and rationality. Man is always found in the crossroad of confusions and becomes indecisive of what to do and what not to do. Man suffers from this psychological battle throughout his life. The *Bhagavat Gita*, from the opening chapter of *Visada Yoga*, introduces the nature and limit of human mind. A confused mind is not qualified for any war. War ethics suggests that if both the opposite parties standing on the opposite sides are not ready for fighting, there cannot be any fighting at all. As *Arjuna* was confused and reluctant to fight against his relatives, he needed psychological

counseling to have readiness for war with strong conviction and wisdom. The *Bhagavat Gita* has given importance for the mental preparedness of the war than the real war. Understanding and feeling are the roots of all activities. *Karma* should be performed by the support of *jnana and bhakti*. So war is not a mechanical reaction, rather a well-planned action backed by wisdom and dedication.

Action implies karmic bondage. On the other hand, *Karma Yoga* teaches that actions are indispensable for liberation. This paradox ceases to be there when one understands the action-situation. In an action situation there are three distinct aspects, i.e. the Agent, the Action and the Consequences of action. The agent adopts certain means which are thought to be appropriate to achieve the end. This shows that all actions are backed by desire and therefore, are goal-oriented. According to the *Karmic* law every action has its necessary consequence, irrespective of our knowledge and will. If the agent has already performed the action, he has no liberty to choose the consequences. When the consequences are in agreement with one's foreseen desire, it brings happiness to the individual and when the consequences are contrary to the desired thing, it brings unhappiness or pain. *Karma Yoga* suggests that actions and consequences make a nexus but the agent, because of ignorance, puts himself into the nexus. Without the agent, the action cannot be performed because every action presupposes an agency. But the agent can keep himself away from the *karmic* nexus if and only if he knows the art of doing it. This is precisely the secret of *Karma Yoga*. *Lord Krishna* observes '*Yoga* is the skill in doing action' (***Yoga karmasu kausulam***). There is nothing in action which makes the agent bound to the nexus. The reason why the agent enters into action-reaction nexus is that he has the sense of doing the action. According to the *Bhagavat Gita* to think of oneself as the doer is the result of ignorance. An enlightened one is he who has the right perception of reality. He would never place himself as the agent, for he has the realization that *Purusottam* is the doer of all actions and in relation to *Purusottam*, the individual self is an instrument. But it is the ego sense *Ahankara* that makes the Self mistakenly identify itself with the evolutes of *Prakrti.* Having been blinded by the ego-sense, the Self comes under the influence of *gunas* of *Prakrti. Sattva, Rajas* and *Tamas* that blind the vision of the Self. As a result, one becomes oblivious of the truth that it is *Prakrti* alone which is the real cause of all activity, change and movement. Due to overpowering influence of *Prakrti* the individual is led to think himself to be the real agent.

The symbolic war between two clans really represents the psychological war between two types of mind. One mind is trapped by the g*unas* of *Prakriti* and the other is free from the trapping of *Prakriti*. *Lord Krishna* represents the transcendental mind of pure consciousness and *Arjuna* represents the empirical mind motivated by *tri-guna* tendencies. In the *Bhagavat Gita* the war-situation is depicted in a very pragmatic way so that the two possible minds can interact to each other through proper counsels. In the war-field and in the urgency of action the trapped mind is not prepared for action being attached to the worldly allurements. But in the same war-field, the enlightened mind is free from all types of attachments. The warrior in the war-field is not only a biological soldier with war skills and weapons. The warrior has a mind which is getting engaged in the war-action. That mind should be a mind of equanimity, a free mind, a mind of steady knowledge (*Sthitaprajna).* A man of steady wisdom is really a warrior in the battle of life.

5) Conclusion

The scope of dialectics has been expanded to its maximum flexibility so that we can use dialectic mechanism in self-transformation through ethical paradigms. Spirituality does not advocate the gospel of escapism. It makes a scientific approach to social transformation. But for this there must be established a nucleus of transformation in the life of an individual. The individual transformation is the beginning of a process which culminates in the fundamental transformation of the world. The *Bhagavat Gita* enunciates a new principle of social action. In the co-existence of dialectical opposites of ethical paradigms, there lies the secret of self-transformation. One should have transcendental visualization beyond the empirical dialectical differences.

Man exists through psychic pervasion. The mind expands and becomes more functional through psychic discipline. One has to realize that one lives not merely in the world of sense objects but also in the world of mind objects. The former is known as *vastu* or object of sensation and the latter is known as *visaya* or the objects of imagination. Mind moves around the objects of imagination or *visaya*. Mind can withdraw itself from the sense objects but remains attached to the mind-objects. Freedom from both sense-objects and mind-objects requires the rigorous psychic discipline of withdrawal or *pratyahara*. One can withdraw his mind from the desired objects and enjoy the non-existence of his being. Similarly, we can deploy our mind in a particular situation and can feel our presence in it. The senses move about for an event or an object, and the mind experiences or enjoy. To attempt to withdraw the senses without the mind withdrawing is to get lost in frustration. The event cannot subside so long as the mind is active in experiencing it. So *pratyahara* is the ending of the experience. The withdrawn mind should be kept in hold [*dharana*] and then we can concentrate the withdrawn mind in a new event or action [*dhyana*]. The dialectics of existence and non-existence becomes a psychic phenomenon for a spiritually groomed person who has disciplined these three disciplines of *pratyahara*, *dharana* and *dhyana*. The mind becomes flexible when the mind is freed from the constraints of psychic bondage. Mind binds and the same mind liberates. Man is endowed with the highest possibility of psychic transformation. The attainment of this highest psychic transformation is the goal of life.

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Concept of the Universe in Ancient India

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Abstract

The ancient Hindu Rishis' were 'SEER' (the discoverer), Philosophers, Mathematicians and Scientists. They made fundamental discoveries which are very well documented in the great Vedic literature. Most remarkably, all their findings were found to be at par with the results calculated with modern equipments and space technological aids. Bhuvakosh of the Padam Puran gives a clear cut classification of different branches of Earth Science, like- Bhugol (Geography), Khagol Shastra (Astronony) and Jyotishya Shastra (Astrology).

The concept of the Universe has well been documented in Ved, Upanishad, Puran and Mahabharat. Rig Ved mentions the Architectural Origin of Universe' which mentions the building of the universe from the cosmic dust through the architecture of Brahma. Mechanical Origin of universe1 from the parts of the body of "Adi Purush" is depicted in the Bhagvat Gita2 In the Upanishads, "Philosophical origin" of universe quotes that the earth has originated from water that was produced after the worshipping of death.3 Shiva Purana4 mentions the "Instrumental Origin of Universe" through the evolution of "Sarga" (Creation), (Evolution) and "Sanhara or Pralaya" (Deluge). "Pratistha". Matsya Puran (127.73) explains the gaseous origin of universe. Vayu Puran (Poorvardh 49.151), Vishnu Puran (II.7.22) and Mahabharat'5 have mentioned the origin of universe through the "Anda" (eggs) and also about the elliptical shape of the universe. Vaman Dev discovered the planet Jupiter (Vrihaspati)6 and Vena Bhargava discovered Venus (Shukra) in the Vedic period'.7

Aryabhatta's "Siddhant Shiromani"8 gives an account of Solar System and the orbital circumferences of the planets. The distance from the Earth and Moon has been created in "Surya Siddhanta" (Madhyamadhikara, Verse.25, 26 &27). "Sathpath Brahman" (1.3.3.18-19), Vishnu Puran (II.12.3) and Matsya Puran (127.38.:149.2) through light upon the origin of moon.

Keywords: Universe, Vedas, Sunspots , Buddhism and Jainism

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Rig Ved (X.85.2) and Gita (X.II) give an account of 27 constellations. Brahma Puran (II.129.1) have mentioned about the meteors. Agni Puran (129.1) also, gives vivid descriptions of meteorites (Nirghats). Rig Ved (1.27.11), "Manu Smriti" (1.38) give an account of "Ketus" and "Dhumketus" (Comets).

Knowledge of "Pole Star" is reflected in the texts like "Samhita" (Madhya Samh.XIV.1) and Bhagwat Gita (X.II). Functional mechanism of solar and lunar eclipses is well documented in "Agni Puran" (129.1), Rig Ved (IV.16.14; IV.28.2).

The Vedic texts also certify the knowledge of the "sun spots (Tamas & Kilak Ketu), 23 in number, which may affect the life and destiny of human beings on the earth.

"Dirghatma" had successfully calculated the solar year consisting of 365 4 days, that is exactly equal to the modern calculations.

It is evident that the sages of the Vedic period were very well ahead of their times in the field of scientific discoveries. Rig Ved, Purans, Bhuvankosh, Lokaprajnapti, Samudrakhyayika, Suryaprajnapti, Siddhant Shiromani, Surya Siddhant etc. provide ample knowledge of all branches of Earth Science such as Climatology, Geology, Geography, Oceanography, Cosmology, Astrology and Astronomy.

Man today, is exploring Mars and Venus and has now been capable of scaling the solar system and beyond through the satellites and space ships. Surprisingly enough, the mysteries of universe being unfolded in the 21" century, nothing but confirmation of the findings made in Vedic period.

1) Introduction

The amazing universe has always attracted human since the ancient civilization. All the ancient civilizations, Chinese, Greeks, Egyptians, Persian and Indian have very thoughtfully contributed to solve the mysteries of universe.

The Indian school during the Vedic period, views the universe in a big religious capsule, rather than of Science. The great contribution of our philosophical thinkers of Vedic period is well preserved in the Vedic texts. All Veds and Upanishads have developed their thought under the umbrella of religion and philosophy; however the Mahabharat and Purans view these problems with more scientific approach. Remarkably, the sages of the Vedic period have made amazing scientific discoveries. Rich texts of Rig Ved, Purans, Bhuvankosh, Lokaprajnapti, Samudrakhyayika, Suryaprajnapti, Siddhant Shiromani, Surya Siddhant etc. provide ample knowledge of all branches of Earth Science such as Climatology, Geology, Geography, Oceanography, Cosmology, Astrology and Astronomy. Many of their findings have been confirmed to be of excellent accuracy, at par with those made with modern techniques. Surprisingly enough, the mysteries of universe being unfolded in the 21 century, nothing but confirmation of the findings made in Vedic period.

2) Knowledge of Earth and Cosmic Science in Vedic Period

Bhuvakosh of the Padam Puran presents a clear cut classification of different branches of Earth Science, like- Bhuge (Geography), Khagol Shastra (Astronomy) and Jyotishya Shastra (Astrology). The concept of Universe has well been documented in Ved, Upanishad, Puran and Mahabharat. Aryabhatta's "Siddhant Shiromani" (Verse.28) gives an account of Solar System and the orbital circumferences of the planets.

Agni Puran (129.1) also, gives vivid descriptions of meteorites (Nirghats) and Functional mechanism of solar and lunar eclipses. Rig Ved (1.27.11), "Manu Smriti" (1.38) give an account of "Ketus" and "Dhumketus" (Comets). Knowledge of "Pole Star" is reflected in the texts like "Samhita" (Madhya certifies the knowledge of the "sun spots (Tamas & Kilak Ketu), 23 Samh.XIV.1) and Bhagwat Gita (X.II). The Vedic texts also in number, which may affect the life and destiny of human beings on the earth.

"Dirghatma" had successfully calculated the solar year consisting of 365 4 days, that is exactly equal to the modern calculations. Vaman Dev discovered the planet Jupiter (Vrihaspati) (Rig.IV.50.4) and Vena Bhargava discovered Venus (Shukra) in the Vedic period (Rig. 123.1).

3) Concept of Origin of Universe

The concept of the Universe has well been documented in Ved, Upanishad, Puran and Mahabharat. There were several concepts of the origin of universe namely- (a) Architectural Origin (b) Mechanical Origin (c) "Philosophical Origin" (d) "Instrumental Origin of Universe (e) Gaseous Origin (f) Origin from Egg "Anda". Vayu Puran (Poorvardh 49.151), Vishnu Puran (II.7.22) and Mahabharat (Parv.1.58-59) have mentioned the origin of universe through the "Anda" (eggs) and also about the elliptical shape of the universe.

a) Architectural Origin

Rig Ved mentions the Architectural Origin of Universe. It explains the building of universe from the cosmic dust through the architecture of Brahma. Gods have woven the universe and deities have given shapes to the universe like skilled blacksmith. (Rig Ved X 130.1.2; Rig Ved X.72.2).Cosmic dust is the building material used by the chief architect "Vishwakarma". "Varuna and 'Indra' were surveyors. 'Savita' (Sun) holds the Earth through "Yantra" and to check the sky.

सविता यन्त्रे: पृथ्वीमर्मणादस्कने सविता द्यामदहंत' 9

b) Mechanical Origin

"Rig Ved" depicts the "Mechanical Origin" of universe from the parts of the body of "Adi Purush (Rig.X.90.13, 14). The moon from mind, Sun from eyes, Indra and Agni from mouth, Wind from breath, Earth from feet, Atmosphere from his navel, Heaven from his head and Quarters have originated from his ears. The same is explained by the following shlok:

चन्द्रमा मनसो जातः चक्षो सूर्यो अजायत !

मुखादिन्द्रश्चाग्निश्च प्राणाद्वायुर्जायत ।

c) Philosophical Origin

The "Philosophical origin" of universe, as quoted in Vishnu Puran (Vishnu 1.2.23), mentions that in the beginning, there was neither beginning nor end, no day or night. In the beginning only self-born ("Pradhanikam Brahm") existed.

नाहो न रात्रिर्न नभो न भूमिर्नार्सीत्तमो ज्योतिरभूच्च नान्यत !

श्रोत्रादिबुद्धध्यानुपलभ्यमेकं प्राधानिकं ब्रह्म पुमास्तदासीत. !

Upanishads deviate to refer that Upanishad, quotes that in the beginning, everything was concealed by death and the Earth has originated from water that was produced after the worshipping of death (Brihadaranyakopanishad. 1.2.1-3).

d) Instrumental Origin

Shiva Puran mentions the (Vidyesvara Samb.10.3) "Instrumental Origin of Universe" through the evolution of "Sarga" (Creation), "Pratistha" (Evolution) and "Sanhara or Pralaya" (Deluge).

e) Gaseous Origin

The origin of Universe from gas ("Apah") as proposed in "Matsya Puran" (127.73) and Vayu (Vayu. 41.48). It approves of the origin of universe from the Sun. This particular Aryan Concept" of Cosmogony explains the size, shape and nature of universe.

सूर्य एष तु लोकस्य मूलं परमदेवतम !10

चन्द्र ग्रहास्सर्वे विग्येयाः सूर्यसंभवाः!11

f) Origin from Egg "Anda"

Vayu Puran (Poorvardh 49.151), Vishnu Puran (II.7.22) and Mahabharat (Parv.1.58-59), express the view that the Universe has originated from Egg (Anda). The universe as called "Brahmand" is self explanatory of its elliptical shape. All the galaxies, planet and celestial bodies have elliptical shape (Andakar). Sun is considered as one of the million eggs of the universe.

4) Concept of Celestial Bodies

a) Solar System

Aryabhatta's "Siddhant Shiromani" (Verse.28) gives an account of Solar System and the orbital circumferences of the planets. The distance from the Earth and Moon has been calculated in

"Surya Siddhanta" (Madhyamadhikara, Verse.25, 26 &27), "Sathpath Brahman" (1.3.3.18-19), Vishnu Puran (II.12.3) and Matsya Puran (127.38.:149.2) through light upon the origin of moon. "Dirghatma" had successfully calculated the solar year consisting of 365 4 days, that is exactly equal to the modern calculations.

b) Sun Spots

The Vedic texts also certify the knowledge of the "sun spots (Tamas & Kilak Ketu), 23 in number, which may affect the life and destiny of human beings on the earth (Vrihadsanhita" III.7). Constellations & Stars

The astronomers in the Vedic period were called "Nakshatradarsas". Rig Ved (X.85.2) and Gita (X.II) give an scount of 27 constellations. Brahma Puran (II.129.1) have mentioned about the meteors. "Atharva Ved" and "Maitryayani Samhita" (Atharv.XIX.7), there is mention of 28 nakshatras. The nomenclature of the "nakshatras (constellations') by the Vedic Astronomers, bears legendry significance. For example, "Ardra Nakshatra" refers to the period when the sun sets in the rainier region, and "Kritika nakshatra" signifies that star under this regime of 13°20' look like the skin of spotted deer (Mrig Chala). Meteors and Comets Agni Puran (129.1) also, gives vivid descriptions of meteorites (Nirghats).Rig Ved (1.27.11), "Manu Smriti" (1.38) give an account of "Ketus" and "Dhumketus" (Comets). Knowledge of "Pole Star" is reflected in the texts like "Samhita" (Madhya Samh.XIV.1) and Bhagwat Gita (X.II). Earth, Sun and Moon Relationship Functional mechanism of solar and lunar eclipses is well documented in "Agni Puran" (129.1), Rig Ved (IV.16.14; IV.28.2). It is also expressed in the Mahabharat (Shanti Parva.201.61) that the moon shines due to reflection of sun light. One half of the moon is always visible to the Earth and the other half always is not visible to the earth.

यथा हिमवतः पार्श्व पृष्ठ चंद्रमसो यथा !!

न हस्टपूर्व मनुर्जेन च तन्नासति तावता !! 12

Spherical Shape of Earth Rig Ved (1.33.8) explains the spherical shape of the earth as quoting- “Beautified with golden ornaments, the dutas (vritra), though revolving round the circumference and specially running (about it), have not been capable of being victorious over Indra. Then the Sun has encircled (the dutas)".

चक्राणास: परीणहं पृथ्व्या हिरण्येन मणिना शुभमाना:

न हिन्वानासस्तिरुस्त इन्द्रं परिस्पशो अदधात्सूर्येण !! 13

c) Day and Night on the Earth

In the Rig Ved (4.433), explanation of days and night on various parts of earth given in the following quote-"The Sun spreads is lustrous arms round the earth, helping the world to sleep

and awake. Resplendent Savita has filled glow, the region of space, sky and the earth". आना रजांसि दिव्यानि पार्थिवा श्लोकं द्वै कृणुते स्वस्धर्मणे।

प्र बाहू अस्त्राक सविता सविमनी निवेश्यन्प्रसुग्न्नत्कुभिर्गत् ॥ 14

d) Concept of Atmosphere

Bhaskaracharya, in Sidhhanta Shiromani (Goladhya, Madhyagitivasan II), has given a detailed account of structure of atmosphere. He has referred the atmosphere to be of 12 Yojans (96 miles or 153 kilometres). It has been supported by Aryabhatta and Lalla. Remarkably, these calculations made in Vedic period, match with the modern calculations of 100 miles.

भूमेर्बहिव्दिश्योजनानि भूवायुरथ्त्राम्बुदविद्युदाद्यम! तद्धर्वगो

यः प्रवहः स नित्यं प्रत्यग्गतिस्तस्य तु मध्यसंस्था !!15

5) References of Universe in Buddhism and Jainism

The Buddhism philosophy advocates refraining from the study of "Astronomy" and devoting on the aspects of human sufferings and purification of life (Tiracchanavijja, Chullavagga). Jain Literatures The Jain philosophy believes in the concept of "flat Earth" and two suns shining in the both sides. All the heavenly bodies move parallel to the Earth with centre of their orbits as "Meru".

However, the concept of flat earth was not able to justify the alteration of day and night. To overcome this problem, Jain school devised an amazing concept of similar but two opposite sets of suns, two moons and two sets of stars...to solve the day and night problem (Das and Rajan, 1932).

6) Conclusion

It is self-explanatory, that the sages of the Vedic period were Very well ahead of their times in the field of scientific discoveries. Rig Ved, Purans, Bhuvakosh, Lokaprajnapti, Samudrakhyayika, Suryaprajnapti, Siddhant Shiromani, Surya Siddhant etc. provide ample evidences of knowledge of all branches of Earth Science such as Climatology, Geology, and Geography, Oceanography, Cosmology, Astronomy. Astrology.

The man today, is exploring the Mars and Venus and has now been capable of scaling the solar system and beyond through the satellites and space ships. Surprisingly enough, the mysteries of universe being unfolded in the 21" century, are nothing but confirmation of the findings made in Vedic period. We can conclude that the more man explores the universe, the closure they come to the "Veds".

References

1) Rig Ved X 130.1.2; Rig Ved X.72.2 3 Brihadaranyakopanishad. 1.2.1-3
2) Bhag. II.1.26.40
3) Brihadaranyakopanishad 1.2.1.3
4) Vidyesvara Samb.10.3
5) Parv.1.58-59
6) Rig.IV.50.4
7) Rig.123.1
8) Verse. 28
9) Rig X.149.1.1
10) वायु पुराण: ४१.४८
11) मत्स्य पुराण: १२७.७३
12) महाभारत शांति पर्व २०१.६१
13) ऋग्वेद १.३३.८
14) ऋग वेद ४.४३३
15) सिद्धांत शिरोमणि, गोलाध्याय, मध्यगातिवसन. २
16) सिद्धांत शिरोमणि
17) सिद्धांत शिरोमणि
18) सिद्धांत शिरोमणि
19) ऋग्वेदः
20) महाभारतम्
21) वायु पुराणः
22) मत्स्य पुराण:
23) Brihadaranyakopanishad
24) Srimad Bagavatam

Impact Of Vedic Wisdom on Modern Mind

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Prologue

There is an interesting German word *zeitgeist,* which means the time-spirit, the drift of thought and feeling in a period of history. This time-spirit, for good or bad, influences the future of mankind in a far-reaching way, sometimes in almost a decisive manner. Out of what all cumulatively define us today, comes the kind of tomorrow we are going to have. Needless to say, the *zeitgeist* today is dominated powerfully by the scientific temper. The scientific temper of today is not an incumbent which could be wished away or frowned out of the contemporary scene. Science came to this position the hard way, fighting a long battle of nearly four hundred years, against dogmas and superstitions.

No doubt science, while bringing great benefits to mankind, it has also been instrumental in producing guns, bombs, and missiles indicating its declining integrity. We have to remember the facts in this regard:

(a) It is man who has forced out of science this destructive power: science itself per se cannot be destructive

(b) Science has come what it is today by sheer one-pointed pursuance of truth.

(c) Power of science is not in what it has achieved through discoveries and inventions but in how it has achieved it.

(d) This "how" is a wonderful saga of self-sacrifice, dedication, concentrated absorption in the search for truth, and renunciation of the vulgar aspirations of life.

(e) This entitles the true scientist, the un-distracted seeker after knowledge, the respect due to a sage.

We must realize that achieving this ideal of bringing about a judicious change in the time-spirit is not an easy task, not a work of a few days, not a job for a handful of enthusiasts. To this work through whole epochs of history, efforts of millions of people will have to be deliberately devoted, through reorienting towards an integral education, with mutual admiration of Western science and Eastern thoughts, in order to give a new sense of direction to thoughts, aspirations and affairs of men.

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1) OVERVIEW OF THE VEDAS:

At the very outset it is necessary to have a brief understanding on the Vedas . A sage scholar of our times TV Kapali Sastry(1886-1953) dived deep into the Vedic ocean to describe the salient features systematically, briefly and cryptically for us. The word vedah is used in books and speeches, refers not only to books of that name but also to the tradition which they embody and exemplify. The meaning of the word Veda is knowledge. Nobody ever creates knowledge. Has anybody ever seen knowledge created? It is only discovered, what was covered so long is uncovered. Past, present and future knowledge, all exist in all of us. We discover it, that is all. The Vedas comprise of knowledge in the form of mammoth Sanskrít text. In the popular saying, 'ananto vai vedäh' ('the Vedas are indeed infinite') Veda clearly refers to the tradition and not to the books. In the present work, Vedās only refers to the ancient texts of that name. No other book in India or elsewhere can claim greater antiquity than the Veda or a more far-reaching influence.

Does 'Veda' refer to a single book or a collection of books? Vishnu Purāṇa (3.3.19-20) and Matsya Purana (144, 11) declare that originally the Veda was a single (oral) book of mantras (Eko vedah). In course of time, the well-known sage Krishna Dvaipāyana Vyāsa divided the single (oral) book into four overlapping books of mantras with the names, Rig Veda Mantra Samhita, Yajur Veda Mantra Samhita, Sama Veda Mantra Samhita and Atharva Veda Mantra Samhita.

'Samhita' means a collection. Associated with each of the four mantra books mentioned above, there are three types of books, 'Brähmaṇa books', 'Aranyaka books and 'Upanishad books'. Brahmana books deal with the ritual based explanation of the mantras, legends etc. The Aranyakas deal with symbolism and meditations. The Upanishads deal exclusively with metaphysical and yogic insights.

In this context, Upanishads refers to books which are the penultimate chapters of Samhita or Brahmana or Aranyaka books. These are many but only for the ten Upanishad books Acharya Shankara gave his commentaries considered to be the earliest.

Thus there are 16 types of Vedic books. To visualize them, imagine a 4 x 4 matrix. The columns are Rig, Yajus, Sama, Atharva. The rows are the Mantra Samhita, Brāhmana, Aranyaka and Upanishad, Each bin refers to one type. In each of the 16 bins, there are many books. In course of time, each mantra Samhita became divided into two of more overlapping shākhas.

For example we take Rig and Yajur Veda have yielded the distinct books named below:

<u>Rig Veda</u>

Mantra Samhita: Shākala

Brāhmana books: Aitareya,Kaushitaki

Aranyaka books: Aitareya,Kaushitaki

Upanishad books: Aitareya,Kaushitaki

<u>Yajur Veda</u>

Yajur Veda has two major recessions with the name of

a)Krishna Yajur Veda and

b) Shukla Yajur Veda.
Krishna Yajur Veda has 10 books:
Samhita: Taittiriya, Maitrāyaniya,
Brahmana:Taittiriya,Maiträyaniya, Kathaka
Aranyaka:Taittiriya
Upanishad:Taittiriya,Katha, Shvetashvatara,Mahanarayana
Shukla Yajur Veda has a total of 5 books
Samhita: Vajasenayi Madhyandina, Vajasenayi Kanva
Brahmana:Shatapatha
Upanishad: Ishavashya, Brhadaranyaka
Similarly other two remaining Vedas have 7 and 6 books respectively.
In addition, each of these four Vedās has associated manuals needed for rituals, known as Prātishākhya, Dharma Sütra, Grhya Sūtra and Shrauta Sutra. Ashvalāyana Grhya Sütra is connected with Rig Veda. Similarly the Āpastambha Dharma Sütra, Mānava Grhya Sütra are connected with Krishna Yajur Veda.
Vedānga refers to six works needed especially in the ritual-based study of Veda. They are: (1)Shikshā, the science and art of correct articulation and pronunciation of letters and words with accents. (2) Vyakarana, grammar. (3) Chhandas, prosody dealing with metres. (4) Nirukta, etymological derivation of Vedic words. (5) Jyotisha, astronomy for the regulation of sacrificial rituals according to the Vedic calendars preserved in the memory of the ancient Vedists. (6) Kalpa, process and rules for ceremonial Vedic rites.
There were later Sutra books also naming a few :'Purva Mimāmsa Sutrās' due to Jaimini and the 'Brahma Sütrās' or 'Vedanta Sütrās' due to Bädarāyaṇa. These two sutra books became the foundation for the two traditions namely the tradition of ritual (karma kända) and the tradition of knowledge (Jnána Kända) . The Sutrās or aphorisms of Jaimini were commented on by Shabhara Swami and Kumarila Bhatta. Acharya Shankara, Acharya Ramanuja and Acharya Madhva and others have written commentaries on "Brahma Sūtrās' and "Upaniṣhads'. The collection of these books is known as Vedänta or Jñāna Kānda. It is noted that Sri Rāmānuja did not comment directly on Upanishad. In his tradition, the commentary was written by his grand disciple, Sri Rangarāmānuja.All these Achāryās (with the exception of Madhva) regarded all the mantras of Rig Veda Samhita as part of Karma kanda or the part dealing with the rituals.[i]

2) THE ENSEMBLE:

Unlike many countries India still lives and keeps the continuity of her inner mind and soul. It has assimilated it's ancient wisdom culminating in tolerance, nonviolence, hospitability, resilience. We know a society or a country is a living entity, we can view it using the three epithets of a living being namely, body, mind and soul.
Human body is exceedingly complex, its main purpose is to work through its organs of action namely, hands, legs, and mouth. What instructs the body to do the work? It is the mind.

We can view any work as a method of converting some naturally occurring entities in nature into a form which is useful for human for his comfort and sustenance. The cook prepares edible food using green vegetables, water and a source of heat. Thus cooking is a form of work. It is the mind which determines the things that are needed for the sustenance of the body and instructs the body to produce them.

What instructs the mind? It is the soul. The soul provides insights needed for long life which the mind can access and utilise.

Likewise we can describe a nation. The details of governance and politics constitute the 'body of the nation'. All forms of creative self-expression(ayudha) constitute the 'mind of the nation'. The ideals of Dharma (laws of nature) and philosophy constitute the 'soul of a nation'.

3) AAYUDHA:

Creative self-expression refers not only to art, poetry, and literature but also to all aspects of life, described aptly by the Sanskrit word 'aayudha', - 'that which supports (dha) all aspects of life (ayu)[ii] .Interestingly it includes science and technology including modern devices of person-to-person communication such as cell phones which have greatly helped to empower people and also tool and weapons for protection of life. It also includes the ecology involving knowledge of numerous entities of nature including landscape and its interactions.

Even creative crafts such as those connected with food or healing methods have their inner knowledge related to ayu or life. Only the outward aspects of food can be shifted to the topic “Body of Society”. The whole subject of protection of ourselves and society against enemies, inner and outer, is related to both 'creative self-expression and governance and politics'.

4) DHARMA & CULTURE:

The culture of a nation is an expression of these three aspects of society described earlier, namely, its body, mind, and soul. This is the real significance of our Indian civilisation which we have inherited from the Vedas and disseminated to mankind. The global perspective in ancient Vedic wisdom has been misnamed as a Brahminical civilisation by Western Indologists. It is reiterated that Vedic essence was above all sectarian and caste limitations.

In ancient India, a ruler was from the group of warriors conversant in applied territorial matters and armour (named Kshatriyas). He had no absolute authority; he had to abide by the unwritten laws of Dharma, especially the advice of the wise among men who were, by and large, selfless, lived in a simple way (named Brahmins), who clarified the ideas of Dharma. Unlike the West no one in ancient India believed in the Divine Right of kings. Of course, Jamboodweepa (Bharat, that is Indian penninsula) was made up of a large number of kingdoms. But the battles were fought only by soldiers of the two sides according to Dharma (laws of nature); ordinary citizens, agriculturists, merchants, artisans etc., were not at all affected.

The whole aim of a great culture is to lift man into something which at first he is not: to teach him to live by reason, by the law of good and unity, beauty and harmony, by some high law of this spirit the last of these aims, as conceived by ancient India, is the highest of all because it

includes and surpasses all the others. To have made this attempt is to have ennobled the race; to have achieved even a partial success is a great contribution to the future possibilities of the human being.

"One might almost say that ancient India was created by the Veda and Upanishads and that the visions of inspired seers made a people. That sublime poetry with its revelation of the joy and power of life, truth and immortality or its revelation of the secrets of the self and the powers of its manifestation in man and the universe; and of course man's return to self-knowledge got into the very blood and mind and life of the race and made itself the fountain-head of all that incessant urge to spirituality which has been its distinguishing feature and cultural motive."[iii]

5) ENERGY EXTERNAL & INTERNAL:

Every day media feeds us about the impending energy crisis; many scientific seminars are held all over the world on how to solve this crisis affecting man through his external environment. Alternative solutions are sought from wind/solar/nuclear energy. Why is it that, after constructing such a rich society through his efficient science and technology, man still finds himself broken, battered, bruised in that very society? Why is he feeling unfulfilled within, though all around him everything is propitious?

Is there another energy crisis within man himself which may be partly responsible, through his wrong philosophy of life, even for that very external crisis? Does he or does he not have, within him, energy that can give him a grip on his life, and a direction to his movements in the outer world, instead of simply being whirled about by the energies released by modern technological discoveries? Can he not order his own life in a masterly way, instead of being ordered about like any other creature? Has he not the organic capacity to achieve peace and fulfilment , individual and collective?

These are questions that have ceased to be merely academic. Today they are the questions affecting man's very survival. Modern man is continuously involved in movement, but the direction is missing all the time. As one scientist has said : man discovered long ago the method of giving direction to his ship by looking at the stars; later on, he invented the compass needle. And still later, the discoveries of energy resources such as steam, electricity, and nuclear power helped in driving his ship faster and faster. Today's human condition is such that we have energy of movement, but we are lacking in direction; and it is here that we need a new science, a new technique, of direction-finding. Physics is very highly developed today; so also are the other sciences of physical nature, like astronomy and chemistry and biology. But the science of man has not developed adequately. Many modern scientists feel that, unless the science of man advances matching with the progress of sciences of nature, man will become weakened, and the successes of his physical sciences will defeat the purpose his existence.

6) DISCOVERY OF DIRECTION:

India has contributed immensely in the domain of studying man; in a different way from the modern subjects like physiology, anatomy, and behaviouristic and psychologies which also are

sciences of man, but which do not touch the essential and existential truth of man hidden within. This study of man in depth, for which the precise Sanskrit word is adhyātma-vidyā. Referring to the insufficiencies of modern scientific thought, and knocking at the door of India's adhyātma-vidyā in the process, Lincoln Barnett says:

"In the evolution of scientific thought, one fact has become impressively clear; there is no mystery of the physical world which does not point to a mystery beyond itself. All high roads of the intellect, all byways of theory and conjecture lead ultimately to an abyss that human ingenuity can never span. For, man is enchained by the very condition of his being, his finiteness and involvement in nature. The farther he extends his horizons, the more vividly he recognizes the fact that, as physicist Niels Bohr puts it, "we are both spectators and actors in the great drama of existence." Man is thus his own greatest mystery. He does not understand the vast veiled universe into which he has been cast for the reason that he does not understand himself. He comprehends but little of his organic processes, and even less of his unique capacity to perceive the world about him, to reason and to dream. Least of all does he understand his noblest and most mysterious faculty: the ability to transcend himself and perceive himself in the act of perception."[iv]

Our writers in ancient India gave the highest place of honour to this science of studying the ever-changing man . Physics, chemistry, botany, zoology, and astronomy-all these vidyas or sciences were highly respected and cultivated in ancient India in a different frame of reference of space and time ; but pre-eminent position among all sciences was given to this complex science of man integrally.

Gitā, in chapterX.32, affirms this pre-eminent position: *adhyatma vidyā vidyānām*-among the vidyās or sciences, the apex is adhyatmavidyā. If one is a physicist, his or her knowledge of physics will help him or her only so long as he or she is in the laboratory. But when he or she goes home, and has to deal with the family members or with colleagues in the office or fellow citizens in society, that science has no meaning for him or her at all. Such is the situation with respect to all our sciences of physical nature.

If a husband deals with his wife in terms of his physics or any of the other physical sciences, he will make a mess of his marriage; the same with respect to the wife in relation to her husband. If a leader deals with the people in terms of these physical sciences, he will make a mess of the society around him; all this is so because of the limited scope of their application, and the unpredictable non-physical dimensions of the human personality and behaviour . But when he or she knows man in depth as expounded in the adhyatma-vidya, he or she will be wonderfully successful in dealing with oneself and equally so when dealing with others.

That is why a section of the scientific, philosophical and sociological thinkers feel the importance of adhyatma-vidya , which needs to be mastered by man. Today, India is working hard to master the modern physical sciences, to cope with contemporary challenges as our people had neglected them for centuries: and most of the human problems in India today have arisen from this long neglect. But in correcting the mistake of that neglect, we may be committing another mistake, namely, neglecting our adhyatma-vidya, which we have specially cultivated for

ages, and which is our best international contribution to the development of mankind and fulfilment.

Sir Julian Huxley, eminent biologist and humanist, once referred to the need for modern man to develop a new science, along with the various physical sciences which have already been developed. He termed it: " the science of human possibilities". In his lecture on The Evolutionary Vision delivered at the closing session of the 1959 Chicago University symposium of Evolution After Darwin, held to commemorate the centenary of the publication of Darwin's Origin of Species, he gave a spiritual orientation to the evolutionary process :

"Man's evolution is not biological but psycho-social; it operates by the mechanism of cultural tradition, which involves the cumulative self-reproduction and self variation of mental activities and their products. Accordingly, major steps in the human phase of evolution are achieved by breakthroughs to new dominant patterns of mental organization of knowledge, ideas, and beliefs ideological instead of physiological or biological organization. ...All dominant thought organizations are concerned with the ultimate, as well as with the immediate, problems of existence or, as I should rather say, with the most ultimate problems that the thought of the time is capable of formulating or even envisaging. They are all concerned with giving some interpretation of man, of the world which he is to live in, and of his place and role in that world- in other words, some comprehensive picture of human destiny and significance."[v]

Revealing the twentieth-century understanding of the trend of human evolution towards qualitative enrichment, in place of the quantitative of the pre-human phase, he further said:

"It (evolutionary vision) shows us mind enthroned above matter, quantity subordinate to quality. In the light of our present knowledge, man's most comprehensive aim is seen not as mere survival, not as numerical increase, not as increased complexity of organization or increased control over his environment, but as greater fulfilment --the fuller realization of more possibilities by the human species collectively and more of its component members individually. And towards this end, he pleads for the development of a new science of human possibilities.

Once greater fulfilment is recognized as man's ultimate or dominant aim, we shall need a science of human possibilities to help guide the long course of psycho-social evolution that lies ahead."

What India developed, ages ago, in her Upaniṣads and the Gitā as adhyātma-vidyā, was indeed in response to this need for a science of human possibilities. A new-born baby, hardly seven pounds in weight, is so tender an organism that a little extra heat or cold can destroy it. Yet, look at the sparkling eyes of that little baby! Presence of a depth behind those eyes, enormous energies lying dormant somewhere within its depths; and your whole effort with regard to the education of that baby will be to make it unfold all those energies. In that process, one day, he or she will become a great scientist, a great Olympic runner, a great statesman, or a great saint. All these possibilities are hidden in that little baby.

7) HUMAN POTENTIAL

Saňkārācharya, in his comment on the Katha Upaniṣad, gave an insight into this infinite spiritual energy resource in man, gives us also something like a calculus of the energy resources within every human being. In precise scientific terms, he tells us that the energy resources within every human being are organized in an ascending scale of subtlety, immensity, and inwardness- *Sūkshmā, mahāntaśca, pratyagātma-bhūtāśca.* Muscular energy is gross, nervous energy is subtler, and psychic energy is even more subtle.

While giving these comparisons, he brings out another subtle truth, and it is this: As the energy becomes more and more subtle, sūksma, it also becomes more and more immense, mahāta. As we saw earlier, the muscle looks big, but its real energy is in the tiny and subtle nerve fibre behind it. To recognize this truth, man needs a certain mental maturity; immature minds are dazzled by the gross, by mere quantity and size. If a child is asked when showed the photos: who is greater, a wrestler like Mohammad Ali or a frail Mahatma Gandhi, the child will reply: certainly, Mohammad Ali, because he is muscular and full of energy. The child mind cannot grasp the dimensions of subtle energies manifested in men like Gandhi, energies not only more subtle but also more immense in range and power. It is good to appreciate muscle power; but it is important to recognize powers finer, subtler, and more significant than that.

Muscular energy comes entirely from physical food; neural and psychic energy come less from physical food and more from a subtle and intangible inner combustion. The energy manifested by great scientists and social revolutionaries is greater than what their physical food-intake warranted. The energy they manifested, and their impact on the world even after their physical death, bear no significant relation to the physical or even to the intellectual food they took when they were alive. On the other hand, the energy manifested by heavy eaters may be qualitatively far inferior to the quantity of their food-intake.

Men and women, moved by lofty ideals of love and service, patriotism and human dedication, engage in untiring work entirely disproportionate to their physical, and even mental, food nourishments. Where do they get their energies from? Obviously,from the depth of their personalities.

Katha Upanisad proclaims the truth of the infinite possibilities in man, and how to unfold that truth, in one of its verses (I. III.12):*Esa sarvesu bhūteşu güdho atma na prakāšate; Drušyate twagraya buddhyaa süksmayaa sūksma-darshibhih* . This (infinite) Atman, being hidden in all beings (like fire in ashes), does not shine in all; but (It) can be realized, made manifest, by all who are accustomed to enquire into subtle truths by means of their sharp and subtle reason.

8) TAT TVAM ASI:

In the Chändogya Upaniṣad (VI.viii.7), there is a brief utterance which many of us may have heard of, though few of us may have really grasped its profound significance. That utterance is Tat Tvam Asi- “That Thou Art”. We were under the impression that such utterance was meant only for mendicants in the Himalayan retreats; and common man has nothing to do with it. But it was changed by Swami Vivekananda saying that anybody can be a seeker of truth.

To be true to principles of science, it may be emphasized, the scientist cannot close his mind to facts or data coming from any quarter in relation to a particular branch of study, or in regard to fundamental facts of existence itself, to which, in the ultimate analysis everything will be related. Therefore, if from the camp of spiritual domain certain data come forth, science has to respectfully examine them, if it is to be true to itself. "What is truth ?" Truth is something so noble that if God could turn aside from it, I could keep the truth and let God go", said the mystic Meister Eckhart(1260-1328). Here is a truly spiritual man whom even the most self-satisfied scientist can respect.[vi]

J.B.S. Haldane, British microbiologist, though an agnostic, felt something wonderful about India. He knew well all about its poverty, backwardness, million problems, and yet he left his own highly developed home country after the Second World War, came to settle in India. In the course of his lectures on the Unity and Diversity of Life, he tells us with much passion:

"I think that only two of the discoveries of this century in physics are of profound philosophical importance. One is Einstein's discovery that time and space are aspects of the same reality. The other is that the wave and particle are the aspects of the same reality. We have not yet got the words to formulate this principle adequately. But it helps me to believe that the distinction between you and me, or the nearest mosquito and me, is nothing absolute either. ...Anyone who has the concrete and detailed notion of the unity of life, at which I have arrived after studying biology for sixty years, will at least have some respect for a life, including plant life".[vii]

On the other hand progress of a nation in the modern age is described in terms of the per capita production and consumption of various forms of external energy resources, like electricity and nuclear power. But is that a sufficient criterion, the only criterion, of human development? In spite of their tremendous external energy resources, men and women in the developed countries feel unhappy, tense, unfulfilled; and the developing countries like our own are also following in their wake. That is why this subject of the science of man growing beyond the merely physical and intellectual dimension into a truly spiritual dimension.Spiritual Quotient(SQ) and Emotional quotient (EQ) have become more significant than Intelliget Quotient(IQ).

War has been a curse on mankind damaging its economy and psyche. Countering strongly, the war-mindset, Isha Upanishad Sloka-6 provides *Yastu sarvaani bhutaani aatmani-eva anupashyanti, sarva-bhuteshu chaa atmaanam tato na vijugupsate* : the enlightened person who perceives all beings as one with his own self, and his own self as the self of every being---by virtue of that realization, he does not feel any animosity or aversion towards any being, in other words he loves all beings.

9) UTTISTHATA! JĀGRATA..

Erwin Schrödinger(1887-1961), Nobel laureate in Physics, was moved by the Upanishads and made determined efforts to incorporate it in his life. The epitaph on his tombstone reads, "… So all Being is an one and only Being; And that it continues to be when someone dies; [this] tells you, that he did not cease to be." And he wasn't alone. Niels Bohr(1885-1962), another Nobel laureate in Physics, too had famously said, "I go to the Upanishad to ask questions." In The Tao

of Physics (1975), Fritjof Capra wrote that Heisenberg told Tagore that the "introduction to Indian thought brought him great comfort." Julius Robert Robert Oppenheimer(1904-1967), who led the Manhattan Project to develop the world's first nuclear weapon, learned Sanskrit and when he witnessed the first atom bomb exploded, he recalled a verse from the Gita, where Krishna shows Arjuna his true form. He translated the verse into English and exclaimed thus: "Now I am become death, the destroyer of worlds."

The Upanishads provided solace – a conception of reality and the universe based on observation and reasoning. In the precepts of these texts, the physicists found moral comfort, intellectual courage and spiritual guidance. Schrödinger was, foremost, a physicist deeply entrenched in the methods of science. Indian philosophy soothed his soul but it is unlikely that it helped him frame mathematical equations. Schrödinger was rather critical of many Indian superstition. Modern science, according to him, represented the zenith of human thought. He sought Indian philosophy not to replace the methods of science but to be inspired. He was aware that mixing two systems of thought separated by thousands of years was not easy. He believed Western thought needed to borrow ideas from Indian philosophy – with great care.[viii]

10) Conclusions

The Upanisads not only present the great truth conveyed by such statements as That Thou Art, but also summon man to the great adventure of its progressive realisation in life and work, to the great adventure of climbing the Mount Everest of Experience. The clarion call of the Katha Upaniṣad is particularly significant in this connection-a clarion call made familiar in the modern age by the free rendering of it by Swami Vivekananda: 'Arise!, Awake! and stop not till the goal is reached' quoting the original text:

Uttisthata jāgrata prāpya varān nibodhata Kṣhurasya dhārā nišită duratyayaa, Durgam pathastat kavayo vadanti : Katha Upaniṣad (I.III.14) 'Arise, awake, enlighten yourself by approaching the great ones! Like the sharp edge of a razor is that path, difficult to tread and hard to cross; so say the sages (who have trodden it).

Therefore *chareibeti chareibeti* (let us go on and on) in the right direction taking a cue from the repository of ancient Indian wisdom whenever needed. Our mind has evolved from Descartes *"cogito , ergo sum"* (I think, therefore, I am) to the existential priority of the Vedas which is "*Sum,ergo cogito*" (I am, therefore, I think).There is now a necessity of enlarging the scope of science to make it integral and suitable for survival of the rare species called humans on earth.

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The Perfect Story-Teller in India

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Abstract

Man is a social animal and requires company in good and bad times. In this high-tech age, people have forgotten the habit of book reading. Even a bad novel also has a good message in it. Book reading helps us, how to overcome the adverse situations if we were encountered with them. Therefore, a novel mirrors the society and suggests the possible options that we can choose. In this backdrop to inculcate the habit of book reading and analyzing the life situations critically, R.K.Narayan an Indo-Anglican writer, is one of the best story tellers in India acclaimed nationally as well as globally. The present article delineates a myriad of solutions to choose in case of adverse situations. Youth in India would do well and greatly befitted, if they read R.K.Narayan's short stories epitomized by William Faulkner.

R.K.Narayan was one of the famous authors around the globe. His stories represented various personalities in each character and relatable to the circumstances in India. His biggest and most famous work is "the Malgudi Days" the series which is still in the hearts of many individuals in India. His stories not only represented his characteristics but also inspired several. His biggest inspiration in several of his works was encapsulate many Indians. His work is a true representation of India. This article is a small tribute to R.K.Narayan and his inspirational works. It is focusing on his life, his development, and his achievements. This article represents that, R.K.Narayan is the true revelation in India. He is a true example of 'hard work and passion leads to success'.

Keywords: Novelist, Author, Literature, Inspiration, encapsulate, revelation.

1) Introduction

Rasipuram Krishnaswami Iyer Narayanaswami was R.K. Narayan's full name. He was an Indian author best known for his stories set in the fictional town of Malgudi in Southern India. He was one of the pioneers of early Indian literature in English, alongside Mulk Raj Anand and Raja Rao. Narayan focuses on the upbringing and routine of his characters. He has been equated to William Faulkner, who created a similar fictional town and wrote about the strength of everyday life with intellect and compassion. For his ability to make complex plots simple, Narayan's work has drawn comparisons with Guy De Maupassant. R.K.Narayan was considered as one of the greatest Indian English

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Literature Writers of the 20th century. The perfect story teller of the 20th century popularly regarded as the architect of the Modern Indian English Literature. Among the works of him, "Swamy and his friends" considered as his masterpiece, through which he created a fictional town 'Malgudi' that became the central hub to the most of his stories and characters. Narayan's writing opened up India to the rest of the world. Malgudi a fictional semi-urban town in Southern India where most of his stories were set will live on in his fiction as a tribute to his contributions.

For his writings, Narayan received numerous honors and awards. This includes;

Sahitya Akademi Award (1958)
Padma Bhushan (1964)
AC Benson Medal by the British Royal Society of Literature (1980)
Padma Vibhushan (2001)

a) Career as a Writer

Narayan was largely encouraged and well supported by his family when he decided to stay at home and write. His first novel, 'Swamy and his friends' was widely panned in 1930. He created the fictional town Malgudi with this book, but it was significant in his own desire. In 1937, he published 'The Bachelors of Arts' his second book, which was based on his college experiences. Graham Greene published it, and he advised Narayan on how to write for an English-speaking audience and what to write about. With his third novel, "The Darkroom" Narayan tackled the issue of emotional abuse in marriage, and it was well received by both readers and critics. His wife died tragically in 1939. However he persisted in writing and published his fourth novel, "The English Teacher" which was more autobiographical than any of his previous works. Afterwards Narayan wrote books such as "Mr. Sampath" (1949), "The Financial Expert" (1951), and "Waiting for the Mahatma" (1955).

In 1956, while on tour in the United States, he wrote "The Guide". The Sahitya Akademi award was bestowed upon him as a result of this. After completing "The Man-Eater of Malgudi", Narayan went on a trip to the United States and Australia. He gave lectures on Indian Literature in Sydney as well as in Melbourne. As his fame grew, he began writing columns for publications like "The Hindu" and "The Atlantic". In 1964, he published a collection of short stories titled 'Gods, Demons and Others", which was his first venture in mythology. R.K. Lakshman his younger brother and well- known cartoonist illustrated this book. He wrote his next book, "The Vendor of Sweets" in 1967. Later that year, Narayan visited England, where he was awarded an honorary doctorate by the University of Leeds.

He began translating Kamba Ramayana into English a few years later, as he had promised his dying uncle he would. "The Emerald Route", which was written by Narayan was republished in 1980 was commissioned by the Karnataka Government. In the same year, he was made an honorary member of the Americam Academy of Arts and Letters. Narayan produced a large amount of work in the 1980s. "A tiger for Malgudi". "Talkative Man", "A Writer's

Nightmare" (1987). A few of his published works from the 1990s include: "The World of Nagaraj (1990), "The Grandmother's Tale and Other Stories (1994).

2) Narayan's Contribution

After working as a teacher, an editorial assistant, and a newspaper man for only a few years, Narayan began writing his first novel, "Swami and his friends" in 1935. In it, he created the fictional town of Malgudi in South India, a literary microcosm likened to William Faulkner's Yoknapatawpha County. Malgudi became the setting for a slew of novels and short stories that followed. The publication of Narayan's second book , "Bachelor of Arts" (1939), ushered in his renown England, where the novelist Graham Greeme played a key role. Narayan was stated as "the novelist I most admire in the English language" by Greene. (Ref-1). In 1945, he published "The English Teacher", a novel that was partially autobiographical and focused on the grief of a teacher after the death of his wife." Grateful to Life and Death" along with Narayan's novel "The Financial Expert", were published in 1953 by Michigan State University under the title "Grateful to Life and Death". It was Narayan's subsequent novel releases in West, particularly 'Mr. Sampath',' Waiting for Mahatma', 'The Guide' and 'The Man-Eater of Malgudi' made him a household name. Narayan's masterpiece, 'The Guide' (1958)is regarded by many critics as his the best work. It's the story of a tourist guide who seduces a client's wife, makes a lot of money, and then winds up in jail. The book was literary success in India, and an off-Broadway production of it opened in 1968.' Mr.Sampath' (1949) and 'The Guide" were both adapted for big screen.

a) Portrayal of Indian Society

Narayan's stories begin with realistic settings and day to day chores in the lives of diverse cross-sections of Indian society, featuring characters from all strata of society. Slowly but surely, fate or chance, omission or mistake, transforms ordinary events into absurd ones. It is as if the characters have faith in the outcome, regardless of their own motives or actions, and accept their fates with a serenity that suggests. In Malgudi progress takes the form of imported western goods and attitudes, combined with bureaucratic institutions, with long-held conversions, benefits and methods of doing things. There will never be a clear victory in the modern world as long as Malgudi accepts only what it wants and only according to its own logic. According to Anthony Thwaite of the New York Times, in his review of Narayan's novel "The Painter of Signs" remarked Narayan as "A world as richly human and volatile as Charles Dickens." (Ref-3) In "A Tiger for Malgudi" (1983), a tiger tells the story of his spiritual master attempting to guide him towards enlightenment. This work and his fourteenth book, "Talkative Man" (1987) received high and varying reviews. The book "Grandmother's Tale and Other Stories", which Publishers Weekly regarded an "exemplary collection from one of India's most distinguished men of letters", was his return to his original inspiration, his grandmother. Narayan once said, "Novels may bore me, but people will never bore me." It resembles his critical and analytical thinking of the human psyche.

b) Philosophy of Stories and Characters

Narayan's stories are rooted in their native land; they evoke a sense of Indian Culture. They primarily illustrate Indian life and clearly articulate his vision of the world and the people who live in it, simplistic but intriguing narrative, and vivid characterization, stringent economy of narration and delicate ease of language are some of the most attractive attributes of these stories. For an empathetic mind interested in people, Narayan's stories and novels seem time les in their themes. All of Narayan's themes are interdependent and linked one to the other. Narayan's comedy thrives on a number of themes, one of which is the human tendency to deceive one and others.

His other interests include the deep probing of families and diverse family relationships, relinquishment, generational disparities, disagreement between tradition and modernity, East-West encounters, education and so on. His themes re-emphasised the issues and patterns of his long wring career, such as deportation and unite, education (in the broadest sense), women's position in the society, myths about ancient India, tradition versus modernity in his fictional town Malgudi. Narayan ploughed the literacy soil with his themes and characters and made it fertile.

The simplification and evident clarity of Narayan's style may give the reader the perception that he is easily interpreted and comprehended, but at the same time he has many hidden depths, so a reader who is not considerate or willing to look beyond the evident is inclined to read him much less efficiently. It is Narayan's ability to personalise his characters, as well as the subtle potentials of the average and the ordinary, that has made him so successful. As a result of his keen eye for detail and keen observation of life's little quirks, his characters have an atmosphere of authenticity about them. To establish a distinguishable Indian community in his stories, Narayan uses various cross sections of humans, such as priests, clerks, criminals, guides, dancers, painters, hotel owners and tailors. It is true that types are generic, but in Narayan, the essential is notified by a peculiarity in uneasiness. Adding to the mythological feel of Malgudi, he named the river Sarayu and dotted the landscape with ruinous of buildings as well as dense forests and mysterious ruins. Narayan is an original and truly Indian writer because of his genuine and compassionate attitude towards people and the world at core, as well as the uniqueness and inventiveness of the characters he creates in his stories. According to him, the key to success is making each character unique, while revealing the hidden potential of the common place and unremarkable. The strength of his characterization comes from his keen eye for detail, a healthy sense of humour, and an ability to use irony and irreverence. He delicately urges the readers into the life that he is presenting, without overwhelming them. His stories revolve around entertainment and readability.

"Lawley Road" a story by Narayan, explores themes such as independence, corruption and power while also exploring loyalty and identity. It is a satire on the local government. He strongly criticises the fake astrologers and the gullible public in his story, "An Astrologer's Day". It would appear that con artists will continue to prosper as long as the public blindly believes them. He illustrates everyday occurrences, notices, inconsistencies and mis-adjustments and uses this information to create stories that unveil men and manners while

also providing a great deal of amusement and distraction. Many of his stories such as "The Mute Companion". "At the Portal", "Four Rupees". "Flavour of Coconuts" and "The Comedian" deal with everyday life, simple episodes, and simple characters. The storyline of "Flavour of Coconut" is based on a true incident. In a humorous way, it describes the hunt and trail of a small mouse that has been found guilty of rattling pots and pans, devouring food, puncturing voile sarees, and biting the toes of the younger members of the house. "Four Rupees" is a fantastic story about a poor man who risks his life by diving into a well in order to retrieve as mash container. The story "A Snake in the Grass" depicts a fictionalized version of a real life occurrence, such as a snake entering a house's compound. Narayan's stories are known for having a strong beginning, an engaging middle, and a satisfying conclusion. For instance, in the story "The Shelter" Narayan illustrates that events can be presented as they really are, with no mystical overtones added. On a rainy day, a divorced couple finds each other under a banyan tree while looking for shelter. They try mentally to get closer, but their old custom of disagreement still hinders them. Woman flees the man because she cannot tolerate his domineering behaviour despite the torrential downpour.

Many of Narayan's stories revolve around children and their innocent deeds. Fun and innocent humour are prevalent themes in these tales that make them compelling. For the way they portray children's imaginative play, the stories are remarkable. Stories by Narayan focus on the lives of all categories of people with characters from all walks of life. He teased them with ironies and satire in consistencies all over his speech. His all stories have happy endings, and he does so in a light hearted manner while refusing to allow cynicism or mockery to creep into his imaginary world. He has a remarkable ability to point out the ironies in life. As a result of Narayan's work, his Malgudi becomes both familiar and beloved to his audience. His Malgudians are regular people like you and I. Regardless of the subject, he keeps his readers guessing until the very end, and he makes them eager to see what happens next.

3) Analysis of R.K. Narayan’s Life and Philosophy

Narayan,s greatest achievement was to show the rest of the world what India looked like through his works. He is regarded as one of India's top three English- language novelists, along with Mulk Raj Anand and Raja Rao. He gave his readers captivating stories about Malgudi and its inhabitants to look forward to, and he is widely regarded as one of the most talented novelists of India. By portraying small-town to his audience, he created a realistic and engaging experience of India. More than just a fictitious Indian town, Malgudi was full of colourful characters each with their own quirks and personalities, who helped make the story seen like it could have been set right in the middle of the reader's own backyard.

Although many foreign critics consider Mr Narayan's writings dated presently, his works accurately depicts an India that is still filled with individualistic, often eccentric characters that recall his imagined universe and hovers between the unchanged rural and the newly industrialized. Narayan's work as a novelist predates by more than 50 years the current crop of Indian novelists writing in English about ordinary people and going about their ordinary lives. R.K.Narayan also contributed significantly to the development of an ironic vision for the presentation of a mildly satirical South Indian life. Perhaps his early failures contributed

to his tendency to withdraw from the spotlight. R.K.Narayan, like Mulk Raj Anand and Raja Rao, is not a politically committed novelist or a meta physical philosophical novelist. According to sarma, he is "Simply the novelist as the novelist". Narayan on the other hand, is an exporter of the ethos of South Indian Hindu middle-class families in the Malgudi background. As a result, Narayan's Malgudi reflects both the time and the image of the entire country. It is not a microcosm, but a macrocosm that brings together the old and new, tradition and modernity, the mood of the novelist and the mood of the contemporary world.

The period from 1920 to 1947 was proclaimed "The Gandhian Age" by noted Indian historian and critic. During this period Gandhiji had a profound impact on virtually every aspects of life. During this time, Gandhian consciousness became synonymous with anti-colonial resistance movements such as Swadeshi, Khaddar, Charaka, Tiranga, Satyagraha, Swaraj, Satya and Ahimsa, which called for the awakening of a free and regenerated nation. Gandhi's teachings resound throughout Narayan's short stories. Narayan's heroes exemplify the best of the Hindu way of life on the main drag, just as Gandhiji envisioned. R.K.Narayan doesn’t perceive the need to invent the absurd, to promote social theory, to seek sensational subjects or to delve into abnormal psychology to get his reader's attention in his short stories after finding out everything about his characters and their individual idiosyncrasies.

Narayan deliberately avoided religion with the same rigour as he does politics. As a result, rarely will a reader find in his short fiction a plot that goes beyond the everyday experiences of the common man. Narayan's story "Nitya" from "Under the Banyan Tree and Other Stories" (1987) is a good example of a story that uses the 'Generation Gap' principle. Nitya, a twenty-year-old college student, expresses his reluctance to fulfil a vow made by his parents when he was two years old and suffering from whooping cough and convulsions. Nitya makes his way to the temple after being persuaded only partially by his parents. When everything is set up for the tonsure ceremony, he gets into an argument with his parents and leaves abruptly to avoid having his long flowing locks raped. For this reason, in his story, Narayan tries to convey the sentiments and religious feelings of his parents while also showing the recklessness and atheistic temperament of his students. The older generation reveres and cherishes certain traditions and values whereas the younger generation scorns them.

4) Conclusion

Narayan's vision is fundamentally moral, as the problems he attempts to solve in his short stories are almost exclusively ethical in nature. This is not to minimise the comic irony of an artist who has been widely praised by Western Critics; on the contrary, it is his vitality that brings Narayan's grand vision to life. However, when looking at Narayan as the artist, it is hard to tell what his true attitude is; his humour is an unusual combination of irony and humour. It is like trying to follow William Shakespeare through his novels and short stories; it is impossible to get to the real of him. Booklist's Donna Seaman praised Narayan's collection of short stories as "An excellent sampling of his short fiction, generally considered his best work, from one of the world's finest storytellers". Narayan portrays real life situations through his characters by encapsulating the thought process of a typical Indian middle-class

man. His forte is probing into the deep recesses of human mind, earning him the title as the "The perfect storyteller of par excellence".

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The Avyākṛta Questions of Philosophy

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Abstract

The mind understands what is described by the concepts, and names that attach an object to the mind. Certain unknowable or inconceivable concepts may not be required to be known at the current state of awareness. In Buddhism, unanswered questions are known as Avyākṛta - inconceivable, of the unmanifest stage of nature. These questions have been revisited from the perspective of the modern world, current concepts and words.

Keywords: Universe, gravity, mass, Rig Veda, dark matter, dark energy, Big Bang, Galaxy, intergalactic space.

1. Introduction

In Buddhism, unanswered questions (Sanskrit: avyākṛta - inconceivable, of the unmanifest stage of nature Pali: avyākata - "unfathomable, un-expounded," are a set of common philosophical questions that Buddha refused to answer, according to Buddhist texts. The Pali texts give only ten, and the Sanskrit texts have fourteen questions[1]. Buddha stated that it is unwise to be attached to both views of having and perceiving a self and views about not having a self. Any view which sees the self as "permanent, stable, everlasting, unchanging, remaining the same forever and ever" is "becoming enmeshed in such views, in a jungle of views, in a wilderness of views; scuffling in views, the agitation (struggle) of views, the fetter of views."

Q1-4. Is the world eternal? ...or not? ...or both?. ...or neither?

Q5-8. Is the world finite? ...or not? ...or both? ...or neither?

Q9-10. Is the self-identical with the body? ..or is it different from the body?

Q11-14. Does the Tathagata (Buddha) exist after death? ...or not? ...or both? ...or neither?

(Pali texts omit "both" and "neither" in all the above questions)

Buddha used to remain silent on the above questions. This does not mean that he did not know the answer to these. His silence only indicated that these were not as per Vyakarna (being worded).

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Pondering about them doesn't help in anything good in life. Evidence or arguments of both can be propounded in favour or against the above questions. They can be proved to be true or false in many ways. There are useless from a metaphysical point of view, in terms of any help in individual progress on this path. Considering the above, Buddha said, "Monks! Some Shramanas and Brahmanas believe in eternalism. Due to being trapped in the web of visions and in various corners of intellect, these people believe in these concepts. Tathagata knows all these and knows more than these. But the Tathagata, knowing everything, do not take pride in knowing. Not being trapped in these categories of intelligence, the Tathagata realizes Nirvana[2].

By the name the nameless becomes named, the inconceivable becomes conceivable, the unthinkable is made to be thought of, and the incomprehensible becomes comprehensible. The Sanskrit word for name is Nama which is a. Sangya (Nama, Roop, Guna) meaning by associating that name we may know that being. The name is also its definition in Samskrita, the knowing of Root Dhatus, beej Akshras lead us to the knowledge of reality because these Beejaksharas are projections of primordial cosmic sounds.

2. Is the World Eternal?

Majjhima Nikaya in the Pali Canon contains a list of ten unanswered questions about certain views (Ditthi): The world is eternal. The world is not eternal. It is universal logic that 'Everything has a Beginning'. The Vedas talk about the creation of Cosmos, which means there is a beginning and if there is a beginning then the world is non-eternal.

The deciding of aim is a directed thought process and an action that is not spontaneous but it originates from the will. The will is also a thought process chain that reiterates itself gaining more force as it proceeds. However, a source point of motivation is required as a thought seed from which springs a tree of the will along with its aims and objectives.

तत्सर्वशक्ति बीजजडप्रकृतिवासनाया व्यक्तभावः ।

प्रणवशब्दः दिककालाणोऽपि तस्य रूपाणि ॥ ३ ॥

That omnipotent source (seed) has created nature. Aum transforms in Space, time and matter etc.

The Nāsadīya Sūkta, also known as the Hymn of Creation, is the 129th hymn of the 10th mandala of the Rigveda. It is concerned with cosmology and the origin of the universe.

नासदासीन नो सदासीत तदानीं नासीद रजो नो वयोमापरो यत |

किमावरीवः कुह कस्य शर्मन्नम्भः किमासीद गहनं गभीरम ||

Then was not non-existent nor existent: there was no realm of time, no sky. What is covered in, and where? what gave shelter? Were the unfathomed waters there?

Therefore, there is a beginning at a certain point in time. However, the world may appear eternal from another perspective. Let's assume a time of human life span, many wise people say that this world will carry on, even if we are not there….from that perspective the world will be eternal.

3. Is the World (Spatially) Infinite?

Let's consider the word Jagat and Samsara, the word J (from Jn) G (from Gam) and T (Ta Tava) mean the moving consciousness which comes out to be moving in all directions from a source. The Samsara (Sam and Sara) is the conclusion of the individual mind of the Jagat.

ऊर्ध्वमूलमधःशाखमश्वत्थं प्राहुरव्ययम्।
छन्दांसि यस्य पर्णानि यस्तं वेद स वेदवित् ।।15.1।।

Sri Krishna says in Gita Chapter 15 Verse 1, the cosmos is like a tree whose roots on top and branches are downwards and the verses are the leaves of this tree. The one who understands this aspect of the universe is knowledgeable. It is dynamic, non–eternal (like a reflection of a tree in a lake below). The inverted tree on the lake is Consciousness (Parabrahma) and from his sustained thought, he has created the reflection. It also validates another law of logic 'Everything has a source'.

The infinity and Shunya both are relative terms. Both can be defined but witnessing that definition is not within our reach. The ocean appears infinite to fish, space is infinite to man. Let's assume a video game, a software designer can design a car racing or a reality-based game where the character can keep moving and images will generate at random. Let's now compare the space in a video game, which is like a real space to a character in a video game. This endless space is dependent on a mathematical equation. This is how the cosmos is infinite to us if we are part of it

and if we transcend the dimension of Panch Mahabhuta (Space-time. Energy, matter and consciousness) then it will become finite to us just like that of PC if the character could move out of the PC. That's how the world is like a simulation.

4. Is the Self, Identical with the Body?

The best analogy available today is between hardware and software. The 'self' is software and it originates from the ultimate self through 'Brahma'. Brahma is the substratum of self. The information of cognitive self, the 'I-ness' is encoded on this substratum and then more layers of various energies (in waveform and discrete) to reach a stage where it can assimilate itself in the matter and becomes a cause of action. The self and body are different but the body feels like the self as the body and the self grow together.

The cosmos has the root of Consciousness (Purusha) at the origin and commenced the cosmos with sustained thought which led origin of Energy (Prakriti). When the Prakriti was rising from the root of Consciousness, her evolution was facilitated by Vishnu time (sequencing) and Brahma (Space). There is one Mahabrahma who controls the Braham (the format) of space (Akasa) and has many forms in other galaxies as Brahma of each Galaxy. All galaxies also move around the centre of the Cosmos which is the Shiva Linga. Brahma is consciousness that empowers Space. There is one Brahma in each Galaxy. Brahma has evolved from Vishnu (Time) which indicates a space-time relationship. The galaxies compress and recreate in big bangs. The matter is controlled by sentient beings Brahma (Point of Expanse). Brahma creates in his galaxy as per his own thought process.

Therefore, Panch Mahabhutas (Consciousness, Energy, Time, Space, Matter) form the Prakriti which is a Kriti by Pra (outside these dimensions) and the seeds of consciousness are sown in Prakriti in terms of individual identity units of thought. The cosmos has two types of entities. the one which is the nature and which we interpret to determine what is what are the scientific principles and the one who interprets that we know as the intelligence for the mine or the self this the self itself is a unique uniquely capable entity having the power to interpret No other entity has this power. These individual units of consciousness are made out of dark energy with encoded identity (Ahamkara) and termed 'Self'. The six-layered system of self is described below.

Self is consciousness in layers with the soul as the outermost layer. The layers of energy make sure that the cognitive complex 'the self' is subjective to space-time and can react at different levels in material dimensions. These seven layers are described below.

(I) Kaivalya. This is the first level of software ready for integration from Brahma. It is the highest level of refinement ready for merging in super consciousness after achieving completeness or emerging from it at the software seed level.

(II) Param Ham-Sa or Beyond Ham-Sa. A level of consciousness in which the I-ness has not emerged from Brahma. This same as Brahma because this is the first layer of encoding of Kaivalya in 'Brahma'. The 'Brahma' here has to be interpreted as the first layer of formatting as to how this information is encoded. Brahma is subtler than space 'Akasha or Aether' which is the first fluid that results from time and formatting web. It feels like part of Brahma.

(III) Ham-Sa. A level of Consciousness of the soul which can distinguish itself from Brahma but still feel that both 'self' and Brahma are the same. This is the first step on the ladder of the 'self' (I-ness). Ham-Sa is also stated as 'So-Ham', meaning I am that or that is me. It indicates that it is what is 'Brahma' and 'Brahma' is what is 'it'.

(IV) Root Causal (Maha Karan). The root of I-ness or Ahankara (***अहंकार***, ***अहं मैं*** Self, ***कार***, ***कारण)*** **-**The feeling of being myself will start to manifest from here). This form of the 'self' (I-ness) is the reason for the reason to manifest in action. This body enables decision-making, analysis, differentiation etc. This is the cause of ambition, desire, choices etc. at the abstract level. It may have intellect as a function of an additional layer over the Ham-Sa form.

(V) Causal (Karan, ***कारण).*** The is known as the causal body. This body can also be termed as 'Spirit'. This body has 'Man' (mind) and 'Smriti' (memory) which are formed by additional layers of energy over the 'Root Causal' body. This is the cause of ambition, desire, decision making, analysis, definition, choice, past life memories etc at the subconscious level.

(VI) Subtle (Sukshma). This body contains electrical or Prana Sharira which contains all the Chakras (Prana complexes) over and above the causal body. This is the body which is often referred to as 'Soul', the body which is inside the physical body. This is the body which operates as an information superhighway from various organs and body parts to local centres, glands, sensory organs and preceptor (mind). This energy layer is very important for the integration of any cognitive complex or 'self' in the physical body which is the composition of the physical body by the material available on earth.

Therefore, we can conclude that body is different from as compared to self but since both grow up together, the Self or the soul leads the body to grow as the soul would want it and the body becomes the vehicle of the soul for learning. Due to such interdependent interactions, the illusion of body and self-being as one or different may appear.

5. Does the Tathagata (Buddha) exist after death?

The purpose of life is learning that involves interaction, experience and meditation (processing). One of the attributes of the soul is Anumiti (reduction), the information learned is reduced to principles or the Sutra. The entire Physics of Rishi Kanad is expressed in Sutras, the most fundamental principles. Gathering a large amount of data by telescopes and observatories must

lead to the same Sutras. we reached the principle of evolving by interaction and interpretation this interaction could be between the interpreter for the self and nature, between self and self and to a very limited extent, maybe between nature and nature. We realise that the entire gamut of nature is for the self to evolve and then merge into a higher self to increase its processing power (of higher Soul) to which, in a way, we can say Cosmos too is learning.

Tathāgata (Pali: [tɐˈtʰaːgɐtɐ]) is a Pali word; Gautama Buddha uses it when referring to himself or other Buddhas in the Pāli Canon. The term is often thought to mean either "one who has thus gone" (tathā-gata), "one who has thus come" (tathā-āgata), or sometimes "one who has thus not gone" (tathā-agata). This is interpreted as signifying that the Tathāgata is beyond all coming and going – beyond all transitory phenomena.

Tathāgata or Buddha is not a particular person but a state of being a learned soul, an aware soul is a pure soul. The existence of such a soul is as per the higher requirements of consciousness which keeps on evolving till it merges with the oversoul or larger soul. All souls of our local universe merge in Brahma. He is the gateway. There are many physical as well as astral worlds but still, no one knows about Parbrahma, Prameshvara, he is outside the simulation (Maya) and beyond the Mahabhutas. The Buddha exists after death till the time he is required to be there or he himself chooses to be there or chooses to merge with the higher soul.

6. Conclusion

Philosophy paves the way for theories and theories combined with mathematics and/or experimental proof pave the way for science. The human mind carries out interactions with nature to understand and evolve. These interactions take place not only through the human sense organs or scientifically extended sensors but also through human perception. Human perception contains higher algorithms for receiving knowledge through the higher languages of Para and Pashyanti. Though such questions may not directly help a soul in evolution, they may still provide an essential situational awareness and may point one to Dharma (what is ought to be thought).

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Ancient Vedic Contribution to Science and Technology Are We Ignorant?

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Abstract

Sushruta has been regarded as one of the pioneers of surgery. He performed procedures with crude surgical instruments that paved the path for today's operations. However, his existence is shrouded in myth and mystery. Sushruta belonged to a rich heritage of learned scholars and practiced and taught surgery at Benares University around 600BC. His work is assembled into a monumental thesis, possibly the first text book on surgery, the 'Sushruta Samhita' where he describes surgical instruments, procedures, illnesses, medicinal plants and preparation, dissection and the study of human anatomy, embryology and fractures. Sushruta is perhaps best known for the nasal reconstruction flap which is still used in different versions. For all his contributions, he has been aptly titled 'Father of Plastic Surgery.

1) Introduction

Sushruta is known for his pioneering operations and techniques and for his influential treatise 'Sushruta Samhita' or Compendium of Sushruta, the main source of knowledge about surgery in ancient India.
Written in Sanskrit, the Sushruta Samhita dates back to the times before Christ and is one of the earliest works in the field of medicine. It forms the foundations of the ancient Hindu form of medicine known as Ayurveda and is highly regarded as one of the 'Great Trilogy of Ayurvedic Medicine.'

2) Analysis

Enigma in paraphrasing ayurvedic era.
Three different adages of Sushruta Samhita-*Sharira Sthana* were analysed and its translations by respectable translators were studied. he tried to explain the tough subject in simpler mode of knowledge for proper understanding to all. His teaching of anatomy, pathophysiology, and therapeutic strategies were of unparalleled luminosity, especially considering his time in the historical record. The primary focus of this historical review is centered on Sushruta's anatomical and surgical knowledge and his creation of the cheek flap for nasal reconstruction and its transition to the "Indian method." The Vedic philosophies form the basis of the Ayurvedic tradition, which is considered to be one of the oldest known systems of medicine. Nose: The history of nasal reconstruction dates back to ancient times and it remains a fundamental challenge today. Knowledge of the unique history of nasal reconstruction permits appreciation of this surgical integration of art and science. The story of nasal reconstruction has been one of global contribution and creativity that has stood the test of time. He was one of the first people in human history to suggest that a student of surgery should learn about human body and its organ by dissecting a cadaver. Decomposing the body in the water streams and dissecting the body layer by layer. Sushruta details about 125 surgical instruments used by

him, mostly made of stones, wood and other such natural materials. Use of shalaka, meaning foreign body (rods or probe).The influential nature of the Sushruta Samhita, the compendium documenting Sushruta's theories about medicine, is supported not only by anatomical knowledge and surgical procedural descriptions contained within its pages, but by the creative approaches that still hold true today.Sushruta described diabetes (madhumeha) as a disease characterized by passage of large amount of urine, sweet in taste, hence the name "madhumeha" honey like urine. He goes on to say that diabetes primarily affects obese people who are sedentary and emphasized the role of physical activity in amelioration of diabetes.

Though the discovery of circulation is attributed to William Harvey; it is interesting to note that Sushruta had the knowledge of a structure like heart and its role in circulation of "vital fluids" through the 'channels'. His vivid account of angina ("hritshoola ", meaning heart pain) is marvelous, though he did not use the exact term as angina. It embodies all the essential components of present day definition, i.e. site, nature, aggravating and relieving factors and referral. According to him angina is chest pain which is precordial, temporary, exertional, emotional, burning like and relieved by rest. He also linked this kind of pain to obesity (medoroga). Besides these, he has also described the symptoms of "vatarakta" which are similar to that of hypertension.

The treatise is the main source of knowledge about surgery in ancient India. Susruta Samhita, as we know it now, is not in the original form which Susruta gave it and which he called. It was first called Shalya Tantra consisted of only five divisions, viz., sutra, nidana, sharira, chikitsa, and kalpa. Shalya Tantra was later revised and supplemented. Later addition of uttara-tantra' consisting of three divisions called shalakya, bhuta-vidya and kalamara-bhrtya, makes eight divisions in the present Susruta Samhita.

Surgery forms a major role in general medical training. The ancient surgical science was known as Shalya Tantra. Shalya means broken arrow or a sharp part of a weapon and Tantra means maneuver. Shalya Tantra embraces all processes, aiming at the removal of factors responsible for producing pain or misery to the body or mind. Since warfare was common then, the injuries sustained led to the development of surgery as refined scientific skill. Of the commentaries on Susruta Samhita, the most renowned is that of Dalhana called Nibandha Samgraha written in the twelfth century AD. Another commentary is by Chakrapanidatta written in the eleventh century.

Susruta Samhita was translated into Arabic before the end of the eighth century A.D. It was called Kitabshaw-shoon-a Hindi or Kitabi-i-Susrud. Rhazes, the famous Arab physician, often quoted from it and mentioned Sarad as an authority on surgery. It was translated in Latin by Hassler and in German by Ullers.

It was translated into English, in part only, by U.C. Datta (1883), A. Chattopadhyaya (1891) and Hoernle (1897). K.L. Bhisagaratna translated it in full between the years 1908 and 1917.

Sushrut Samhita and its Sage Sushruta received worldwide recognition, but with time, his name and importance dissipated. In the 20th century, when the world started looking at Ayurveda from a new perspective, they realized the importance of Sage Sushruta's medical science, and his contribution to surgery. Sushruta Samhita is believed to be one of the gems of ancient Indian medical literature. Sushruta gave a new meaning to the art of surgery in medieval India. The year 600BCE is known as the golden age of surgery. Inspired sushrutas incomparable knowledge. American surgeon Allen Ripple said "All in All sushruta must be considered as the greatest surgeon of the pre-medieval period." As Sushruta means one of good reputation.

3) Conclusion

Sushruta is the father of surgery. If the history of science is traced back to its origin, it probably starts from an unmarked era of ancient time. Although the science of medicine and surgery has advanced by leaps and bounds today, many techniques practiced today have still been derived from the practices of the ancient Indian scholars.

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Purpose of Human Life

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Abstract

Life is dynamic. In the manifestation of life, human beings are the most fortunate species on earth as they are the most intelligent species. Accordingly, it is important to live life enthusiastically to its fullest. Man's behavior from birth to death is controlled by the impressions in his mind. His goals are innate and impulsive. Hence, the purpose of life is the continuation of life which is imperative and instinctive. He should live within the social limits and strive to fulfill his goals to experience pure bliss and joy.

Key Words: Life, human species, mind, causal body, impressions, tendencies, impulses, self, spirit or soul, society, righteousness, goals, fulfillment and happiness.

1) Introduction

Life is divine and so it is very precious. There are different theories regarding the purpose of life. Basically, the purpose of life is to continue life. Be it a tree or a bird or an animal or a human being, all the species strive in life for the continuation of their species. Whichever species one is born into, it is one's duty to strive for the continuation of that species. The main objective of life as a human being is to continue human life through progeny. Then, the institution of marriage plays a vital role for peaceful existence.

2) Analysis

Secondly, there are people who live alone in the society. The purpose of life for them is to live for name or fame. These people who are single serve the society in a positive way and add value to the life. Society acknowledges their service and they earn a name in the course of time. They are remembered for their work, even though some of them have departed from this world long ago. For example, Sankaracharya, Ramanujacharya, Lord Buddha, Aristotle, Aurobindo, Mother Teresa, Vivekananda, Ramana Maharshi, Abdul Kalam to name a few, but are amongst the universal personalities.

Then, there are some people born with a mission in their life. We call them "Kaarana Janmulu". They are born with a purpose in life which may be known or unknown to them. Their aim is to achieve their specific goal. For example, ancient Indian scriptures say that Lord Rama was born to end the atrocities by killing the powerful demon king, Ravanasura, and restore order in the society. In Ramayana, Valmiki depicted Lord Rama as an ideal human being – as a son, a brother, a husband, and a king. His story implies that people should live righteously in the

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society by following the virtues. Then there is no threat to the continuation of life. To protect his family, Lord Rama went to Lanka and brought back his wife, Sita Devi. He set a live example of a strong ethical character. He lived within the social limits, protected his family, strived for the well-being of the people and thereby achieved fame. He belonged to a higher state of life and existence, and so he became a divine being.

Thirdly, there are a set of people who live in confusion and fear all their life. There is doubt behind that fear and they don't trust anyone. Such people are always unhappy, negative in their thoughts and suffer from various complexes and perversions.

Each and every person has the right to live. It is also a fundamental right in our Indian Constitution. There is Human Rights Protection Cell which works to safeguard the right of the people to live. Educated and uneducated, rich and poor - all have equal right to live within the social limitations. The institution of marriage and family have been created and made sacred for the peaceful living and well-being of human beings. Man needs to follow the social norms in his life for the security and smooth functioning of life.

In his right to live, man is bound by the society. He has to share his achievements with the members of his family. It is his responsibility to show gratitude to his parents for bringing him up with care and nurturing good habits. He should acknowledge the help of all the people who contributed to his well-being. When he does good things in the society, the society accepts him. Then comes his nation or country which has social limitations like geographical boundaries. At this stage, patriotism plays an important role. Beyond one's own nation, is the international scenario, where humanism prevails! Therefore, on a larger scale, the purpose of life is the continuation of human beings.

Man → family→ society →nation → International or Universal and above all, the Self.

With regard to the existence of man, four aspects may be considered – physical body, mind which is the astral body, causal body which is the self and the pranam or soul which is the spirit or life within. Pranam is the neutral body. Causal body is the storehouse of all good and bad impressions which are gathered through the ages. Causal body prompts and motivates the mind and body to act according to the innate impressions. Physical body can be destroyed. But the causal body and the mind are not destroyed. The impressions in the mind are carried forward to the next birth. Thus, the man is given a chance in the higher region (of space) to disintegrate, purify, and evolve as a responsible or a good human being.

The life of man is designed by certain physical and biological patterns. With all those innate impulses, he manifests himself as a human being. The course of action in his life is the sum total of the strong impressions in his causal body. If the impressions are good, he behaves in a positive manner and if the impressions are bad, he behaves in a bad manner. Good impressions help continue human life. Whereas, the bad impressions harm or destroy mankind. Man's behavior, attitude, temperament, tendencies, urges and impulses depend on the causal body.

Thus, right from birth to death, the continuity of life is instinctive and is based on innate impulses.

These impressions are sometimes beyond the perception of the mind. Though human being is considered to be the most intelligent among the living species, man is imperfect and that is the root cause of all the misery in the human world. On the contrary, birds and animals adapt to the natural environment and live harmoniously. Whereas, though nature supports human life by providing resources to live, man is not adapting to nature as he is ruled by the negative tendencies like greed.

The social restrictions like greed, money and power including weapon power are creating disturbance in the society. All the invasions in history are for power or livelihood or to spread their race and ideology. Though there is the right to live, sometimes the impressions in the causal body, and the social restrictions are destroying the peace and harmony necessitating flexibility and timely changes in the laws.

Next, in order to live man needs livelihood. The government supports the right to livelihood. Henceforth, it should provide equal job opportunities to all the deserving people. It should support man by providing natural, academic and non-academic sources for livelihood like agriculture, education and business which includes production and trading. There should be equal distribution of land. When it fails to provide rightful means for livelihood, then the end result is insecurity which in turn breeds corruption. In the absence of a clear means of livelihood, man tends to follow the right to livelihood by any way. It could be unethical means. When they don't follow social obligations, they become negative, pessimistic, perverted and anti-social. Therefore, the government should protect human life and property. It should also be flexible to change the laws for the betterment and well-being of the people.

Man should live within the social limitations and fulfil his goals. His goals are the innate tendencies, urges or impressions in his mind. His goals should be socially acceptable. Society destroys man if he tries to destroy mankind. We have capital punishment which is against the right to live. So it is right to live in a righteous path or through virtuous means. Then there are some people who commit suicide when they cannot fulfil their goals. But it is legally considered an offence to commit suicide as it is against the fundamental right to live. Suicide is like accepting defeat in life. One should never give up on oneself. Therefore, man should lead a meaningful life pursuing his goals and die with dignity.

While living, man should strive with determination and perseverance to fulfill his goals without committing offence. He should follow rightful means to achieve his ends. He should follow legally and socially permitted means to fulfil his goals. He should live to achieve fulfilment in life which in turn leads to happiness and gives him more courage to do some more constructive works.

Fulfilment → Happiness

All the philosophers across the world, ancient or modern, emphasized on good society and continuation of life which is practically true at all times. For instance, Socrates, a Greek

philosopher, is considered to be the main source of western thought. He spoke about creating an ideal society. If the society is good, then the people are healthy and they beget good and healthy children who think positively and strive for the well-being of the people in the society. Socrates believed that "philosophy should achieve practical results for the greater well-being of society. He attempted to establish an ethical system based on human reason rather than theological doctrine. He pointed out that human choice was motivated by the desire for happiness."[1]

Leo Tolstoy was a Russian philosopher and writer who focused on non-violence as a positive feature of living. He directly influenced Mahatma Gandhi and Martin Luther King with his ideology. Confucius was a Chinese philosopher, politician, and teacher. The guiding principles of his message are knowledge, kindness, loyalty and virtue which had huge impact on the Chinese. "Confucianism is best understood as an ethical guide to life and living with strong character."[2]

3) Conclusion

It may be restated that the purpose of life is the continuation of life and the well-being of humanity. Man should live honorably in a righteous manner within the social norms and strive to fulfil his goals which in turn give him happiness.

In a nutshell, it may be added in conclusion that the five elements – earth, water, fire, air and sky (space), are integrated constituents of life. The human body, the physical body, is made of earth, water and fire - seeking health and comfort. The mind, the astral body, is made of air - seeking peace and security. The self, the causal body, is made of sky (space) - seeking fulfillment and happiness. These bodies have to be maintained satisfactorily. The body needs physical exercises like yoga asana. The mind needs breathing exercises like pranayama. The self needs meditation on Dhaiva Roopa (divine form) as the manifested spirit within, seeking communion is a part and parcel of the Spirit outside. Thus, truly the human being has a right to lead a healthy and a happy life. But, at the same time, the human being has a bounded duty to preserve the Mother Nature in its pristine purity. Thus, the rights and duties go together to ensure a secure and peaceful life. Save Nature and Save Humanity. Live and Let Live.

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Whom You are? Know Yourself (“Who am I?") by Ramana Maharshi“Tatwa”

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Abstract

By increasing the points of interdisciplinary partnerships across the fields under Cognitive Science, philosophical approaches to human self-awareness aspire to offer up cutting-edge research platforms. Ramana Maharishi created a method of grasping the concept of self via persistent self-enquiry (Atma-vichara), which was greatly influenced by Adi Sankarachaya'sAdvaita Vedanta.According to Ramana Maharishi, the idea of the self which acts as the subject of all phenomenal experiencesis discovered to be the one, immanent, and ultimate reality when it is persistently questioned without confusing it with the body and mind. The question "Who am I?" shouldn't involve any mental processes, such as thinking.It involves shifting focus away from whatever it is tied to and toward its source.

1) Introduction

The intellectual complexities of the word and its subsequent use by some neo-Advaitins for apologetic purposes are clarified by Indian religions.Ramana Maharshi held that vichara practise, which reveals the true self and the oneness of all things, might dispel the illusion of death and evil and lead to the realisation of maya, or true self.His vichara method was inspired by a spiritual experience he had in which he suddenly had a deep fear of dying and, while lying quiet, visualised his body turning into a rigid, cold corpse.

He started his "not this, not that" (neti-neti) exercise by asking himself, "Who am I?" and then he moved on to other questions.and responding, "Not the body because it is rotting; not the mind since the brain will likewise deteriorate with the body; neither the personality nor the emotions because they will also disappear with death."He entered a state of consciousness outside of the mind due to his tremendous need to find the solution.

When the sense of selfthe first thought that comes to mind when paying attention to the worldis questioned and closely examined so as not to confuse it with the gross body, the subtle body, the causal body, thoughts, and mental states, it is understood to be the fundamentally singular and supreme reality.The goal of this essay is to draw a philosophical conclusion on the concept of self from Ramana Maharishi's spiritual teachings. The Hindu philosopher and yogi known as Ramana Maharshi, whose original name was Venkataraman Aiyer, was born on December 30, 1879, in Madurai, Madras states, India, and passed away on April 14, 1950, in Tiruvannamalai.

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He was known as the "Great Master," "Bhagavan" (the Lord), and "the Sage of Arunachala," and his views on monism (the identity of the individual soul and the creator (c. 700–750).The method of vichara (self-"pondering" enquiry), his fundamental contribution to yogic philosophy.

Whom "I" Am

The "I am" just is.It is our actual and fundamental self-consciousness, the unchanging truth that never changes.Our fundamental imagining, "I am this body, I am a person, I am so-and-so," which develops when we seemingly neglect our inherent clarity of flawless self-consciousness, is the beginning of this dream of our three stateswaking, dream, and sleep.We misunderstand the words "I am" to refer to this body-mind complex because we mistakenly believe that we are this body and mind.But according to Sri Ramana Maharshi, the phrase "I am" only accurately describes our fundamental nature, which is non-dual self-consciousness.So, when we think or say, "I am," we should realise that what we are really expressing is really our experience of self-consciousness, our genuine self-conscious existence.We feel this self-consciousness, "I am," not just while we are awake and dreaming, when our mind is active, but also when we are asleep, when our mind is not active.

Whom Is This "I"?

In other words, the nature of the mind or ego (our fundamental idea of "I") is to rise, survive, and be fed as long as it attends to something other than itself (i.e., anything other than "I"), and to decrease when it attempts to focus to itself alone.Sri Ramana Maharshi states this very well.

2) The Teachings Essence of Sri Ramana Maharshi

Although Sri Ramana's teachings are actually extremely straightforward and can be encapsulated in a few words, because of the complexity of our brains, it occasionally takes more words to get to the basic truth: "I am."

Since everything we encounter is solely felt by "I," "I" is at the centre of both his teachings and our own experiences.It is important for us to doubt everything since everything we experience and everything, we believe might be false. However, the one thing we cannot rationally dispute is "I am" because I must exist in order for anything to be experienced, believed, or doubted.

Even though it is plain and definite that I exist, it is not at all clear or certain what I am. This is because, although we now experience a body and mind as "I," there is considerable reason to question whether one of these entities actually constitutes "I."

Even while we now identify with this body as "I," when we dream, we identify with a different (mind-created) body.Because we do not perceive our waking body in dreams, this body and "I" cannot be the same thing.If this body really did represent "I," we would not be able to experience "I" while we are not experiencing this body.

We identify as "I" while we are awake and when we are dreaming, but when we are asleep without dreams, we have no awareness of this mind.We must exist and be conscious of our

presence in order to feel the absence of the mind or anything else in that condition, despite the fact that the mind vanishes in sleep.

Though it would be more correct to claim that we are unaware of nothing while we are sleeping, this is contrary to what we typically assume.The following analogy can be used to explain the difference between what I mean when I say "not being aware of anything" and "being aware of nothing": if a totally blind person and a person who is normally sighted were both in a completely dark room, the blind person would not be able to see anything and, as a result, would not be able to recognise that there is no light there.The person who is ordinarily sighted, on the other hand, wouldn't be able to see anything, but they would still be able to detect the absence of light.We certainly exist in sleep to feel such absence or void since we can recognise the lack of any experience of anything other than "I" in sleep.

There are additional techniques to show that humans do really experience sleep.For instance, if we were not conscious of experiencing sleep, we would only be aware of two states: awake and dreaming, and we would not be aware of any pauses between each passing waking or dreaming state.But we are aware that occasionally there is a void that we refer to as sleep, during which neither waking nor dreaming occurs.We genuinely experience this third stage, sleep, rather than just supposing that it exists. For this reason, when we awaken from a period of deep sleep, we may say things like, "I slept comfortably and had no dreams."

Because our experience of sleep serves as an example of how we do feel "I" in the absence of the mind, it is crucial to realise that we do experience sleep even if it is a condition in which we are utterly ignorant of multiplicity or otherness.The thought cannot, then, be what I am in reality.

In all three of these phases, "I am" is the sole experience that can be had.I am the one who is currently experiencing this waking state, I was the one who had the dream, and I was the one who felt as though both waking and dreaming were absent when I was in deep sleep.Consequently, the concept of "I" is separate from everything else we encounter in each of these three states.

After realising this, it should be obvious to us that the 'I' we currently perceive is muddled and ambiguous since it is made up of a transitory body and mind.Because of this, even if we are convinced that I exist, we are not positive of what I truly am, thus it is vital for us to look into this "I" to find out what it is.

We must clearly feel "I" in total isolation from everything else in order to perceive it as it truly is.And the only way to isolate the "I" is to give it our whole attention, separating it from everything else.This is the self-investigation technique known as tma-vichra, which Sri Ramana told us is the only way to discover the true nature of this "I" (thus, the name "investigating who am I").

This is the essence of Sri Ramana's teachings, and it is all we need to know in order to begin learning about who we really are.However, since different individuals approach this teaching from different perspectives and because different people have different preconceived notions,

beliefs, and values as well as different questions, the same teaching can be communicated in several ways to meet the requirements of different people.

3) Conclusions: Main Teaching of Silence

Ramana Maharshi's Advaita Vedanta, the highest Hindu philosophy on non-duality, was represented by Ramana Maharshi, who was also renowned for his silence.He lived alone for years, and when followers pressured him to appear in public, Ramana remained silent for hours in front of them.Ramana's deliberate exposition of his intellectual and spiritual teaching through his silence was not an oddity.

The term "muni" is used to describe a number of different aspects of silence, including the person who actually takes the vow of silence, the profound spiritual condition felt during meditation, and one of the traditional austerities or tapas undertaken as an indefinite vow or a temporary spiritual practise.Ramana did not show himself as a mouni who kept silent out of a sense of duty.Like all monastic austerities, such a pledged silence is vulnerable to attack.As silence is a vow, Thomas Merton, a member of the Catholic Trappist order (officially known as the Order of Cistercians of the Strict Observance), has observed how gestures and hand signals are frequently used in monasteries to break the stillness.Communication does not cease when there is silence.Ramana recognised and made use of silence as a beneficial state.

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The Vedic and Puranic roots and the contemporary relevance of Nakshatra Vana

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Abstract

Nakshatra Vana – An ancient concept given by Hindu sages which addresses the present-day challenges, offering solutions like enriching biodiversity, conserving native, vulnerable plant species with medicinal and healing properties, religious and spiritual significance, supports local fauna, encourages afforestation etc. This paper aims at two things. Firstly, tracing the nakshatra vana concept from original puranas. And secondly, an overview of the scientific research and experiments done till now with regard to these 27 nakshatra trees and herbs, which in itself is a trans disciplinary subject with both theoretical and practical facts involving varied faculties of astrology, astronomy, medicinal botany, human physiology, ayurveda, phenology, religious beliefs and spirituality.

Key Words: Nakshatra vana, birth star trees, lunar mansions, healing gardens, religious, spirituality, aradhya vruksha, biodiversity.

1) Introduction

The concept of birth star trees has been becoming popular for the past three decades[5]. Increasingly, nakshatra trees are being planted in temples, govt. parks, ashrams and public utility places. According to Hindu astrology, every human being on this earth is born under either one of the 27 lunar mansions i.e., nakshatras and they are aligned with particular deity, zodiac sign, gem stone, animal and tree as well. It is believed that the aliments or health issues incurred by a person during his life time due to the planetary positioning are healed by worshipping his corresponding birth star tree associated with that planet or star. If we look into the details of the 27 trees, while around 17 trees are commonly available, the remaining 10 trees vary from various localities across the country. There is ambiguity as to which tree is assigned to each star due to several reasons, which we will discuss in detail.

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2) Materials and Methods

Ancient Literature puranas, research papers and web sites related to Nakshatra Vana trees are studeid. Narada Purana, Nakshatra Chudamani, Raj Nighantu, Sacred plants, Sacred and ritual plants of India and Ayurvedic, Pharmacological, medicinal and biotechnological research papers are studied for an extensive, comprehensive analyzation and understanding the medical astrological concepts with practical implications to present day situations. Comparison and verification of translated content with the original Sanskrit texts.

3) Analysis

a) Ancient Scriptures

Narada Purana:

In Narada purana the nakshatra and tree concept can be seen clearly in two instances. We come across the prior one in part 2, chapter 56 while Sage Narada narrates the topics regarding astronomy, horoscopy and astrology, under the heading nakshatras and the subtopic of the favorite trees of the 27 asterisms (Fig 1). And the later one is seen in part 3, chapter 89 in the context of mentioning the mantras (sacred repeatable syllables), rituals and thousand names praising Goddess Sri Lalitha Devi (Fig 2). When we compare these two lists of the trees from the same purana, we can find several differences. Most of the times in Sanskrit literature the plants are given several alternate names or synonyms and similar names given for different trees. It is challenging task to pin point the tree indicated in the original texts for historians as well as the botanists. In this crucial process of translation of the Sanskrit names into the local names there is a possibility of mis-interpreting the trees. In the first list above, the nakshatra name and the tree name are given together while in the Lalitha Sthothram only the tree names are listed out in the form of mantras (776 to 802 mantras). Here we can see alternate names given for few trees. While some are synonyms of the same tree others are completely different trees. This can be noticed in case of 12 nakshatras. Out of them 5 are synonyms (Table 2) and 7 are different trees as seen in table 3 and table 1 with an asterix.

Sloka 1:

The nakshatras and their corresponding trees from Narada Purana.[1]

वृषो वृक्षोश्वभायाम्यधिष्ण्येयमकरस्तरुः
उडुंबरश्चाग्निधिष्ण्ये रोहिण्यां जंबुकस्तरुः २०४
इन्दुभात्खदिरो जातः कृष्णप्लक्षश्च रौद्रभात्
संभूतोऽदितिभाद्वंशः पिप्पलः पुष्यसंभवः २०५
सर्पधिष्ण्यान्नागवृक्षो वटः पितृभसंभवः
पालाशो भाग्यभाज्जातः अर्कश्चार्यमसंभवः २०६
अरिष्टवृक्षो रविभाच्छ्रीवृक्षस्त्वाष्ट्रसंभवः
स्वात्यृक्षजोऽर्जुनो वृक्षो द्विदैवत्याद्विकंकतः २०७
मित्रभाद्वकुलोजातो विष्टिः पौरंदरर्क्षजः

सर्ज्जवृक्षो मूलभाच्च वंजुलो वारिधिष्ण्यजः २०८
पनसो वैश्वभाज्जातश्चार्कवृक्षश्च विष्णुभात्
वसुधिष्ण्याच्छमीवृक्षः कदंबो वारुणर्क्षजः २०९
अजाहेश्नूतवृक्षोभूद्बुध्न्यजः पिचुमन्दकः
मधूवृक्षः पौष्णधिष्ण्याद्धिष्ण्यवृक्षाः प्रकीर्तिताः २१०

Narada Purana (II.56.204-210)

Sloka 2:

Portion of Sri Lalitha Devi 1000 names where the nakshatra trees were mentioned in Narada purana[1].

अहिर्बुध्न्या पूषणी च तथा कारस्करामला

उदुम्बरा जम्बुका च खदिरा कृष्णरूपिणी १४४
वंशा च पिप्पला नागा रोहिणा च पलाशका
पक्षका च तथाम्बष्ठा बिल्वा चार्जुनरूपिणी १४५
विकङ्कता च ककुभा सरला चापि सर्जिका
बञ्जुला पनसार्का च शमी हलिप्रियाम्रका १४६
निम्बा मधूकसंज्ञा चाप्यश्वत्था च गजाह्वया

Narada Purana (III.89.776-802)

Table 1:

Narada Purana – Lists of Nakshatra trees from two contexts[2,3]

[Note: *Nakshatras with ambiguous names]

S.No	Nakshatra	First List[2]	Second List[3]
1. *	Ashwini	Vrusho vruksho?	Karaskara *(Strychnos nux-vomica)*
2. *	Bharani	Yamakarastaru?	Amla *(Emblica officionalis)*
3.	Krithika	Udumbara *(Ficus glomerata)*	Udumbara *(Ficus glomerata)*
4.	Rohini	Jambuka *(Syzygium jambos)*	Jambuka *(Syzygium jambos)*
5.	Mrigasira	Kadhira *(Acacia catechu)*	Kadhira *(Acacia catechu)*
6. *	Arudra	Krishna plaksha *(Ficus infectoria)*	Krishna *(Aquilaria agallocha)*
7.	Punarvasu	Vamsa *(Bambusa vulgaris)*	Vamsa *(Bambusa vulgaris)*
8.	Pushyami	Pippala *(Ficus religiosa)*	Pippala *(Ficus religiosa)*
9.	Ashlesha	Naga *(Mesua ferrea)*	Naga *(Mesua ferrea)*

10. *	Makha	Vata *(Ficus bengalensis)*	Rohina *(Ficus bengalensis)*
11.	Pubba	Palasha *(Butea monosperma)*	Palasha *(Butea monosperma)*
12. *	Uttara	Aksha *(Terminalia bellarica)*	Plakshaka *(Ficus infectoria)*
13. *	Hastha	Arishta *(Sapindus trifoliatum)*	Ambashta *(Spondias pinnata)*
14. *	Chitha	Sri vruksha *(Aegle marmalos)*	Bilva *(Aegle marmalos)*
15.	Swathi	Arjuna *(Terminalia arjuna)*	Arjuna *(Terminalia arjuna)*
16.	Visakha	Vikankata *(Flacourtia india)*	Vikankata *(Flacourtia india)*
17. *	Anuradha	Bakula *(Mimusops elengi)*	Kakuba *(Terminalia arjuna)*
18. *	Jyeshta	Vishti *(Strychnos nux-vomica)*	Sarala *(Pinus longifolia)*
19.	Moola	Sarja *(Shorea robusta)*	Sarjika *(Shorea robusta)*
20.	Purvashada	Vanjula *(Saraca asoka)*	Vanjula *(Saraca asoka)*
21.	Utharashada	Panasa *(Artocarpus heterophyllus)*	Panasa *(Artocarpus heterophyllus)*
22.	Sravana	Arka *(Calotropis gigantea)*	Arka *(Calotropis gigantea)*
23.	Dhanishta	Shami *(Prosopis cineraria)*	Shami *(Prosopis cineraria)*
24. *	Sathabhisha	Kadamba *(Anthocephalus cadamba)*	Halipriya *(Anthocephalus cadamba)*
25. *	Purvabhadra	Chuta *(Mangifera indica)*	Amra *(Mangifera indica)*
26. *	Utharabhadra	Pichamandaka *(Azadirachta indica)*	Nimba *(Azadirachta indica)*
27.	Revathi	Madhu *(Madhuca indica)*	Madhuka *(Madhuca indica)*

Table 2:

Synonyms (Narada purana)[15]

Nakshatra	**Trees in first list[2]**	**Trees in second list[3]**
Makha	Vata	Rohina - *(Ficus bengalensis)*
Chitha	Sri vruksha	Bilva *(Aegle marmalos)*
Satabhisha	Kadamba	Halipriya *(Anthocephalus cadamba)*
Purva Bhadra	Chuta	Amra *(Mangifera indica)*
Uthara Bhadra	Pichamandaka	Nimba *(Azadirachta indica)*

Table 3:

Different trees (Narada purana)

Nakshatra	**Trees in first list[2]**	**Trees in second list[3]**
Ashwini	Vrish vruksha?	Karaskara *(Strychnos nux-vomica)*
Bharani	Yamakarastaru?	Amla *(Emblica officionalis)*

*Arudra	Krishna plaksha *(Ficus infectoria)*	Krishna *(Aquilaria agallocha)*
Uttara	Aksha (*Terminalia bellarica)*	Plakshaka *(Ficus infectoria)*
Hasta	Arishta *(Sapindus trifoliatum)*	Ambashta *(Spondias pinnata)*
Anuradha	Bakula *(Mimusops elengi)*	Kakuba *(Terminalia arjuna)*
Jyesta	Vishti *(Strychnos nux-vomica)*	Sarala *(Pinus longifolia)*

We will study the following two cases to understand the factors leading to ambiguity.

Case 1: Arudra Nakshatra tree:

If we consider this one case of Krishna and do a detailed study interesting facts are revealed. *Arudra* Nakshatra - *Krishna* – With this name there are several herbs and trees (Table 4). This star related plants are one of the most controversial ones. While there are 65 general meanings for the word Krishna in Sanskrit, under the category of Ayurveda, Charaka Samhitha, Raj Nighantu, Madhava Chikitsa the following plants are referred.[12]

Table 4:

Plants with Krishna as one of their names commonly referred to[12]

S.No	***Brassica nigra***	**Black mustard**
1.	*Aquilaria agallocha*	Krishna agaru
2.	*Indigofera tinctoria*	Indigo
3.	*Trianthema portulacastrum*	Horse purslane
4.	*Piper longum*	Long pepper
5.	*Piper nigrum*	Pepper
6.	*Carum carvi*	Black jeera
7.	*Psoralea corylifolia*	Bawchan seeds
8.	*Vitis vinifera*	Grapes

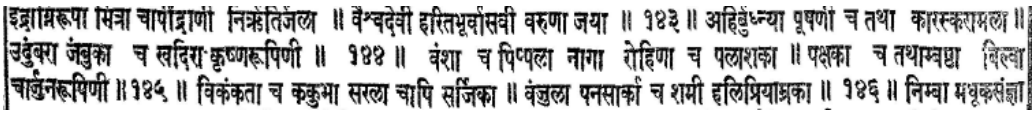
So, actually, we see Aquilaria agallochum suggested by experts for Arudra nakshatram which is cultivated commercially for yielding heavenly fragrance. But since it is not available in regular nurseries and even if it is planted it is unsure if it emits the fragrance like it does in its native locality. So, for these reasons experts are planting pepper or long pepper as an alternate to Aquilaria which is easily available and cultivable. But in spite of the characters nowhere near to the actual plant, it was accepted. As per IUCN red data list Aquilaria agallochum tree is listed under CR – critically endangered category[13]. So, it is thoughtful to stick to the original trees suggested which actually helps in conserving such rare and endangered species. Or the second-best thing is to plant

all the alternate trees suggested by various experts which was practically done at ICAR Goa[9]. This way the biodiversity also increases.

Case 2: Error during translation: (Sanskrit to English)

In the original Sanskrit scanned book we get to see 27 tree names (Fig 3), while if we see the English translation of Narada purana in the second instance where Sri Lalitha Devi Sahasra Bama were listed if we see the nakshatra trees keenly we can find that there are 28 plants mentioned (Fig 4). But incidentally, the Arjuna tree was repeated twice and to rectify that error the manthra number (781) was repeated so that the 1000 names get tallied by the end of the chapter[3]. But the trees get jumbled and the wrong tree was picked following the order leading to more confusion.

Sloka 3:


इङ्गाम्रूपा मित्रा चार्पाद्राणां निऋतिर्जला ॥ वैश्वदेवी हरितभूर्वासवी वरुणा जया ॥ १४३ ॥ अहिर्बुध्न्या पूषणां च तथा कारस्करामला ॥
उदुंबरा जंबुका च खदिरा कृष्णरूपिणी ॥ १४४ ॥ वंशा च पिप्पला नागा रोहिणा च पलाशका ॥ पक्षका च तथाम्बष्ठा बिल्वा
चार्जुनरूपिणी ॥ १४५ ॥ विकंकता च ककुभा सरला चापि सर्जिका ॥ वंजुला पनसार्का च शमी हलिप्रियाम्रका ॥ १४६ ॥ निम्बा मधूकसंज्ञा

Sloka 4:

(776) Kāraskara[1] (a kind of tree), (777) Emblic Myrobalan (778) Arjuna (tree) (779) Udumbara, (780) jejube, (781) catechu (781) Kṛṣṇarūpiṇī, (782) bamboo, (783) Pippala, (784) Nāga, (785) Rohiṇī, (786) Palāśaka, (787) Plakṣaka, (788) Amb-aṣṭha, (789) Bilva, (790) Arjuna, (791) Vikaṅkatā, (792) Vakulā, (793) Saralā, (794) Sarjikā, (795) Vañjulā, (796) Panasā, (797) Arkā, (798) Śamī, (799) Haripriyā, (800) Mango tree, (801) Margosa, (802) Madhūka, (803) Horse, (804) Elephant,[2] (805)

Nakshatra Chudamani: Error during translation (Sanskrit to Telugu):

Next let us take the case of a publication in 1909 authored by Kuppu Swamy Modalari called *Nakshatra Chudamani* presented in the form of conversation between Shiva and Parvathi[4]. In this book also we see two categories, one as a part of the description of the star related deity, animal, bird, flower, tree, fragrance, dhoopa etc. and the second set was listed as the summary with Telugu names at the end of the book. Here we find 5 trees are differing with the actual trees as seen in tables 5 and 6.

So, in the process of conversion of plant names from Sanskrit to Telugu different trees were given. So those who just follow the summary gets a different tree against the actual tree indicated in the conversation of Lord Siva and Parvathi.

Table 5:

Nakshatra Chudamani (Modalari 1909)

[Note: *Nakshatras with ambiguous names.]

S.No	Nakshatra	Trees mentioned during conversation of Siva with Parvathi in Sanskrit.	Trees given at the end of the book in tabular form in Telugu
1. *	Ashwini	Musandi?	Mushti *(Strychnos nux-vomica)*
2.	Bharani	Amalaka *(Emblica officionalis)*	Usirika *(Emblica officionalis)*
3.	Krithika	Oudumbara *(Ficus glomerata)*	Athi *(Ficus glomerata)*
4.	Rohini	Jambu *(Syzygium jambos)*	Neredu *(Syzygium jambos)*
5.	Mrigasira	Khadira *(Acacia catechu)*	Chundra *(Acacia catechu)*
6. *	Arudra	Khadira *(Acacia catechu)*	Vepa *(Azadirachta indica)*
7.	Punarvasu	Venu *(Bambusa vulgaris)*	Veduru *(Bambusa vulgaris)*
8.	Pushyami	Aswadha *(Ficus religiosa)*	Aswadha *(Ficus religiosa)*
9.	Ashlesha	Punnaga *(Calophyllum inophyllum)*	Ponna *(Calophyllum inophyllum)*
10.	Makha	Vata *(Ficus bengalensis)*	Marri *(Ficus bengalensis)*
11.	Pubba	Palasha *(Butea monosperma)*	Palasha *(Butea monosperma)*
12.	Uttara	Badari *(Zizyphus jujuba)*	Regu *(Zizyphus jujuba)*
13.	Hastha	Plaksha *(Ficus infectoria)*	Plaksha *(Ficus infectoria)*
14.	Chitha	Bilva *(Aegle marmalos)*	Bilva *(Aegle marmalos)*
15. *	Swathi	Arjuna *(Terminalia arjuna)*	Voddi *(Dolicandron falcata)*
16. *	Visakha	Kanaka *(Datura stramonium)*	Unmatha *(Datura stramonium)*
17.	Anuradha	Panasa *(Artocarpus heterophyllus)*	Panasa *(Artocarpus heterophyllus)*
18.	Jyeshta	Puga (*Areca catechu)*	Poka (*Areca catechu)*
19.	Moola	Sajja *(Mimosa rubicaulis)*	Sajja *(Mimosa rubicaulis)*
20.	Purvashada	Thintrini *(Tamarindus indica)*	Chintha *(Tamarindus indica)*
21.	Utharashada	Panasa *(Artocarpus heterophyllus)*	Veru panasa *(Artocarpus heterophyllus)*
22. *	Sravana	Ashwadha *(Ficus religiosa)*	Ganga raavi *(Thespesia populnea)*
23.	Dhanishta	Sami *(Prosopis cineraria)*	Jammi *(Prosopis cineraria)*
24.	Sathabhisha	Khadira *(Acacia catechu)*	Chundra *(Acacia catechu)*
25.	Purvabhadra	Buruga *(Bombax pentandra)*	Buruga *(Bombax pentandra)*
26.	Utharabhadra	Pichumanda *(Azadirachta indica)*	Pichumanda *(Azadirachta indica)*
27.	Revathi	Madhuka *(Madhuca indica)*	Madhuka *(Madhuca indica)*

Table 6:

Different trees[15] - Nakshatra Chudamani (Modalari 1909.)

Nakshatra	Trees in conversation	Telugu names given in summary at the end of the book
Ashwini	Musandi?	Mushti *(Strychnos nux-vomica)*
Arudra	Khadira *(Acacia catechu)*	Vepa *(Azadirachta indica)*

Swathi	Arjuna *(Terminalia arjuna)*	Voddi *(Dolicandron falcata)*[14]
Visakha	Kanaka *(Datura stramonium)*	Unmatha *(Datura stramonium)*
Sravana	Ashwatha *(Ficus religiosa)*	Ganga raavi. *(Thespesia populnea)*

Sacred Plants

In the book *'Sacred Plants'* (Reddy, 1980)[5] presented a layout map given for plantation of the nakshatra trees in a particular pattern of sunrise and sun set trees. They align starting from *Jyeshta* nakshatra which complements with *Moola* and likewise that the sun rays should fall on its complementary tree. Here we can see an interesting thing the trees are divided into sunrise and sun set trees as shown in Table 7. And the nakshatras are actually starting with Jyesta as the name indicates it is the first tree in the list. It complements with Moola nakshatra. It was explained that the sunrays from Jyesta tree should fall on Moola nakshatra tree. This book published by Karnataka Forest department and later translated in to Telugu and published by TTD and became popular is actually a secondary source as the root purana or literature was not referred.

So, it is unclear if this pattern of plantation originated in ancient scriptures or if it is a thoughtful plan given by contemporary experts.

Table 7:

Sacred Plants (Reddy, 1980)[5]

S.No	Nakshatra	Sun rise trees
1.	Jyeshta	Sarala *(Pinus longifolia)*
2.	Anuradha	Bakula *(Mimusops elengi)*
3.	Visakha	Vikankata *(Flacourtia indica)*
4.	Swathi	Arjuna *(Terminalia arjuna)*
5.	Chitha	Bilva *(Aegle marmalos)*
6.	Hastha	Ambashta *(Spondias pinnata)*
7.	Uttara	Plaksha *(Ficus infectoria)*
8.	Pubba	Palasha *(Butea monosperma)*
9.	Makha	Rohini *(Ficus bengalensis)*
10.	Ashlesha	Naga *(Mesua ferrea)*
11.	Pushyami	Pippala *(Ficus religiosa)*
12.	Punarvasu	Vamsi *(Bambusa vulgaris)*
13.	Arudra	Krishna *Aquilaria agallocha)*
14.	Mrigasira	Kadhira *(Acacia catechu)*
		Sun set trees
15.	Rohini	Jambu *(Syzygium jambos)*
16.	Krithika	Udumbara *(Ficus glomerata)*
17.	Bharani	Dhathri *(Emblica officionalis)*
18.	Ashwini	Karaskara *(Strychnos nux-vomica)*

19.	Revathi	Madhuka *(Madhuca indica)*
20.	Uttara Bhadra	Amra *(Mangifera indica)*
21.	Purva Bhadra	Nimba *(Azadirachta indica)*
22.	Sathabhisha	Kadamba *(Anthocephalus cadamba)*
23.	Dhanishta	Sami *(Prosopis cineraria)*
24.	Sravana	Arka *(Calotropis gigantea)*
25.	Purvashada	Vanjula *(Saraca asoka)*
26.	Uttarashada	Panasa *(Artocarpus heterophyllus)*
27.	Moola	Sarju *(Canarium strictum)*

Scientific validation

In the second aspect, we examine scientific research work done in the contemporary era on the moon mansion tree garden which connects a tree to an individual through a star, the reason behind which it gets so popular, running on similar lines with gemology and *rudraksha* concept. When compared to the other temple garden concepts like the *navagraha vana* (planetary tree garden), the *rasi vana* (zodiac tree garden), the *saptharishi vana* (big dipper tree garden), *the saraswathi vana* (Goddess of knowledge garden) etc., Nakshatra vana is widely implemented by people.

Medical Astrology: (27 stars – 65 trees)

These are totally different from the three lists of trees that we saw in the earlier literature. The important fact to be noted here is that for 27 nakshatras 65 plants were mentioned[6]. These were derived from *Narada purana, Sharda tilak, Vidyaranya tantra, Skanda purana and Brihat sushruta.*

The qualitative and quantitative analysis was done on the assigned plants to a particular asterism and the planet. The plant sample was collected on 2 days one on the nakshatra day and the other was on a general day not related to its nakshatra. It was conducted on 7 plants and the results showed that the active principles of the plant were high as compared to the sample collected on the general day. As per this paper the same medicine works differently on the same person when taken on a nakshatra day and on a general day. It was emphasized and concluded that the time of collection of the crude drug from the medicinal plant and the time of administering the drug to a needy person makes a lot of difference in the effectiveness of the treatment given to him. The herbs selected were also based on the planetary position of the person to be treated which is known as medical astrology.

Tamil Literature: (27 stars – 108 trees)

In another source mentioning about nakshatra trees from ancient Tamil literature we can notice an interesting fact authored by Prakash Velu in the year 2016[8]. The list of trees mentioned here corresponds to each sub division of the nakshatra. It is a well-known fact that as per astrology each moon mansion is further divided into 4 quarters. Which totals to 108 (27 x 4 = 108). The trees of the first sub division are same as the earlier lists we saw in *Narada Purana* and *Nakshatra Chudamani* with few minor differences. This information was gathered from the Tamil literature

and also details given by learned scholars orally which was passed on from one generation to another. So, there is no single source or literary work available to ascertain the authenticity and see if there are any translational errors that might be possible during the process of finding the botanical equivalents to the ancient Sanskrit and or Tamil literature. More studies are to be done by historians and linguist experts in this aspect as to which source is the earlier one or if both have evolved simultaneously.

DNA Finger printing

In the recent works done with regard to the 27 nakshatra trees in one paper we can see in depth investigations done on the 27 trees that they assume to be the genuine list[10]. As all these trees have abundant medicinal and sacred values. Most of the research papers involved doing the phyto chemical analysis especially glycosides through HPTLC to DNA finger printing techniques of these trees.

Phenology and Biofield

Going one step ahead a team of research scholars did experimentation on a single star tree i.e., *Azadirachta indica* and its related 6 persons in the age group of 18 to 25. Their blood samples, aura pictures, bio field photos are taken before and after the person spend half an hour near the neem tree which corresponds to *Utthara Bhadra* nakshatra. There is noticeable difference in the results[7].

4) Discussion

To sum up the discussion we can say that there are several factors that lead to ambiguity. They are as below

a. Different versions in the same purana in different contexts.
b. Each plant has many names in Sanskrit based on its typical and unique physical characters, medicinal properties, mythological significance and its economic usage.
c. And in many instances same name was given to different plants owing to its characters.
d. Finding equivalent local names is another challenging task for Historians and Botanists.
e. During translation into other languages errors are inevitable and same errors are repeated and carried forward.

5) Conclusion

Thus, from our investigation we can conclude that the information given in our puranas and ancient literature needs to be researched thoroughly, documented and the authentic plants indicated are to be utilized by the society for the betterment of the humanity and environment as well. In case certain trees are rare and endangered; they are supposed to be procured and planted so that they are conserved in the long run as we saw in the case study of Aquilaria. Ultimately the botanists, historians, astronomers, astrologers, medical professionals need to integrate, work as a team and give clarity to the genuine trees indicated in ancient scriptures and then comes the role of research

scholars and scientists to investigate scientific methodology to prove why a particular tree is assigned to a particular lunar mansion and to a person born during that nakshatra and the effective way it heals a person as indicated in the scriptures. To conclude, in the light of science and eyes of research, religion and spirituality will be able to walk the path with clarity, confidence and faith.

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Art & Architecture in the Rgvedasamhita - A Note

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Abstract

India has a rich art and architectural legacy dating to an ancient past. Indian art embodies the artist's vision of reality. Its turbulent history, song and dance, Indigenous crafts, dress and ornaments, myth and legends are an intrinsic part of the warp and weft of its tradition. The history of various arts begins with the Vedas. The Vedic people were familiar with vocal and instrumental music. The art of poetry had full bloom. Of this art we have the most convincing evidence in the collection of the Rgvedic hymns. Architecture which in India is still a living art had made some advance in the Rgvedic period which represents the creative and originative faculties of the human mind. The hymns of the Rgvedasamhita also unfold the hidden miracles in the history of art and architecture.

1) Introduction

India has a rich art and architectural legacy dating to an ancient past. Indian art embodies the artist's vision of reality which represents A broken glories of traditions underlying its religious motif and historic continuity. India is aid to be the galaxy of cultural traditions. Its turbulent history, song and dance, Indigenous crafts, dress and ornaments, myth and legends are an intrinsic part of the warp and weft of its tradition. It is seen that every settled culture has felt urge to perpetuate its existence, either in art or in the construction of fine buildings, monuments, palaces, temples and even private houses and indeed hose first cultures made certain of their places in history. From a study of such buildings we can gain insight into our past civilization. Similarly India is able to build up a great traditions in its art and architecture. The history of various arts begin with the Vedas which have been venerated as the fountain head of the History of Indian culture, since times immemorial. Everything relating to the Indian way of life has its roots in the Vedic lore. It is a treasure-trove of diversity and ancient traditions molded by its geographical setting. Among these Vedas Aryan culture is preserved in the hymns of the Rgvedasamhita which is valuable for a student of history and culture. The Rgvedasamhita

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nurtures in its ages history, architecture. Such art and architecture speaks volume of by gone age when a breath of harmony and a showcase of exquisite art and culture flowered and which offers an insight into one of the richest emerging culture and civilization of ancient India.

Apart from religious knowledge the Rgvedasamhita contains in itself the knowledge of various arts. The Rgvedic Aryans have made considerable technical progress in the arts and amenities of life. Various scholars have commented on our age old past, though much made to highlight the various aspects of art and architecture contained in the phasis is not given on the art-side. So, in this paper an attempt have been hong the various arts of life such as music, dance and playing on musical.

Taking a peep into the hymns of the Rgvedasamhita it can be said that ymns of the Rgvedasamhita. instruments occupied an important place in the life of the Rgvedic Aryans. Though Samaveda laid the foundations of the musical traditions, it too had advanced at the Rgvedic period. Singing was highly esteemed. In the Vedas the songs are noted as rising spontaneously from the heart, the critical sensibility consciously evaluates them and finds them aesthetically satisfying. The Vedic Aryans with their poetic sensibility felt that the song was the best offering to the creator of the grace of this world. People set their heart and mind on music which was a very important art as well as the source of recreation. We have reference to singing song in praise of Soma1. The Samans were divine songs sung and set to music. In the Purusa Sukta of the Rgvedasamhita it is said that Samagana or Sama hymns were originated from Purusa- the Great Primeval Being.2 The gathas were also songs in verse.3 We have the term gathapati- the lord of hymns or songs.4 Sayana in his commentary of the verse 1.43.4 explains the term as 'gathapatim stutipalakam'. The term Gathin is also related to music."5 Sayana in his commentary of the R.V., 1.7.1 interprets it as-'gathinah giyamanasamayuktaudgatarah'. Similarly gathani also indicates the leader of the song in R.V., 1.190.1. In the Rgvedic verse 10.18.3 allusion is made to the living going forth to dance and to laugh after a funeral. The Danastutis were also the songs sung in praise of kings and nobles 6. These were probably like ballads. Frog hymns also refer to the musical chanting of the Brahmanas.7 At that period song was sung in the accompaniment of dance and instruments.

The Vedic people were familiar with vocal and instrumental music. There are three types of instruments, viz. percussion, string and wind. Among these percussion instrument like Dundubhi or drum 8, wind instrument like flute made of bamboo,9 and stringed instrument like Vina or flute10 are mentioned. Among these the most popular musical instrument called Vina is mentioned in later Samhitas also. The Atharvaveda invokes a war drum.11 The Yajurveda also distinguished the musical instruments.12 Besides, the Rgvedasamhita also mentions other instruments like Karkari,13 Satatantri, Vana14, Nadi15", Gargada16 and Aghati17 etc.

2) Art of Dance

Like music the art of dancing also developed. It is said to be the graceful and rhythemic movement of the body in accompaniment of music. Rgvedic hymns preserved some accounts of dancing prevalent in the contemporary Indian society.

The art of dancing starts with the Vedic age which had been the popular pastime of both men and women. The Rgvedasamhita refers to the dancing of the gods which caused clouds of dust to rise.18 It indicates the Vedic people's love and fondness for dancing in open air. Even goddess Usas is presented well decked like a dancer, appearing in the east.19 Her dancing figure and pause gives us the idea of Vedic aesthetic sensibility. The Rgvedasamhita also mentions one kind of dance with bamboo sticks.20 There were professional female dancers called nrtu who danced with embroidered garment and bared their breast for attraction.21 It is likely that such female dancers had a community o f their own. In the Gautama Dharmasutra (15.18) it is clear that some people earned their livelihood by singing and dancing. We have references also to swings in the Rgvedasamhita (7.87.5, 7.88.3)

3) Sculpture and painting

We find no distinct mention of sculpture either of human or animal forms. The religion of the Aryans which was not idolatrous, did not foster that art. Scholars like Prof. Max Muller remarks - "The religion of the Veda knows of no idols. The worship of idols in India is a secondary formation, a later degradation of the more primitive worship of ideal gods. 22 So, we can say that there was no idol worship in those days. Most of the objects of devotion were from the natural phenomena. But the concept of saguna murti was in the mind of the Rgvedic seers. In the Rgvedic hymn 1.35.9,10 use of the epithets hiranyapani, hiranya-hastah, sunitha etc. clearly proves the fact. There is also reference to bartering, selling and purchasing of the image of Indra in the exchange of ten milch cows.23 It is probable that like Indra's image the artists made other images made of stone or clay in the Rgvedic period. Some images of the gods are a sensible mentioned in the Rgvedic hymns.24 In 2.33.9, a painted image of Rudra is described. Rgvedic verse 1.25.13 appears also to refer to representation. The seers of the Rgvedasamhita urges living presence of the divine in the beauty and nobility. They glorifies the surrounding, highlights the flora and fauna of the environment which we see in ample set of paintings. Various colours mentioned in this Veda such as Rohita, Krsna, Sukla etc. perhaps may be used in paintings.25.From all such it can be inferred that there existed the art of painting in the Rgvedic society.

4) Poetic art

The art of poetry had a full bloom. Of this art we have the most convincing evidence in the collection of the Rgvedic hymns. It can be said that the literary achievements of the poets of the Vedic age were commendable. The hymns of the Rgvedasamhita comprised the spontaneous

outpourings of the surroundings splendour and grandeur. A. Kaegi has rightly said "The great majority of the hymns are invocations and adoration of the gods respectively addressed; their key note is a simple outpouring of the heart...26 As the gods are mostly connected with the natural phenomena, the hymns consist of verses in metrical form addressed to them give rise to noble imageries describing the aspects of nature. The Rgvedic Aryans lived a life of beauty in an environment of art and beauty. They had the art of beautifying themselves and describes the beautiful gods. The Vedic seers convert storms into handsome bridegrooms called Maruts. Rudras description is creative and vital in RV., 2.33.3, 5,7,10,11.

The beautiful picture of the environment is presented in the Nadisukta (R.V., 3.33.1-13), Dialogue hymn of Pururava and Urvasi (RV., 10.95), Usas sukta (RV., 3.61.3, 7.75.1-8, 4.51.1-6), sukta to the god Parjanya (RV., 7.102. 1-3, 5.83.1-8) etc. In the Rgvedasamhita all the elements of poetry are mentioned. The songs of Surya, Parjanya, Savitr, Maruts and above all the Usas are being valued as fine specimens of poetic art. Their praise often bring out the marvellous sentiment. Hymns to Usas have passages of real poetic beauty, while dialogue of Agastya and Lopamudra, Pururava and Urvasi are considered as erotic poetry. For Pathos there is nothing to rival the Gambler's lament. Hymns to Indra depict the heroic sentiment where the verses to Rudra and Parjanya give examples of the furious and terrible sentiment. Streaks of humour occurs in the frog hymn which is considered as a sattire. The frog hymn is said to be a magic charm resembles the croaking of frogs with the reciting Brahmanas. There are elements of both ballad and drama in the dialogue hymns specially in 10.95 and 10.10 of the Rgvedasamhita. Similarly the hymns of Grtsamada, Vasistha, Visvamitra and Vamadeva have poetic value. Beautiful similies are found here and there in this Veda.27 Vedic poetry is also replete with mystic experiences. The source of beauty couched in the concept of Rta 28 the eternal law which manifests itself in nature and which makes its beauty and glory rich.

5) Architecture

Architecture which in India is still a living art had made some advance in the Rgvedic period which represents the creative and originative faculties of the human mind. The art of making house developed during that period. In the earlier part of the Rgvedic age city life was completely absent and people used to dwell in villages. The word grama has been used in the sense of village 29 which denotes a settled state of existence. Such villages were a group of houses built near each other for the purpose of safety. As the joint family system was in the cattle at night.30 In the Vedic age the building of a house or other Vogue, the houses were so large enough to contain not only the family but also construction formed a part of religious ceremony. So, in the hymn attributed to २० seer Vasistha innumerable prayers offered to god Vastospati the presiding deity over house or Vastu for the safety of the house and the prosperity of its dwellers. 31 In accordance to their characteristics the Vedic houses were variously designated as Grha (R.V., 3.53.3, 4.49.6, 6.2.8), Sadma (R.V., 7.8.22) Prasadma (R.V., 8.10.1) Chardis (R.V, 6.15.3) Sarma (R.V., 8.40.12), Vesma (R.V., 10.146.3), Harmya (R.V., 7.55.6, 8.5.23, 10.73.10) etc. was

constructed as to suit the needs of the people. It also indicates the construction of the house from small to big ones. Among these Sadma seems to be a kind of house where sacrifices took place. Sayana in his commentary interprets the term as 'sadma yajnyagrham..."32 'Prasadma' kind of houses also reveal the same meaning.33 Chardis seems to be a wealthy home with a covering34 or a home with triple guard which protects one from heat, cold and wet or three storeyed abode.35 In the Rgvedasamhita the term Chadis also used (R.V., 10.85.10). Sarma indicates the house with three storeyed or consists of three rooms 36. Vesma is the dwelling place or natural bower of branches and creepers in the middle of the forest or Aranya.37 other hand Harmya means big houses or palaces consist of so many rooms which can closely be shut up 38. It also hints at substantial structure. Rgvedic verses indicates the considerable height of the building of the harmya or its position on the top of a house. The term is also used to denote a dark pit or heated pit (R.V., 5.32.5).

At that period physical features, soil and climate affected much in making the houses. Houses were made of clay (R.V., 7.89.1), stone (R.V., 2.14.6, 2.20.5) mud-bricks and wood. We have reference to house with mud walls and thatched roof (R.V., 7.89.1). The roofs of the houses were made of long bamboos laid on rafters supported by pillars. According to appropriate measurement the plans of the construction were worked out which indicates the systematic construction of building. We have instances of hundred doors (R.V., 7.88.5) and thousand pillars (R.V., 5.62.6), house with several rooms, house of tridhatu and trivaruth (R.V., 6.46.9). According to Sayana, the world trivarutha in the verse 81821 means a shelter that protects against cold, heat and rain or a three storied abode.39 Similarly the word tridhatu means three courtyards.40 The word tridhatu is also mentioned in the Silpasastra which indicates building ether in the sense of seven parts or the materials.41 According to many scholars, the Vedic houses were consisted of three parts, viz. agnisala or fireplace, sadas or sitting room and patnisadanam or female apartment, so also grhadvara. Talttiriya Aranyaka also mentions the existence of Kosagara. In the later Vedic age an advanced stage of construction is exhibited in the various shapes of Vedic altars. In the Rgvedic hymns the construction of well decorated parts of home like gods palace or Vitana was not unknown 42. It was an exquisite type of building. Similarly we get a good description of the Vedic house from the Atharvaveda (8.8.5; 10.1.30) which glorifies a dwelling house. The Rgvedasamhita also indicates the strength and stability of the houses which is indicated by the term Druva.43. Silpasastra describes a special class of building called Druva.44.

Besides the construction of houses there were ramparts and ditches to protect the villages from enemies or from natural calamities. For these the igvedasamhita mentions the term Pur (R.V., 1.103.3) which are sometimes as as a town. Fortified palaces were also called Pur. The term Purpati R.V.,1.173.10) is used to indicate the leader or owner of it. The non-Aryans possessed more number of such Purs in comparison with the Aryans. We have reference to Sambara who had hundred stone made forts.45 or stronghold. The of construction was so popular that the architects easily made iron forts or (RV., 1.53.7, 10.58.8, 2.20.8, 4.27.1)"46 cities with hundred

fortifications R.V., 7.15.14) or forts consist of a series of concentric walls, forts made of stone or other hard materials.47 Purs or forts called satabhuji with hundred concentric walls, 48 Autumnal forts (R.V., 1.174.2, 6.20.10) which may refer to the forts in that season being occupied against the attack of enemies or against inundations caused by overflowing rivers or in some places refers to as a fort belongs to the demon named Sarat.49

So, we can say that architecture was of high standard at that period. Besides the art of making houses we have the development of other arts like the construction of roads, lake, dam, well, tubewell, canal, construction of big tanks for preservation of drinking water for human and smaller tanks for animals, artificial irrigation, bridge construction, construction of ports, strongly built sea bound ships with hundred ores. Simultaneously with the transition from pastoral to agricultural economy there arose several new arts and crafts. Mention may be made of weaving50 which mostly confined to women, leather working"51 includes skin clothing and utensils made of animal skin; jwellery making52 decoration of stage with toys or dolls53, garland making54, art of Pottery55 which includes pots and vessels made of clay or wood; tanning, sewing, plaiting, embroidery56 etc. Connected with the art of weaving was the subsidiary art of washing and dying57. Art of working of metals of gold, silver and iron also developed. It includes the art of making weapons of war58 manufactured of metal as well as bone and wood, so also the art of making instruments of agriculture59, of hunting, various domestic utensils60 etc. The art of carpentry also developed during the Rgvedic age. The carpenter or coach - builders were well known to the Rgvedic society61 who easily made things like chariots, wagon, boats, implements for household purposes, e.g. Bed or couch called Talpa (R.V., 7.55.8), wooden vessel called drona (R.V., 6.2.8) etc. and utensils for religious rituals or sacrifices like spoon called chalice (R.V., 4.35.2,3), src-a sacrificial ladle (R.V., 1.84.18) etc. At that period every useful work of s appreciated. The prime artisan of the Rgvedic period from which the seers seeks favour62 is Tvastr¬- the giver of shapes who was also called rupakrt the Taittiriya Brahmana (T.B., 2.5.7.4). As an artisan he is famous for making scrificial cups, Indra's golden thunder weapon63, copper or iron thunderbolt64. Spasastra also describes him as the master architect. The Rbhus were also celebrated as skillful workman. They made into four a single sacrificial ladle which Tvastr had formed65. These Artisan Gods are credited with having suped the heaven and earth (R.V.,4.34.9). But the Rgvedasamhita is silent about the Visvakarma's special association with structural activity.

6) Conclusion

So, from direct or indirect evidences widely available in the hymns of the gvedasamhita we have the idea of the development of various arts during that period. From the Rgvedic art and architecture, we can gain insight into our past crilization which was culturally much developed. Therefore, it can be summed that Rgvedic architecture, magnificent crafts and various fine arts, are the plendid example of ancient art which offers a kaleidoscopic fiesta that lures one with its

magical richness and stunning variety. The hymns of the gvedasamhita also unfold the hidden miracles in the history of art and architecture.

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Do Yadnyas Spiritually Purify the Environment? If so, to What Extent?

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Abstract

A positive subtle effect on the environment brings about various positive changes such as a reduction in extreme weather events, purification of the environment at the level of soil, water and air and also the well-being of society. The spiritual research team at the Maharshi Adhyatma Vishwavidyalay (also known as the Maharshi University of Spirituality), Goa, India conducted a study to analyse the subtle effect of yadnyas (yajnas) on the environment. By studying the auras of various samples before and after the yadnyas (yajnas), it was observed that the auras became significantly more positive. On average, the positive aura in the samples increased by 301%. The distance from the yadnyas (yajnas) did not affect the influence that the yadnyas (yajnas) had on the environment. The yadnyas' (yajnas') positive effects were observed in places more than 6500 km away immediately after the yadnyas (yajnas). Our research has shown that the subtle effect is the catalyst for further physical and psychological effects.

Key words: Yadnyas, Vandana, Environment

1) Introduction to a study on the effect of yadnyas (yajnas) on the environment

Figure 1 : A *yadnya* (*yajna*)

A yadnya (also spelt as yajna, yagnya or yaga) is a sacred fire ceremony conducted in a ritualistic manner for a specific purpose. The purpose of a yadnya (yajna) can be for many reasons which can include gaining good health, bringing harmony and balance to the environment, protecting against negative energies and helping seekers in their spiritual practice by removing obstacles. Yadnyas (yajnas) are potent spiritual tools that generate enormous amounts of positive spiritual energy, which ultimately increases well-being in society.

There have been many external independent studies conducted on the **effect of yadnyas (yajnas)**. For example, Research and Exploratory Study on Vajepeya Soma Yaga,

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Effects of Yagya on Environment Purification and Human Health : A Review, The Integrated Science of Yagna, etc. These are just some of the many studies conducted on the physical and mental effects/benefits of yagnyas (yajnas). In contrast, there are very few studies about the spiritual energy generated through a yadnya (yajna) and its spiritual effects. In fact, our research has shown that it is the spiritual energy of a yadnya (yajna) that is the primary reason why it is able to have a large-scale positive effect on the environment (flora and fauna included) and society at the physical, psychological and spiritual levels.

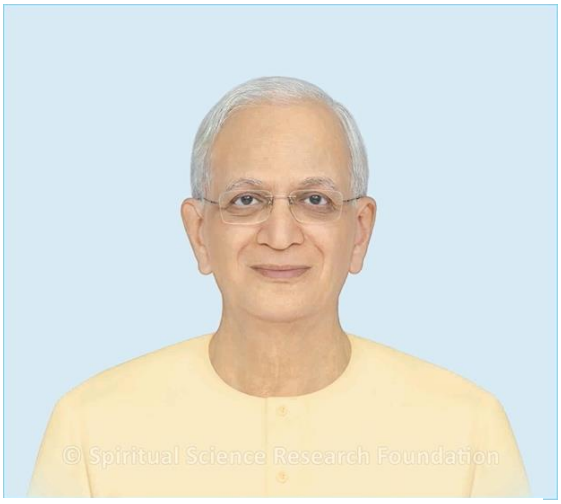


Figure 2: Paratpar Guru Dr Athavale

The efficacy of any yadnya (yajna) depends on various factors, one of which is the resolve (sankalp) of the presiding Saint, if present. The higher the spiritual level of the presiding Saint, the greater the spiritual effect of the yadnya (yajna). In January 2022, six yadnyas (yajnas) were conducted at the Spiritual Research Centre and Ashram, in Goa, India. The yadnyas (yajnas) were conducted by Saints and priests backed by the resolve (sankalp) of Paratpar Guru Dr Athavale. A Paratpar Guru is a Saint above the 90% spiritual level. It is extremely rare to find a Saint of such a high order on Earth and so it presented the spiritual research team with an unparalleled opportunity to study the spiritual effect of the 6 yadnyas (yajnas) at various levels.

In this paper, we share some of our key findings while studying the effect of yadnyas (yajnas) on the environment at the spiritual level.
The six yadnyas (yajnas) performed were:

Date	Yadnya (yajna) performed
14 Jan 2022	Rajmatangi yadnya
15 Jan 2022	Pratyangira Devi yadnya
16 Jan 2022	Baglamukhi Devi yadnya
21 Jan 2022	Dhanvantri yadnya
22 Jan 2022	Mahamrutyunjay yadnya
23 Jan 2022	Garud yadnya

Table 1: Yadnyas (yajnas) held at the Spiritual Research Centre and Ashram in Goa, in January 2022.

2) Designing the experiment to study the effect of yadnyas on the environment

We collected the below mentioned samples from various locations before and after each yadnya (yajna) and measured their auras using an aura and energy scanner known as the Universal Aura Scanner (UAS) along with the **sixth sense** of the research team. Developed by Dr Mannem Murthy (a former nuclear scientist from India), the UAS instrument can detect negativity and/or positivity in an object's aura along with its length.

Figure 3 : Universal Aura Scanner (UAS)

a) Soil, water and air samples were collected from :

- The Spiritual Research Centre and Ashram in Goa where the 6 yadnyas (yajnas) were held.
- 2 seekers' (subjects practicing Spirituality) houses along with their neighbours' houses (in total 4 separate premises). Their distances from the site of the yadnyas (yajnas) ranged between 1.5 and 16 km.
- 2 religious sites within a kilometre away from the site of the yadnyas (yajnas).

b) Photographs of 3 Spiritual Centres in different cities located in India and overseas were collected and analysed. The Spiritual Centres were located in the following cities.

Spiritual Centre Location	Approximate distance in kilometres (km) from the seat of the yadnyas in Goa
Near Mumbai, India	Over 500 km
Varanasi, India	Over 1700 km
Thale, Germany	Over 6800 km

Table 2: Cities in India and overseas where the effect of the yadnyas (yajnas) were analysed

Photographs were taken of the 3 Spiritual Centres before and after the yadnyas (yajnas). The subtle vibrations of each of the photos were measured with the help of the UAS. Also using a video conference link, live images of soil, water and air samples were measured from these places using the UAS. These samples were collected before and after the yadnyas (yajnas). The photographs/live images that were taken in Germany were taken at the same time the yadnyas (yajnas) were held in India.

c) Subtle readings

To truly analyse the subtle effect of a yadnya (yajna), sixth sense of an advanced level is needed. The Spiritual Research Team along with seekers who draw pictures based on subtle knowledge analysed the effect of the yadnyas (yajnas).

3) Key findings on the effect of yadnyas (yajnas) on the environment

The following is **the summary of some of the key findings** that we observed in relation to how yadnyas (yajnas) affect the environment:

a) Practising Spirituality leads to positivity at home (within the premises) and increases the ability to imbibe positive vibrations emitted by yadnyas (yajnas).
b) It was noticed that there was a residual effect of increased positivity and decreased negativity in the environment even well after the yadnya (yajna) was completed.
c) Out of the elements, the air was more positively affected by the yadnyas (yajnas) as compared to soil (earth) and water.
d) The distance a place was from the yadnya (yajna) did not pose a barrier to that place gaining the benefit of the yadnya (yajna).
e) A yadnya (yajna) has the ability to overcome strong negative energy attacks.

a) Practising Spirituality leads to positivity at home and increases the ability to imbibe positive vibrations emitted by yadnyas (yajnas)

Our earlier research on 'Spiritual vibrations in the home and their effects', had shown that two factors (i.e., the nature of the residents and how the premises are used) play an integral role in deciding the nature of the spiritual vibrations emitted by any given premises. For example, people who regularly practised Spirituality as per Universal principles are more likely to emit positive vibrations and hence, they would positively affect the premises they inhabited. They are also more likely to attract Divine protective energy from God.

At the outset, it is important to note that in recent times, we have found that the negative vibrations present in the environment all around the world are of a much higher magnitude than they were prior to 2019. As a result, residences of both seekers and other people alike have increased levels of negative vibrations associated with them. This is because both types of residences are influenced by the overall negativity in the environment. However, when we compare the negative vibrations in seekers' residences vs. other people's residences (or even their neighbour's residences), **the negative vibrations found in seekers' residences are much less**. At the same time, **positive vibrations are found to be much higher in seekers' residences** as opposed to residences of their neighbours who do not practise Spirituality. The findings show that among the 2 adjacent houses, the negative aura in the soil and water samples obtained from the seeker's house was approximately 40% less than for her neighbour's house, where the residents were not practising Spirituality. In the case of the air, the sample from the seeker's house was 25% less negative than that from her neighbour's house. The reason for less difference in the

air samples is that air can move more freely between premises. With regards to the positive aura, we found that there was none detected from the neighbour's house samples.

Our findings are summarised below:

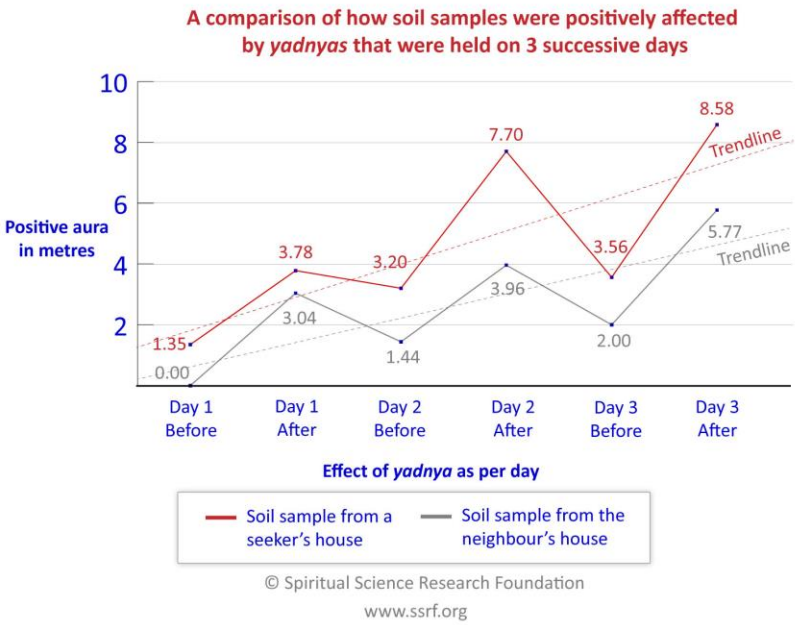
S No.	Type of sample	Negative aura (in metres)		Positive Aura (in metres)	
		Neighbour's house	Seeker's house	Neighbour's house	Seeker's house
1	Soil	22.8	13.5 (40% less negative)	0	1.35
2	Water	23.5	14.2 (39% less negative)	0	1.52
3	Air	17.1	12.8 (25% less negative)	0	0.54

Table 3: A comparison of subtle-vibrations found in a seeker's residence vs. her neighbour's residence

In comparison, all the samples from the seeker's house had a positive aura, to begin with. Such differences in readings have been consistently observed when comparing soil, water and air samples between seekers' houses and their neighbours' houses where the residents are not doing any spiritual practice.

A key finding in the experiments conducted during the 6 yadnyas (yajnas) is that this sacred ritual was able to increase the positive vibrations of soil, water and air samples in areas many miles away from the place where the yadnya (yajna) was conducted. On average, the positive aura in the soil, water and air samples collected locally in that region increased by 302% after the yadnyas (yajnas). However, we found that the seeker's house (about 16 km away from the place of the yadnya) **was able to imbibe positivity to a greater extent** as compared to her neighbour's house.

In graph 1, it can be seen how the positivity in the soil samples progressively increased before and after each yadnya (yajna). These yadnyas (yajnas) were held on three consecutive days. With each successive yadnya (yajna), you will notice that the trendline of the increase in positivity in the seeker's house (red line in the graph below) was much steeper as compared to the neighbour's house (which is the grey line in the graph below). This indicates that the seeker's house was able to imbibe positivity from the yadnya (yajna) to a greater degree.

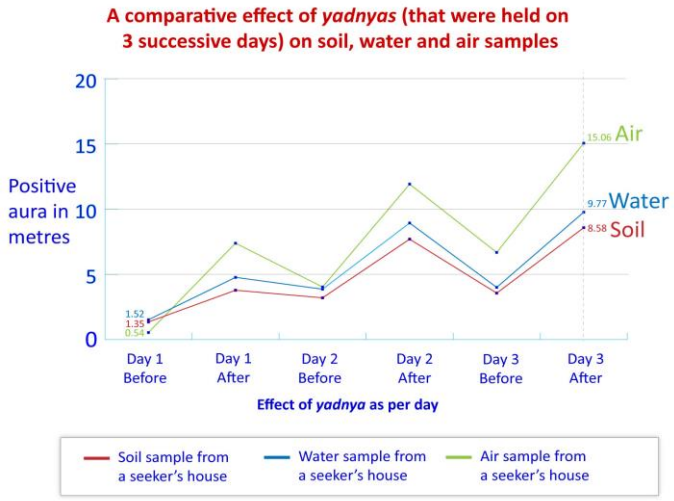


Graph 1: A comparison of how soil samples were positively affected by yadnyas (yajnas) that were held on 3 successive days

b) A residual effect of increased positivity and decreased negativity

What you will also notice from graph 1 is that there was a residual positive effect of the yadnya (yajna) performed each day. For example, the seeker's soil sample had a 1.35-meter positive aura before the first yadnya (yajna). After the first yadnya (yajna), the positive aura went up to 3.78 metres. The next day, when we took another reading to check the positive aura of a soil sample from the seeker's home premises before the 2nd yadnya (yajna), it was 3.20 metres. This is considerably greater than the 1.35-metre positive aura recorded the day before, and it shows that the soil was able to retain the positivity from the yadnya (yajna) held the previous evening.

d) Air was more affected by the yadnyas (yajnas) than soil and water



Graph 2: A comparison between the increase in positivity found in soil, water and air samples before and after the yadnyas (yajnas)

Another key finding was that the air samples showed a greater propensity for imbibing the positivity from the yadnyas (yajnas) as compared to the soil and water samples. As you can see from the graph below, the positive aura detected in the air sample in the seeker's house increased from 0.54 metres to 15.06 metres (2688%) after the 3 yadnyas (yajnas). In comparison, the positivity in the soil sample in the seeker's house increased to a lesser degree from 1.35 metres to 8.58 metres (535%) after the 3 yadnyas (yajnas).

In some circles, there is a **misconception that the smoke from a yadnya (yajna) pollutes the environment**. However, this is far from the truth. This is because firstly, the smoke emitted by a sacred fire has spiritual healing properties. Secondly, the spiritual energy that is emitted from the Yajna-kund (sacred fire pit) purifies the environment at the physical, psychological and spiritual levels.

d) Distance was not a barrier in places gaining the benefit of the yadnyas (yajnas)

Having found that the yadnya had positive effects on soil, water and air samples collected from the areas in and around the same city (i.e., up to a distance of 16 kilometres), from where the yadnya (yajna) was held, our next question was "Can a yadnya (yajna) held in a particular location positively affect the environment in other cities and countries?"

To study this phenomenon, we conducted another experiment to study the effect of a yadnya (yajna) held at the Spiritual Research Centre and Ashram in Goa (India) on Spiritual Centres in 3 different cities many hundreds and thousands of kilometres away. One of the cities was in fact in a different country, which was Germany.

It has been our experience that photographs contain the subtle vibrations of any object (living or non-living). This is based on the spiritual principle that "**The word (name of something), touch, form, taste, smell and its associated energy coexist**." This means that if there is a change in the spiritual vibrations associated with any object, photographs will also capture these differences. This is because photographs are an exact replica (a snapshot in time) of the form of any person, place or object. So basically, by taking a UAS reading of the photograph (in this case of a Spiritual Centre), we can also gain an understanding of the aura (the associated subtle energy field) of that place in that photograph.

In line with this principle, we asked people locally to take photographs of Spiritual Centres based in Mumbai (India), Varanasi (India) and Germany before and after the yadnya (yajna). The local time that the photographs were taken matched the time of the yadnya (yajna) as per Indian Standard Time. We wanted to see if there was a change in the subtle vibrations associated with these photographs using the UAS.

In the table below, we have shown one example of how the photographs of these Spiritual Centres were affected over the course of the Rajmatangi yadnya (yajna). This was the first yadnya (yajna) that was held.

The effects of a *yadnya* (*yajna*) over a distance

		Negative Aura Type 1 Reading in metres			Positive Aura Reading in metres		
Spiritual Centre Location	Distance from the *yadnya*	Before the *yadnya*	After the *yadnya*	% Reduction in -ve Aura	Before the *yadnya*	After the *yadnya*	% Increase in +ve Aura
Mumbai	Over 500 km	14.28 m	5.30 m	-63%	6.36 m	14.63 m	130%
Varanasi	Over 1700 km	0.00 m	0.00 m	NA	12.30 m	22.93 m	86%
Thale	Over 6800 km	17.38 m	6.35 m	-63%	2.48 m	4.56 m	84%

Table 4: Study of the subtle effect of yadnyas (yajnas) over long distances by taking a UAS reading of the photographs of the Spiritual Centres

As you can see from table 4 above, the spiritual vibrations from the photos taken of the Spiritual Centres before and after the Rajmatangi yadnya (yajna) have a significant difference. The distance of these Spiritual Centres from the actual location where the yadnya (yajna) was held is provided in column 2. The table shows that all the photographs of the Spiritual Centres increased in positivity and reduced in negativity. With each successive yadnya (yajna), the trend observed was that the positive aura of the photographs kept on increasing whilst the negative aura kept on reducing after each yadnya (yajna) was performed.

This trend of increase in positivity was also observed in soil, water and air samples. In the table below, we have provided one such example of the UAS readings of air samples taken before and after the Garud yadnya (yajna). This was the 6th and the last yadnya (yajna) held at the Spiritual Research Centre in January 2022.

As you can see from the above table, the negativity in the auras of all the air samples was eliminated. The positivity increased in all the air samples. The air sample from the furthest Spiritual Centre (Germany) recorded one of the highest increases in positivity, that is 1330%. This shows that spiritual energy does not dissipate with increased distance. The Energy of Resolve (Sankalp) associated with a yadnya (yajna) is not affected by the distance from where the yadnya (yajna) is held. It also shows that the **spiritual energy of a yadnya (yajna) is a powerful tool that can increase spiritual positivity in the world.**

Subtle effect of a *yadnya* on air samples at various distances

Spiritual Centre Location	Distance from the *yadnya*	Negative Aura Type 1 Reading in metres			Positive Aura Reading in metres		
		Before the *yadnya*	After the *yadnya*	% Reduction in -ve Aura	Before the *yadnya*	After the *yadnya*	% Increase in +ve Aura
Seeker's House	16 km	11.74 m	0 m	-100%	1.54 m	23.00 m	1394%
Mumbai	Over 500 km	22.83 m	0 m	-100%	3.08 m	20.32 m	560%
Varanasi	Over 1700 km	18.34 m	0 m	-100%	7.25 m	16.88 m	133%
Thale	Over 6800 km	23.78 m	0 m	-100%	0.93 m	13.30 m	1330%

Table 5: Increase in positivity and reduction in negativity of air samples after the Garud yadnya (yajna)

e) Protection against subtle negative energy attacks

Yadnyas (yajnas) are powerful spiritual tools that have an immensely positive impact on society and the environment, which includes flora and fauna. Their potency depends on many factors, one of which is the presiding Saint, whose resolve underpins the yadnya (yajna). As yadnyas (yajnas) spiritually cleanse the environment and fight against negative energies, very often we have seen that negative energies try to fight back in return. As an example, the below table shows the effect of the yadnyas (yajnas) on the air samples collected at the Spiritual Research Centre and Ashram in Goa, India before and after the yadnyas (yajnas) were conducted.

How *yadnyas* (*yajnas*) protect against subtle negative energy attacks

	Negative Aura Type 1 Reading in metres			Positive Aura Reading in metres		
	Before the *yadnya*	After the *yadnya*	Difference	Before the *yadnya*	After the *yadnya*	Difference
1. Rajmatangi *Yadnya*	0 m[1]	0 m	NA	7.24 m[4]	14.10 m	95%[2,6]
2. Pratyangira Devi *Yadnya*	0 m[1]	0 m	NA	10.65 m[4]	26.30 m	147%[2,6]
3. Baglamukhi Devi *Yadnya*	0 m[1]	0 m	NA	11.50 m[4]	35.46 m	208%[2,6]
4. Dhanvantri *Yadnya*	9.62 m[3]	0 m[5]	-100%	6.98 m[4]	20.53 m	194%[6]
5. Mahamrutyunjay *Yadnya*	9.16 m[3]	0 m[5]	-100%	11.62 m[4]	37.50 m*	223%[6]
6. Garud *Yadnya*	11.17 m[3]	0 m[5]	-100%	5.93 m[4]	37.50 m*	532%[6]

* 37.5 metres is the maximum distance of the corridor where the UAS readings of the soil, water and air samples were being taken. This means that the positive aura would have been greater if the corridor were longer.

Table 6: How yadnyas (yajnas) protect against subtle negative energy attacks.

4) The positive subtle effect of a yadnya (yajna)

At the Spiritual Research Centre and Ashram (in Goa, India) extensive research into the spiritual dimension is conducted using sixth sense of an advanced level. One medium of receiving Divine knowledge is in a visual format. The seekers who receive knowledge in such a way are known as subtle-drawing artists and they can visually perceive the subtle process during an experiment or situation and draw what they perceive and feel. **The picture shown below depicts the positive subtle effect of a yadnya (yajna) as perceived by subtle artist Her Holiness (Mrs) Yoya Vallee.**

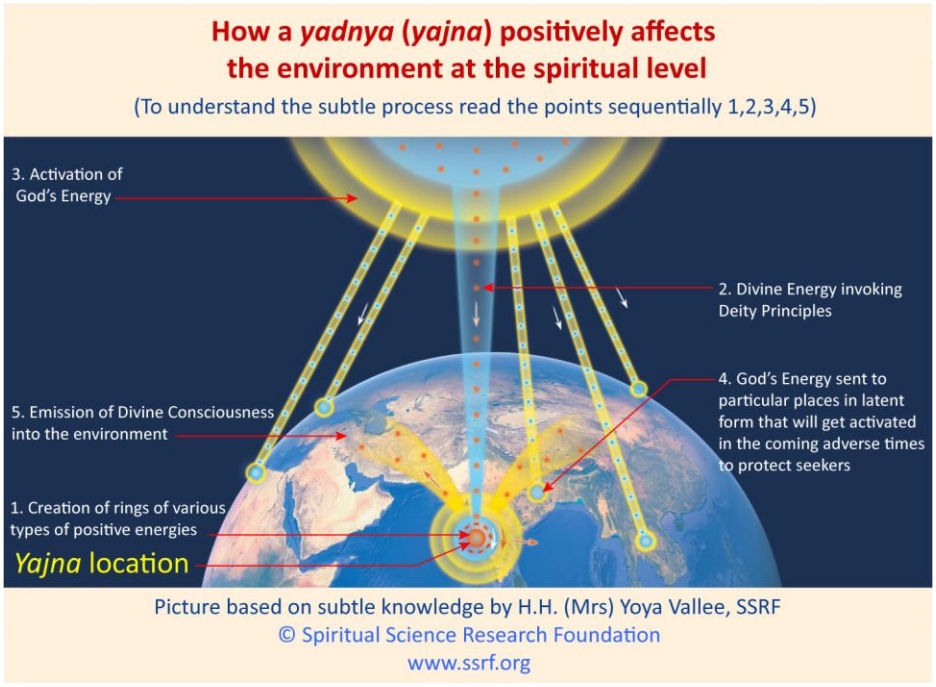


Fig 5: Subtle-picture depicting the effect of the yadnya across the globeThe following are some of the subtle processes that were perceived by the subtle artist.

a) The artist saw the creation of rings of various types of positive energies such as Divine energy (Shakti), Divine Consciousness (Chaitanya), and Deity Principles from where the yadnya (yajna) was being performed.

b) A flow of Divine Energy (Shakti) in particle form was going towards God. This was to invoke the Energy of Deity Principles.

c) As a result, God's Energy was activated.

d) God's Energy was then directed to various places. This Energy will lie there in seed form and will get activated in the coming adverse times (World War 3 and Climate change) to protect seekers living in those places.

e) The emission of particles of Divine Energy (Shakti) into the environment was perceived from the location of the yadnya (yajna). Along with this, there was a flow of Divine consciousness (Chaitanya). Both these positive subtle energies spread into the environment in India and across the world.

5) Conclusions

Unknown to most, the deadliest pollution parameter is "**spiritual pollution"** that has reached unprecedented levels in the current times. It is measured as a rise in the proportion of the *Raja* and *Tama* subtle components in the world. Such high levels of spiritual pollution have ramifications on a global scale, increasing the likelihood of civil unrest, war, extreme weather events and climate change. This experiment shows that yadnyas (yajnas) are a unique spiritual tool that humanity can use to reduce the level of spiritual pollution. However, to imbibe and maintain the positivity from a yadnya (yajna), it is important that society live a sattvik or spiritually purer lifestyle and does spiritual practice as per universal principles. Efforts made to reverse the trend of increasing spiritual pollution will mitigate the

problems that the world is facing and will face soon. In the words of Paratpar Guru Dr Athavale, "To win the battle at the subtle level, it is necessary to perform yadnyas (yajnas). In subtle battles, physical weapons of mass destruction such as nuclear bombs, etc. are of no use. This is why in ancient times Sages would perform yadnyas (yajnas), which would in turn prevent other dangers like war."

References

1) As you will notice, for the first three yadnyas (yajnas) there were no negative auras detected in any of the air samples before or after each yadnya (yajna).
2) Along with this, in the first three yadnyas (yajnas), the positive aura of the air samples kept increasing from 95% to 147% to 208%.
3) Then before the 4^{th}, 5^{th} and 6^{th} yadnyas (yajnas), negative auras were detected in the air samples at the Spiritual Research Centre and Ashram in Goa. This sudden increase in negativity at the Spiritual Research Centre is unusual.
4) Along with the negative auras, there was a greater reduction in the positive aura (as compared to the previous day) detected in the samples before the 4^{th}, 5^{th} and 6^{th} yadnyas (yajnas) as compared to the yadnyas (yajnas) numbered 1 to 3. For example, on the first yadnya the positive aura went from 7.24 metres to 14.10 metres. On the following day, the positive aura dropped back to 10.65 metres. In comparison on the 5^{th} yadnya the positive aura went up from 11.62 metres to 37.5 metres. The following day though it dropped back significantly to just 5.93 metres.
5) Through sixth sense, we found that these were due to a negative energy attack. Negative energies were trying to reduce the effectiveness of the yadnyas (yajnas) by increasing the black energy in the area surrounding each yadnya (yajna). What was also observed was that with each successive yadnya (yajna) held on the 4^{th}, 5^{th} and 6^{th} days, the attacks became stronger, and this was reflected in progressively increased negativity in the soil, water and air samples before these yadnyas (yajnas). Despite this, after the 4^{th}, 5^{th} and 6^{th} yadnyas (yajnas), the negative auras of the samples were eliminated. This shows the spiritual power of a yadnya (yajna) in eliminating the effect of negative energies.
6) However, it was also noticed that with each successive yadnya (yajna), the percentage increase of the positive aura of each sample kept growing.

Ethics in the Dhammapada

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Abstract

The subject of my article is Ethics in The Dhammapada*",* a book containing jewels of the Buddha s teachings. Although here I would not like to discuss the whole philosophy of Buddhism, the core area of Buddhism. The secret book that I am going to discuss is compared to *Gita"* in Hinduism and *Koran"* in Islam. It is *THE DHAMMAPADA",* the Holly Buddhist text. The core teachings of The Dhammapada is actually the teachings of Lord Buddha. This text is basically based on ethical virtues.

Keywords: Ethics, Teachings of Buddha, Gita, Dhammapada

1) Introduction

The core ethical teachings of Lord Buddha lies when he says in the Dhammapada (v. 145):

By oneself alone is evil done:
By oneself is one defiled.
By oneself alone is evil avoided:
By oneself alone is one purified.
Purity and impurity depend on oneself:
No one can purify another."

Specially the Dhammapada is standing on some ethical suggestions recommended by Buddha. Christopher Queen has suggested that there are four different styles of Buddhist ethics. The first is called The Ethics of Discipline", in which the conduct caused by mental impurities fuelled by the three poisons of greed, hatred, and delusion are combated by observing the five precepts. Here, the focus is on the individual Buddhist practitioner. Then there is *The Ethics of Virtue",* in which the individuals relationship comes more clearly into focus by engaging in such practices as the *Brahma-vihāras* namely loving kindness, compassion, sympathetic joy, and equanimity. This marks a shift from observing strict rules to following a more internally enforced ethical framework. Third, there is *The Ethics of Altruism",* in which service to others predominates. Finally, there is the comprehensive *Ethics of Engagement",* by which the three previous prescriptions for daily living are applied to the overall concern for a better society, and this means creating new social institutions and relationships.

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Buddhist activities have worked to extend the traditional principles of morality into a carefully developed plan of Buddhist social ethics. Such an approach involves, as Queen maintains, awareness, identification of the self and the world, and a profound call to action with such an expanded concept of morality in mind, a number of engaged.

However, other attempts have made to organized the chapters of the Dhammapada in different ways. For example, Acharya Vinobā Bhāve has divided the Dhammapada in three parts

1. The Karmayoga: The Philosophy of Action;
2. The Sādhanā: The Spiritual training and
3. The Nistha: The Faith, Hence the question of methodology comes to forefront.

In the *Majjhima Nikaya*, we found about Buddhism—

this doctrine is profound, hard to see, difficult to understand, calm, sublime, not within the sphere of logic, subtle, to be understood by the wise."

TH. Stcherbatsky said in his Buddhist Logic :

The history of Buddhism in India may be divided, and is divided by the Buddhists themselves, into three periods which they call the three Swing of the wheel of the law." (Vol. 1, P-3.)

Th. Stcherbatsky calls First period of the Buddhist Philosophy was the life time of the Buddha. India was then a hot bed of philosophical discussion and was searching for the ideal of liberation or final deliverance. The starting point of Buddhism was engaged in minute analysis of human personality(*pudgala*) into element(dharma). The leading idea of this analysis of a moral one. The elements were sharply divided into different pairs—Sāsrava-anāsrava(*good and bad*), kusala-akusala (favourable to salvation and averse to it). Ordinary life is full of degradation and misery. Only moral forces can free one of the suffering and lead to salvation or a state of absolute quiescence (*nirodha=Sānti=nirvāna*). The so-called personality is not soul, but consists of collection of changing elements, a flow of them without any background. Hence the first main feature of early Buddhism is soul-denial or no-soul theory. The second characteristic feature of early Buddhism is the denial of matter and substance –no matter, no substance. In this case the external world analysed into its elements. It shows that there are changing ever flowing, impermanent compact having no substance background. The third feature is the substitution of changing material and physical phenomena by causal law and theory of causation. Every element, although appearing for a moment, was a dependently originating element(*pratitya-samupnana*). Stcherbatsky holds, According to the formula this being, that arises*"(asmin sati idaṁ bhavati*) it appeared in conformity with strict causal laws. The idea of moral causation, or retribution(*vipāka hetu=karma*), the main interest of the system was thus receiving a broad philosophical foundation in a general theory of causality."(P.-5.) a further feature is that the elements of existence were regarded as something more similar to energies than to

substantial elements. Naturally, the mental elements or *citta-caitta* were naturally moral, immoral or mental forces. Thus early Buddhism discovered a world consisting of a flow of innumerable particulars, consisting on the one side of what we see, what we hear, what we smell, what we touch(*rupa-sabda-gandha-rasa-sprastavya-āyatanāni*), ad on the other side—of simple awareness (*citta=manas=vijnāna*) accompanied by feelings, ideas, volitions(good or bad). But no soul, no matter, nothing endurable and substantial and dependent organization. The ontological analysis was carried in order to clear the ground for a theory of the path of virtue(*Dhammapada*) towards Moral perfection and Final deliverance(*Nibbāna*), to the perfection of the saint. No guide or personality was required for steering the course. Only laws(causal law) determined the life and death circle. The Dhammapada is to be viewed in this thought.

However, we may just mention the second and third periods briefly for the sake of completeness.

According to Stcherbatsky, At the verge of the fifth century of its history a radical change supervened in the Buddhism, in its philosophy and its character as a religion." The ideal of a human Buddha disappear completely in a lifeless Nirvana and is replaced by the ideal of a divine Buddha enthroned in a Nirvana full of life. From radical pluralism there appeared radical monism. From no-soul, no substance doctrine changed to no-element doctrine. There appeared two realities(empirical and ultimate), two truths superseded the four truths of the early doctrine. Buddhism, says Stcherbatsky, becomes a religion, a high church.

The new direction was finally give to Buddhist philosophy in the third period by saint *Asanga* and master *Basubandhu*. In accordance with the spirit of the new age, the condemnation of all logic which characterized the second period, was rejected and Buddhists began to take deep interest in logical problems. This keen interest in logic become overwhelming towards the end of the period and suspended all the former theoretical part of Buddhism. During this period Buddhism became idealistic and maintained that all existence is necessary mental and that our ideas have no support in the external world. In this period its theory of storehouse consciousness *(ālaya-vijñana)*, a theory which is predominant in the period in the beginning but later dropped.

Let me come back to the Dhammapada. Though it may not contain the very words of Buddha, the Dhammapada does embody the spirit of the Buddha s teaching, summoning men to a process of strenuous mental and moral effort. *Dhamma"* is discipline, law, religion. The *Pāli* term *Dhamma,"* which derives from the Sanskrit word Dharma, is one of the most difficult words to translated into English as it has many meanings. It has to be understood according to the context. Here it is used in the sense of the sayings or teachings of the Buddha. Pada implies sections, portions, parts or way. *Dhammapada* is thus the path of virtue. Dhammapada may be rendered, Sections or portions of the Dhamma," "The way of the Dhamma". It is somewhat difficult to offer a graceful English equivalent according to its literal meaning. The way of truth," "The way of righteousness," "The path of virtue," are renderings that have been suggested by various scholars. If *pada* is taken as a part of a verse,

then Dhammapada means the utterance of religion. The Chinese translate Dhammapada as scriptural texts since it contains passages from the various colonial books and it has 13 more chapters and 330 more verses than the original Dhammapada.

The Dhammapada consists of 423 melodious *Pāli* verses and 26 chapters, uttered by the Buddha on about 300 occasions, to suit the temperaments of the listeners in the course of His preaching tours during His ministry of fourty-five years. The circumstances that led to these noble utterances are presented in the form of long or short stories together with traditional interpretations of the Pali verses and technical terms, in the voluminous commentary written by Buddhaghosa. This valuable commentary has been ably translated by E.W.Burlinghame for the Harvard Oriental Series. It may be remarked that most of these verses are better understood when read in the context of these stories. The gems of truth embodied in these texts aptly illustrate the moral and philosophical teachings of the Buddha.

Before discussing my topic *Ethics In The Dhammapada"* I prefer to discuss the origin of the Dhammapada. After *Mahaparinirvana* of the Lord Buddha, His followers written down the memory of His long and successful ministry and which he unreservedly bequeathed to the disciples. Although the Buddha had left no written recodes about his teachings. Generally the disciples memorized all those teachings of Buddha and preserved it, by committing to memory and transmitting them orally from generation to generation.

Three months after the *Mahaparinirvana,* in the king *Ajātasattu s* region, 500 pre-eminent Arahants concerned with preserving the purity of the doctrine held a convocation at *Rājagaha* to rehearse it. The Venerable Ānanda Thera, who was the son of a barber and Buddha gave him shelter as a disciple, Buddha also gave him a privilege and honor to hearing the discourses from the Buddha himself and *Upāli Thera* was chosen to answer questions about the Dhamma*(doctrine*) and the Vinaya(*discipline*) respectively.

This first council compiled and arranged in its present form the *pāli Tripiṭaka,* which represents the entire body of the Buddha s teachings.

Two other councils of Arahants were held 100 and 236 years later respectively, again to rehearse the word of the Buddha because attempts were being made to pollute the pure teaching. The last Buddhist council was held during the region of King *Kaniṣka* in the 1st century BCE. About 83 BCE, during the region of the pious Sinhala King *Vaṭṭagāmini Abhaya,* a council of Arahants was held, and the Tipiṭaka, for the first time in the history of Buddhism, committed to writing at Aluvihāra in Sri Lanka.

The sacred books, which the Buddhist follow, are written in *pāli* language. At the time of Lord Buddha, *pāli* was the language of the ordinary people in *Aryāvat*. Though for practical purposes this language is dead, still even to this day many Buddhist priests use this language.

The word Tripiṭaka (*pali. Tipiṭaka*) mea three baskets . They are the baskets of discipline*(vinaya piṭaka),* baskets of discourses *(suttapiṭaka),* and the baskets of ultimate doctrine*(abhidhamma piṭaka).*

The Vinaya piṭaka or the first doctrine, which regarded as the sheet anchor of the holly order, deals mainly with the rules and regulations of the order of Bhikkhus or monks and Bhikkhunīs or nuns.

The *Abhidhamma piṭaka* or the last doctrine deals with the profound philosophy of Buddha s teachings. It is the highest teachings given by Buddha, expounds the quintessence of Buddha s profound teachings.

Now the second basket is the *Sutta piṭaka*, costs chiefly to instructive discourses delivered by the Buddha to both the Sangha and the laity on various occasions. A few discourses, expounded by disciples such as the *Venerables Sāriputta*, *Moggallāna*, and *Ānanda*, are incorporated and are accorded as much veneration as the word of the Buddha himself, since they were approved by him. Most of the sermons were intended mainly for the benefit of Bhikkhus, and they deal with the holy life and with the exposition of the doctrine. There are several other discourses which deal with both the material and the moral progress of his lay followers. The *Sigālovāda Sutta*(also known as *Paṭiccasamuppāda Sutta*) for instance, deals mainly with the duties of a layman. There also a few interesting sayings about children.

We can compare this *Piṭaka* to a book of prescriptions, since the discourse were expounded on diverse occasions to suit the temperaments of various persons. There may be seemingly contradictory statements, but they should not be misconstrued as they were uttered by the Buddha to suit a particular purpose; for instance, to the self-same question he would maintain silence, when the inquirer was merely foolishly inquisitive, or give a detailed reply when he knew the inquirer to be an earnest seeker after the truth.

There are five *Nikāyas*(collections) in the *Sutta Piṭaka* –

1. *Dīgha nikāya* (Collection of Long Discourses)
2. *Majjhima Nikāya* (Collection of Middle-length Discourses)
3. *Saṃyutta Nikāya* (Collection of Kindred Sayings)
4. *Aṅguttara Nikāya* (Collection of Gradual Sayings)
5. *Khuddaka Nikāya* (Smaller Collection)

The fifth Nikāya is subdivided into fifteen books.

1. *Khuddakapāṭha* (Shorter Texts)
2. *Dhammapada* (The Way of Truth)
3. *Udāna* (Inspired Utterances)
4. *Itivuttaka* (“Thus said” Discourses)
5. *Sutta Nipāta* (Collected Discourses)

6. *Vimāna Vatthu* (Stories of Celestial Mansions)
7. *Peta Vatthu* (Stories of Deperted Ones)
8. *Theragāthā* (Verses of the Elder Monks)
9. *Therīgāthā* (Verses of the elder Nuns)
10. *JāTaka* (Birth Stories of the Bodhisatta)
11. *Niddesa* (Expositions)
12. *Paṭisambhidāmagga* (Path of Analytical Knowledge)
13. *Apādana* (Lives of Arahants)
14. *Buddhavaṃsa* (History of the Buddha)
15. *Cariyā Piṭaka* (Modes of Conduct)

In those fifteen books the Dhammapada s place is second. It is the way of truth or the path that leads towards Dhamma.

The very first chapter of the Dhammapada, under the heading YAMAKA VAGGA or the twin verses clearly declare the ontological stand – we are made what we are by our thought. The Buddha gives all important and central place to mind or thought. Mind gives shape to all our actions whether good or bad.

"Manopubbaṅgamā dhammā manoseṭṭhā manomayā
Manasā ce paduṭṭhena bhāsati vā karoti vā
Tato naṁ dukkhamanveti cakkaṁ'va vahato padam."

All that we are is the result of what we have thought: all that we are is founded of our thoughts."(1)

Just as the wheel or the wagon follow the hoof of the ox that draws it so also we are formed by our thoughts. So it is our mind that ultimately decides the path we will adopt. Self-control opens the path to wisdom; lack of self-control results in sufferings and miseries of life. In chapter 2, verse 22 said,

"Etaṁ visesato ñatvā appamādamhi paṇḍitā
Appamāde pamadanti ariyānaṁ gocare ratā."

Fools, men of inferior intelligence, fall into sloth; the wise men guard his vigilance as his best treasure."

This observation seems to be basis of the five different (sometimes overlapping) individuals or character-traits having peculiarity in their thought structure— The Fool(chapter-v), The Wise Man(chapter- vi), The Arhat(chapter-vii), The Buddha(chapter-xiv), The Mendicant(chapter-xxv), and The Brahamana(xxvi). The path from Suffering to Nirvana is a long journey that passes through those phases depending upon the mental clarity and pure thought. Thus says Dhammapada—

Jhāya, bhikkhu, mā pamādo,
māte kāmagune ramessu cittam
mā lohaguḷaṁ giḷi pamatto,
mā kandi "dukkham idam" ti dayhamāno."

Meditate, O mendicant, be not negligent. Let not your thought delight in sensual pleasures, that you may not for your negligence have to swallow the iron ball, that you may not cry out when burning, This is suffering!" (371)

And next verse says,

n atthi jhānam apaññassa paññā n atthi ajjhāyato
yamhi jhānaṁ ca paññā ca sa ve nibbānasantike."

There is no meditation without wisdom, no wisdom for one without meditation; he in whom there are meditation and wisdom, he indeed is close to nirvana." (372)

It is expressed in the chapter 26 under the name Brahmin. It is possible to have Nirvana in this world, in this very life. The Arhat or the Holly man serves as living demonstration of truth of the Dharma.

Thus the focus of the Dharma is not an another world but in inner world. It centers upon man, his sufferings, his cravings, his immense complexity, his aspiration to transcend and look for something which is not here and now. The freedom of human mind can change human world. In fact Dhammapada gives all out importance to the role of mind in creating way of life. Thus the very first chapter is called The Twin Verses" and it consists of ten groups of two verses beginning on the theme. Dr. Radhakrishnan observes, Here Buddha says that the influence of thought on human life and society is great. All that we are is the result of what we have thought. In one sense it is true that we live in a world of hard facts but in a more important sense we live in a world of thoughts. By changing our thoughts we change our lives and indirectly we change the character of the world."[i]

The moral teaching of the Dhammapada is not cynical in the sense that it does not say that nothing matters, but that every thought matters, every act is significant. In the second chapter (Appomāda-vaggo) he stresses on vigilance which is a quality of a mind that should be cultivated carefully. Vigilance combines critical awareness and unremitting energy in a process of keeping mind under constant observation to detect and rule out unwanted desires. We live in a world where man has no savior but himself. Thus the verse 24 declares,

"Uṭṭhānavato satimato sucikammassa nisammakārino

Saññatassa ca dhammajīvino yppamattassa yaso'bhivaḍḍhati."

If a person is reflective, if he rouses himself, if he has ever mindful, if his deeds are pure, if he acts with consider action, if he is self-restrained and lives according to the law, his glory will increase." If a man is vigilant then by dint of his own initiative he can raise a solid wall against the Māra. So says the Dhammapada:

"Uṭṭhānenappamādena saññamena damena ca

Dīpam kayirātha medhāvī yaṁ ogho nāʹbhikīrati."

The wise man, by rousing himself, by vigilance, by restraint, by control, may make for himself an island which the flood cannot overwhelm."(25)

On the other hand, in chapter 4 Buddha speaks about flower to explain our actions.

Yathʹāpi puppharāsimhā kayirā mālāguṇe bahū
Evaṁ jātena maccena kattabbaṁ kusalaṁ bahuṁ."

As many kinds of garlands can be made from a heap of flowers so many good works should be achieved by a mortal when once he is born."(53)

Here we see that wisdom is attained by spiritual insight or intuition rather them by observation and analysis. It is the result of a contemplative rather than an intellectual attitude.

Appamatto ayaṁ gandho yʹāyaṁ tagaracandanī
Yo ca silavataṁ gandho vāti devesu uttamo."

" Little is the scent that comes from those possess virtue rise up to the gods as the highest."(56)

The Buddha often enjoins works of merit, yet elsewhere he praises the one who has gone beyond merit and demerit. If such verses are placed side by side contradictions become apparent. How to solve this discrepancy? According to Bhikkhu Bodhi:

The key to solving these apparent discrepancies is the recognition that the dharma assumes its formulation from the needs of diverse persons to whom it is addressed, as well as from the diversity of needs that may coexist even in a single individual."[ii]

2) Conclusions

Buddhism does not demand blind faith from its followers. Hence mere belief is dethroned and for it is substituted confidence based on knowledge." It is possible for a Buddhist to entertain occasional doubts until he attains the first stage of sainthood (*sotāpatti*) when all doubts about the Buddha, Dharma and the Sangha are completely resolved. One becomes a genuine follower of the Buddha only after attaining this stage. One does not think that he can gain purity merely by seeking refuge in the Buddha or or by mere faith in him. It is not within the power even of a Buddha to wash away the impurities of others. Strictly speaking, one can neither purify nor defile another. In the Dhammapada, the Buddha says, we all responsible for our own purification.

The scholars of Buddhism generally hold that to study of Buddhism of the early days (the first period we have mentioned above), a special method has to be applied because of the specific character of that time. In the early stage, philosophical views were not critically explained and established on argumentative grounds. No attempt is found to place and refute (*Purbapaksha* and *khandan*) the opponents views. So the teaching of lord Buddha to the individual himself or herself so that he or she

can realized the truth by their own experiences. Buddha himself practiced such a method of felt experience. Arguments fail to prove those truths which is given in one s experience. This method based on direct experience is applied to all the discourses of the Buddha. I propose to read Dhammapada in this manner.

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Folk Music- a Philosophical Exploration

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Abstract

Music is said to be a gift of God in India. Here it permeates the entire Indian public life in various forms. This research paper will have philosophical reflections on Indian folk music. In fact, in the last few centuries, colonialism has badly affected our culture, civilization, ideology, and way of life. Folk music has somehow survived even in the storm of colonialism. They contain a rich history in themselves. According to the need, they have not only exposed every aspect of human life but have also represented a rich art form. Today, the need of the hour is that we must re-acquaint our new generation with their relevance and usefulness.

India's fate was decided on that day when the sunrise of the entire Vedic tradition took place. A song of joy and celebration was a song. This insight was born that life is a joy, a celebration, a festival, a carnival. Life is music; you live it and sing it. If you are a true seeker, you can also learn the tricks of living in such a way as to live without indulging in any material pleasures. For this, you will not need to live a life that is entirely dispassionate or full of detachment.

But gradually, the layers of time got deposited on this rich tradition. Various types of cultures and civilizations kept their camp on the land of India for a long time. Their impact can be clearly seen in the history of India. Even today, we can see the footprints of those foreign cultures in our cultural heritage. We found that India's art, culture, knowledge, or any other field today is under the profound colonial influence in the name of modernity. But the folk life of India is the only area that has not been touched by this fake modernity. We are the product of that university education system which has very badly colonialized our minds. India's rich folk and tribal tradition exhibits a strong spiritual and rich ideological legacy, hitherto not scratched by colonial culture. If we return to our roots through this heritage, we will become more dignified and refined human beings. This will help us in looking at things differently with equal respect for our intellectual traditions. We will begin to understand the deep meaning of our culture. Above all, our knowledge tradition will make us curious. In the last 10,000 years, about 370 philosophical visions have been developed in India.

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Most of the great intellectual traditions have developed in the direction of Vedas. It has a Vedic elevation or Arsha tradition, which is the sunrise of the Indian knowledge tradition. '*Sat-Chit-Anand*,' i.e., truth is conscious as well as blissful. The Absolute Brahman is also beyond time and causality; therefore, it is without change. The Absolute is determined, devoid of all qualities; however, the Absolute can be interpreted as *Sat Chit Anand*. Love is the fundamental essence of bliss. Metaphysically, existence is the Absolute Brahman; the same being, from the religious point of view, is God, who is all-pervading, everywhere, and pervading all things. The sun is rising, spreading the sunshine over the whole creation; it is giving bliss to the consciousness of all humans, plants, and all other living beings in water, land, and air. Everything illuminated in it becomes alive. This tradition gives us the message that life is made for living. This tradition assures us that we live life. The knowledge tradition created by the sunrise and the culture born under its umbrella is the culture of life. Its value system and aesthetic sense resemble the dawn of Indian cultural heritage and intellectual tradition. This form of Sat Chit Anand is everywhere in the Indian thought tradition, whether metaphysics or epistemology, philosophy or religion, science, or music. Music is not only a medium of bliss (*Anand*); rather, it also connects the consciousness (*Chit*) to the truth *(Sat*) and vice-versa.

India has a rich tradition of music. Apart from Music being a medium of entertainment in India, various classical and philosophical texts have considered it the way to attain salvation. The origin of Indian music is believed to be from the Vedic era. Samaveda is purely musical. This is why Samaveda has a special place among the four Vedas. In Shrimad Bhagavad Gita, Shri Krishna has made clear the culmination of the importance of Samaveda by saying "*Vedanaam Samavedon Asmi*"(वेदानां सामवेदोऽस्मि). The original basis of the word "Saam" has been a song or a lyrical object (Gita Chapter-10, Verse-22)[1].

After the Vedic age, the Puranas such as Markandeya Purana, Vayu-Purana, and Skanda-Purana, etc., and epics like Ramayana and Mahabharata, contain comprehensive discussions about music. During this period, the promotion of folk music and dance also increased, wherein singing, playing, and dancing was collectively enjoyed at festivals and fairs.
In the epic of Ramayana, the chimes of music & dance are heard on auspicious occasions like the birth and marriage of Dasharatha's sons and Rama's return to Ayodhya after his exile. In this period, the instrument "*Ravanastra,*" played by Ravana from the yard, was also invented. A modern violin is a refined form of this "*Ravanastra*". Dance was used for sacrifices since the Vedic period, but the use of Ghungroo was first found in the Ramayana. Examples of the practice of *ragapranali* are also found in Ramayana.

Indian tradition considers music a boon of God that permeates every particle of the universe. Music resides in all five elements earth (*Prithvi),* water (*Jal*), fire (*Tejas),* wind (*Vayu*), and space or ether (*Akasha*). It is a symbol of the creative power of man. Creativity is considered a gift from God. In India's contemplative tradition, it is believed that the beauty of musical art is divine. Where there

is music, there is the abode of God. Music is a gift given by God to man; it is the means of accomplishing *Dharma, Artha, Kama, and Moksha.* Singing is considered the best among various forms of worship, such as chanting, stotra, and music. The justification of beauty is contained in the "*Sangeet,*" i.e.,"*Samyak Geet*" or right song.

When the repressed feelings of the inner human space get the support of some medium, and it is expressed in a beautiful form, then it is called art. The ultimate expression of all this is "music". Music is such an art, by the mere touch of which man attains such a natural pleasure and bliss, beyond the world, beyond the external pomp, whose experience is indescribable. Yogi ascetics spend their whole life in the caves doing severe penance for such a feeling. That happiness can be felt just by listening to music. The music originated for human welfare. The music is invincible and everlasting. All the world races, whether civilized or uncivilized, cultured or not, can taste music very well. The human mind can get rid of all mental depression and disappointments through the feeling of music. Man, in the peak state of his pain and joy, takes the support of music for his inner being. By taking the help of music, a man removes his tiredness. Farmers working in the fields, iron-beating laborers, artisans engaged in building construction, and rural women doing domestic work all utilize music as a source of energy and give rest to their tired bodies.

There are various forms of music in society: classical music, film music, soft music, folk music, and western music. Varied forms of music are helpful for human beings in diverse fields.

The more a person benefits from divine power, the more creative he becomes. Creativity is an inborn (Native or Inborn) cognitive ability or mental strength acquired in the natural form by a person at the time of birth. This is the reason that human beings are directly or indirectly associated with music since birth. Classical music pacifies the curiosity of intellectual listeners in the field of knowledge, whereas film music is very close to the public. The music aired on radio, TV and other electronic means relieves the person from disappointments, frustrations, and depression.

The field of *Lok Sangeet*, or folk music, is vast. The meaning of the word *Lok* has taken different interpretations at different times. In the ancient era, the term '*Lok*' means the people or the world. The music which is recognized in the public mind is called folk music.

The *Lok Sangeet* or folk music can be defined as the music accessible and enjoyable for every section of the society expressing the feelings of everyone in the varied languages available to the public. The common people collectively sing folk songs in the villages and the countryside. Moreover, folk songs have been traditionally prevalent in society for many years, whose spread is oral, without the restrictions of place, time, etc. Folk songs with an unknown author can also be called *Apaurusheya*. Generally popular in folk, songs composed by folk and written for folk, without being adopted by any one person but the whole society can be called folk songs. The creator of folk songs dedicates his personality to the people. Ignoring the classical rules, the rhyming speech humans spontaneously generate in the wave of their joy to be used in common folk behavior is the same folk song. That's why it is called spontaneous music, viz,

"Folk songs are full of feelings filled with the heartfelt raga of the common people wrapped in a musical cover of tone and rhythm through the medium of folk language." [2]

Folk songs are beyond the rules of classical music and bound by the scriptures. There are no restrictions in folk music. Man can express whatever he wants or feels according to his wish in this music. We can say that folk songs are the oral history of our life development and are a stream of freedom and simplicity in which the past, present, and future are stored. Despite traveling for centuries, folk music is alive today, even without any vehicle. After traveling for thousands of years, it still has a lot of freshness. Even today, it charges the mind and brain of the public with full energy.

The colonial mindset has pushed us into the blind race of modernity, leaving behind our rich traditions. Today's youth, enamored with western civilization, have no sense of these folk songs' hidden expressions, scientificity, art, and nuances. They do not even know that folk art and music comprise our culture's entire history.
Untouched by colonialism and false modernity, these folk artists are still keeping alive the precious heritage of our culture. These artists still stick to their roots and worship their art with great innocence. Ironically, when folk artists and tribal people come to the cities and perform, their music is taken for granted and relegated to merely a piece of craft. Urban people do not comprehend the music of most folk artists and fail to understand that their performance is a tribute to their God tradition. It is such a divine spiritual feeling that worldly beings are not even aware of it.

If we look at the perception of the time of modern India, it has limited its time consciousness vis-à-vis the concept of time in ancient India brought about by spiritual scriptures. When a country loses its sense of time, it, in a sense, sheds the foundations of tradition. The time zone in India was implemented under British rule, favoring the western concept of time and disregarding the Indian ethos. The western world divided the earth's time into two parts, i.e., before and after the birth of Jesus, which they considered authentic. They believed this time was recorded, scientific, historical, and trustworthy. But we Indians live in a tradition which is ten thousand years old written tradition. Folk artists of India remained untouched by the concept of time of this modern era. For them, time does not go according to the calendar but follows the seasons. To know and discuss their folk music, we have to see what their law is? What is their Time Sense? If we tell them that the year 2022 is going on at this time, then they will look at us in surprise. If we ask them the time, they will say that the summer season is over, the rainy season has started, bajra crop is ripe, and mango season has come. This is their concept of time. Their understanding of time is related to various forms of nature. Their oneness with nature is so great that their understanding of time is also in harmony with nature. Their sense of time is within the understanding of the mythological period. They consider the seasons as time. For instance, seeing the rain clouds in the rainy season, they start singing Kajari. This is the folk song of the rainy season, sung in the month of Sawan.

छाई घटा घनघोर बन में, बोलन लागे मोर।
रिमझिम पनियां बरसै जोर मोरे प्यारे बलमू।। [3]

(In the dense forest, peacocks started talking. Drizzle water raining loudly, oh my dear)
While the folk singer composes his song by observing the changes taking place in the external nature, at the same time, he also marks the effect of natural transformation on the human mind. Make-up and humor in spring, heroic and furious in summer, parting in the rainy season, calm in autumn, and the abundance of Vatsalya rasa resides in folk songs. The folk tradition of writing Barhamasa survives in almost all Indian languages.

झूला पड़ा कदंब की डार
झूले राधा प्यारी नार
काहे री डोर, काहे ना लागी पटरी,
काहे ना लगा है हिंडोर रामा, झूला झूला
झूला पड़ा कदंब की डार [4]

(There is a swing on the branch of Kadamba, in which the beloved Radha is swinging. There is neither a string nor a wooden strap in it, yet Radha is swinging.)
The harvesting season occurs in the month of Vaishakh. Vaisakhi is the most famous festival in North India. Folk songs related to this season have special significance in Indian tradition. On the arrival of Vaishakh, the journeys to the pilgrimage sites start-

आया बसोआ लग्गिया जात्रा
देया आम्मां सूट, जातरा जो जाणां
नी देंदी तां न दे।
पुराणे कपड़ेया तां
नंगे पैर ई चली जाणां। [4]

(Vaishakh time has come, mother give me a new suit, I have to go on a journey, if you don't give me then don't, I will wear old clothes and go barefoot.)
With the end of Chaitra month, the summer season begins. During this season, the owl starts swirling. The lakes of water start drying up. In this summer season, the condition of man becomes sour. The folk songs explaining the strange situation of this season are as follows-

मुकी गया चैत,
घुघ्घिए घूं घूं लाई हो
हाक्खी नी दिसुदा
दंदे नी हसुदा [4]

Modern societies also lost nature, gave it a new name, and created the environment. Now how long will this environment last because we have become a resource. If a man is a resource, then that environment cannot last long as we tend to make the environment a resource for development.

This is very unfortunate. We are on the path of environmental colonialism because nature is another name for the existence of life, and we are embedded in it.

What is the definition of folk songs? There are certain things that we know pretty well, even if left undefined. How would we define a mother's love? No matter how little we talk to mother, we know her the most. It is also challenging to bind it in the definition because 'folk' is that section of a human society void of elite culture, the consciousness & arrogance of classical erudition—one who survives in the flow of a tradition. Similarly, the word 'geet' usually refers to a lyrical work. It is necessary to have lyricism in folk songs. Music and rhythm are its life; that is why folk songs have been called spontaneous music. Concerning folk songs, the scholars of folk literature have expressed their views in various artistic ways. The real nature of folk culture and civilization is seen in folk songs. The various rituals to date are depicted through different folk literary genres. Hence, the folk song is essential in describing the common people's mood and happiness. Human life is a long saga of sorrows and effects. Numerous sorrows, troubles, and obstacles keep coming in human life; when any emotional stream of joy or sadness touches the heart, then the heart trembles like a string of veena. Heartfelt sentiments get satire for expression and take the form of folk songs by dissipating lyrically. These songs are simple, harmonious, and melodious because they were created by the public mind, for the people, in a calm and free environment, in the open green fields under the sky, flowing springs, mango orchards, and growing buds,

Various streams of science study the earth, such as Geography, geophysics, seismology, oceanography, and soil chemistry. But the folklore is identified as embedded within the earth, akin to the relationship of a mother and son. Because of 'holding' life, it is the 'earth'; from birth to death, everything happens on it, hence it is an 'element.' According to distinct characteristics, Earth is recognized by different names. For instance, water, land, river, sea, mountain, forest, island, country, district, village, and city are spread on the earth- signifying earth as *Vishwambhara.* She is *Annada* and *Annapurna* for giving food to everyone. Being a mine of stones, medicines, and gems, she is *Ratnagarbha* (sanctuary of jewels) and *Vasundhara*.

The importance of this earth has been described in various ways in folk songs. The earth is in the constellation *Ardra* in *Ashadh* and asks for donations from the cloud. The god of clouds is Indra, so there is a belief that Indra provides the Rasa (essence), and the earth receives the Rasa (essence). There is a song about this concept –

को उगलै सब रसन कूँ-को सब रस कूँ खाय।
इंद्र उगलै सब रसन कूँ-धरती सब रस खाय। [5]

Indra spews all the essence, and the earth eats all the essence.
Who gives Rasa (essence), and who enjoys this Rasa (essence)?
Indra gives rasa (essence), and earth enjoys this rasa (essence).

Similarly, when the farmers go to plow the field, in their songs, the plow is also called the one who adorns and marries the earth and gives it marriage.

हल जू ब्याहन चले धरती की गुड़िया रे। [5]

The earth, like a doll, is going to marry the plow.
As we have seen, the tradition of folk songs is as old as the history of human civilization. Different types of folk songs are found in distinct languages. It is complicated to classify them into any one type. But broadly, we can divide them as follows-

- Songs to be sung on the occasion of marriage,
- Songs to be sung on birth,
- Songs to tease lovers and sweethearts in groups,
- Songs to be sung on Sawan,
- Songs to be sung on the rivers, on the fields,
- Romantic flirting songs,
- Songs to be sung at festivals,
- Folk songs about the seasons.

The main folk music of India is as follows- Madiga Dappu (Andhra Pradesh), Mala Jamdika (Andhra Pradesh), Bihugeet (Assam), Basketgeet (Assam), Kamrup Folklore (Assam), Golpariya Geet (Assam), Pandwani (Chhattisgarh, Rajasthan, Madhya Pradesh, Jharkhand), Bahula (West Benga)l, Batiyali (West Bengal), Garb (Gujarat), Doha (Gujarat), Bhavgeete (Karnataka, Maharashtra), Lavani (Maharashtra), Povada (Maharashtra), Gondhar (Maharashtra), Abhang (Maharashtra), Odissi (Odisha), Sambalpuri (Odisha), Mahiya (Punjab).
Our aim is not to discuss their types but to reflect on their philosophical background. All these folk songs are related to the earth in some way or the other. Be it festivals or traditions, environment or nature worship. These songs are sung in the rituals from birth to death.
In the context of folk songs, Surya Karan Pareek, Narottamaswami says, "The name of the songs of primitive man is folklore. The story of human life, of his gaiety, of his zeal, of his compassion, of his crying, of all his happiness, is depicted in it." [6]
Women engaged in the household express their happiness and sorrow to each other through folk songs. Whenever rural women feel helpless due to poverty and social & family problems, they vow to a goddess named 'Durduria.' On the fulfillment of the wish, they gather in numbers of seven or fourteen to express happiness. A beautiful example of 'Sankat Mata' folk song sung on the occasion of Durduria-

"देवी औसान घरे आय गई अपने। सोने की थारी में ज्योना परोस्यों, जेवैं क मैया घरे आइ गई अपने। ...सुतै क मैया घरे आई गई अपने" [7]

("Goddess Ausan has come home to her. Dishes are served on a plate of gold because Mother Sankat has come to her house.")

Conclusion

Folk music is an incredible journey. It is the spiritual and constructive assurance of India that is telling the man that the day you lose faith in the perfection of being human, the folk art will come

forward and you hold its finger. Then it will tell you how to transcend the limits of being human and how to leap into a divinity. Thousands of saints, sages, and yogis have worked tirelessly for centuries in the realm of folk music to gift humanity a divine experience with the blend of spiritual character. The folk culture of India has lived life as faith rather than a rational intellect. The life which is like faith continues for centuries. What is like reason, it falls at any time.

For this, we must understand the difference between ancient (*Pracheen*) and eternal (*Sanatan*). If we want to understand folk music, we must consider it eternal rather than ancient. The word ancient connotes to something old, destructible, and has passed away, or something lying in ruins that need to be discovered from an archaeological point of view. Sanatan correlates to which is neither old nor new yet renews itself every day. Folk music knows how to renew itself; it also restores life and replenishes the consciousness of religion and knowledge. Sanatan is not the name of any religion; it is an attribute. Therefore, understanding folk music is the first step toward fundamentally understanding India. Folk music is the school of life paving the path to righteousness and guiding humanity to achieve the happiness of the inner being.

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Ecological Ethics of India: A Vedic Metaphysics Approach

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Abstract

The present paper gives an insight of the importance of the environment in the oldest religion of the world either, Hinduism and discovers the environmental ethics which were prevailing in the olden society and how far we human are still practicing those ethics of ancient time. Human existence and environment have been co-existed since the evolution of human on earth. Environment had provided clean air, clean water and an environment free of toxins to the human kind. All the religion in the world had given due respect to the environment since time immemorial. Environment owes the important position in all the major religion of the world namely Hinduism, Islam, Sikhism, Christianity. Hinduism can better be termed as a way of life. Hinduism is considered one of the oldest and the scientific religion of the world. In Hinduism, environment and nature are considered as the gift of God. Hindu religion believed that survival of human kind is totally dependent on healthy environment. All the forces of nature either air, water, sun, earth and fire are termed as god, and hence they are eligible to be worshipped in Hinduism. The time when the conservation and protection of the environment was not even thought of, at that time the Vedas and Puranas which are the sacred books of Hindu religion, had directed human being to worship nature and its components. Practices in Hinduism as confirmed by the study of Vedas were environmentally friendly and if those practices are followed today it can give answers to the various environmental problems.

Key Words: Ecology, Environmental Ethics, Vedic approach and metaphysics.

1) Introduction

Hinduism is known to be the oldest religion in the world. The oldest book Rig Veda is proof of this religion being the oldest. All the Hindu religious scriptures Vedas, Upanishads, Smritis, Puranas, Ramayana, Mahabharata and Bhagwat Gita crowns the glories of Ancient Indian Literature. All these scriptures rotate around the idea of well-being of Mother Earth (Mata Prithvi), nature and life present on it. Hindu literature owes the importance to environment which is called Paryavaran in Hindi and it has its origin from the Sanskrit word Parvavarnam which means avaran (covering). The origin of importance and respect to environment can be seen long back in the Vedic and ancient Sanskrit literature. The Hindu religion conceptualizes the relationship between human and nature. The ancient texts available in Hinduism provide knowledge about the basic elements of the environment [1].

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They instruct in all the forms to have a worshiping attitude towards the entities of mother Earth and all the natural resources present on it. All the religious Hindu text preach human that it is the sanctified duty of human to protect Prithvi (Earth), Vayu (air), Aakash (sky), Jal (water) and animals [2]. Hinduism has always taught to practice respect for nature and to live in harmony within it. Many plants and animals were worshipped as deities. Conservation of plants and animals was considered as the top most duty of human who was also considered the creation of God [3]. Ahimsa Parmo Dharama, either non- violence is still considered the dharma of highest order. Saikia (2018) concluded that Vedas have answers to all the questions related to environment. Physical and spiritual knowledge both are covered in Vedas and they are full of idea of life and nature. [4]

Manusmriti, known as the written record on Hindu Law has stipulated various punishments for slashing down plants and trees. Charaka Samhita considers the most dangerous and threatening act for humanity is the destruction of forests. Charaka also mentioned specifically air pollution as a cause of many diseases. Charaka Samhita also refuses the use of unwholesome water [5]. Killing of animals was treated as a sinful act. Some animals not only had economic value but also, they had significant ritualistic value in the society [6]. Trees like peepal (Ficus religiosa), vata (Ficus benghalensis), banana (Musa acuminate) and animals like cow (lord Krishna), bull (Lord Shiva), Lion (goddess Parvati), snakes also known as 'nag'(Lord Shiva) are still worshipped in many parts of India.Coward, 2003 explained the continuity and deep sighted relationship among all organisms on Earth, and they must be mistreated [7]. Tay, (2019) summarized in Hinduism it was believed that every individual will face its karmic consequences according to its behaviour towards the environment, which means that if good is done to the environment then that individual would accumulate the good karma [8]. Old traditions in Hinduism preach human to live in harmony and peace with nature. It believes that all the creatures are created by one creator, so nobody had the right to harm other living being maybe it a plant or an animal. But as the civilization progressed human gained an anthropocentric approach as started thinking itself to be the master of nature. Since the Vedic times, the social life in Hinduism believed in living harmonious with the nature. The study in the olden times was done while living in the forests with the help of Vedas, Purana and Smritis so that the student may develop benevolent attitude towards nature and respect it.

2) Perspective of Environment in Vedas

The concept conservation and protection of environment is not new to India. The early steps of conservation and protection of environment is traceable in the Vedic period where worship of nature is thought to be originated. [9]Several prayers and hymns mentioned in Vedas gives an idea of respecting the nature in all aspects which also have similarity with the principle of modern times which relate to conservation of natural resources. For example the twenty-fifth Rio principle talks about the interdependent and indivisible nature of peace, development and environmental protection [10]. Rigveda says "environment provides blessing to people for living their life perfectly. River bless us with the sacred water and medicines provides us health, sun bliss us with peaceful life. Our cows provide us sweet milk" [11]

In Atharvaveda, there is a verse related to pollution

"Sarvo Vai Tatra Jivate
Gour-Asvah Purusah Pasuh
Yatredam Brahma Kriyate
Paridhir Jivantaya kam"

Above verse explains the importance of clean, unpolluted environment for the human being as well as animals. Sanctity of the atmosphere should be maintained in order to live and solve the purpose of life. Man on this earth can live up to hundred years also if the atmosphere is unpolluted, peaceful and clean. Rigveda defines Sun as the vital source of all what so ever is moving and also of which is not static. Sun is the ultimate propagator of darkness because the rising sunrays mitigate all adverse effects of pollution. This can be found in a shloka mentioned in Atharva Veda [12].

"Adityah Parvatebhyo,
Visvadrasto Adrstaha"

The importance of forest conservation and preservation was given due importance in Atharvaveda. Although India was blessed with many rivers and heavy rainfall, then also wise use of water was well advocated by the scholars of ancient India. [13] Veda directs every individual present, to pay due regard to the environment by worshipping trees. [14] The word 'Panchvati' seems to be very common in the ancient text, where `panch' means five and `vati' means grove. Simple meaning is a grove consisting of five trees. Mainly these five types of trees were Banyan, Peepal, Ashoka, Bael and Harad which were considered sacred due to their medicinal properties. Even today Hindus do worship these trees. Kale and Shkadwipee (2018) had explained through the verse in Bhumisukta about the treasure which mother earth had bestowed on human being in the form of gold, silver and other minerals. But human being should not unnecessarily dig the mother earth. The idea of sustainable development can be found in the religious text of Hinduism which was written centuries ago. [15]
"Sita Bhumir Asima Pamsuh,
Sa Bhumih Samdhrta Dhrta"
Religion plays an important role in molding the sight of human being towards environment. All the religion in this world have their own ethics and morals in regard to the entities of environment. The biggest challenge in today's world is to deal with the ongoing crises of the environment. The sacred books of Hinduism are filled with the idea of protection and conservation of environment. Today's big need is to go back to the religious literature available and take up the idea of preserving the environment [16].

3) Relationship Between Human and Nature in Hindu Religion

In Hinduism, even human being is considered to be made up of five natural essential elements these are Prithvi (mother earth), Varuna Devata (lord of water), Vayu Devata (lord of winds) Agni Devata (lord of fire) and Aakash (sky). Therefore, cutting of trees, polluting

air, water, land was regarded as sin as these elements of nature were to be respected as gods and Goddess. Protection and conservation of these five elements was the duty of everyone. The Rigveda devoted an entire hymn to praise the healing properties of trees. Some of the trees associated with Gods and Goddesses are given below

One important vedic prayer in Sanskrit is "Mata Bhumih putruahan prithivya" where Earth has been depicted as a mother and all the individuals present on the earth are depicted as its sons. All the natural resources which are present on earth like water, air, land, soil, mountains, flora, fauna and whatever present on the earth naturally are to be taken care of in the same way as a son takes care of his mother. There are several verses in Vedas which are dedicated to environment protection and conservation [17].

"Do not cut trees, because they remove pollution." -Rigveda [18]
"Do not disturb the sky and do not pollute the atmosphere." – Yajurveda [19]

Flora occupies the important place among the peoples. The vedic people use to harness the wealth of nature very judiciously. They compared the trees like Peepal (Ficus religiosa), Vatvriksh (Ficus benghalensis), and Banana (Musa acuminate) with God. There is a verse in Vriksayurveda which denotes that benefit which we get by planting a tree is equal to the benefits which we get from having ten sons.

"Dasakupa sama vapi dasa vapi sama hradah
Dasahradah samah putro dasaputra sama drumah"

It was prohibited to cut Vatavṛikṣha(Ficus benghalensis) because it was believed that god resides in this tree and no disease can attack the place where Vatavriksha (Ficus benghalensis) is present [20]. This has been backed by Shri Kṛishna in the Shrimad Bhagwadgita— "asswathu sarvavṛikhanam".

According to the scientists of recent times, the peepal tree and Vatavriksha tree assimilate carbon dioxide from the air and release oxygen and thereby balancing the concentration of carbon dioxide and oxygen in air.

Tulsi (Ocimum sanctum) is still considered as sacred in Hinduism. In vedic times, it was compulsory to plant a Tulsi (Ocimum sanctum) plant by every hindu family. Every family use to have a Tulsi (Ocimum sanctum) plant at their verandah. Worship of Tulsi (Ocimum sanctum) plant was considered as sacred. Watering tulsi (Ocimum sanctum) plant was believed to give a long and healthy life. Family was believed to be prosperous if Tulsi (Ocimum sanctum) plant was worshipped and taken care of. There is another verse in Vriksayurveda which praises the tulsi plant. [20]

"Jabadinani tulashi rupitapi jad grihe grihe Tabadvarsha sahasrani vaikunthe sa mahiyate"

This Sanskrit Veda verse means that the number of years the tulsi plant is at any individual home, the same number of days he will reside in heaven. In ancient vedic period, Yajnas were performed by the saints and chief ingredients of Yajna were ghee (clarified butter) and

various dried herbs. It is well known that after the Yajna, the air becomes pollution free. The bacteria harming the environment come to an end. [21]

4) Importance of Nature in Hinduism

One of the Hinduism beliefs is that it's the duty of a person to save its Dharma; meaning of Dharma is duty. In other words it has been directed in Hinduism to save the environment because it has been incorporated in their Dharma. [22] Hindu worship and accept the presence of god in nature and its elements either biotic or abiotic. Hinduism had connected all the living and nonliving components to god and goddess. Hindus were considered as Dharmabhiru which means a person who was scared of not performing his dharma properly. They do believe that it was their core duty to protect mother earth and its components. If they fail to do so they will be punished by god after their death and will not attain Moksha.

Still several Hindu communities like Bishnois, Swadhaya and Bhils are known for protecting their dharma in the form of their conservationoriented practices. Bishnois are still known to save their trees and animals from any type of anthropogenic disturbances. Swadhayayis are known to build their tree temple which are called as Vrikshamandiras and nirmal nir which are known to be water harvesting sites. Bhil community still performs their sacred rituals in a groove of forest and pays their homage to god for the wonderful creation of nature. In brief it can be said that whatever these communities are doing it is not mere to protect the environment but they consider it as their dharma to honour the god's gift which is in the form of nature [23].

Animals were given due importance in the Vedic period. Cow was considered sacred animals not only during the Vedic period but also in today's modern era. It is in common termed as Gau Mata which refers cow as mother. Even the urine and excreta of cow are considered sacred and are still used in religious ceremonies in Hinduism for purifying an individual. Lord Vishnu is said to take the avatar (form) of half human and half fish in his Matasya avatar (quoted in Matasya Puran) and cleaned up the polluted sea and rivers. [24] Lord Vishnu is also believed to take the avatar (form) of swine (quoted in Varah Purana) and cleaned the land by eating up all the filth present on the land. These avatar (form) of Lord Vishnu are still worshipped [25]. Even Monkeys are treated as incarnation of Lord Hanuman.

Somvanshi (2015) summarize the saying of Swami Hasdevacharya, who is head of Swami Jagannath Math of Haridwar that the only religion based on respect of nature and environment is Hinduism. The biotic components of environment like the trees, animals and birds and abiotic components like the geographic entities are given the status of gods and goddess and are hence conserved and worshipped. [26] It is well known fact that Peepal tree release more oxygen than other tree species, thus in Hinduism peepal tree is worshipped and cutting of peepal tree is a sin. There are many examples in the sacred books of Hinduism which highlights that Hinduism aims at conserving the environment. [27] All the religious scriptures inform human being about the importance of earth's ecosystem and necessity of protecting them. A verse expalanation of Rig Veda clearly states that "thousand and hundreds of years if you want to enjoy the fruits and happiness of life then take up the systematic planting of trees."

Framarin (2012) concluded that literature on Hinduism gives the moral understanding of behaviour of human towards plants and animals. [28] One of the popular religious text of Hinduism Ramayana. It signifies the importance of monkeys and their king Lord Hanuman as they were considered an important ally of Lord Rama. Today also we have many temples dedicated to Lord Hanuman. Lord Krishna is another deity who is known for his love towards cows. Lord Vishnu is known to his love for Lotus plant and in Vishnupuran it is mentioned that lord Vishnu resides on Lotus flower. All the ancient scriptures of Hinduism had directed human being to be the care taker of mother Earth and its elements. Environmental ethics had always been the indispensable part of Hinduism [29].

Vedic sages and even holy prayers today also in any of the religious reverence chant the shloka which pray for peace at all levels in the Shanti Mantra – "Let there be peace in the space, peace in the sky, peace on the earth, calmness in waters, peace of trees, peace of plants, grace in all gods, blessings in the Brahman, peace in everything, peace and peace, peace be with every one of us." [30] Madhavi and Done (2018) highlighted in their study that if we go back into the ancient religious literature (Vedas) available to tackle the environmental problems especially pollution, then maybe we will able to solve problem of pollution to some extent [31].

5) Conclusion

Hinduism believes that all the living and non-living beings are sacred. Hindu religious texts are filled with idea of environment protection and conservation. Many of the environmental issues which persist today can be solved by going through the path which ancient scriptures had suggested centuries ago. The belief that all the living beings are part of god, even land, mountains, rivers are believed to have souls in them and hence, they are eligible for worship. Today we human being had forgotten these teachings. In Bharat, still people practice the teachings of their sacred text. Their festivals are based on environment friendly rituals. Still River Ganges is treated as sacred and is called Maa Ganga. Mount Kailash is treated as adobe of Lord Shiva. Lake Mansarovar is worshipped even today. Glacier like Gangotri is thought to be home of Goddess Parvati. Thus, the answer to environmental problems lies in environment itself. Practicing the sayings of ancient literature will definitely provide remedial measures to stop environmental degradation. The practices mentioned in Hinduism are still effective, only the need is to bring them back to daily practices which human being is forgetting in his fast and environmentally degrading life.

Competing Interests

Author has declared that no competing interests exist.

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Àyurvedic source of Medicines as depicted in the Atharvaveda

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Abstract:

Àyurveda is the 'Science of Life' and it is the oldest system of Medicine of the world. Its main aim is the preservation of health for healthy persons and to cure diseased persons by exclusively using natural medicines, prepared from different types of herbs, pants, trees, flowers, seeds and leaves. This medicine has no side effects and it cures any serious disease smoothly and permanently.

In the *Atharvaveda*, the physician is advised for performing his duties properly. Besides, he is even asked to maintain a simple or undefiled life throughout his professional life or career. He becomes the best physicians, who is regularly and honesty working for his patients by consulting other physicians.

According to the *Atharvaveda*, it is the duty of a physician to treat diseases, prevent them from spreading and reduce their duration (AV, V.29.2)· He should prepare medicines and use them for keeping human beings and animals sound and healthy (AV, V.29.1). In the *Atharvaveda* it has been clearly described about the physicians that they used thousands of drugs and medicines, which shows that they had the knowledge of thousands of medicines (AV, II.9.3). They prepared medicines to provide men with strength, vigour, luster and longevity as well as medicines that halted ageing effect on men (AV, II.29.7). However, in order to become an expert

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and qualified physician or *Vaidya*, one has to make constant endeavor, consult other physicians and also lead a self-controlled life. Only such physicians can attain skill and be able to eradicate all serious diseases (AV, II.9.4).

1) Introduction:

The Vedas are the oldest sacred scriptures of the Universe. Out of these four Vedas, the Atharvaveda is widely known as Brahmaveda[1] or Amªtaveda. According to the Gopatha BrÁhmaÆa the word Brahma is meant BheÒaja and understood as BheÒaja-veda. The word *bheÒaja* is known as *Amªta* and this *Amªta* is also known as Brahma[2]. In the Atharvaveda, this Veda is recognized as BheÒaja or BhiÒagveda[3]. Besides, in the Gopatha-BrÁhmaÆa it is mentioned that the *mantras* of Atharvaveda are related with Àyurveda and the meaning of the word AtharvÁ also specified as BheÒaja[4]. In addition to these, the Gopatha BrÁhmaÆa extensively clarified that sage Angiras is related with Àyurveda and Physical Science. The description of *rasas* or *tattvas* in the various parts of body is also known as AÉgirasa. The *rasas,* which are extracting from the different parts of the body, are generally known as AÉgiras[5]. According to the Gopatha BrÁhmaÆa, the Science of Chemistry is also recognized as AÉgiras[6]. However, there is no doubt that sage AÉgirÁ and Atharvan are related with Atharvaveda. The Atharvaveda was earlier known as the AtharvÁÉgirasa Veda, as it is a collection of the *mantra*s, seen or witnessed by sages Atharvan and AÉgiras. This name finds mention in the Atharvaveda itself[7]. The Gopatha BrÁhmaÆa also mentions this name with proper respect[8].

The Atharvaveda is called as BhaiÒaja Veda as is deals with various therapeutics and medicines, *etc*[9]. The Àyurvaeda is known as BheÒaja or BhiÒagveda (Science of Drugs) in the Atharvaveda[10]. The ÏatapathaBrÁhmaÆa, while explaining a *mantra* from the Yajurveda, defines *prÁÆa* as AtharvÁ. Thus, *prÁÆa-vidyÁ* (life science) is known as ÀtharvaÆa VidyÁ[11]. The ChÁndogya and BªhadÁraÆyaka UpaniÒads also support the idea that Physiology and Chemistry are the AÉgiras-Sciences[12]. So, the *prÁÆa-vidyÁ* is also known as AÉgirasa, as *prÁÆa* (vtal air of the body) is known as the substance of the body. Life is possible only with the proper circulation of the winds of the body. Therefore, the *prÁÆa-vidyÁ* has been called ÀÉgirasa- *vidyÁ* in the ÏatapathaBrÁhmaÆa[13] as well as in the BªhadÁraÆyaka UpaniÒad[14]. According to AitareyaBrÁhmaÆa, BrahmÁ is known as BhiÒak, as he removes all the shortcomings of the sacrifice[15].

Both Caraka and SaÐruta SaïhitÁ admit that Àyurveda is a part or Upaveda of the Atharvaveda. The SuÐruta SaïhitÁ maintains that Àyurveda is only a part of the Atharvaveda and is divided into eight parts[16]. But according to the Caraka SaïhitÁ, the *mantras* in the Atharvaveda deal with the eight subjects, *viz*.

"…….वेदो ह्यार्थर्वणः स्वस्त्ययन–बलि–मंगल–होम–नियम–प्रायश्चितो पवासमन्त्रा–दिपरिग्रहाच्चिकित्सां प्राह, चिकित्सा चायुषो हितायोपदिष्यते।"[17]

It means the AtharvaÆa Veda speaks about the eight subjects, like: *svastyayana* (seeking welfare), *bali* (offering), *maÉgala* (well-being), *homa* (sacrifice), *niyama* (conduct rules), *prÁyaÐcitta* (expiation), *upavÁsa* (fasting) and *mantra*. So, for the increase of age (*Áyu*), all the positive efforts that are being done, known as *cikitsÁ*, *i.e*. the healing art of the practice of medicine. These above subjects belong to Àyurveda, which means that the Atharvaveda deals with the Medical Science. So,

the Atharvaveda is the most favorite of all the Vedas to a physician (*Vaidya*).This signifies that there is a close relationship between the Atharvaveda and Àyurvda. The knowledge of Àyurveda is most essential for a thorough knowledge of the Atharvaveda[18].

The Àyurveda is the oldest system of medicine in the world. The term Àyuurveda consists of two words, *viz. Áyus* and *veda,* which means '**the science of life'**. So, Àyurveda means the science of life, which provides proper knowledge to live perfectly in the world. It also provides true knowledge to prevent from diseases and to maintain a healthy life. Its main aim is the preservation of health for healthy persons and to cure diseased persons by exclusively using natural medicines, prepared from different types of herbs, plant, trees, flowers, seeds and leaves. According to SuÐruta, the science which reflects upon the good of life (*Àyus*) and through which one can attain longevity is known as Àyurveda. As said:

आयुरस्मिन् विद्यते, अनेन वाऽऽयु र्विन्दतीत्यायुर्वेदः।[19]

As defined by Caraka, this Àyurveda imparts knowledge of *Àyus, i.e.* life span. So, the **Charaka Saïhita** states:

हिताहितं सुखं दुःखमायुस्तस्य हिताहितम्।
मानं च तच्च यत्रोक्तमायुर्वेदः स उच्यते।।[20]

According to Caraka (this) Àyurveda (ÏÁstra) is beneficial for this World (*lok*a) as well as for the Upper World (*paraloka)*, for a human being. It can even provide both prosperity *(abhyadayaí)* and liberation (*niíÐreyasa*) to all persons who will follow it properly[21]. The aim of Àyurveda, according to Caraka, is to preserve the health of a normal person and cure the disease of a patient[22]. The Atharvaveda

exclusively describes different diseases of the body and teaches longevity of life. It covers all physical, mental and spiritual developments of the body. Besides, it also provides knowledge regarding healthy life, diseases, their causes, precaution, preservation and treatment. There are descriptions of many diseases, just like heart diseases, tuberculosis, respiratory diseases, urinal problems leprosy, rheumatism, dental problems, problem of limb, eating of poison, bleeding, hereditary diseases, pregnancy and other woman diseases. Irregular life style or sins and germs are responsible for these diseases. There is detail description of different types of germs, their names, prevention and their destruction.

2) Causes of Disease:

There are a number causes due to which the diseases occurred. It can be said that the diseases are caused by the misuse of senses both in when a person in alert or in a sleep. By using slang words in an angry mood a person may be so tensed and so faces heart disease. By drinking or using affected water a man falls ill. The diseases are two types, *viz*. physical & mental. The physical diseases occur due to rough food & drink. The mental diseases occur due to anger, grief, fear, pleasure, dejection (*viÒÁda*), jealousy, envy, meanness (*dainya*), malice (*mÁtsarya*), lust (*kÁma*), greed (*lokha*), likes & dislikes, etc[23]. Diseases also occur due to the misbalance of *vÁta, pitta* & *kapha*. Fever causes shivering due to the excess of *kapha*, heats of the body due to the excess of *pitta* and is accomplished by cough due to excess of *vÁta*[24].

There is a CikitsÁ hymn (SÚkta) in the Atharvaveda, which describes the way of healing by using of medicines, *i.e*. Ayurvedic medicines. Therefore, the sage properly advised in the Atharvaveda as:

या ओषधयः सोमराज्ञीर्बहीः शतविचक्षणाः।
बृहस्पति प्रसूतास्ता नो मुञ्चन्त्वंहसः।।[25]

It means, many plants of hundred uses, that Soma rules as king, administered by a learned physician, possessing Vedic knowledge, deliver us from grief, sin and sorrow.

मुञ्चन्तु मा शपथ्या३दथो वरुण्या दुत।
अथो यमस्य पड्वीशाद् विश्वस्माद् देवाकिल्विषात्।।
यच्चुक्षुषा मनसा यच्च वाचोपारिम जाग्रतो यत् स्वपन्तः।
सोमस्तानि स्वधया नः पुनातु।।[26]

The sage invoked and prayed to the spiritual power of the medicines for curing from sickness and relieving from the curse's/evil deeds. Besides, the medicines also invoked to free and cure from the various sins occurred from different reasons.

In the Atharvaveda, the sage has prayed to the God for longevity of hundred years. As nicely said:

कृण्वन्तु विश्वे देवा आयुष्टे शरदः शतम्।[27]

Besides, it is also said that the seven seers do good to a devotee to see the old age in safety. It is mentioned in the Atharvaveda as:

सर्पर्षिभ्य एनं परिददामि त एनं स्वस्ति जरसे वहन्तु।।[28]

However, it is wisely advised that to live long, knowledge, strength, food and sleep, etc. are required[29]. Medicines are used to keep the body healthy. Terrestrial region

in their place as moon is responsible for the growth of the plants[30]. The milk and milk products give longevity to life. So, it is nicely explained in the Atharvaveda as:

भक्षो घृतमन्नं दुह्रतां गोपुरोगवम् ।[31]

The (Àyurvedic) trees & plants are also praised for providing healing powers to the human beings. The holy fig tree (AÐvattha), sacrificial grass, Soma, the king of plants, water, corn, possesses medicinal properties. Rice, barley are highly healing balms, which nourish us from heaven like sons.

अश्वत्थो दर्भो वीरुधां सोमो राजामृतं हविः ।
व्रीहिर्यवश्च भेषजौ दिवस्पुत्रावमत्यौ ।।[32]

The food provides strength and energy to body. By taking balanced food one can escape from death (तेनौदनेनाति तराणि मृत्युम्)[33].

It is already mentioned that Atharvaveda described a number of diseases. Some of the prominent diseases have been enumerated, *viz*. Headache (*ÐÍrÒÁmaya*), earache (*karÆaÐula*), jaundice (*vilohit*a), psychotic diseases (*ÐÍrÒany*a), *etc*.[34] The diseases that occur throughout the year[35] are: jaundice, dropsy (*harimÁ*), *etc*.[36] The Atharvaveda mentions diseases that occur in different organs[37], like: dysentery (*ÁsrÁva*)[38], pain (*visalpa*), boils (*vidradha*), gastric aliments (*vÁtÍkÁra*)[39], *hysteria*[40], leprosy (*kuÒÔha*)[41], impotency[42], gynecological troubles[43], scrofula (*gaÆ±amÁlÁ*)[44], fever (*jvara*)[45], tuberculosis (*yakÒmÁ*)[46], cardiac troubles (*hªdroga*),[47] nocturnal emissions (*duísvapn*a)[48]*, etc.*

In the **conclusion** it can be said that the Atharvaveda contains huge descriptions of various (Àyurvedic) trees, plants, herbs, flowers, seeds, leaves & diseases. The true remedies of various diseases are also explained in the texts. Besides, different

therapies are also found in the texts of the Atharvaveda, through which the critical diseases can be cured in a natural & positive way. However, it is obvious that our (old) traditional Àyurvedic treasures are completely available in the Atharvaveda for the true welfare of the mankind.

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14. BªhadÁraÆyaka UpaniÒad, I.3.19.
15. Aitareya BrÁhmaÆa, V. 34.

16. इह खलु आयुर्वेदं नामोपाङ्म् अथर्ववेदस्यानुप्पाद्यैव प्रजाः श्लोकशतसहस्रमध्यायसहस्रं च कृतवान् स्वयम्भूः, ततोऽलपायुष्ट्वं अल्पमेधस्त्वं च आलोक्य भूयोऽष्टधा प्रणीतवान्। SuÐruta SaïhitÁ, I.5.

17. Caraka SaïhitÁ, XXX.18.

18. *ibid.,* XXX. 20-21.

19. SuÐruta SaïhitÁ, I.14.

20. Caraka SaïhitÁ, SÚtra SthÁna, I.40.

21. ततस्यायुषः पुण्यतमो वेदो वेदविदां मतः।

वक्ष्यते यन्मनुष्याणां लोकोयोरुभयोर्हितम्।। *ibid*., SÚtra SthÁna, I.41.

22. *ibid.,* SÚtra SthÁna, XXX.25.

23. SuÐruta SaïhitÁ, SÚtra SthÁna, I. 22-24.

24. Atharvaveda, I.25.4.

25. Atharvaveda, VI. 96. 1.

26. *ibid.,* VI.96.2-3.

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29. *ibid*., I.11; IV.4.2; IV.5.1-7.

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33. *ibid*., IV.35.1-6.

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35. *ibid*., IX.8.6.

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41. *ibid*., XIX.39.
42. *ibid*., VI.1.38.
43. *ibid*., VIII.6.
44. *ibid*., VII.74.
45. *ibid*., I.25.
46. *ibid*., I.12.3.
47. *ibid*., I.22.1.
48. *ibid*., XX.96.

Metaphysical basis for a Unified World View: Definition of Space and Time

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Abstract

Theoretical physics has been in a deep crisis for decades. Quantum theory and general relativity remain incompatible. It remains to be seen how the basic concepts of our universe - space and time - can be explained. The question is also open as to whether life arose by chance from dead matter, whether a Creator created life from dead matter, or whether life works before space and time, and space, time and matter are consequences of life. In this article, the essence and origin of space and time are to be discussed and explored in a metaphysical approach. With a definition of space and time that combines mathematics and theoretical physics, the meaning and nature of the speed of light is represented as a "clock". As a result, the irrational system of values or units of modern society is identified as the cause of the crises of modern societies.

Keywords: Quantum Theory, Metaphysics, Space and Time

1) Introduction: Without a uniform world view of humanity, no uniform self-image of man

The "self-image" of man, since what man assumes about his own existence, its purpose and destiny as well as about the functioning of life within himself, is essentially a reflection of his "world view". Thus, man is a reflection of what he assumes about the existence of the universe, its purpose and destiny as well as its functioning or the laws of nature that work in the universe and thus also in man himself.

However, as long as the fundamental questions relating to the universe cannot be answered, as long as quantum theory and general relativity cannot be united and are in contradiction to each other, as long as theoretical physics as the "heart" of the natural sciences cannot conclusively explain the functioning and nature of space and time and the origin of life logically and consistently, as long as people and societies will argue about their different worldviews and – because apparently survival depends on the attention to the "right" and only true world view – fight wars. At the same time, the choice of a "wrong" world view or the assumption of wrong laws of nature leads to people unintentionally violating the "right" laws of nature and thus possibly endangering their own livelihoods.

An "objective" truth in the sense of a "common" truth for a community of people can only arise through the formulation of a closed set of statements (formulas) that can be recognized by each individual as truth or untruth through examination in experiments.

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Only if all individuals agree with the statements / formulas underlying a unified world view, because each individual can check them in experiments and find them true, can a "common" truth arise. A distinction to mere "belief" arises from the requirement that the statements / theory must basically be falsifiable in experiments.

Such experiments are always associated with a "measurement" of physical quantities or represent a measurement (in the sense of a comparison of several observations) of physical quantities. A "measurement" of physical quantities is always a "comparison". A physical quantity is compared qualitatively and quantitatively with a comparable physical quantity by "defining" a physical quantity, a unit of measurement and thus simultaneously a measuring process or a measurement specification for this purpose.

However, (according to Aristotle's idea) two categories of definition can be distinguished from each other: the "real definition" and the "nominal definition". While the real definition describes a (physical) object or a physical property of the object or object of observation informatively and represents a hypothesis that can be true or false, a nominal definition is a binding determination in which a term is replaced or defined by other (already real or nominally defined) terms. According to this assessment, nominal definitions cannot therefore be false or untrue. However, a theory based on nominal definitions or a statement about reality can be falsified by an experiment.

What happens when scientists try to approach the concept of time with a real definition can be exemplified in a recent discussion on the concept of time between the neuroscientist Dean Buonomano and the well-known physicist Carlo Rovelli: "Bridging the neuroscience and physics of time"[12]. After reading, the reader is little more knowledgeable than before, because it remains completely unclear what time should ultimately be and how to define the concept of time in one or two sentences conclusively nominally, so that even a layman or a child can understand this.

2) Troubleshooting: The Problem with Time

If one embarks on troubleshooting, i.e. on the search for the cause of the problem in the sciences that has existed for decades, that no union of quantum theory and general relativity can be formulated, one inevitably encounters the "problem with time".

Even for laymen, the problem can be illustrated briefly and succinctly: atomic clocks run slower on the sea surface than on the mountain top, hourglasses run faster on the sea surface than on a mountain top. Both hourglasses and atomic clocks are therefore "influenced" by gravity, but in the opposite direction. A sundial behaves differently. This runs at the same speed both on the sea surface and on the mountain top.

Which watch is the right one or how can you measure time meaningfully at all. What is time anyway? The confusion in theoretical physics goes so far that researchers in the field of quantum gravity even consider "time" to be an illusion that is not real at all. "Does time exist in quantum gravity?" asks theoretical physicist Claus Kiefer in a 2004 essay. [3]

How did this confusion come about with regard to the so important and central physical quantity of "time"?

Isaac Newton omitted a definition of time in his contributions and simply assumed it as known and springing from perception (given by God):[4]

> *"Time, space, place and movement as known to all, I do not explain. I only notice that one usually understands these quantities no differently than in relation to sensually perceptible, and thus certain prejudices arise, for the abolition of which they are suitably distinguished into absolute and relative, true and apparent, mathematical and common quantities."*

In his work of 1905 ("On the electrodynamics of moving bodies"), Albert Einstein wrote in the introduction under §1 "On the definition of simultaneity": [5]

> *"It might seem that all the difficulties concerning the definition of 'time' can be overcome by putting the 'position of the small hand of my watch' instead of 'time'. Such a definition is indeed sufficient when it comes to defining a time exclusively for the place where the clock is located: however, the definition is no longer sufficient as soon as it is a question of linking series of events taking place in different places in time or – which amounts to the same thing – evaluating events that take place in places distant from the clock in time. "* (page 893)

He continues:

> *"We arrive at a far more practical determination by the following consideration. If there is a clock in point A of the room, an observer in A can temporally evaluate the events in the immediate vicinity of A by visiting the clockwise positions at the same time as these events. If there is also a clock in point B of the room – we want to add, 'a clock of exactly the same nature as the one in A' – then a temporal evaluation of the events in the immediate vicinity of B by an observer in B is also possible."* (page 894)

Unlike Newton, Einstein defines very precisely what "time" should be in the physical sense. With regard to Einstein's considerations, however, it should be noted that a clock in a "point A" of space is an idea that presupposes the idea that time can physically exist in real life even without space, alone in a "point" of space without spatial expansion.

However, this basic assumption, which Einstein precedes his further considerations and explanations, is a hypothesis or a claim (there is a "time" in point A) that cannot be verified at all. This could neither be proven nor refuted. A clock, regardless of its nature, without spatial expansion, we can not design as a "measuring device" to prove this time and can not imagine such a clock mentally.

Against this background, Einstein's premise seems irrational. However, this contradiction is concealed by the fact that Einstein introduces and uses two different terms or concepts of time: On the one hand, a time that is measured by the nominal definition of the properties of light (constant speed in empty space), i.e. is actually physically measurable and verifiable. However, this "time" is always measurable only between two points in space: If a beam of light leaves point A and arrives at point B some time later, the elapsed time results from the natural constant of the speed of light. At the same time, however, Einstein continues to use the hypothesis for his theories that time also exists and passes in a point in space. However, by Einstein's definition, this is not measurable, since it is supposed to exist in a point without volume, i.e. in "nowhere" without space. It seems that with this second concept of time, which is independent of the speed of light, Einstein links the causality principle, i.e. the discrete sequence of "events", with the concept of time.

If one takes a look at the definition building of modern science – the "value system" of modern society, so to speak (the "Bureau International des Poids et Mesures" today counts 100 member states and associated states and economies.) – for the "measurement" of the universe, it becomes apparent that both concepts of time introduced by Einstein are addressed in the basic units. The time, which can be measured by the constant speed of light, is incorporated into the measuring system of the base units by the nominal definition of the length of space, the meter. With the one concept of time mentioned by Einstein, the length of space is defined on the basis of the constant speed of light. The other concept time, which is intended to give "events" an order even in the absence of space and matter in every imaginary space point, finds its way into the definition of the second:[6]

> "One second is 9,192,631,770 times the period duration of the radiation that corresponds to the transition between the two hyperfine structure levels of the ground state. of atoms of the nuclide corresponds to 133Cs"

This concept of time, defined on the basis of the caesium atom, actually defines the concept of causality, because time is quantified by counting the periods. A unit of time smaller than 1/9192631770 second cannot be measured with the clock defined in this way. Now, however, it has already been mentioned here that a clock cannot exist without spatial expansion (with an atom you can not measure the time in a space point, since an atom has a spatial expansion). This definition of time on the basis of an atomic clock thus in no way does justice to Einstein's idea of a ("second") time independent of space and matter. In addition, this definition is also a real definition, since it is undefined what exactly an atom is. However, as shown, such a definition is not suitable for formulating falsifiable theories. The definition of time and the definition of space should only enable the "standardized" investigation of the properties of atoms (mass). Thus, the physical quantity of time cannot be defined by what is to be measured or researched with it.

On closer inspection, this definition of time is therefore a "circular definition" (idem per idem), since the concept of the duration of the period is defined solely by the concept of the duration of the period. The definition of the time of BIPM is paraphrased:

The philosopher Karl Christian Friedrich Kraus formulated in 1836 as a "basic law of definition":

> "The first demand is: what is to be defined must not appear again in the definition (terminus definitus non debet ingredi definitionem), because if this were, one does not know what is to be defined, it would be explained the same by the same."[7]

However, this is precisely the case with the definition given by BIPM for the most basic quantity in science and thus with the basis for all our world view. Only a dimensionless factor (9192631770) distinguishes what is to be defined (a period duration) from the definition (a period duration).

Thus, here is the searched "error" regarding our image of space and time found and identified:

Due to the fact that the central measurand in natural science (time) is defined as a circular definition, there are an infinite number of "possible" worldviews, because it remains open what time should actually be and how it could be measured. On this basis, a "common" reality, a "common" (uniform) world view cannot be formulated, because depending on the choice of the clock (atomic clock, sundial, hourglass) completely incompatible world views arise. Atomic clocks, on the basis of which "science" currently wants to measure time, measure neither the

one nor the other time mentioned by Einstein, but simply the strength of gravity at the location of the atomic clock.

3) Error Correction: Definition of Space,Time and Speed

In order to formulate a definition of space and time suitable for a uniform world view, one can start with the thoughts already formulated by Albert Einstein and further refine the essence of space and time and their connection with each other and name them more concretely.

The concepts of space and time seem to arise immaterially as mental concepts in our consciousness. Namely about the concept of movement. If a (imagined) physical appearance (e.g. the universe we observe) moves relative to the observer (ourselves), then in our imagination this movement traverses a certain length of space per a certain duration of time.

We define the concept of movement as a fundamental sensory experience inherent in all of us in general by the concept of (spatially directed) "speed" v = length of space / duration of time. What we can now deduce from our own as well as from Einstein's considerations is that we combine two very different mental concepts about the universe in the term "time", namely on the one hand the principle of discrete successive events or the concept of causality (yesterday is cause for today and today is cause for tomorrow) and on the other hand the concept of

(continuous) "movement", which cannot be divided into discrete events. With regard to the term "movement", space and time (as a continuum) are linked, but they are not linked with regard to the term causality (discrete events of cause and effect).

It can therefore be seen that in the sense of a definition of space and time that can be used for measurements and experiments, the concept of time must necessarily be separated into these two different aspects of our perception. On the one hand, time must be nominally defined as a "measurable" quantity for physics (in order to be able to measure "movement"), on the other hand, a physical quantity must not be used to define what is cause and what is effect, since this is only to be found out through experiments based on the definition of measurable time.

If one considers how we have always measured time from a historical point of view and as Einstein also formulated it, time measurement is carried out quite practically via the position or rotation of the hand of an analog clock or also on the basis of the position of any other rotation of a body, for example the rotation of the earth around its own axis, i.e. a (circular) movement, which we consider to be uniform (same spatial lengths / durations). Thus, geometrically speaking, time is actually measured as a solid angle between three spatial points and the length of space as the shortest "straight" distance between two points in space.

Since the concept of causality (past, present, future) must not be the subject of the definition of space and time as physical quantities, the definition of space and time must therefore only be derived from the concept of movement and the concept of movement accordingly from the concepts of space and time:

Time is nominally defined by the definition of "movement" and by the definition of space

Space is nominally defined by the definition of "movement" and by the definition of time

Movement is nominally defined by the definition of space and by the definition of time.

Since "time" in the physically measurable sense can only be defined as an angular measure, time and space can now only be defined by the concept of π (by the concept of the circle). Here, π (symbol for the ratio of circumference of a circle to its diameter) is not understood as a dimensionless "number ratio", but as a rotation, which describes the ratio of time (circle circumference) to space (circle diameter).

This becomes clear when the reader imagines an observer who is not a volumeless point, but a voluminous body that rotates around two axes of its own in order to "scan" or visually observe its environment with this "movement". By the speed of his own rotation, the observer determines the speed at which the universe rotates around him relatively. The observer himself is therefore the "authoritative" “space-time clock” or universal measuring instrument.

Since time units (angular units) can only be measured on the basis of units of length and units of length only on the basis of time units, the definition of space and time can only be carried out in such a way that in relation to two space points A and B in principle infinitely many infinitely small units of length are set in relation to an infinite number of infinitely small angles. The concept of infinity thus remains excluded from physics, just as the idea of a circle

circumference as a "spatial length" remains excluded from mathematics, since π does not represent a "number", but a ratio of two different physical dimensions.

In other words, if the diameter of a circle is measured in the dimension "apples" and the circumference of the circle in the dimension "pears", then the quotient π as a quotient of 5 pears to 5 apples is not to be given as a dimensionless number in the sense of a factor, but as a ratio of 1 pear / 1 apple.

However, it is now also clear that any "mathematics" that describes or uses the ratio of circumference to diameter of a circle as 3.14..., i.e. as a dimensionless "number", is irrational and not suitable for describing a rational world view. Both quantum theory and general relativity are therefore irrational in themselves, just as BIPM's definition of time is irrational.

(So it may be that "older mathematics" such as the "Rhind Mathematical Papyrus" (c. 1550 BC) is more rational than modern mathematics.)

By defining space and time on the basis of the concept of rotational motion, mathematics and physics are combined in such a way that the ratio of circumference to diameter of a circle does not represent a dimensionless number (or a factor), but are understood as two different physical dimensions, namely space (diameter = measure of length) and time (circumference = angular measure). π therefore does not have the value 3.14.... The expression π =1 then describes a complete rotation of a rod (spatial length) around its own axis or the center of the rod.
Whether a circle and its diameter are divided into, for example, 360 angular degrees and 360 length sections or whether a revolution is set in relation to a length section is irrelevant and application-related. In principle, however, a "resolution" is always specified by the choice of the measuring instrument, i.e. the smallest possible measurable unit of time π determines how large the smallest possible measurable spatial unit is via the circle ratio. At the same time, the choice of ratio thus determines the highest possible "achievable" or "observable" speed (speed of light). The concept of the speed of the observed object is contrasted as a mirror image of the observer or the concept of the unified measuring instrument (definition of space and time).

(straight movement) - (Rotational motion)

It should be noted here that, contrary to Einstein's assumption, space-time does not have to be four-dimensional, but five-dimensional. Although there were attempts with the "Kaluza-Klein theory"[8] to construct a world view with five-dimensional space-time, but with four spatial dimensions and one time dimension. In fact, however, two angular dimensions or two time dimensions T_1, T_2 and three length dimensions or three spatial dimensions L 1, L 2 and L_3 are necessary for the uniform measurement or construction of space in the sense of three unit vectors .
A representation of 5-dimensional space-time between observer and observed:[9]

4) Planet Earth as a measuring instrument for space and time

With regard to the question of how a clock can now be constructed and defined on the basis of these considerations, the question of the meaning of the speed of light as a property of space-time and the question of the center of the universe are also relevant.

Basically, according to the considerations made here, each rotational body can be defined as a clock that sets time and space in a (measurable) ratio under the assumption of a uniform movement (constant rotation speed). For illustrative reasons, for example, with regard to the center of the universe, every observer is suitable to represent the center if we define it as a center, i.e. nominally define it as a center. It is important, however, that this center cannot be a volumeless point, but must have a volume so that its diameter can serve as a "unit of measurement" or scale for the measurement of the universe.

It is also important that not every person or every society defines his own center of the universe, but that all people agree to define a center or a "clock body" as the center, otherwise each person will formulate his own world view on the basis of his freely chosen clock body / center of the universe or his subjective point of view and dispute about the view of the universe and about the view of God under the mantle of different religions or different beliefs in science emerge, as it still exists today. The considerations made here show that it is irrelevant which body is defined as the center. However, it seems practical not to define the sun or a black hole as the center, but the planet Earth as our observation location, since we can only measure the planet Earth materially on foot and this is not possible with the sun or other bodies. If humans can and want to live on Mars, they would preferably define Mars as the center (clock body).

That the constant speed of light postulated by Einstein appears to us as a natural constant results from the fact that in the past we assumed the Earth rotating around its own axis as the center of the universe by defining the duration and measure of length based on the Earth's rotation. For example, we have determined that a rotation of the Earth takes 24 hours and that the length of the circular arc from the equator to the North Pole should be 10,000,000 meters.

If one now nominally sets the rotational speed of the earth's body as a natural constant for determining the ratio or geometry of space and time, then the constant speed of light represents the nominally defined as constant rotational speed of the earth body, whereby the assumption of a uniform rotation is given and cannot be checked or falsified.

(The deviation of the speed of light c given from the defined period duration to the ratio of the equator diameter is 0.0154% to the value of the speed of light at an altitude of 299792458 m/s determined by CODATA (Comitee on Data for Science and Technology).

The speed of light is therefore not a natural constant, but is derived from π. Overall, it follows from the nominal definition of space and time made here that all natural constants are only an expression of π, so there are or can be no "natural constants" apart from π. [10] Taking into account that π itself represents the number "1" as a ratio, there are therefore no natural constants in the sense of "numbers".

5) Conclusion: Metaphysics as the Basis of a Unified World View (World Formula)

Through mental analysis, it could be shown here that today's value system or system of units of modern societies contains a very serious and elementary error, because the basic units for observing the universe are irrationally defined and the definition of time by BIPM postulates without evidence and presupposes that the universe is mechanistically constructed, life has arisen from dead matter, or space and time are "created" by a supposedly inanimate caesium atom and a (living) "God" by definition does not exist and is accordingly not taken into account.
On the other hand, it was shown by mental analysis that space and time are constructed by the observer (ourselves / man) on the basis of the sensual (living) process of observing and perceiving movement and that life (man as observer) must thus logically apply to the "cause" and precondition for the emergence of space and time, which in turn represent a precondition for the existence of matter.
If the concept of time is divided into its two different and independent aspects, time results on the one hand from the concept of movement and on the other hand from the concept of causality. However, "measurable" is only the time that can be measured as a solid angle.
Time in the sense of the causality principle can thus be understood as a representation of the liveliness of ourselves and of the liveliness of the universe. A "scientific proof of God" follows immediately when the definition of time and space is no longer defined on the basis of an atom (as a substitute for God), but space and time are defined by the concept of a rotational movement (circle) from which then all triangles and even the golden ratio can be geometrically constructed.
For the existence of that time, which is not an angular measure but represents yesterday, today and tomorrow, can be sensually experienced by each of us every day and what else should this sensually tangible time represent than the living Almighty God?
As long as the modern sciences, through the erroneous or irrational definition of time and space, have in some way taken and claim for themselves the sovereignty of interpretation over the existence or non-existence and the will of God (without actually being able to meaningfully explain the phenomena in our universe), a unification of our world view with this system of values/units is not possible.

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"Free Energy": When to believe the Unbelievable

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Abstract

The conservation of energy principle states that *energy can neither be created nor destroyed although it can be transformed from one form to another*. Scientists have interpreted this to mean various forms of energy here on Earth, but this understanding isn't wholly correct as there is literally an infinite amount of energy, the source of it is space itself.

According to Saamkhya Hypothesis, all creation is comprised of five principal elements [Prithvi (matter on Earth), Jal (water), Agni (fire, heat), Vayu (air), and Akash (space)]. The fifth element, Akash, is, in turn, comprised of consciousness and energy. Some refer to Akash as massless Ether. Consciousness is omnipresent and omniscient, and the cosmos is full of energy. To attract it, requires an openness of mind, a willingness to think outside the box and a process.

This article explains how you can view this energy, attract it and experience it. The article also explains the concept of massless Ether and shows how that explanation sheds light on modern physics and spirituality.

Joe Martino published a fascinating story titled, Free Energy Generator that Works: Tewari demonstrates his over-unity machine, on ThePulse.One on July 1, 2022. Here, inventor Paramahamsa Tewari is seen demonstrating that his machine has produced more energy than what is supplied to it. See also the film, Out of the Void, and the Times of India article referenced in the citations.

1) Introduction

> *"Therefore, massless Ether has got to be once again established. Then, there will be a meaningful understanding of physics, a meaningful understanding of metaphysics and a meaningful understanding of spiritual processes."*
>
> The late Paramahamsa Tewari

These stories reminded us of another Paramahansa, Yogananda Paramahansa, and his book, "Autobiography of a Yogi", which sold 4 million copies and has been translated into forty-five languages. This was reportedly the only book on Apple Co-founder Steve Jobs' iPad.

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Jobs made arrangements to distribute a gift-copy of this book to everyone who came to his funeral service in 2011. This book contains numerous examples that science, as we understand it today, cannot explain. The success of the book is due mainly to the credibility of the author. In the book, Yogananda is seen having lunch with Mahatma Gandhi and interacting with Nobel Laureate Rabindranath Tagore and Sir J. C. Bose. Even today, there are a large number of Ashrams in major cities across the world that Yogananda founded which go by the name Self-Realization Fellowship Centers (https://yogananda.org).
Returning to Tewari's invention, Paramahamsa Tewari was trained in Electrical Engineering at Benares Engineering College. Thereafter, he worked for Nuclear Power Corporation of India for several decades rising to the rank of Executive Director. He has published several articles in reputed Physics journals and there are letters on his website (Tewari.org) from the renowned theoretical physicist, John Archibald Wheeler, a colleague of Albert Einstein at Princeton, complimenting Tewari on his pioneering work.

Even with all this credibility, Tewari's claim may appear highly problematic for most people as it seems to violate the conservation of energy principle. That is, until we realize that there is an abundant and heretofore unaccounted for source of energy in the universe, the space itself.

In 2014, after a decade-long search into the meaning nothing and the nature of ultimate reality, science writer Amanda Gefter released her finding in her path-breaking book, "Trespassing on Einstein's Lawn" (Bantam books, 2014), concluding that the universe came out of "nothing". For her book, Gefter interacted with some of the best brains in physics, including Stephen Hawking and John Archibald Wheeler. This short video clip illustrates the gist of her findings. Ancient seers had known how creation happens eons ago.

Said Shiva to the seven rishis and Rishi Bhringi, "*Adya Shakti (primordial energy) is incomplete without me and I am like a corpse without her.*" Translation, both consciousness and energy are required for creation and for life. We all have consciousness but we need to better understand the cosmic energy.

Some 13.8 billion years ago, the nothingness of the void produced the energy phase of the big bang event, incredibly small, about the size of Plank's length (10^{-33} cm in diameter), unbelievably hot, and immensely dense, which then created the universe. According to NASA, today, the universe comprises of 70% energy, 25% dark matter, like black holes, and 5% matter, like galaxies, stars and planets.

Science has no explanation for how "nothing" can produce "something", the energy phase of the big bang event.

The universe may end one day but (undifferentiated) *consciousness will remain for consciousness is eternal.*

H. H. the Dalai Lama (1989 Nobel Prize for Peace)

Furthermore, note that whatever is present in the universe today was already present in the energy phase of the big bang event, although not in manifest form.

We all have consciousness, the differentiated kind, but this cosmic energy is both majestic and mysterious. We need to dig deeper.

2) Viewing the Cosmic Energy

If cosmic energy is so abundant, why can't we see it? Actually, we can. My guru, H. H. Guru Mahan, taught us how to see the energy in 2011:

1. On a sunny day, look at the sky at infinite distance not focusing on anything in particular. Let the Sun be on the opposite side so your line of sight is free from glare. Select a spot to view that is free of obstruction from trees, buildings, etc.
2. Stare as far as your eyes can see without focusing on anything in particular for a few minutes without blinking your eyes. Of course, blink if you must. The whole experiment shouldn't last more than five or so minutes.
3. Do you see something the sky is full of?

Many readers will see it, but some won't. Be open-minded with a willingness to think outside the box and you might see it. And don't give up after the first try.

Some years ago, I asked our software consultant, Arvind Bhavasar, to do an experiment. Go out in the balcony of my apartment in Pune and attempt to see the energy and report back on what if anything he saw in the sky. He came back in the apartment and said he saw something that the sky was full of. Then, I asked him to produce a video clip approximately depicting what he saw. That video clip is shown below. This is energy.

Seeing Cosmic Energy in the Sky

This depiction is substantially similar to what we, and our friends and families have seen. Thus, this measurement stands corroborated.

Paramahamsa Tewari designed a piece of equipment to capture this energy demonstrating that his machine created more energy than the energy supplied to it. The confidence in Tewari's work also arises from the fact that a major industrial enterprise, KIRLOSKAR ELECTRIC in India designed and successfully operated the machine upon seeing a demonstration of it in Tewari's premises.

3) How Creation Happens

Our sages tell us that transformation of energy (e) into matter (m) and matter into energy happens in one of four ways: (1) Yantra (Gadget), Mantra, Tantra (Process), and Guru Krupa. However, we humans can only aspire to transform e into m and m into e, but we cannot produce something from nothing. That privilege is exclusively reserved for the undifferentiated consciousness of the void.

We can also think of e into m and m into e transformation this way:

Science is the appropriate body of knowledge to use when the system fundamentals are well understood, and when they are not, but measurements are available, data-driven techniques such as six sigma are appropriate.

When system fundaments are not well understood and measurements are not available, then these two methods of inquiry cease to be useful. Enhancing the focus of attention, as with meditation, remains the only route to solve problems and to make new discoveries.

Actually, all discoveries happen when the focus of attention is enhanced, often unknowingly or in prayer or meditation.

Smoking a pipe, deeply engrossed in his thought experiments, Albert Einstein must have enhanced his focus of attention to such an extent that discoveries came to him. In 1905, he published four breakthrough papers one of which earned him the Nobel Prize in Physics.

Discoveries came to S. Ramanujan in prayer or in sleep. Tewari too reported that discoveries came to him in dreams. The mathematical formulas in the book, Vedic Mathematics must have come to the author, Jagatguru Shankaracharya in meditation.

In the following paragraphs, we present two more examples showing how this cosmic energy may be attracted for supporting life and for transforming energy into matter.

4) Energy in Support of Life

Given the four principal elements, it is not possible to create life. The missing element is Akash: energy & consciousness. The latter come into us when we come out of our mother's womb and take our first breath and leave us when exhale for the last time. The time between the first inhalation and the last exhalation is lifespan.

This life-force energy remains within a band for much of our life and drops precipitously to a low value at the end of life. Thus, it is advisable to keep our energy up as late in life as possible.

To explain this further, we all have trillions of cells. If we breakdown the cells into even smaller parts, we will find that they are made up of atoms. Atoms are not solid objects; they have protons and neutrons in their nuclei and electrons that orbit them. Thus, we all vibrating all the time.

Vibrations is light, not necessary visible light, but light along the entire electromagnetic spectrum, from infrared to ultraviolent. Our light characteristics are our fundamental nature. They tell us everything about us.

The vibrational signals are too weak for human perception with the five senses. For measurement purposes, they have to be stimulated and amplified.

In one approach, a harmless electrical current is applied to the fingers of our two hands, one at a time, and the finger's response to this electrical stimulus is a burst of photons which are captured and analyzed to estimate our energy. See this video clip showing how the measurement is made.

Meditation is one process that can be used to capture the energy from the cosmos and enhance it in our body. Figure 1 depicts life-force energy before-and-after meditation. The form of meditation used is Beej Mantratmak Sadhana (meditation based on seed mantra). Notice that the energy level has gone up after every meditation session. During the course of the day after meditation, the energy level is seen to dip again. Thus, it is extremely important to keep up with the meditation practice diligently and regularly or else the downward trend may ensue and that wouldn't be supportive of life.

5) Enhancement of Life-force Energy During Pranayam

The Sanskrit name Pranayam literally means control of "Prana" (life-force). Prana includes two things: Oxygen and cosmic energy. Pranayam is an integral part of the Ashthanga (Eight-step) yoga.

Let us do an experiment. Please learn how to do Bhramari Pranayam. With your eyes closed, as you inhale, you may notice the presence of light. You will also notice that during inhalation, the intensity of that light increases. This is indicative of the fact that you are not only inhaling Oxygen, but also cosmic energy.

6) Transforming Energy from One Form into Another

W. A. "Bill" Tiller was an eminent Professor Emeritus and a former Chair of the Materials Science and Engineering Department at Stanford University. The first author has interacted with him in the past and Bill had liked his work.

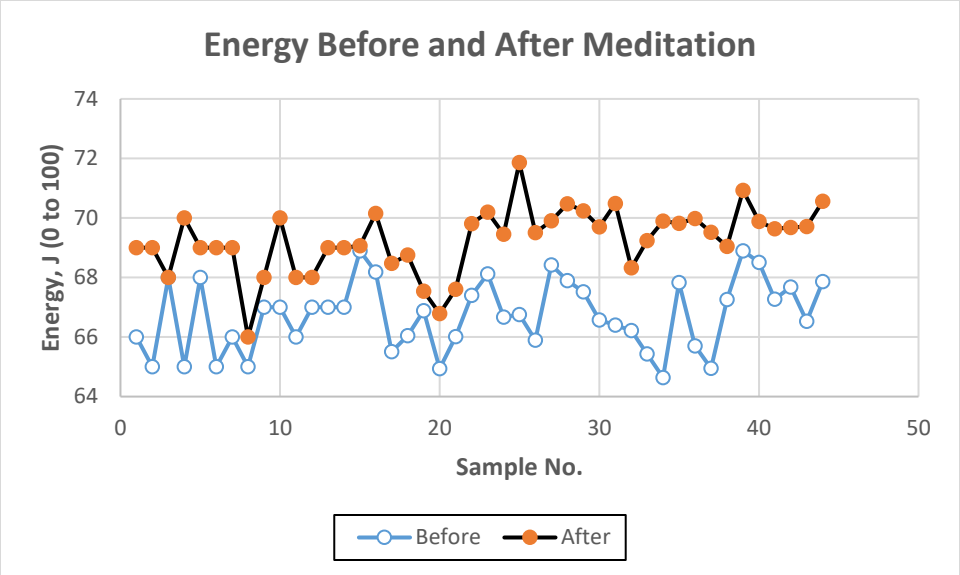

Figure 1. Energy Before and After Meditation

Coming from a different perspective, Tiller recognized that energy was present in abundance in space and that it should be possible to transform energy into matter and matter into energy. Specifically, he showed that with the use of meditation together his process, it was possible to change the pH of water without adding any chemicals. Visit the website, tillerfoundation.org.

A plot of pH vs time taken from Tiller's site is shown in Figure 2. Note that the use of meditation in the two examples presented implies the presence of spiritual processes. Tewari too emphasizes the importance of spirituality in his work.

The knowhow of transformation of energy into matter and matter into energy serve as corroborative evidence suggesting that much progress is possible if only we knew how to tap into this limitless supply of energy in the space.

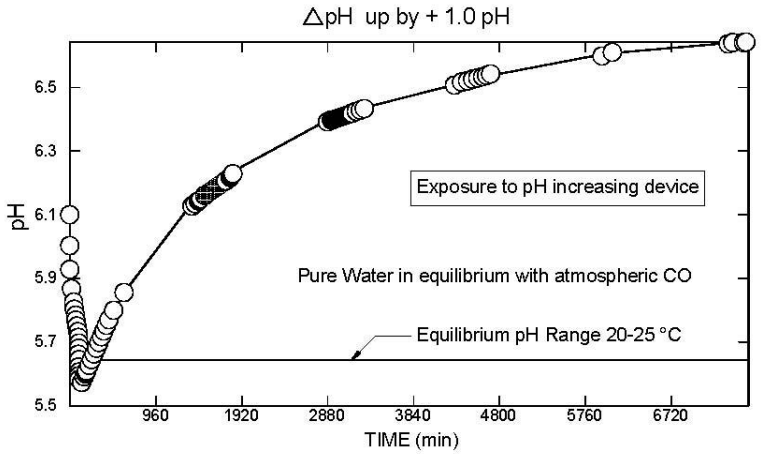

Figure 2. Changing pH of Water by Intention

The indiscriminate use of wrong forms of energy such as fossil fuels has produced an existential threat to humanity. How to use the abundant cosmic energy present in space to produce physical devices which generate more energy than the energy supplied to them is an exciting area of research. At the same time, the intellectual property rights of the inventors and their existing devices must be respected by all. Far too often in the past, ancient Indian ideas have been stolen without even being given proper credit.

Acknowledgments

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Environment Consciousness in Buddhism

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Abstract

Across the world , Humanity is facing a lot of environmental issues, such as climate change, disturbing ecological cycles, rising global temperature due to emission of greenhouse gasses, melting of glaciers, desertification, droughts , a lot of plants are extinct such as, Many species of the Ficus, which have religious importance, have become extinct, From past years, these issues became a central concern throughout the world. Even in the present time we see a lot of scholars, Environmental thinkers , working to draw out a solution of these issues but despite all this endeavor towards this issue, still exist in the throughout the world.So today it is necessary to analyze and to appreciate the ancient scripture or text of Buddhism to solve the environmental issue. Because it has consciousness to sustain the environment. It gives us the key of ethical teaching, to sustainability of the environment and guidance, to how these issues could be minimized. Buddha has incorporated some forms of environmental attributes in his preaching and views humanity as an integral part of nature . In the contemporary period, at the Global level, the influence of Buddhism teaching is increasing on the people in various forms, it has a compassionate heart to remove the suffering of all living beings and never shows a biasness to all living beings. On the basis of the teaching of the Buddha, this paper is mainly focus on, importance of individual karma, to protect the Environment, doctrine of dependent origination, which shows that everything is interdependent in ecosystem, and it's deep ecology aspect , which does not see the world not as a collection of isolated objects, but a network of phenomena which is fundamentally interconnected and interdependent.

Keywords: Buddhism, Environment, interdependent, dependent origination, deep ecology, compassionate heart.

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1) Introduction

Environment is something which consists of living and non living beings, it is defined as " conditions, circumstances that affect the lives of people, plants and animals.(1) But today Human beings are on the journey of innovation, creation and development, and we know that humans are different from other beings because they think, reason, and innovate in order to make their surroundings more comfortable, more pleasurable. In order to accomplish this task, they use resources given by nature. It is undeniable fact that, Humans have discovered from time to time, that how resource can be used in an efficient way but one of the disgraceful part of human nature is the greed Due to this greed, human is moving with very high speed on the path of not only development and discovery, but also on the way to destruction and degradation. Today almost everyone is familiar with the effect of human interference with natural resources and constantly degrading nature. Climate change is one of the most serious problems we all are facing and yet this issue is not getting as much attention as it deserves. The consequences are very dangerous. Every year we witness terrible incidents and natural disasters taking place all across the globe. A large number of not only humans but animals too are affected by such a disaster. But most of the destruction and damage is caused due to human activities such as mining, illegal construction, pollution etc. So there is a need to sustain the Environment in the present time. Generally Sustainability is the term defined as " essence of healthy and insightful perspective on Environment that is future oriented and rests on the development of ethics of sustainability". There are various religious thinkers, theologians and Environmental thinkers around the world working on establishing their own doctrine, and articles to protect and to sustain the environment. Since the 1986 " Assisi Declaration" , conservation and Protection of nature, become a common pledge of the world faith. From a philosophical perspective J.R Joardins claims that " Environmental issues raise fundamental questions about what we as Human beings value, the kind of beings we are, the kind of lives we should live, our place in nature, and the kind of world in which we might flourish. In short Environmental problems raise fundamental questions of ethics and philosophy". (2) (J. R. D Joardins, 1997). "In Lyn White's seminal paper on " The Historical Roots of Our Ecological Crisis". Emphasize on the notion of Environmental philosophy. He suggested that The orthodox Christian arrogance towards nature is at the root of our ecological troubles, which are so largely religious whether we accept it or not. The way people treat their Environment depends on their conceptions of themselves, of nature, and of the relation between the two. (Lyn, White, Jr. 1967).(3)

2) Buddhism

Buddhism is the greatest religion across the world, it consists of complex history, and ethical teaching and system of beliefs. It is considered that Sidhartha Gautama lived from 566 to 480 B.C. His father was a warrior king of India. Earlier Gautama used to live an extraordinary life. A time came, when he became bored from their palace life, decided to visit the whole world. But when he was wandering the whole world he saw an old man, an illman, a corpse and an ascetic, then he started to know the truth why man became ill, old, corpse and ascetic. To search for the

truth he meditated under the Bodhi tree, and finally he got the truth. "Buddhism is one of the major world religion, Buddhism takes as it its goal escape from suffering and the cycle of rebirth and the attainment of Nirvana, and emphasize Meditation and observance of moral precepts".(4) Buddhism's fundamental teaching was on the notion of suffering, not mainly on environmental ethics. But often, it is to be considered that Buddhist literature consists of little information about Environmental ethics.

3) Ecological Interdependence and Buddhism

According to Buddha, everything in this cosmic world, based on the doctrine of dependent origination. Most of the scholars of Buddhist schools show that, idea of interdependence supports environmental ethics. Interdependence in this sense is a development of Buddha teaching that all things are dependently arisen". (5). In Buddhist ethical code, every life support system is based on the interdependence factors, every living being cannot isolate itself from others . To reconcile this point, Buddha said that ecology could not be isolated from man. Both of them are mutually dependent on each other. It is just like that if man shows the callous attitude towards the ecology, then one day ecology will also show a callous attitude towards man later. That is the reason, Buddha said that Ecology cannot be separated from Man and Man cannot align itself from ecology, both are interrelated to each other. Buddhist admit two types of reality in literature, one is samsara(empirical reality) other is Nirvana(ultimate reality). Buddha says that, the difference between the two realities occurs due to ignorance just like that, when an individual makes a difference between ourselves and ecology. In Buddhism it is admitted that, nature consists of various species in the ecosystem, therefore if man provides an unkind or aggressive approach towards the ecosystem through their actions, then one day he would also suffer directly or indirectly by the incidents of the ecosystem. It is admitted in the Buddhist literature that, when someone feel that he has not relation with the environment, have a hatred aggressive feeling towards all living and nonliving things of the environment and see align themselves from environment, means that he has lack of knowledge and have a delusion in mind about the whole world and his mind is completely filled of impurities such as by sense of excess of greed, lustness, laziness and so on.if they possess this kind of thought in their mind, then they think about only short term material use, not think for the future generations. They can't understand the true nature of their own, and about the environment.

4) Buddhist perspective regarding the plants, trees and forest

To know the interrelation between Buddhism and environment, one project is assisted by wildlife fund Thailand, the member, those who were included in that assessment, collected all the material regarding the environmental preservation from the text of Buddhism, all were surprised to look the plethora of sources in Buddhist text about the conserving of the natural world. In the khundak nikaya of the sutta pitaka, Jatakas stories, includes so many tales related to Buddha(birth, death, enlightenment) that concerns about the moral principles, core value and provide a

respective attitude to all the plants, trees, forest, animals and other animate and inanimate of natural environment. Jatakas stories promote conservation of the natural environment and is a more literary, devotional and central core of Buddhism. Every story possesses a compassionate attitude towards all things in the environment and provides a moral message to all things. There is one story in the Jatakas in the kusanlijatakas interpret that, "the bodhisatta was born a deity and was dwelling in a clump of kusu grass(kusanaligacche devata) (6).This folktale state that, A tree that was rooted on land of king, it was looking beautiful in all manner, provide shades and wonderful fragrance, one day a incident happened in the palace of king, the roof of palace become destroyed, required a some support for the roof. King decided to give support to the roof, and ordered a nearby tree to cut down a nearby tree. Liston this talk ,the tree totally broke down and was full of tears. When the wood cutter started to cut the tree, the wood cutter found that the tree couldn't be cut because of his olderness. This story provides a moral message that we should preserve the whole environment and be friendly with them. All this is significant, because it shows an attunement with nature. In Buddhist literature it is mentioned that, when Buddha took birth in sal grove, his surroundings were completely filled from a fragrance of beautiful flowers, trees, and green shrubs. When Buddha begins to walk a few steps on land, the wonderful lotus flower blossoms. It is admirably pointed out in the literature of Buddhism that ,``Nature has always been a peaceful environment to do meditation." The Buddha attained enlightenment under the Bodhi tree, this tree is known for the reverence in Buddhism. It is also mentioned in Buddhist literature that the Buddhist monk was a lover of solitude and seeks out the empty place(sunnagra) in nature." (7) It is believed that, Early Buddhist community were directly dependent on the trees, forest and their natural surroundings for making their life survival, and they also think that enormous calmful trees gives an ideal environment to seek spiritual peacefulness.

In an earlier text of sutta nipata, there is a discussion between a Brahmin Aggikabhardvaja and Venerable Gautma. In this sutta, Gautma provides a message to Aggikabhardvaja that" whoever in this world harms living creatures, whether once- born or twice born, whoever has no compassion for living creatures, one should know(to be) an outcaste"(8). One of the most prominent thoughts of Buddha can be seen in one story of a monk in the discourses of " Fear and Dread ". It is the discussion between the Gotama and Jannusoni Brahmin, based on the entering of the monk into the forest. In this discourse Brahmin teaches the lesson about the unskilled roots, that are responsible for destroying the environment, " There are ascetics whose mind is completely filled with defilement, and possesses impure body, false speech, continuously remote lodgings in the wilderness and the forest." These ascetics possess an unskillful, fear and Dread.(9).these discussions show that unskillful roots cannot develop a sense of uniformity with natural surroundings. Early Buddhist monk communities considered the forest as home and for making a life of survival, and always maintained a compassionate and positive attitude towards them. Gratitude is the attunements with natural surroundings whether it is plants, forest or animals. There is one story of a man whose behavior is unkind toward a Banyan tree, keeps him

under the shade of their own, and provides nutritious fruits. " Long ago , Brahman Dhamika, Rajah koranya, had a king banyan called steadfast, and the shade of its wide spread branches was cool and lovely. Its shelter has expanded to twelve leagues. None guarded its fruit, and none hurt another for its fruit. Now came a man who was his fill of fruit, brokedown, and went his way" (10). When we look at the Early buddhism pronouncement admirably point out about the treatment of animals, it is astonishing to see that he set down some principles for the monk who lives their life in forest and also admonished the monk, not to deterioration of the forest, wilderness, and always astonishing the friendly, compassion , equanimity and peaceful approach towards the natural surroundings. The first principle which makes society in harmony is" to refrain from the deterioration of life", implies a positive commitment. This precepts implied the concept of saveness, curity and protectivity of all living beings. Holding a compassionate heart in early Buddhism, provides a foundation for the law of abstaining from killing animals. "There is a tale that is of considerable ecological significance and also concerns animals is the Kasavajataka, where the Bodhisattva is an elephant himself"(11) . This story entails a selfish attitude of Brahmin, who are giving temptation of feeding to the elephant by deceptive him for ivory but the elephant (bodhisatta) knows about his selfish intention and draws him out of the forest. Today these related stories can be seen in many areas, just like the recent case of a female elephant in Kerala, people have killed him for their entertainment. These jataka stories provide a moral message and warn people not to do immoral actions towards ecology and nature. In terms of analysis about animals, Peter Singer, western environmental thinker, emphasizes cruelty towards animals. In his ethical principles, Peter Singer believes that " Animal interest deserves the same consideration and the same weight as similar interests in humans"(12). But this argument of the Peter singer is limited to animals only. The Buddhist ethical code of conduct does not constitute boundation to animals only but also extended to not to kill intentionally minute creatures. In his ethical principles, the Buddhist set down some precepts for his disciple,forbidding the eating of flesh of animals. Another well known and much loved teaching regarding water conservation, in Buddhist teaching, exemplifies the central core of concern. In his ethical Teaching there are rules for monks, which " forbidding them to pollute lakes and rivers, as well as keeping saliva, urine and feces away from the green grass". (13) Buddha always dedicates to their disciples that they must save the water, and always keep it in a pure form. The Bhddha always hold a great respect to conserving water, and taught his disciple not to throw wastage eatable food in rivers, oceans, ponds, because it befouls the water resources and could be harmful for the small creatures who are living in the water zone. Buddhism teaching gives a respectful attitude and detailed account for the respect to natural surroundings. It is considerable that Nature is the only thing that provides humanity full of happiness and joyness. His Holiness the Fourteenth Dalai Lama of Tibet, always cultivating awareness about the protection of environment, he said that in his lecture that " we must sustain the nature, because our ancestors perceive the earth as rich, bountiful and sustainable" (14).he says that it could be done only, when people care of it, and will not use nature as a means but an end, and always keep harmony with nature.

4) Conclusion

Buddhism is a very famous religion in the world. Literature of Buddhist tradition provides vibes of oneness, and counsels us to protect an environment, of which living beings are an active part of it. Buddhist philosophy, taken by many people in the wrong way, talks about only noumena but not about phenomenon. But it is really very helpful to our present time. Buddhist ethical teaching holds a great respect to all living and nonliving things, always maintaining a non-violent attitude, compassion, and sympathy towards all beings in nature.

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Science of Spirituality

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Abstract

Central to both Science and Spirituality is the uninterrupted desire and longing to find and grasp the essential nature of reality. The primary objective of science is a complete understanding of the fundamental principles underlying the physical universe in all its diverse forms and to take it further from there to convert into Technology. Science is the manifestation of this very search for something tangible. Spirituality, on the contrary, is pursuit for the inner self or the intangible. It hopes to answer big questions like: "**Who are we?", "Why and how are we here?", "What is there beyond life?**" and so on. Spirituality is not mere casual thinking about it, talking about it, taking classes or reading books. Spirituality is preparing your body and mind to receive God's inspiration: in your thinking, in your speech, in your actions and in your feeling that God is present everywhere. In this context it is worth mentioning the great Swami Vivekananda's quote; "**You have to grow from the inside out. None can teach you, none can make you spiritual. There is no other teacher but your own soul**."

Keywords: Spirituality, God, and Science

1) Introduction

Before we proceed to go a little deeper into discussing the subject we shall outline on the sources of these two commonly used but inalterably impacting words in our life. The word "Science" originates from a Latin word "**scientia**" meaning "**to know**". Science is a systematic process that builds and organizes knowledge in the form of defensible, justifiable and verifiable explanations and predictions about the universe, something in the domain of physical, something that our five senses directly or aided by instruments can fathom and perceive. The term "**spiritual**", matters "**concerning the spirit**", is derived from old French "spiritual", which is derived from Latin "spiritualis", which comes from "**spiritus**" or "**spirit**" meaning "**Soul**". Therefore the word "spirituality" again owes its origin from the Latin word "**spirit**". Spirituality hence may be defined as the process of knowing the Soul.

Spirituality is a broad concept with room for many perspectives. In general, it includes a sense of connection to something bigger than us, and it typically involves a search for the meaning of life. As such, it is a universal human experience - something that touches us all.

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Science is useful because we can convert it into technology and use it in so many different ways. It is only because of the value of technology that science has become valuable. Technology is the application part of science

If you take away the application part of it, the Science becomes irrelevant. Both Science and Spirituality have the fundamental commonness in their eternal and non-ceasing search for the truth. However, Science is searching for the truth in the physical domain, something that our five senses can perceive, and something that is tangible. And Spirituality is searching for something that is beyond the physical domain and that can't be perceived by five senses, something that is intangible. Contrary to the common notion or belief, "**Science**" and "**Spirituality**" should not be misconstrued as diametrically different concepts. What is found common both in Science and Spirituality is seeking the truth.

2) Analysis

In its broad-spectrum Science is typically subdivided into the natural sciences, which study the material universe; the social sciences, which study people and societies; and the formal sciences, which study logic and mathematics. Disciplines which use science, like engineering and medicine, may also be considered to be applied sciences. Similarly, the search for the soul can well be termed as Spiritual Science.

To have a pleasant state of mind is not spiritual. When you say "**Spirituality**", immediately people will add a rejoinder ……. "**peace of mind**". Peace of mind is not spirituality. If our experience of life transcends the limitations of the physical then we can say we are spiritual. So what we are looking at spirituality is nothing but having a dimension which is beyond physical, which is the source of the physical. Spirituality is not something which you can make it happen on the contrary it is something to be explored. If you want to explore these dimensions you have to enhance your perceptions. If spiritual process has to be a common reality for everybody, then it is extremely important that it is presented as science, as a scientific method. Today our intellect is such that if only logical things are spoken to us we will listen, otherwise not. That means only the ways of modern science is acceptable to us. Anything else is not acceptable. So it is extremely important that the spiritual process also is explored logically and scientifically by our intellect-that is wisdom. This has been discussed elaborately at a later part. Spiritual science is the exploration of the interiority, that dimension which is the source of the physical.

Before we elaborate further we shall look at what comes to our mind when we experience the creation all around. We accept that there is a creator or Super Soul in this universe. Then there comes the seeking to know the creator. We, the human beings, are the most beautiful and complex creation in this universe with a mind to prosper. And we love this creation of the creator best. Having accepted that there is a creator who is responsible for creation of this human body and its growth, if we try to analyze how this creation - the human body grows from the size of a baby to a full grown human being, we have to go a little deeper. Though necessary ingredients

are fed to this body from outside for its sustenance, the mechanism to convert these inputs into tangible growth happens from within this very body. Therefore, intellectually or scientifically it can be concluded that the very creator is also seated on the driver's seat inside this very body and presiding over the body. For example, when we look at an object or feel the cool breeze blowing or taste delicious food, we do all these through individual sense organs - through eye, skin and tongue. But the perception of all these actions, as said before, happens within the body-more precisely in the brain - and exactly in the mind. And all these actions are experienced by the perceiver - the presiding Soul residing within this very body. According to "**Vedanta"** this very Soul is called "**Jeevatma**". And wherever there is a Soul, invariably the "Super Soul" accompanies the Soul and is known as "**Paramatma**". Individual Soul and "Super Soul" are two different entities which are similar in their spiritual nature but distinct in function. "**Jeevatma**" or the individual Soul refers to the living entity which is embodied in a physical form. "**Paramatma**" refers to the Supreme Lord who expands Himself as the "Super Soul" and who enters into the hearts of all living entities as well as all the matters. Thus "**Paramatma**" is the localized aspect of the Supreme situated in everyone's heart as the transcendental witness. This is also confirmed in Sreemad Bhagavad Gita, something that continues to be looked upon as the "**manual of life**", where Lord Sri Krishna says "**I am seated in everyone's heart as the all-pervading "Super Soul" and from Me comes remembrance, knowledge and forgetfulness**." The "Super Soul" acts as the neutral observer, witness, adviser, guide and friend of the individual Soul. So what we refer to as the creator is definitely functioning from within our body and that precisely is in our heart.

With this background it is relevant to discuss a little on Vedanta. In each one of us, both the real self and an apparent self are present. Apparent self is subject to different changes. It takes birth, grows, develops, decays and dies. At the back of each of us there is the real, permanent self. The apparent self implies the non-self and the real self the "**Soul**" or "**Spirit**" or "**Atman**".

Vedic texts mention that human body is only the physical abode of Soul. The Soul is considered to be enveloped in five "Koshas" or "Panchakosha.[1]" We are all "**Soul**" or "**Atman**" - a pure consciousness - but our first or outermost cover is the gross body which is matter-born, matter sustained, impermanent and subject to perception and is known as "**Annamayakosha**"[1] (the cell that processes food and supplies energy). The outermost of the "Koshas" is called the sheath of food, or "Annamayakosha." This is the gross physical body.

Within this body or "Annamayakosha" there is something called the "**Pranamayakosha**"[1] separate from and subtler than "Annamayakosha." "Pranmayakosh" (the life force) is the "Pranic" sheath composed of "Prana", the vital principle or the force that holds together the body and the mind. Its physical manifestation is the breath. As long as this vital principle exists in the organisms, life continues. It is the sheath of the vital air completely enclosing and filling the "Annamayakosha." The "Annamayakosha" gets life by the "Prana" entering into it and thereby engaging it in all kinds of actions.

Again, the subtle level of the "**Pranamayakosha**" is maintained by the level of the mind, the "**Manomayakosha**"[1]. "Manomaya" means composed of "manas" or mind like thinking, feeling and willing. The mind along with the five sensory organs (taste-tongue, smell-nose, vision-eyes, hearing-ear, and touch-skin), is said to constitute the "Manomayakosa" or "**mind-sheath**". It is the cause of diversity. Man's bondage is caused by the mind, and liberation, too, is caused by that alone. The "Manomayakosha" is the cause of the sense of the "**I**" and of the "**Mine**" and of the different conceptions. It is powerful because bondage and liberation depend on the mind which by producing attachment binds a man and which by creating aversion for them liberates them from that self-imposed bondage. It pervades the "Pranamayakosha." The "Manomayakosh" is the mental faculty that receives all the sensory inputs, interprets them as good or bad and desires the good. This "Kosha" is much more powerful than the preceding two "Koshas" and governs them and is, in turn, governed by the two "Koshas" superior to it. It is thus central to human existence. In case a decision has to be made we have to go beyond these three levels to the next "Kosha" known as the "**Vijnanamayakosha**"[1] or the wisdom sheath, the experience of a higher mind with intuition. "Vijnanamaya" means composed of "vijnana", or intellect, the faculty which discriminates, determines or wills. It is the sheath composed of more intellect, associated with the organs of perception. "Vijnanamayakosha" pervades the "Manomayakosha" that pervades the "Pranamayakosha" and "Annamayakosha" in that order.

However, sometimes even intuition is not sufficient and therefore we refer to the final blissful sheath or "**Aanandamayakosha**"[1] which deals with transcendental consciousness. "Anandamaya" means composed of "ananda" or bliss. In deep sleep, when the mind and senses cease functioning the Soul enjoys bliss in the company of "Super Soul" in the "Anandamayakosha". "Anandamaya" which is composed of Supreme bliss is regarded as the innermost of all. This is the stage in which "Aatman" experiences eternal bliss, a perfect state of peace, comfort, stability and carefree nature. The fifth or the "Anandamayakosha" is the innermost "Kosha" in closest proximity with the soul. "Anandamayakosha" or "**sheath made of bliss**" (ananda) in Vedantic philosophy is the most subtle or spiritual of the five levels of embodied self.

Soul or "Atman" is covered by all these five sheaths[1]. They are called sheaths because they conceal the nature of the Soul or "Atman", as sheath covers a knife or sword. But the Soul which is beyond these "Panchkoshas" is totally detached from all these veils. The five layers mentioned above can well be compared to the five layers of clouds.

When impenetrable clouds obstruct the radiant sun we feel there is no sun as we are unable to see the rays of the sun. In a similar way the clouds of impurities of this life and countless past lives obstruct the Soul and make the Soul invisible and we can't comprehend the presence of the Soul. And we feel or say there is no Soul. We live under immense delusion.

However, when a thin layer of cloud is obstructing the sun, its rays are partially visible as is the case of "Anandamayakosha" which is the closest to the "**Atma"** or Soul so to say. The light that

shines through these different layers differs in degrees depending on the density of the clouds. If the cloud is little thicker, it is like the "Vijnanamayakosha", still thicker - it is "Manomayakosha", thicker than that, it is like the "Pranamayakosha" and an absolute covering is the "Annamayakosha."

A person who identifies himself with the gross physical body will never have illumination. The self when identified with the mind creates doubt. A thinker is a doubter. Being in doubt is a common phenomenon, more often than not, it's an everyday experience. We are constantly questioning ourselves even in small simple acts... we are playing out these mini wars in our mind always. The "Vijnanamayakosha" or the sheath of "buddhi[1]" is called the discriminating faculty and is finer than the mind. It is close to the "Anandamayakosha" and is the sheath of intellect which helps to arrive at a decision or to achieve certainty. To achieve certainty therefore, the Soul or "Atman" uses the sheath of intellect. The sheath of intellect or "buddhi" is extremely effulgent because of its proximity to the Supreme Self. Through the fifth and final sheath of bliss "Anandamayakosha" one experiences varying degrees of happiness. The chief features of this sheath are rest and joy such as we experience when we come into contact with an agreeable object. A fuller manifestation of the sheath of bliss is experienced in deep sleep. We think and live within "Annamayakosha" and therefore we experience fear and emotion, react according to our "**trigunas**" and continue to generate karma leading to an unending cycle of life and birth. Freeing our soul from the attachment and identification with the food sheath (Annamayakosh) or physical body is the first objective of spirituality. Ultimate objective of human life is to move away from the "Annamayakosha" and remain in the "Vigyanamayakosha" most of the times and progressively move into the "Anandamayakosha" (State of Blissful being).

The real glory of the Soul is unobstructed by any sheath[1]. Through discrimination and non-attachment, self-control and meditation, a person no longer identifies himself with any of the sheaths but remains constantly absorbed in the Self. We should try to make the sheaths thinner and transparent through "japa", "sadhana", "sadhu sang", meditation, discrimination and such other acts. While practicing meditation it is not necessary for us to be wedded to any particular philosophy. Even an agnostic or an atheist can practice meditation.

When there are no more obstructing clouds we shall be face to face with the truth. Now we know where the Soul-the source of the physical is. And the sojourn for the search begins. But how do we search for the Soul which is residing within our body? How do we experience it? We can perceive anything with our five senses. And our five senses can perceive something which is physical[2]. Then how do we perceive the Soul through our five senses which are beyond physical? How do we perceive something beyond physical through physical means? The answer is - we can't perceive the Soul through our five senses. The level of perception that we have may be sufficient for all that we gather through our five senses and may help Science in its relentless pursuit in search for the truth in the domain of physical. But when you are seeking the creator-the "Super Soul" then this level of perception is not enough. You need to have a different dimension of perception for that.

Sreemad Bhagavad Gita, states four "Marga"[3] (paths) to purify one's mind and to reach the summit of spirituality - the path of Unselfish Work, the path of Knowledge, the path of Devotion and the path of Meditation. The path advocated by Lord Sri Krishna in Sreemad Bhagavad Gita is what will lead us in that direction for the creator.

"Karma Yoga" or the "**Yoga of action**" is the process of achieving perfection in selfless action. It is primarily the practice of selfless service to humanity whereby a spiritual seeker attempts to give their actions selflessly without hoping for merit, fame or glory. Practice of Karma Yoga purifies the heart by teaching you to act selflessly, without thought of gain or reward. By detaching yourself from the fruits of your actions and offering them up to God, you learn to sublimate the ego. Practice of Karma Yoga eventually takes the seeker to the point of mental purification, oneness with humanity and inner peace by continually offering action selflessly to God and humanity. Ultimately Karma Yoga practice brings true knowledge of the Self and prepares one to be receptive to the divine light of God.

"Gyana Yoga" is the path where reality is discovered through insight, practice and knowledge. In "Gyana Yoga", the mind is used to inquire into its own nature. "Gyana Yoga" looks at the truth about who we are and what we are experiencing. The fundamental goal of "Gyana Yoga" is to become liberated from the illusionary world of "maya" (thoughts and perceptions) and to achieve union of the inner Self (Atman) with the Supreme Soul or "Paramatma". The full realization of this truth brings enlightenment.

"Dhyan Yoga" is the process of achieving perfection through meditation. Mind is like a lake, where waves are generated once stones are thrown or dropped into it. Those waves do not let us see who we are. The water must be calmed. If one remains quiet, eventually the winds that ruffle the water will give up, and then one knows who one is. God is constantly within us, but the mind obscures that fact with agitated waves of worldly desires. Meditation quiets those waves. When the "Yogi", by practice of Yoga, disciplines his mental activities and becomes situated in transcendence - devoid of all material desires - he is said to be well established in Yoga. As a lamp in a windless place does not waver, so the transcendentalist, whose mind is controlled, remains always steady in his meditation on the transcendent self. Such meditation, Lord Sri Krishna admits, is difficult, but one can achieve it through arduous effort. It is undoubtedly very difficult to curb the restless mind, but it is possible by suitable practice and by detachment. For one whose mind is unbridled, self-realization is difficult work. But he whose mind is controlled and who strives by appropriate means is assured of success.

"Bhakti Yoga"- the Sanskrit word "bhakti" comes from the root "bhaj", which means "to adore or worship God." "Bhakti Yoga" has been called "love for love's sake" and "union through love and devotion." "Bhakti Yoga", like any other form of Yoga, is a path to self-realization, to having an experience of oneness with everything, is a spiritual path or spiritual practice focused on the cultivation of love and devotion toward God. It is a practice of devotion toward God, solely motivated by the sincere, loving desire to please God, rather than the hope of divine reward or the

fear of divine punishment. “Bhakti Yoga” is often considered to be the easiest way for ordinary people to attain a spiritually liberated state, because although it is a form of Yoga, its practice is not as rigorous as most other Yogic schools, and it is possible to practice “Bhakti Yoga” without needing to become a full-time Yogi.

In this context we can refer to Sreemad Bhagabatam which has given a brilliant description of Navdha Bhakti (Nine Steps of Devotion) that can take people to salvation. The Sreemad Bhagavatam delineates the nine ways (Navadha Bhakti) in which we can lovingly connect with God. They are as follows.

a) **Shravana** - Hearing the glories of God.
b) **Kirtana** - Chanting His Name and Glory.
c) **Smarana** - Constantly remembering Him.
d) **Pada Sevana** - Serving His Lotus Feet.
e) **Archana** - Worshipping Him as per the Scriptures.
f) **Vandana** - Prostrating before Him.
g) **Dasya** - Serving the Supreme Lord as a servant.
h) **Sakhya** - Serving Him as a friend.
i) **Atma Nivedana** - Completely offering the Lord one's very self.

3) Conclusion

I conclude by saying that this modest effort has been to establish that Science Spirituality dichotomy is more apparent than real. True understanding of Soul is a holistic one and involves cognition of all the above described layers that constitute our existence.

Very rare is this human life and we have gained this human life as a result of many births. Time, the tyrannical and dispassionate as it has ever been, never ceases to run fast. The opportunity is not to be lost. The transcendental voyage in search of the “Paramatma” needs to begin without any delay to cross over the tumultuous ocean of the earthly desire on the vessel of “Satsang” led by an enlightened “Sad Guru.” Chants of God’s name will be our only wealth to buy us a ticket to the destination. Communion is certain. You touch the shore. To the “Vedantic chants”

“Iam He”….. “I am He”. “So ‘Aham”… “So ‘Aham.”

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Liberating Learners through Self-realization

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Abstract

Experimenting with human consciousness poses unique challenges. When our thoughts, ideas, experiences, and assumptions are our biggest barriers, and we have been trained all our life to walk in the exact opposite direction, how do we neutralize the barriers while juggling career, family, and life? How does it feel to engage with our inner self, what are the signs that we are on the right path, and how do we leverage our circumstances to make progress, day after day? These are some of the questions that need to be introspected and answered to make the present society (fraught with strife and diminishing human values) a better one. In this paper a modest attempt is made to dive into what exactly self-realization is and how students can be made aware of realizing their potential so as to find a way to decrease their stress and anxiety to gain crystal clear clarity about who they are and what are they capable of.

Key words: Competence, Reflection, Self-Realization, Self-Expression.

"With the realization of one's own potential and self-confidence in one's ability, one can build a better world."

– Dalai Lama

1) Introduction

Sa Vidya Ya Vimuktaya (Vishnu Purana, Parasara, 1.19.41) knowledge is that which liberates.

It is the most novel definition of knowledge. The knowledge of self is the highest wisdom knowing which a person comes to terms with himself and with the whole world. The happiness that man seeks from the world of objects is as short-lived as the objects themselves, but the bliss of the self is always there and it cannot be taken away. Education teaches man to accept what is good and beneficial and to reject what is lecherous and inappropriate.

'***Asotoma Sadgamayah Tamasoma Jyotirgamaya'*** (Brihadaranyaka Upanishads – 1.3.28). Lead me from the unreal to the real, from the darkness to the realm of enlightenment' – is the eternal prayer of an individual. Therefore, the clarion call to all is 'come and be glorified with the light of education'. The meaning of self-realization for a student is the capacity to be a subject, be creative, active, take responsibility, make decisions, pursue goal-setting, etc. Self-realization denotes a state in which an individual knows who they truly are and is fulfilled in that understanding. It involves relinquishing many things associated with individual identity

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in order to find the true ***Self***, which is eternal and unchanging. It is the difference between identifying with the *ego* and identifying with the *true Self.*

The achievement of Self-realization may be seen as a scientific and/or spiritual process. It is said that once a person reaches Self-realization, his new vision and understanding of himself brings him perpetual happiness. It will also bring equanimity to all circumstances, inner peace, freedom from all fears and anxieties, deep spiritual fulfilments, stronger, calmer relationships with others.

Self-realization occurs when we stop identifying with the limited ego and attaching to the soul, and instead recognize ourselves as one and the same as the Divine. In this stage, we are free from suffering, free from fear, and free from all separation**.** What remains is a pure radiance of being, a total union with Life, an experience of endless love, connection, understanding, and openness to existence.

The key to managing oneself is to know: Who am I? What are my strengths? How do I work to achieve results? What are my values? Where do I belong? Where do I not belong? Finally, a crucial step in successfully managing oneself is feedback analysis. (Drucker: 2004)

Definitions

There are two definitions of '*Self-realization'*: one is secular, the other is spiritual. According to various western psychological and philosophical traditions**, *S**elf-realization* is the fulfilment of our personal potential in life. It is *being all that one can be* in an unlimited, expansive sense. However, according to the eastern spirituality, '*Self-realization'* is the knowledge and embodiment of our true nature *beyond* the ego. In Hinduism, it is used to denote **Atma-gyaan**. It means that the gyani has transcended ego and has begun to sport in the (limited) bliss of **atma**, or the soul, in samadhi, or trance. This bliss of the ***atma*** is so intense and delectable, that the gyani believes himself liberated. But nothing can be further from the truth. As soon as he comes out of Samadhi, his mind - which has all but been destroyed by negation - again clings to the realm of Maya - the material pleasures. Self-realization is wrongly associated with Mukti.

An atma-gyani must transcend Mahaan (Mahat-tattva) and Maya, to attain Kaivalya - or final (for gyanis) beatitude. Both are impossible for him to achieve by his own efforts. In other words, a soul can overcome Tamas and Rajas (Avidya maya) by intense spiritual practice (over millions of lifetimes), but he cannot surpass sattva (Vidya maya) on his own. Thus, the real Guru advises him to then take recourse to bhakti - the Fountainhead of all divine Objects - to a Personal Form of God viz. Sri Krsna, Shankara or Devi. Patanjali, too, states that divine Grace of a Personal God, is compulsory for final beatitude (Ishvara Pranidhaanat).

Because his mind is already pure, the gyani's mind very swiftly melts in the remembrance of God's beautiful Form. And when it is begged for, divine Grace descends upon the self-realized soul, catapulting him in the bliss of Brahm (formless God). Now the gyani has become Brahm-gyani. He is now mukt, atmarama, paramhans. Standing on this pedestal, Sri Shankaracharya declared,

Dhanyo hum, krit-krityo hum, vimukto hum
I am blessed, I am great. I have achieved all that there is to achieve. I am forever liberated.
To put all of these definitions together, self-realization is ultimately learning the answer to the foundational question, "Who am I?"
Here self-realization means, in secular sense, knowing one's capacity to grow, a capacity to become stronger, a capacity to acquire knowledge, a capacity to discipline oneself, a capacity to lead an honest and smart working life. From spiritual point of view self-realization is to know inwardly, connecting the individual dot with the universal dots.

Rationale for Self-Realization
"Today's students are not the students of yesteryear," says Prof. VSK Reddy, Honorable VC Malla Reddy University Hyderabad. "There are many things on their mind. They're not even sure they can continue to pay what they are paying for higher education. Some of them have life responsibilities already. They feel this tremendous pressure to compete, and often find themselves at the point of breaking." There can be tons of pressure whether it is from work, society, and even friends and family for a student to behave in a certain way. Maybe his rough upbringing instilled a strong need for other's approval in them so they do what others expect of them. Maybe they have stopped trusting people because of their struggles with letting go of the thoughts and experiences that hurt them. Being connected deeply to his inner self, self-realization frees him from fear of failure, over excitement, and low sense of self-worth.
According to the numerous recent studies, self-realization not only promotes the development of professional, social and personal competencies, but also provides the level of life quality that affects all the aspects of life and human activities (Maslow, 1954; 1968; Myers, 1992; Bekaert's, 1996; Butler, 2000; Dweck, 2000; Ashton and Lee, 2001; Cheng and Furnham, 2003).

Self-realization offers manifold benefits:

1. Students can attain higher confidence and good self-esteem because of their profound connection with the inner self.
2. Self-realization manifests in single minded focus and mental sharpness which in turn help students to set their goals and work on them conscientiously. They get rid of meaningless things in life and can focus on what matters the most.
3. Self-realized students are in better control of their thoughts and emotions. They can observe, face, and overcome emotional trauma. They have clear perspectives that align their thoughts, feelings, and actions. They can be less guided by others and they will not

live life on the whims and fancies of others. When people don't have a strong sense of their own self, they get easily swayed to live life the way other people tell them to live it.

4. Self-realization develops self-acceptance in students and ensures productive relations with others as well.
5. Self -realization helps students to confront their insecurities and fears. It removes distraction and keeps you grounded to reality.
6. Self -realization strengthens students' emotional and social intelligence.
7. Whatever the situation, self-realization gives students the safe space needs to heal and grow.

The self-realization is not the result but a process of growth, self-development and the realization of its potential. That is why it is necessary to emphasize the importance of self-realization by which a person achieves spiritual independence, resistance to external pressures, expressed emotional intelligence, which are of great importance for proper functioning in the modern environment.

2) Objectives

The workshop primarily aimed at making students aware of the value of self-realization in their life. It had a strong component of self-reflection. The specific learning targets were to arrive at self-tested action plans to discover participants' strength and weaknesses in order to formulate a self-development regimen; and to make them a self- critique of their march towards self-realization

3) Methodology

A combination of interactive lectures, case studies, individual assignments, group discussion, role-playing exercises, and frequent self-assessment were used in a . Almost all the sessions were conducted in groups of 3 to 5 at the initial stage and later on 5 to 7 to ensure intensive awareness raising and free sharing of ideas.

The emphasis was very much on high levels of introspection and critical reflection in a non-threatening environment. The very process of reflection is powerful learning in, especially as we integrate new learning with our previous experience and that of others itself. For Paul Friere " the art of knowing involves a didactical movement which goes from action to reflection and from reflection upon action to new action" (1970:13). In the process of reflections on experiences, the individual passes through the following three steps:

i. Rethinking to the experience
ii. Attending to his learning about the experience
iii. Re-examining the experience

Management Guru Peter Drucker (1985) states, "Follow effective action with quiet reflection. From the reflection will come even more effective action."

The workshop systematically went through the following stages. A brief discussion of each stage follows.

The objectives and methodology of the workshop were briefly explained in the invitation letter to the selected participants. The average age of the group was 20 years. They were asked to follow the guideline given below:

- When it comes to self-realization, honesty is crucial; say what you honestly think.
- Commit to stretch beyond your comfort zone. When we stretch we grow.
- Be five minutes early before every session. This conscientiousness on your part will show respect for everyone attending (including yourself).
- It is to your own distinct advantage to attend each session. Interesting revelations might occur at any time.
- Make a special effort to listen carefully to all discussion. Commit to give your attention to the speaker and refrain from side conversations.
- Keep an open mind and not to jump to conclusions.
- Be brief with your comment

The workshop began with the following meditation instruction I gave to students:

1. Sit comfortably on a chair.
2. Start by leaving your eyes open with a relaxed soft focus.
3. Take about a minute to take deep breaths in through your nose and out through your mouth.
4. After a few deep breaths, gently close your eyes while you are breathing out.
5. Resume normal breathing.
6. Take a moment to pause and enjoy being present in the moment with having nothing to do, nowhere to go, nothing to check.
7. Take a moment to feel the pressure of your body on the chair beneath you, the feet on the floor and the hands and the arms just resting on the legs.
8. Gently bring the focus back to your breathing.
9. As you sit there beginning to notice the breath and the body with its rising and falling sensation, don't try and stop your thoughts. Simply allow them to just come and go.
10. At this point, the only thing you need to do is when you've realized your mind has wandered, gently bring the focus back to your breath again.
11. Gently bring the attention back to your body, back to that feeling of contact to your chair and the space around you and when ready, gently open your eyes again.

I brough home the point that even if it is only 5-10 minutes a day, learning to train your mind to be present is so important to your journey towards self-realization.

Next, the class was divided into pairs and participants were asked to read a short story.
Each pair was eventually asked to reflect on three questions:

- What was the moral of the given short story?

- What have you learnt?
- How can you apply it?

I also gave the following self-reflection ideas participants can put them to their benefit.

* I chose this because...

* What I like about it is...

* What I need to improve is...

* I'm getting better at...

* As I wrote this I worked hard at...

* This is one of my best pieces because...

* This was hard because...

* This piece shows my strengths are...

* On my next piece, I'd like to work on...

The following 10 helpful questions that we ought to ask ourselves on a frequent basis were used as tool for reflection in this stage.

1. Am I using my time wisely?
2. Am I taking anything for granted?
3. Am I employing a healthy perspective?
4. Am I living true to myself?
5. Am I waking up in the morning ready to take on the day?
6. Am I thinking negative thoughts before I fall asleep?
7. Am I putting enough effort into my relationships?
8. Am I taking care of myself physically?
9. Am I letting matters that are out of my control stress me out?
10. Am I achieving the goals that I've set for myself?

Through frequent self-reflection, we can make sure that we're on the right path. Lack of self-reflection can cause us to seem lost or without a purpose. Time flies by and without consciously evaluating our circumstances, we can let so many aspects of our lives slip away: our health, our relationships, our goals. It's necessary for us to unplug for a few minutes every now and again, when possible, and address a variety of the questions, including those listed above

Students contributed to this discussion in which my role was not to correct their ideas but to elicit them without criticism. As an observer I mainly concentrated on the behavioural change in some of the participants. Finally, participants' feedback on the concluded workshop was collected.

Feedback from students

The feedback collected from the participants strongly lent support to self-realization as a tool to promote holistic development in students. There was some overlapping in their comment. Some of them after consolidation have been listed below:

1. We all know time is precious. Our goal ought to be to use it in a way that isn't counter-productive. For example, taking time to unwind and do nothing productive in particular could be beneficial for the mind and body.
2. There are countless blessings around each of us. Even at our lowest lows we may have the support of family or friends, a roof over our head or skills that we ought to take pride in. We ought to take a moment every now and again to look at what we have around us and be grateful.
3. Whether or not we're happy, doing what's right, or if we are successful is all about perspective. We may have the world at our fingertips yet find ourselves utterly empty. We can grow to hate our jobs simply because of one co-worker whom we cannot agree with, or be devastated over a dissolving relationship that had been detrimental to our well-being in the first place. Sometimes we're so zoomed in on various issues that, when we step back or hear an outside perspective, we can view the issue in a completely different light. Try to adopt new perspectives when possible; a glass-half-full approach can mean a world of difference in regards to certain matters.
4. The first thought of the day is a massive indicator of my general level of happiness.
5. My last thoughts before falling asleep reveal a lot about what's going on in my life. If they're consistently negative, I try to identify a pattern of what may be causing them and then seek to address the stressors.
6. I realized that moving away from family, for instance, requires lots of effort to stay connected and stay close. I make sure that I am dedicated towards maintaining my relationships to ensure that I don't lose them.
7. As Buddha said, "To keep the body in good health is a duty…otherwise we shall not be able to keep our mind strong and clear." I am aware of the fact that our physical well-being can, in turn, be put on the back burner if we're not aware.
8. People have many goals. However, goals often go unrealized because people lack self-awareness…Thus, to improve our chances of reaching our goals, we must remain aware of our current behavior. Self-realization has turned out to be a change agent in my case. Earlier it was in sub-conscious state now it is following me as my shadow.
9. Self-realization has helped me to visualize success. I believe that self-criticism can be a positive element and starting point for my continuous improvement. Though this psychological side of task is perhaps harder to achieve.

10. The power of self-reflection can serve to keep you in check, to keep you focused on self-improvement and ensure that you are as fulfilled as possible.

Insights Drawn from the Workshop

From my self-observation and feedback received from the participants a set of insights was gained. Self-realisation in form of Learning is a very personal process. It is an active process - not the pouring in of the messages. The learner reacts to the message and the learning brings about a change in behaviour, be it mental or physical. Intense, dramatized vivid experience is likely to make an impression by capturing the attention and strengthening the impact. Learning that is related to our own experiences (so that similarities and differences can be easily seen) is more likely to be remembered. When a learner is self-critical of his/her weaknesses and strengths that improvement can take place and s/he can guide his/her learning

4) Conclusions

Self-realization holds a significant position in life as it helps us understand the real clichés of an issue. If we are aptly enlightened with the concept of self-realization nobody can ever drag us into any heated scene of disagreement. Even criticism should be constructive at all times. Self-realization doesn't happen overnight. It will take some time and practice, but if you turn the practices into a habit, you'll be guaranteed to get there. Once students get hooked on to it, they feel like they are in more control over their life and are able to get them serves to the next level. Now that they have a better understanding of the importance and benefits of self-realization, they will reap the benefits for sure.

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Human Rights and Social Status of Tribal Women

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Abstract

This article discusses of tribal women human rights all human being have the right to live as human beings. Human rights are not conferred or given. They already exist in society. The concept of human rights aims at protection of rights like right to life, liberty and property. These rights are attributed to human being irrespective of class, caste, gender, colour and religion. The universal declaration of human rights was unanimously adopted by the UN General Assembly on Dec. 10th, 1948. The preamble of Indian constitution adequately empowers the central and state government to eliminate human rights violation in the country. Human rights of tribal women are violated extremely and in peculiar form.1 So, it is important to discuss the status of tribal women and various articles made for their upliftment. This article focused on this issue and given recommendations will help in securing their position in our society.

Keywords: Domestic violence, Economic violence, Empowerment, and Education

1) Introduction

The family has many forms and different structures. These families have direct bearing on the status of women, not only in terms of the number and quality of relationships to which they have to adapt and the distribution of function and roles, but also with regard to the allocation of resources. According to religious beliefs, women are considered impure, that is why they are not allowed to use plough and interact with supernatural being directly. The present and condition of the tribal women is not an accidental affair. It has evolved because of the operation of several forces in the past. The economic cycle and division of lobour in the tribal areas has given an important role to the women. This economic role has undoubtedly affected the social position of women, who have social freedom that is quite remarkable in its scope.**2** There is culture similarity among the different tribal groups in the respective areas under study, as the women from different areas have similar economic roles to play, necessitated by the demands of the environment to grow food for their own consumption.

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2) Status of Tribal Women in Society

Role of women is not only of importance in economic activities, but her role in noneconomic activities is equally important. Women's role as wives, mothers organizes and as the basic foundation of other dimensions of social life of utmost importance. The tribal women in these areas occupy an economically significant place that is reflected in the generally high position and the importance that they have. The socio-economic equality of sexes can be observed in the attitudes and practices concerning marriage, divorce and household harmony. The tribal women work very hard, in some cases even more than the men. However these women are not backward. They have power in their own sphere, no men tell them what to do. They are responsible for their own share of work and share the benefits oftheir own work as long as the unit of production and consumption remains the home. Their own perception and that of their men, is that women share major share f socio-economic activities and consequently they are respected, well thought of and think well of themselves. The concept of patriarchy which prevails in subsistence societies, conveys respect rather than envy between the genders despite the fact that tribal women live their lives as dependents throughout their life cycle as daughters, sisters, and wives or as mothers of sons, they have far more power and independence than modern sub-urban housewives. A women always has it in power to leave her husband if she is angry, dissatisfied or unhappy. She has great freedom of movement as children if any, remain with the husband her labour is sufficiently in demand so that she can move not only back to her natal family but also to a sister's husband's house or a more distant kinsmen's house she can stay there till such times as she return to her husband's house or finds a new one. There is no great need for her to return to the natal village although this is the his authority will be accepted simply because he is a man and fails to take into account the wishes or feelings of his wife, sister or daughter, he often gets himself into trouble. There is no way for a man to force women compliance with his wishes. Her economic ability and consequent social position has resulted in special institutional privileges that are bestowed on the women. In spite of having freedom they seldom have a voice in the political sphere they are not ignored at household level, but are not given due credit and importance in political and religions subjects. They are like invisible hands shaping and maintaining the structure of society.**3** Women a majority of the world's population, receive only a small share of development opportunities. They are often excluded from education or from better jobs; from political systems or from adequate health care. Even as doors to education and health opportunities have opened speedily for women, the entry to religion and political fields is still not effortless. They are treated unequally under social welfare systems that affect their status and power in the family. Women receive a small share of credit from formal banking institutions, as they have no collateral to offer. Women normally receive a much lower average wage than men.

Tribal women have been discriminated against I education, income, consumption, status and access to power, they have a worse health record then men, they suffer from social, cultural and legal discriminated and often from violence, They are discriminated on ground of equity which

refers to equality of opportunities and choice and efficiency. There is need for quantitative measurement for a complete set of cultural and rights indicators to assess women's rights. The rights of tribal women as women and their right as indigenous peoples shall be understood as interlink and inter-related. Indigenous women are an integral part of indigenous people's collective identity, dignity, cultures and ways of life. Thus, the violation of the rights of indigenous peoples also directly affects indigenous women and the violations of their rights as women also affects them in different ways as indigenous peoples in relation to their welfare and wellbeing as indigenous peoples and as women. Inspite of the huge funds invested for rural development, adivasi communities, including women benefitted the least. In fact, the expansion and operation of mining and extractive industries in all the Adivasi territories, and the building of large dams in the tribal areas created massive displacements of adivasi and tribal villages, resulting to food insecurity, poverty, violence and abuse especially amongst indigenous women and girls. This has increased even more their vulnerability to trafficking and sexual exploitation as they look for means to survive and earn income. Further they remain most vulnerable to all forms of violence including domestic violence, rape and sexual assaults, trafficking, witch-hunting among others. State machineries are not addressing the increasing incidents of such violence against indigenous women. Thousands of victims are not given are not given justice, inspite of the existence of laws and measures for the protection of women against acts of violence and abuse.

Due to poor education system or lack of quality education, tribal women remain in a cycle of illiteracy. Their health condition is also very poor compared to the majority of the population. There is a higher rate of maternal deaths among tribal women and higher rates of malnutrition among tribal children including girls. They are economically dis-empowered by not having land tenure inspite of their role and contributions as custodians of land and natural resources. Millions of tribal women depend on the land, forest and water for their livelihoods and for providing food security to their families and communities.**4** the lobour of tribal women are valued less and paid less than men in the private and public sectors despite the national scheme of MNEREGA under which equal wages are required. Due to the degrading socio-economic and political status of tribal women, they continued to face severe violations of their human rights, both within their own community and in the wider society.

3) Violence Against Women

Violence against women is highly pervasive and perpetrated with impunity. Reports indicate that every 60 minutes two women are raped and every sex hours a young married women is found beaten to death, burnt or driven to suicide. There were at least 213,585 cases of crimes against women including 22,172 rape cases, 29,795 cases ofkidnapping and abduction, 8391 cases of dowry deaths in 2010. (National crime records bureau, 2010) Women are also targeted on account of their caste, sexuality disability, and other status. Sexual violence against tribal women

is a systematic, (National crime records bureau, 2007) way of enforcing status quo of the tribal in the social order, and to reinforce the right of the upper caste to control and exploit the sexuality of tribal women. The NCRB reported a total of 1,557 and 772 rape cases of SC and ST women respectively in 2011 with a disclaimer that number of victims may be more than the cases reported in some states/UTs/cities. There are cases of kidnapping and abduction of SCs, with Uttar Pradesh alone accounting nearly58.8% of the 616 cases for 2011. Notably, there is so disaggregated data collected on atrocities against tribal women (National crime records bureau, 2011), Stigmas, systemic persecution and violence against lesbians transgender, and women with disability occur with impunity with little or legal redress. The target is of middle-aged and elderly single women in tribal as well as non tribal. India ranks among the worst countries in tacking human trafficking, (The Hindu, June 16. 2010.)

Few tribal women are free from threat and violence at the hands of their husbands. Violence often become a tool to socialize family members according to prescribed norms of behaviour with an overall perspective of male dominance and control. Klekar (1991) situates violence against women in the socio-economic and political context of power relations and it should include exploitation, discrimination, upholding of unequal economic and social structures, the creation of an atmosphere of terror, threat or reprisal and forms of religio-cultural and political violence (kelkar, 1991). However the other castes and communities it seems is not present among tribes.

4) Human Rights Related to Tribal Women

a) Article 1,2,4,5: Discrimination, Temporary Special Measures, Sex Roles and Stereotyping

According to our Indian constitution all citizens are equal, but still tribal women are discriminated because of their ethnicity, gender and class in the society. Temporary special measures are not applied as for the empowerment of scheduled tribe women. The implementation bodies using welfare approach which brought dependency syndrome and subsides their creativity. Though their health, education, livelihood support and need based skills training, sustainable development activities which build up the capacity of adivasi tribal women towards full and effective participation in every sector.

b) Article 6: Trafficking Exploitation and prostitution

There is a large scale trafficking of tribal girls and women, for exploiting their labour. Loss of traditional livelihoods, lack of quality education, lack of sustainable income opportunities have led thousand of tribal women to migrate to cities in search of jobs. Many have become victims of trafficking by false inducements and placements agencies. Many tribal girls are employed for domestic work, a sector that is unorganized unregulated and highly exploitative. Many of the

domestic workers are controlled by unregulated placement agencies that induce traffic and control their wages inspite of the existence of various laws and developmental programmes no visible improvement has taken place. More than a thousand of placement agencies have been still running yet these remain unregulated.

The government has set up schemes to respond to this growing exploitation. The government report claims that through the Ujjwala scheme, 68 rehabilitation centers were set up, 10000 police personnel were trained to handle trafficking. The report however doesn't give any account of its impact and outcomes. Several cases of police atrocities have been reported, who physically tortured innocent tribal young women in railway stations and police stations. There are cases of police taking bribes from the placement agencies and maid's owners to silent the ceases.

c) Article 10: Equality in Education

Discriminatory practices against tribal girls in schools and higher educational institutions, in terms of poor quality of education, inadequate facilities, admission policies, provision of scholarships etc. the ministry of human resource and development including UGC have not taken sufficient measures to create and monitor equal opportunity cell or anti-discriminatory units in higher educational institutions.

d) Article 12: Healthcare and Family Planning

Poor health facilities and amenities, lack of doctors and staffs especially in the area of tribal area is worsening the health condition of tribal women. Further, there is a failure in the proper implementation of the health schemes and projects such as janani Suraksha Yojna in rural area of which tribal women are not benefiting properly. As a result, they are suffering from reproductive health, diseases like anemia. Malaria HIV/AIDS, blood pressure, cancer and diabetes is very common. Further there is higher rate of maternity deaths among tribal women and higher incidents of malnutrition among tribal children including girls. The health and well-being of tribal women is interlinked withtheir natural environment.**6** Thereby the displacement of tribal women affects them adversely including their physical, mental and psychological health. Their traditional knowledge including on traditional plants and herbs is also weakened because of their removal from their natural habitat where they practice sustainable resource management systems as one of the critical source of their traditional knowledge.

e) Article 13,14: Social and Economic Benefits, Rural Women

Tribal women make significant contributions to the development of the community, Despite some improvements in their socio economic status in both rural and urban areas, their rights and priorities remain insufficiently addressed in legal frameworks, national and local policies,

budget, as well as in investment strategies at all levels. They continue to face disparities in access and control over resources. One of the essential tools that can be used to promote equality and empowerment is gender-responsive and gender budgeting. Therefore, National legislation of tribal Sub plan (ISP) is an urgent need for proper allocation and implementation of programmes. Tribal women are discriminated in rural and also urban setup due to their ethnic identities. They do not have property rights, inheritance rights and land right as the concern is for both their collective as well as individual rights.**7** Due to lack of land or property rights women are easily subjugated as powerless and considered as weak so subject to different forms of violence against women. The agricultural works of rural women are not paid nor reflected in the national income.

5) Conclusion

There is a need to have disaggregated data on tribal women in social, economic and political fields in order to ascertain and develop appropriate measures policies and programmes to meet their needs improve their conditions and wellbeing in the context of respecting their rights as women and as indigenous peoples. Till today, there been no common legal framework at the national level to promote and protect the rights of the women domestic workers.

These shall include the ministry of tribal Affairs, national commission for scheduled tribes and tribe sub plan integrated tribal development projects has to be implemented property to improve the situation of indigenous peoples particularly women. The commission for scheduled area and scheduled tribes, committees on welfare of scheduled castes and scheduled tribes, national scheduled finance and development corporation and tribes marketing development federation. Further there is a need to establish effective monitoring mechanism on how these agencies are functioning in addressing the rights, welfare and needs of tribal women.

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Discover Your Inner Self (Science of Soul)

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Abstract

The first and most fundamental knowledge that Bhagavad Gita teaches is, "You are not the body; you are a spirit soul." This knowledge is the ABC of Bhagavad-gita and one of the first instructions that Lord Krishna gave Arjuna, when Arjuna surrendered to Him [BG 2.13]. Let us understand this fundamental knowledge of the scriptures in this lesson. We will see scientific proof of existence of soul , practical benefits of this knowledge to individuals and society at large and nature of the soul

Keywords: Soul, God, Bhagavad Gita, spirit, matter, Srila Prabhupad

Scientific Proof of the existence of the soul

When people hear about the soul, the first thing they ask is, "Can you show me the soul?" or "What is the proof of the soul's existence?" For gaining awareness of any knowledge we need an appropriate instrument. For example, the ears cannot see a picture, nor can the eyes hear the sound of music. The soul is not made up of matter. It is beyond matter. Is it possible to perceive the soul? A Physicist, or an Electronics Engineer, cannot capture an electron with his fingers or hands, nor can he see it with his eyes; but he can see the light reflection coming from an electron on the CRT screen. This is the proof of existence of the electron. You cannot see X-rays with your eyes, but you can understand the presence of X-rays by seeing the effect it produces on a X-ray photograph sheet, when the X-rays are passed through a body. This is called 'inferential logic'. Using the same logic the presence of the soul in a living body can be easily proved. The following points may help us better understand the presence of the soul empirically.

Common Sense

We can understand through this discussion
Prof. Durckheim: Why does it appear to be so difficult to understand that one is different from the body?
Srila Prabhupada: It is not difficult. You can experience it. It is only because of foolishness that people think differently; but everyone really knows, "I am not this body." This is very easy to experience. I am existing. I understand that I have existed in a baby's body, I have existed in a child's body, and also in a boy's body. I have existed in so many bodies, and now I am in an old man's body. Or, for example, say you have now put on a black coat. The next moment you may put on a white coat.

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But you are not that black or white coat; you have simply changed coats. If I call you "Mr. Black Coat," that is my foolishness. Similarly, in my lifetime I have changed bodies many times, but I am not any of these bodies. This is real knowledge.

When a person dies we say, "He has passed away." Now who has passed away? The body of the person still lies there. The fact is that the source of life, the soul, has passed away from the body and therefore the person is now called dead.

Intuitive Understanding

Prof. Durckheim: Consider this. One of your students might say, "I am spirit," but he might not be able to experience it.

Srila Prabhupada: How can he not experience it? He knows that he is the active principle. Everyone ultimately knows that they are not the body. Even a child knows it. We can observe this by examining the way we speak. We say, "This is my finger." We never say, "I finger." So what is that "I"? This is self-realization—"I am not this body."

We have an intuitive understanding that the real self, the 'I', is distinct from the body, mind and intelligence. We speak in terms of 'my hand', 'my head', 'my suitcase', etc. This indicates that these things – hand, head, suitcase – belong to somebody, an owner. The eyes, ears and brain are merely organs, through which we see, hear or think. These organs in themselves cannot do any activity. There are eyes, ears and brain even in a dead body. The activities have stopped because the driver, the soul, has left the body.

Awareness, Thinking, Feeling and Willing

Someone may argue, "But the soul can't be perceived in any way or measured with any instrument. Why should we believe in a hypothetical entity for which there is no evidence?" Actually, you can see the soul; it is just a matter of training, just as you must study in the university for many years to see how an atom exists. The soul is like a spiritual atom. The symptom of its presence is consciousness.

There is consciousness in a living body. Just like the sun spreads heat and light all around, the soul spreads consciousness all around the body, from the tip of the toes and fingers to the top of the head. It is this consciousness that enables us to think, feel, move and so on. Thus, consciousness is the symptom of the soul. Consciousness is what distinguishes a dead body from a living one.

By a combination of servomotors and microprocessor, you can easily make a robotic machine perform aratik ceremony for Lord Vishnu using incense sticks and a ghee lamp. You also perform aratik for the Lord everyday. What is the difference? You have loving feelings for the Lord in the heart, while a robot has no consciousness or awareness of itself or the Lord. When you appreciate a tape recorder for broadcasting a sweet music, it feels no emotions; but when you appreciate your friend who sings sweetly, you will find a smile on his/her face. This is consciousness – the ability to be aware of one's existence, to think, to feel and to will. As Thomas Huxley rightly said, "There is a third thing in the universe, to wit, consciousness, which I cannot see to be matter or force." Consciousness gives the proof of the soul.

Near Death Experience (NDE)

NDEs, as the name suggests, involve people who have a close call with death. Many people having NDEs also have Out-of-Body Experiences (OBEs) in which they report observing their physical body and events relating to it from a perspective outside the body during severe illness or physical trauma resulting in unconsciousness. A typical case might involve a person who is resuscitated from a heart attack and reports that he observed, from a point outside his body, the medical personnel endeavoring to revive him. At such times, according to standard medical opinion, the normal functioning of the brain, as indicated by certain brain waves, is impaired, and the patient should be unconscious, if indeed consciousness is a manifestation of the brain.

A real life NDE of a boy who had a brush with death can be presented as an example. Once a boy sitting in a rickshaw was relaxing carefree while a bullock cart carrying reinforced steel bars was ahead of the rickshaw. Owing to the dark night, the rickshaw driver did not notice one of the bars that was protruding. As he drove ahead, the rod entered right into the abdomen of the boy in the rickshaw who screamed and gasped for life as the rod pierced his stomach and came out from his back. He was rushed to the emergency ward and to the operation theatre. He was almost dead, while the nurses operated on his abdomen. When he recovered, he could recollect each and every instrument used by the nurses for operating on him, as well as the talks that went on between the doctor and the nurses. The greatly surprised hospital officials inquired from him as to how an unconscious person, whose brain waves were flat, could remember everything that had happened during the operation. In response the boy said that he was out of his body, at a point four feet above the body observing everything happening to his own material body. This is a classical example of an NDE case.

The book 'Into the Unknown' published by 'The Readers Digest' even gives evidences of people who had OBEs or Out-of-Body Experiences. Such people who could perform OBE, were made to lie on a bed closing their eyes, go out of the body, observe the different types of objects like triangular prism, rectangular, circular plates, etc., kept on a loft, again return into the body and draw the objects that they saw on the loft on a sheet of paper. Such drawings perfectly matched with the objects kept high up on the loft that no one could observe from the ground level. This is called OBE or Out-of-Body Experience.

There is enough research work in NDE and OBE presented by individuals with impeccable scientific credentials. For example, Dr. Michael B.Sabom, a cardiologist and professor at the Emory University Medical School, was openly skeptical of NDEs but changed his mind after investigating them.

Past Life Memories

Rigorous, unbiased studies have been carried out by serious researchers on past-life memories. Ian Stevenson, Carlson Professor of Psychiatry at the University of Virginia, has extensively investigated spontaneous reincarnation memories recounted by children. In such cases he has been able to positively corroborate what the child has claimed by thoroughly investigating details of the place and people they describe, including the dead person they claim to have been. Stevenson has assembled numerous accounts of over 3000 cases of reincarnation and

verified them, always taking great care to screen out fabrications. His studies give convincing evidence that the conscious self can travel from one physical body to the next.

Clearly, when one body dies, the contents of its brain are destroyed, and there is no physical process by which they can influence the contents of another brain. The logical interpretation is that the conscious self must be an entity distinct from the brain.

Practical Benefits of Science of soul

The knowledge and realization of the soul, as explained in Bhagavad-gita by Lord Shri Krishna to Arjuna has several practical benefits for one even in the modern age as outlined below:

Acquiring Divine Assets and Freedom from Demoniac nature:

To live a life with the consciousness, 'I am not this material body; I am pure spirit soul' directs one to cultivate divine qualities as humility, contentment, tolerance, patience, sweetness, equipoise, universal love, honesty, sincerity, etc. Cultivation of such qualities brings peace and happiness now, and at the same time leads one to the world of eternal joy. On the other hand the qualities normally found in those leading a life of bodily consciousness are selfishness, intolerance, craving for flickering pleasures, arrogance, false pride, anger, etc., which take one away from harmony with nature and God.

People who think that everything is finished at death try to selfishly accumulate as much as they can without caring for others, like Duryodhana. Ignoring God, considering themselves to be the ultimate controller and center of everything, they consider everything as objects of their enjoyment. If you draw millions of circles with a common center, there will be no clash; similarly when one understands God to be the center of the universe, then all living beings can live without quarrel. When everyone considers, 'I am the center' then it is like drawing multiple circles with different centers all clashing with one another.

Freedom from Lamentation, Fear and Illusion:

Everyone in this world laments when some near and dear ones pass away. We have seen once when the wife of a big government officer died, he lamented like a child flapping his hands and legs on the ground. When one knows the knowledge of the soul, one can understand that the soul has passed away to the next body, and that death is nothing but the transfer of the soul from one body to another. When old age sets in, people fear that death may come at anytime. But one who knows that he is different from the body, does not fear death, rather prepares his consciousness to achieve the blessings of God's remembrance at the time of leaving the body. When bombs were being dropped during the second world war, Srila Prabhupada was making kachoris singing Hare Krishna happily. A devotee has no fear, because he chants God's names when he is alive and returns with his spiritual body to God's kingdom when he dies.

One who thinks, 'I am the body' spends all the time in illusory enjoyment like smoking, drinking and activities that degrade the body, mind and soul. In modern times there are hundreds of varieties of shoes, coats, suits, hairstyles, cosmetics, soaps, hair oils, etc. – all meant for pampering the dying material body. Such an attempt is compared to the efforts of the lady who polished the cage, but forgot to feed the parrot within the cage. Modern man is

pampering the material body due to illusion, forgetting the soul within. But one who knows that the actual self is the soul, and that the body is like a mere dress, acts on the spiritual platform according to the good instructions of the scriptures. This leads to the benefit of body, mind and soul.

Universal Brotherhood:

The above qualities bring about universal brotherhood under the Fatherhood of one Supreme God. A spiritualist endeavors to stabilize his awareness of the soul and strengthen his loving relationship with God and all other living beings. This leads to peace, happiness, purity, knowledge for the welfare of everyone. In other words the 'Vaikuntha' (place of no anxiety) atmosphere can be created even in this world when God is kept in the center of everyone's life, and the knowledge of the soul in relation to God is understood and practiced by all.

Hitler killed millions of innocent Jews in gas chambers, considering them his enemy. The quarrel between whites and blacks is simply based on superficial skin identity. All these quarrels can be stopped at once as soon as one understands the soul. Man against man, family against family, country against country have quarrels simply on the basis of self-imposed, demarcated, false superficial identities. When one understands the real identity as the soul, then not only other humans, but even animals, birds, trees all become our brothers under the protective shelter of God. This can put an end to mass scale slaughter of innocent cows and abortion of millions of children in the womb.

Positive Outlook and Attitude to life:

Understanding the knowledge of the soul changes man's outlook and attitudes, and helps one act correctly while facing different situations in life. The attitude transformation and spiritual upliftment that one gains by the knowledge of the soul proves that there is potentiality of goodness in man, and it can be awakened by loving service to God and by removing the negativity of the enjoying mentality. The transformation of heart leads to the attitudes of goodwill, co-operation, sympathy, love and serving others with humility.

When one understands the knowledge of the self, then one gains self-awareness that can lead to self-management. We can observe ourselves, our chemistry or nature, our right and wrong behavior, our strengths and weaknesses and where we need to improve. Just as we have the courage to direct others as to what they should be doing, why they should be doing it and how they should be doing it, similarly, we are able to direct our sense organs with proper understanding of these aspects. For example, the tongue has no bones, but it can break bones if not managed properly. On most occasions, the information slips through the tongue in the wrong place, at the wrong time, in front of the wrong person, and one cannot avoid the consequences that arise. This is the difficulty in managing oneself. If I am not able to take the responsibility of managing my own sense organs, how can I take up the responsibility of managing my life, my family, or my workplace, and maintain a balance in all the different areas of my life? In short, therefore, we need the courage to manage our own selves. This is so helpful in our practical life situations – both in the family and in the office.

If I really want to improve my situation or relationship with a partner, I can work on the one thing over which I have control – myself. I can stop trying to shape up my

wife/subordinate/friend and work on my own weaknesses. I can focus on being a great partner, and a source of unconditional love and support. Hopefully, that person will feel the power of my example and respond in kind. But whether that person does or doesn't, the most positive way I can influence my situation is to work on myself, on my BEING. There are so may ways to improve our life – to BE a better listener, to BE a more loving marriage partner, to BE a better student, to BE a more co-operative employee.

Such a positive attitude is possible only with one who has a high Spiritual Quotient (SQ). The knowledge of the soul can help one conquer the problems of negative thinking that arise from previous experiences stored in the mind, and help one live a life happily as a detached witness or observer. This is a very essential quality for the common people as well as for those in high responsible positions. A lack of this attitude can lead to stress, depression, revenge, grudge, boredom, defensiveness, etc.

Art and Science of Mantra Meditation:

One who studies the soul also studies the mind. The mind is a storehouse of varieties of plans and desires for enjoyment. The mind constantly keeps accepting and rejecting various desires and this causes the individual to suffer from stress, tension, depression, inferiority complex, etc. But the knowledge of the soul as a non-material spiritual being combined with Mantra Meditation, 'Hare Krishna Hare Krishna, Krishna Krishna Hare Hare, Hare Rama Hare Rama, Rama Rama Hare Hare''(see Appendix for more information), can offer one freedom from all mental problems to begin with and eventually pure love of God.

Mantra Meditation is done with the understanding that as tiny souls we are helpless; God being the Supreme father of the living being is eager to help us. Chanting is a loud call from the core of the heart to the Supreme Lord to kindly elevate us from this suffering situation and to be placed in His loving company. Thus, the understanding of the soul offers one complete protection from all dangers and worries of this world. One can simply hand over the charge of one's life to God by such focused meditation on the Holy names of God. On the other hand, there are those who consider themselves to be their own body and avoid meditation, thinking of it as a waste of time. They are made to run from pillar to post by their minds that hanker for practically everything in the world from a hamburger to the costliest independent bungalow. Furthermore, they suffer from loneliness and boredom, with no knowledge of the soul and its loving relationship with God.

Right use of resources:

When people are conscious of the soul, they are aware that the material body is temporary, and that the material world is a temporary place of suffering designed by God to reform and purify us and prepare us to return to the eternal Kingdom of God. Thus they live a life socially, politically, culturally and economically centered around God. This brings purity, peace, and prosperity, health, wealth and happiness, all aimed at pleasing the Supreme Lord. Modern man absorbed in bodily consciousness believes in 'survival of the fittest', and thus does not worry how he harms others in his rat race to 'eat, drink and be merry'. Claiming his forefathers to be apes, the origin of the universe to be a big bang, modern man imagines himself to be no

more than a bunch of chemicals or atoms colliding with one another. Such a blunt, blind, superficial material outlook to life renders life meaningless, making the world purposeless, and is neither useful to the individual nor beneficial to others in the world. The Vedic life that centers around the awareness of the soul and its loving relation with God and all fellow beings, teaches one to consider another man's wife as a mother, other people's wealth as garbage, and to warmly treat others in the same way as one would want to be treated by others. Thus spiritual life is based on the firm foundation of co-operation of all, welfare for all, proper utilization of God-given resources, and freedom from greed and selfishness.

Nature of Soul

The Soul is Indestructible

As soon as scientists come to know of any substance, they want to study its physical and chemical properties. Thus Lord Shri Krishna explains to Arjuna that the soul is not made up of matter like solids, liquids, or gases.
"The soul cannot be cut to pieces by any weapons; it cannot be burned by fire; it cannot be dried by wind; nor can it be moistened by water." [BG 2.23]

The Soul is an Individual

Each soul is a separate individual with separate consciousness. You are aware of your body, mind, intelligence and false ego. I cannot perceive your headache and you cannot know what I am thinking. But God is aware of every particle of this creation. [Read purport to BG2.12, BG15.7]

The Soul has form

The spirit soul is not some 'impersonal light' or 'void' as some people wrongly think. The soul is a beautiful personality whose body is made up of *sat-cit-ananda* (eternity-bliss-knowledge).

Matter is formless – Spirit soul gives form to Matter

Matter in itself has no form. Matter acquires a form only when a spirit soul enters it. For example, if you take a plain cloth it may be formless, but if you put your finger inside then it assumes a form. When you remove your finger then it loses its form. Similarly, matter (the eight elements that constitute the body) assumes a form when the soul enters it. At death, when the soul leaves the body, the body decomposes, disintegrates and loses its form. So matter is formless, only the spirit gives form to matter. A table or chair may have a form, although it is dead matter. Matter can assume form only when a soul manipulates it. For example, a table has been given a form by a soul (carpenter).

The Soul Is Eternal

"For the soul there is never birth nor death. Nor having once been, does he ever cease to be. He is unborn, eternal, ever-existing, undying and primeval. He is not slain when the body is slain." [BG 2.20]

The Soul has a form of Eternity (sat)- Knowledge (cit)- Bliss (ananda)

The soul comes from the Kingdom of God and he has a spiritual body of eternity, knowledge and bliss to relate with the Lord. But when the soul desires to become an independent enjoyer, he is dispatched to the material world, where he is entrapped in a material body. Why do we suffer? Because the 'sat-cit-ananda' soul is entrapped in an 'asat-acit-nirananda' (temporary-ignorant-miserable) body, there is a great amount of incompatibility that causes suffering. We all can easily see that we are seeking knowledge by going to schools and colleges. We want to live forever, and in order to do that we go to a doctor to set right the bodily problems, and also we always try to protect the body from all possible dangers. We want to increase happiness unlimitedly and put a full stop to all pains. Our advancement in the use of modern comforts shows that we want to make life always enjoyable and without any sufferings or worries. These three aspirations can be fulfilled when one realizes, "I am not the body, I am the soul."

The Soul is situated in the region of the Heart

The soul pervades the body with consciousness as a lamp fills a room with light. The lamp that gives light to the entire room may be in one corner of the room. Similarly the soul is situated in the region of our heart. The soul is not removed during heart transplantation, as he is spiritual. For example, when the stepney / radiator of a car is changed, nothing happens to the driver.

Similarly one heart (which is just like a radiator pumping blood) may be replaced by another, but that does not affect the soul. If somebody undergoes a heart transplant, do you see his intrinsic behavior or nature change after the operation? No. Thus the soul, the owner of the body does not change when any transplant is done.

The Size of the Soul

The *Upanishads* and the *Shrimad Bhagavatam* describe the size of the soul (seed form): "If you divide the tip of the hair into 100 parts, and if you further divide one of those parts into 100 parts - that 1/10,000 part of the tip of the hair is the size of the soul." (*Svetasvatara Upanishad* 5.9)

This is the size of the soul in the seed form, in which he wanders in the material universe. But the soul has an original, beautiful, spiritual *sat-cit-ananda* form in the spiritual world, which is known as *svarupa* (spiritual constitutional position). The soul has an eternal sweet relationship with God in this *svarupa*.

Conclusion

This most basic knowledge of our scriptures is missing in the modern schools and colleges ,when Srila Prabhupad went to MIT,USA he said where is the department which studies about the concept of soul. This knowledge will benefit the whole world.

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The Philosophy of Science - An Insight

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Abstract

The paper considers what are the possibilities of connections between philosophy and other physical and biological Sciences and how philosophy is contributing to the study of Physics and Biology as a science influence of theoretical philosophical work into a practicality for that matter philosophy base of a discourse in every discipline with following examples we can also show philosophy of Physics will historically the establishment of physics as a discipline was a philosophical endeavor, Isaac Newton's "Philosophae Naturalis Principia Mxathematica" outlines among other things his laws of motion. Philosophy is the first word in the title.

1) Introduction

More contemporarily, and probably a closer answer to your question, is in what are called interpretations of quantum mechanics. Quantum has run into a unique problem in the sciences in that it has theories that disagree with each other on a fundamental level, but are experimentally indiscernible from one another. Meaning that no matter what experiment we run as scientists, it will not contradict one theory OR the other.

The original manifestation of this problem in quantum is between Schrodinger (of feline fame) and Heisenberg (not of breaking bad).

Schrodinger formulated an early complete quantum system in terms of wave function mechanics. This is taught and known commonly as Schrodinger's wave equation.

Sometime later, Heisenberg developed his own quantum interpretation using matrix mechanics. Both systems worked well, exceptionally well. But each founder remained steadfast behind their theory. At the time, you either believed that the physical phenomenon underlying quantum experiential results was a wave function, or matrices, and the other side was considered wrong. Both theories worked so well in fact that eventually, Schrodinger proved the logical equivalence of the two theories. Meaning that for every possible input given (mathematical or experiential) the two equations would always give the exact same answer. But this did not reconcile the drama. People continued to adhere to one or the other. For what reason? Per all rules of science, they were identical, they would never deviate in a single testable/observable prediction. They were adhering to philosophical reasons to why it has to be one and not the other. Fast forward again, and we get Everett and the relative state formulation of quantum mechanics. This is commonly referred to as the Many-Worlds Interpretation of quantum.

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This is the scientific background to "alternate realities" and "all possible universe" sci-fi conceptions. It is important to note that Everett's paper upon which this interpretation was born says nothing about the theory that the average person ascribes to it today. It's a lot of math, and some language asserting that quantum state functions are fundamental entities, and that one could have a state function for the whole universe. He also claims the various state functions are independent and cannot interact. Think about those claims. What experiment in a physics lab could give justification for that? What physics experiment wrote down the wave function for the universe, and then watched from the big bang forward to check if things happened as they predicted? What physics experiment has observed in any way a universe other than our own, particularly when it would be an assumption of the experiment that these universes cannot possibly interact (i.e. you cannot a different universe from your universe) Nonetheless, the interpretation and its adherents make those claims. What are those claims if not philosophical? Anything beyond the math is not empirical. There is no replicable experiment to justify these points. Just like the wave vs. matrix argument we again have scientific interpretations whose backing comes from something other than traditional scientific methods. They are doing philosophy.

These interpretations go on and on, Copenhagen interpretation, multi variable hypotheses etc. Their differences are rarely hard science differences, and the participants rarely argue against them using these means. In fact, Einstein rallied against interpretations of quantum not with math or with experimental science but with the claim "God does not play dice" in reference to the probabilistic nature of all these theories. That is hardly a good scientific argument coming from the man who is practically the paradigmatic scientist of the modern era. He was asserting a philosophical issue. Just as these other folks were. In fact, I think one of the reasons that this confusion has permeated this field for so long is that there are too few philosophically trained physicists, and too few physics trained philosophers.

An intersection of the two might stand to make amazing progress, especially in the realm of string theory vs traditional quantum. So not only does philosophy tie into physics historically, but it does so contemporarily, in fact Philosophy might be the most important physics problem of our century. The philosophy of science is concerned with all the assumptions, foundations, methods, insinuations of science, and with the use and merit of science. This discipline sometimes overlaps metaphysics, ontology and epistemology viz., when it explores whether scientific results comprise a study of truth. In addition to these central problems of science as a whole, many philosophers of science consider problems that apply to particular sciences like philosophy of biology, philosophy of physics. Some philosophers of science also use contemporary results in science to reach conclusions about philosophy. Introduction Both science and philosophy have originated from wonder with which man looked at natural phenomena. Both try to elucidate the mystery around the world . Both arrange the knowledge about the world in a systematic order.

In many ways philosophy supplements the knowledge obtained through scientific observation, Thus without philosophy , no scientific knowledge can be claimed to be perfect . Both science and philosophy take the help of the inductive and deductive methods and draw conclusions on the basis of analysis and synthesis . Both depend on experiment for perfect

knowledge , tions . William James says man is always after spiritual values . This search for values has been called by him Divine More . It is this search for spiritual values that gives birth to religion . The religion helps man to find spiritual values . But this search can never be complete without the help of philosophy . It has been rightly said that while philosophy is theoretical , religion practical . It is philosophy which tests the spiritual values . Only when these values are properly verified and experimented that they are accepted and put into practice. Introduction: There is also a difference between the scientific attitude and philosophical attitude . The former is liberal , detached and guided by experience and reasoning , the latter is more reflective , critical , doubtful , full of wonder and discontentment of science are narrow and limited . The problems of philosophy are general but the problems philosophy and science .

Each branch of science tries to gather truths in its own particular field . Philosophy gathers these scattered researches of different sciences and integrates them to The failures of science are no proof of the They indicate the limits after which science present a total picture . truths of philosophy . should yield place to philosophy . science can give us only means and not the destiny or solution of the fundamental problems of human beings . In the absence of knowledge about our existence and our ends , science proves fatal . In the absence of philosophy , science makes the intellect barbarous . Without philosophy , purely scientific foundation of culture may lead to annihilation of the human race . That is why thoughtful persons have always placed emphasis on religion , morality and spirituality for the betterment of man.

2) Philosophy -Common Sense-Science

Science and Common Sense The facts of our common experience are disjoined and isolated from one another . They are independent of , and unrelated to , one another . They are a bewildering diversity . The commonsense view of the world is unreflective and unsystematic . Science seeks to connect the seemingly independent and unreflected facts of ex perience , and explain them by discovering their causes and laws . It reduces the seemingly unrelated plurality of facts of experience to a unified system . The scientific view of the world is systematic . Science is organized common experience . The characteristics of science are 1) generality,2) certainty, 3) accuracy , and 4) system .

First, common experience is concerned with particular facts. But science is connected with the general features and relations of facts. Science seeks to discover the general laws of nature. and apply them to particular cases. Generalization is the goal of Science.

Secondly , common knowledge is uncertain and doubtful because it is based on mere opinion, and not proved by scientific methods . Scientific knowledge is certain because it is based on rational grounds and because it is verified by scientific methods.

Thirdly, common knowledge is inaccurate and inexact , while scientific knowledge is exact and accurate . Common knowledge is often based on mere conjecture . But scientific knowledge is based on accurate observation and experiment and quantitative measurement.

Fourthly, scientific knowledge is systematic and methodical, while common knowledge is unsystematic and immethodical. The former is based on scientific methods, while the latter is based on random and casual perception, vague conjecture, and unreliable authority or tradition. Science organizes the isolated facts of common experience and reduces them to a system. It systematizes the particular facts of common experience .

It connects them with one another by discovering their causes and laws . Science is organized common sense. It is sytematized common experience Methods of Science and Philosophy Science observes, experiments , measures , analyses , classifies and explains particular facts by ascertaining their causes and formulating their laws or uniformities of behaviour or by framing hypotheses. Observation and experiment, classification and explanation, analysis and synthesis , induction and deduction are the methods of science .

The method of philosophy is rational reflection like that of science . The method of science is accurate observation and experiment and rational explanation . It accurately observes and experiments are particular facts and explains them by the general laws of nature or by rational hypotheses. The method of philosophy is rational reflection on the results of the sciences and moral, aesthetic, and religious experiences and explanation of them by a rational con ception of the reality . It is rational reflection, co-ordination and interpretation by a rational hypothesis which is incapable of verification by observation and experiment. So the method of philosophy, though rational and reflective, differs from that of science.

Undoubtedly, modern scientific theories have a deep philosophical significance; it renders the old division of labor between science and philosophy untenable. Science is stepping beyond the old boundary line. By digging deeper into the mysteries of nature, science has come forward against problems, the solution of which was previously left to philosophy. Abandoned Scientific inquiry has been pushed into what is traditionally considered the "metaphysical" realm. But there is no evidence to support the claim that the latest discoveries of physics negate the philosophical implications of the development of science in the last hundred and fifty years.

The philosophical importance of modern science is that it disputes philosophy's claim to autonomous existence. The problems of philosophy cosmological, ontological, epistemological can all be solved gradually only in the light of scientific knowledge. That light shines brighter today than ever before. In his book Atom and Cosmos quoted above , Professor Hans Reichenbach wrote: "Perhaps the characteristic feature of modern methods of physical research is not clearly expressed in the tendency from philosophy to physics; the physicist becomes a philosopher because, in developing his theories, he encounters obstacles that must be opened before conquering new and unknown ground."

The task of philosophy is to explain the whole of existence. The explanation of existence requires knowledge of existence. Knowledge about the various phases of existence is gathered by various branches of science. The task of philosophy is to harmonize the entire body of scientific knowledge into a comprehensive theory of nature and life. Explaining duty; philosophy means explaining.That is why philosophy is called "not the science of sciences", But even today, there are philosophers who claim that an omelette can be made without eggs

that the function of philosophy work out the materials supplied by scientific research into a theory of nature and life, but to lay down the patterns for scientific knowledge . Whitehead is one of them. In the preface to his book Science and the Modern World, he writes : “Modern scientific theories challenge these pretensions of philosophy. On the other hand, they may be woven into the patterns produced by the philosopher's pretensions. But their true philosophical significance may be entirely different”. That significance should not be confused by the prejudices and tastes of individual scientists. When physics invades the "metaphysical" realm , it does not succumb to mysticism. On the contrary, when brought under the jurisdiction of physics, metaphysical categories are no longer mysterious. In fact, in the attack on metaphysical problems, the old weapons of physical research are inadequate.

They describe relationships between physical phenomena. The categories of modern physics are "metaphysical" in the sense that they are beyond direct physical observation. But metaphysics has long outgrown its original literal Greek meaning. The natural sciences have pushed the boundary between the physical and the metaphysical further, at the latter's expense indicates. Today, the line of demarcation between the physical and the metaphysical can only be kept as a logical formality. The metaphysical realm is distinguished from the world of experience by the distinction between reality and appearance. The new physics eliminates that distinction.

Modern philosophy of science is absolutely opposed to any dualism. Dualism has haunted modern philosophy since the day of its founder. Descartes freed philosophy from theology, but placed it under the dominion of the mind, which he regarded as an immaterial substance. Contrasting notions of mind and matter, essentially different, are not reconciled with speculative thought. The development of the natural sciences made reconciliation possible. With the help of physiology, modern psychology began to unravel the mysteries of the mind. The old fixed concept of matter is still on the way to final solution.An unbridgeable chasm appeared between the external world of thinkable matter and the world of mind. With the dynamic concept of matter, the new physics is successful Essential The Case of Subjective Idealism. Professor Hermann Weyl writes: "Physics is concerned with the material contents of reality, not with its declaration.("Space, Time and Matter").This formalist attitude is the object of its knowledge. forms, it does not settle the question of mere formal attitude or existence towards the external world: nor is it suppressed by ignoring the question. But the modest scientist refuses to philosophize.

Descartes said: "Give me matter and motion, and I will build the world." Eddington now improved upon him and said: "Give me a world — a world of relations and I will construct matter and motion. ("Space, Time and Gravitation"). Perhaps, he says, matter and motion are creations of the scientist's mind. But he must have "relationships"; and relations presuppose related things. They may not be as coarse as the "solid lumps of reality" of scientific physics. But there must be something related to it. Then, you still need the world, given to you, that is, objectively existing. What Eddington really meant was that the new physics analyzed the material world into better parts than classical physics. Matter and motion remained, but not as ultimate categories, as fundamental ones. Not as indefinable. Similarly, "order", "events",

"neutral stuff", "tensor impulses in a fourdimensional continuum", "something that fills space"all these beautiful alternatives to the old concept of matter are ours.

3) Conclusions

Summery is what the scientists do: 1. The essence of science is the scientific method. 2.Philosophy is closely related with positive sciences . 3 . 4 . Both science and philosophy are based on experience . Science studies Becoming , and Philosophy Being . 5. The attitude of both science and philosophy is the same . 6. Both use the same methods . 7 . Both depend on data and hypotheses. 8. Both explain life and world. 9.But science makes man realistic and philosophy make his life purposeful and goal oriented. 10. The conclusions of both science and philosophy differ. 11. The activities of both are based on different attitude and methods . reflective. 12. The scientific attitude is liberal and that of the philosophy.13.Both science and philosophy have different problems. 14. Nevertheless both are complementary to each other. 15. Without philosophy man's life will be barbarous.

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Knowledge of Biodiversity and our School Education System

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Abstract

An increase in public appreciation, education, and knowledge on importance and value of biodiversity, is integral part of conservation and sustainable usage. So, a study was carried out to assess the knowledge and perception on Biodiversity and its protection. A total of 286 students were participated in a survey and more than 50% students had low knowledge on biodiversity. However, 12.6% showed negative perception towards biodiversity. Most students (86%) aware that, loss of biodiversity leads to floods and global warming and 89.5% students believed that they could do something to protect the world's biodiversity. Inferential analysis showed biological science background had better awareness and gender-being girls had better perception (21.54; p=0.000). However, a weak correlation exists between knowledge and perception (r=0.284 at p=0.000).

The present study revealed that the respondents had a moderate level of knowledge and positive attitude about biodiversity. The study recommends there is a need of revising the school curriculum or incorporate necessary measures to improve the children's awareness on biodiversity for sustainable usage.

Keywords: Attitude, Biodiversity, Ecosystem, Socio-Demographic, Correlation.

1) Introduction

Biodiversity, or the variety of all living things on Earth, has decreased at an alarming rate in recent years, primarily because of human activities such as land use changes, pollution, and climate change[1]. Locating the critical threshold that leads to ecological collapse due to biodiversity loss is an essential task[2].

India is one of the world's megadiverse nations, with approximately 10 percent of the world's species and an ancient cultural heritage. Significant Indian biodiversity is intricately intertwined with the land's sociocultural practises[3].

Biodiversity is necessary for human health and well-being, economic development, food safety and security, and other crucial human and human-society aspects[4].

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Human actions are a major contributor to the fast transformation[5] of ecosystems and the global extinction of species. Increasing evidence illustrates the advantages of nature engagement has a positive impact towards biodiversity.

It is essential to raise public knowledge about the need to conserve biodiversity[6]. There are a growing number of national, regional, and international policy mechanisms designed for biodiversity conservation, and the imperative to reduce human impact on biodiversity is widely acknowledged by governments in a variety of nations[7]. Education and public awareness are vital for altering social and cultural norms that perpetuate harmful practises. Understanding the patterns and causes of species reductions and extinction is a primary focus of conservation research, which aims to prevent the loss of biodiversity.

Researchers and practitioners can benefit from proactive engagement with the perspectives, knowledge, and experiences of people in these communities to comprehend extinction patterns and processes[8&9]. In many situations, communities are also the focus of conservation interventions aiming at improving awareness and behaviour[10], but doing so effectively necessitates an understanding of perceptions as a baseline. Increase in public appreciation, education, and knowledge of the importance and value of biodiversity, as well as public participation in its conservation and sustainable usage. It is essential to raise public knowledge about the need to conserve biodiversity[6]. The United Nations has designated 2021-2030 as the UN Decade on Ecosystem Restoration to draw global attention to the challenge of restoring degraded natural ecosystems.

Knowledge[11] and perspective[12] are necessary to design and implement management measures for the conservation and protection of natural resources. Education is a means of knowledge acquisition[13]. Conservation and management projects cannot proceed smoothly without education, information, and awareness[14]. Essentially, these educationally based bodies of knowledge are important tools for achieving conservation and management successes[15]. In contrast, perspective refers to a person's interpretation or viewpoint. It can be used as a predictor of his behavior or response to something[16]. The current generation, particularly children and youth, are the two most important actors in preventing the loss of all biodiversity and natural resources[14]. Educating them at a young age can help them gain a broader perspective and become champions for biodiversity by actively participating in the conservation and protection of natural resources[17]. Early exposure to biodiversity seems crucial for the development of children’s comprehension in the future. It is essential to provide children with early exposure to biodiversity in nature and to consider students' early thoughts while teaching for lifelong learning and a sustainable future. Biodiversity literacy is of high importance for the advancement of environmental sustainability and biodiversity conservation because students require the knowledge to value biodiversity and the specific skills to contribute to its preservation. Globally, the propensity of biodiversity education to address issues related to biodiversity is highly valued. Therefore, understanding a person's perspective can help determine his or her attitude toward the conservation and management activities that are currently being employed or will be employed in the future. A couple of studies conducted on association of awareness and perception. Some studies report positive

and others negative associations between environmental knowledge and attitudes, there is no clear pattern.

Hence, the purpose of the present study was carried out to gather information on the level of knowledge and perceptions on biodiversity, its protection and conservation, recognize the probable relationship between students' profiles and their knowledge and perspective on biodiversity; and determine the correlation between knowledge on biodiversity and their perspective on its conservation and protection among the first-year undergraduate students of School of Allied Health Sciences, Malla Reddy University who were enrolled in different paramedical courses.

2) Methodology

The institutional-based cross-sectional study design was conducted from 3rd to 25th July 2022 at School of Allied Health Sciences, Malla Reddy University. All first-year undergraduate students enrolled to different programs who were willing to participate at School of Allied Health Sciences, Malla Reddy University. A finite population equation (https://www.surveysystem.com/sscalc.htm)[18] was used to calculate the sample size required. Sample size was calculated by taking confidence level was 95%, confidence interval 5, population size was 700 and sample required was 248. However, we received 286 responses and the final confidence interval was 4.46.

A self-administered closed-ended questioner and observational checklist were used. The tool was adopted from the literature. The questioner was classified into three parts; the first part was socio-demographic data with five questions from (101-105), which contain gender, age, branch, religion, and percentage of marks obtained. The knowledge part had nine questions from (201-209) The perception part had 10 questions (301-310). Before starting the actual online survey, the questioner was pretested on about 2% of the total sample at the School of Allied Health Sciences. After pretesting, the questioner was checked and structured by the principal investigator. Before data collection, proper measures and corrections were taken on time for data completeness and accuracy. The collected data were edited, coded, and cleaned up, then the excel, transferred into SPSS version 25 for analysis. Knowledge, defined as an understanding of the fundamentals in biodiversity, was analysed by inquiring 9 questions regarding fundamental biodiversity concepts. All the inquired questions had 5 responses and correct answers to each knowledge statement are given a score of 1 and wrong as 0. Hence, the overall knowledge score for each student was obtained by adding the correct answers to the 9 knowledge statements. Perception, with a meaning of immediate awareness to perceive something basing the knowledge was assessed by inquiring 10 questions regarding student's perception for biodiversity. For perception questions, a favourable response (yes) was given a score of 1, whereas an unfavourable response (no) was given a score of 0, by adding coded responses for each perception question, overall perception scores were obtained for the 10 inquired questions for each student. Knowledge assessment scores taken were in the range of 0-3 (low), 4-6 (moderate) and 7-9 (high). Perception assessment scores taken were in the range of 0-4 (negative), 5-7 (moderately positive) and 8-10 (positive). Descriptive statistics used to summarize the results. Chi^2 test of independence was used to understand the impact

of independent variables on knowledge and perception. Pearson's correlation was done to see the association of knowledge and perception scores, statistical significance was evaluated at $p \leq 0.05$ level of significance.

3) Results

Socio-demographic profile of respondents

A total of 286 students participated with 100% response rate (Table 1). The mean age (±SD) of respondents were 18.89 ± 1.433 years. Of this, 74.5% were female students (N = 213) higher female preponderance over male students.

Among the branch of study (BOS), 111 (38.8%) students from MBT (Medical Biotechnology) and life Sciences. Majority of the participants were from Telangana state, 37.4% students' family average income was below 30 thousand and nearly half of the students (N=140, 49%) were from urban background.

Table 1: Socio-demographics of study participants

Demographics inquired		N=286	Percentage (%)
Gender	Male	73	25.5
	Female	213	74.5
*Age	18 to 19	234	81.8
	20 to 21	45	15.7
	>21 Years	7	2.4
Percentage (%)	>80	190	66.4
	66-79	67	23.4
	<66	29	10.1

*Mean age: 18.89 (± 1.433 SD)

Students' knowledge on Biodiversity

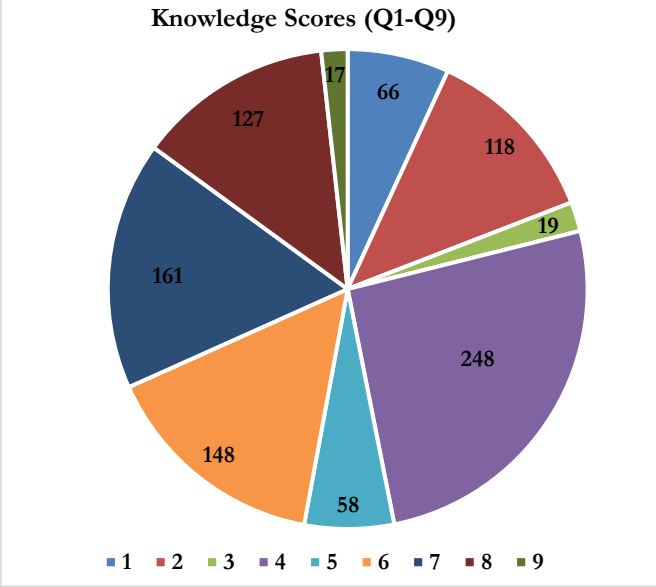
Based on students' responses to the knowledge assessment questions, the knowledge assessment test yielded scores ranging from 0 to 7 on a scale of 9. Only 2.4% of students were found to have high knowledge assessment scores and most of the students (55.9%) participated in the survey were found to have low knowledge assessment score (0-3) (Table 2). Moreover, 8 students scored 0 (2.8%), did not have any awareness on biodiversity.

Table 2: Frequency table of knowledge assessment score

Assessment Score	Ranged values	N=286	Percent (%)
Knowledge assessment score	0-3 (Low)	160	55.9
	4-6 (Moderate)	119	41.6
	7-9 (High)	7	2.4

The students' level of knowledge about biodiversity was calculated using nine questions rating how many the students thought they knew about each inquired question and responses were summarized in Figure 1. Among the inquired questions, students responded to a great extent (86.7%) to the question "Are loss of biodiversity causes flooding, shortage of food, air pollution and global warming" with a high knowledge assessment score (0.87 ± 0.34 SD). Likewise, 51.7% and 56.3% of students responded to a reasonable extent for the inquired questions "Wildlife is destroyed mostly by" and "Which is the major cause of extinction of different species?" respectively. On the other hand, students participated in the survey were found to have modest to low knowledge assessment scores for the other inquired questions.

Figure 1: Knowledge assessment scores of Q1 to Q9, N=286.



Students' perception on Biodiversity

Students' scores on the perspective assessment test ranged from 0 to 10 out of 10 items (Table 3). More than 50 percent students (N=157, 54.9%) were found to have moderately positive perception and 32.5% (N=93) of students were found to possess positive perception for the biodiversity protection and maintenance. On the other hand, 2.1% (N=6) of students did not have any perception on biodiversity and its fortification.

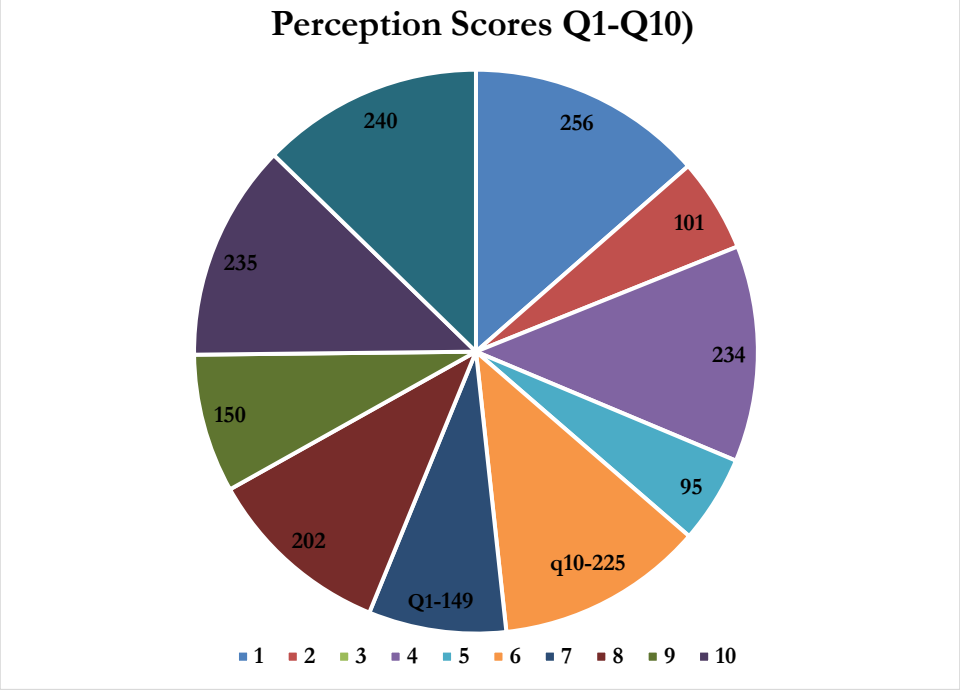
Table 3: Frequency table of perception assessment score

Assessment Score	Ranged values	N=286	Percent (%)
Perception assessment score	0-4 (Negative)	36	12.6
	5-7 (Moderately positive)	157	54.9
	8-10 (Positive)	93	32.5

The students' perception towards biodiversity was analyzed using ten statements related to biodiversity. Figure 2 presents Mean of perception assessment scores. Most, 89.5% (N=256)

of students believe that they can do something to protect the world's biodiversity. As well, 83.9% (N=240) of students are aware that today's activities will have a great impact on tomorrow's biodiversity. It is greatly appreciable that 82.2% (N=235) of students want to plant at least one appropriate tree species every year to maintain biodiversity. Similarly, 81.8% (N=234) of students acknowledge the importance of reuse, reduce, and recycle in conserving the biodiversity. Most of the students who participated in the survey have the positive perception of conserving water, avoidance of stepping on flowers and crops in maintainhigh biodiversity.

Figure 2: Perception assessment scores of Q1 to Q10, N=286.



Relationship among Students' socio-demographics, knowledge, and perspective on Biodiversity

Chi^2 test of independence test was used to understand the impact of students' profile with knowledge and perception scores (Table 4). BOS had a significant impact on knowledge scores and girls had better perception at p=0.01 statistically significant levels.

Table 4: Chi-square test of independence and relationship with knowledge and perspective scores, N=286.

Independent variable	Knowledge score		Perspective score	
	Chi^2 value	p value	Chi2 value	p value
BOS	26.5*	0.009	8.159	0.773
Gender	4.124	0.127	21.542*	0.000

* Statistically significant at p=0.01 level

Pearson's correlation was calculated to measure the strength of the linear relationship

between two variables, knowledge, and perception scores. Bivariate correlation analysis indicated a weak association with a Pearson's value of r = 0.284 at p=0.000 significance level (Table 5).

Table 5: Correlation of knowledge and perspective scores. N=286, p=0.000

Scores	Mean	SD	Pearson's r value
Knowledge score	3.36	1.646	
			0.284
Perception score	6.6	2.143	

4) Discussion

An essential requirement for the successful protection and conservation of biodiversity is that the public comprehends the complexity of the interrelationships between the physical environment and human activity[19]. This study demonstrated that students were acutely aware of the pervasiveness of biodiversity. In addition, they felt that biodiversity only encompassed the variety of life forms in terrestrial habitats. Knowledge of students on biodiversity and its conservation is generally appreciable with moderate assessment scores. The perception of students toward biodiversity was proven to be beneficial for the protection and preservation of biodiversity. The majority of students' responses regarding biodiversity and its preservation align with the findings of other similar studies[20&21].

Most of students had positive perception towards biodiversity, protection and admitted the importance of reuse, reduce, and recycle in conserving the biodiversity. Olympia and George (2012)[22] found significant differences with regard to the level of knowledge about biodiversity between first- and second-year university students of Cyprus University of Technology. Conversely, no significant differences were found on attitudes and behavior towards biodiversity.

Concerning gender differences, several studies showed that gender differences do present between individual's level of knowledge, attitudes, and behavior[23]. In the present study, as the female students' preponderance is high in the survey, female gender alone is having positive association with perception scores of students Mohai (1992)[24] observed that women are more concerned about environmental issues than men. Riechard and Peterson (1998)[25] at a similar study on college students found that female students had significantly higher perception of environmental risk scores than male students did. Gratiela and Sinan (2019)[26] observed a positive correlation between the perception, attitude and behavior variables among the university students enrolled in different specialization fields at the North Center University of Baia Mare. Hui-Ju Huang and Yu-Teh Kirk Lin (2014)[27] investigated American and Taiwan undergraduate students' attitudes toward biodiversity and found significant differences between different groups.

Regarding their perspective on biodiversity, 81.8% students are willing to reuse, reduce, and recycle. This technique is commonly referred to as the "3Rs Strategy," which was deemed to have a significant influence on biodiversity protection, especially in minimising habitat loss and leaching owing to an excessive amount of garbage and inappropriate waste disposal.

Furthermore, most students agreed that their own activities can aid in preserving and protecting biodiversity. It was consistent with the findings of a research that indicated 90% of students at the Cyprus University of Technology felt positive about their ability to maintain biodiversity[28]. However, 90% of students favoured the use of invasive species. According to Gallardo et al.[29] in 2019, invasive species are the leading cause of extinction and environmental degradation. Nevertheless, based on the results of their test of knowledge, they lack understanding of the technical aspects of biodiversity. Thus, it is thought that this lack of understanding of the term “invasive species” might contributed to these answers.

Biodiversity is vital, and these findings suggest, the curriculums of all degree programmes will be re-evaluated. The administration must ensure that every level of education programme should provide students with an environmental education that emphasises biodiversity. Consequently, each curriculum must include at least one subject (e.g., Environmental Science, Environmental Management, People and Ecosystems) to assist students become environmentally literate and ecologically conscientious.

5) Conclusion

The findings in the present study have shown that the first-year undergraduate students had a moderate level of perceived knowledge about biodiversity and its preservation. It is highly appreciable that overall, students have a positive attitude towards biodiversity and motivated themselves to engage in environmental behaviour. These findings suggest there is a need to stress the significance of biodiversity in educational institutions with the aim of benefit of both student’s knowledge and future welfare of the upcoming generations.

Acknowledgment

We want to extend our thanks to the all the students who participated in the survey. We also would like to thank all faculty of SOAHS, staff and administration, Malla Reddy University, Hyderabad for their cooperation during the conduction of this study.

Conflict of Interest

We declare no conflict of interest

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Environmental Ethics: A Cross-Sectional Study

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Abstract

Environmental ethics addresses humans' moral relationship to the environment and non-human organisms. It's about humanity's moral commitment to the environment? The present study was conducted to investigate environmental knowledge and attitudes among the students' community.

A total of 219 students participated in the online survey conducted. About 50% (N=110) of students were found to have low knowledge score. On the other hand, 82.6% (N = 181) of students showed negative attitude towards environmental issues. Chi^2 analysis showed place of birth, family size and family income had relationship with knowledge scores and percentage (%) alone had impact on attitude score. Pearson's correlation analysis showed place of birth (POB) had a weak relation with knowledge score (r=0.203; p=0.01) and a weak correlation between knowledge and attitude scores (r=0.195; p=0.01).

The present study indicated that the students had a low level of environmental knowledge and most of the students showed a negative attitude towards environmental practices. Hence, it is recommended that environment awareness programs should be designed to increase the students' awareness and should be encouraged to improve positive attitudes towards environment.

Keywords: Knowledge, Attitude, Environment, Socio-demographic**,** Chi^2 analysis

1) Introduction

Environmental ethics explores the intellectual basis of environmental values and societal attitudes, actions, and policies to maintain and sustain biodiversity and ecological systems.

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Environmental ethics gives moral reasons for social policies aiming at maintaining the earth's environment and remedying environmental damage. Overdevelopment has led to human neglect, causing land, water, and air pollution.

Since the 1990s, one of the most significant worldwide challenges has been the deteriorating state of the global environment. Due to increasing public awareness, the environmental catastrophe has become one of the top priorities of the international society. In the last few decades, the public's environmental consciousness has increased due to the growth of science and environmental issues[1]. The UN World Conference on Environment in Stockholm (1972), the Earth Summit held in Rio de Janeiro (1992), the Global Forum (1992), and the activities initiated by International NGOs and other Forums help illustrate that the preservation of the environment is the international community's top priority[2]. The obligation to avoid and combat the unjustifiable use of natural resources is a key topic of the 21st century, and the necessity of people recognizing themselves as part of nature and hence part of the problem has been emphasized repeatedly[3].

Environmental ethics pertain to the moral relationship between humans and the natural environment and have developed into a distinct philosophical subject from the mid-1970s. This occurred because of a greater understanding of the impact of technology, industry, economic expansion, and population growth on the environment. Environmental ethics asserts an ecological conscience or moral that reflects a commitment and responsibility toward the environment, including plants and animals, as well as present and future generations focused on human societies coexisting with the natural world. It also refers to the obligation to recognize the environmental repercussions of public consumption as well as the necessity to identify individual and social responsibility to conserve natural resources and protect the planet for future generations.

Environmental ethics is primarily a human ethics based on social justice for all, regardless of race, gender, religion, philosophy, caste, location, or country. Most current environmental issues are mostly the result of human activity and attitudes toward the sociocultural and natural environment. It focuses on what humans should and should not do to the environment. Awareness, knowledge, and attitude (AKA) are the primary objectives that have been incorporated into environmental education curricula. Even though numerous studies have shown that the public has a positive attitude toward the environment[4], there is still a disconnect between environmental conceptual knowledge and the motivation to participate in environmental protection. In addition to imparting environmental knowledge, the primary objective of environmental education is to instill in students the attitudes and behaviors necessary to enhance and protect the environment. Students' environmental consciousness is significantly influenced by their environmental knowledge, attitude, and consideration.

Exploring students' environmental knowledge and attitudes is necessary because students are greatly susceptible to new attitudes and worldviews and will carry new environmental awareness with them into their forthcoming communities and workplaces[5] and they will become the protectors, planners, representatives, and future educators interrelated to environmental issues[6]. Hence, the present study has been undertaken to investigate the environmental knowledge and attitudes, identify the possible relationship between students' profiles and their knowledge and attitudes on environment, its protection and conservation and to determine the correlation between knowledge on environment and the attitudes among the first-year undergraduate students at School of Allied Health Sciences, Malla Reddy University who were enrolled in different paramedical courses.

2) Methodology

The study was conducted at School of Allied Health Sciences, Malla Reddy University, Hyderabad, Telangana state. The institutional-based cross-sectional study design was conducted from 3rd to 25th July 2022. All first-year undergraduate students from various programs at Malla Reddy University's School of Allied Health Sciences who were willing to participate and provided written consent to participate in the study were included. A finite population equation sample size was used.

The sample size was calculated using the online software (https://www.surveysystem.com/sscalc.htm). Sample size was calculated by taking confidence level 95%, confidence interval 5, the finite population size was 476 (Total number of students enrolled into 6 courses was 476) and the required sample was 213. However, we received 219 responses and confidence interval became 4.87.

A self-administered close-ended Google form was used as a data collection tool and was adopted from the literature. The questioner was classified into three parts; the first part was socio-demographic data with five questions from (101-105), which contain gender, age, place of birth, branch, religion, percentage of marks obtained, family and family income. The knowledge part had ten questions (201-210) and the attitude part had 15 questions (301-315). Before starting the actual online survey, the questioner was pretested on about 2% of the total sample at the School of Allied Health Sciences. After pretesting, the questioner was checked and structured by the principal investigator. Before data collection, proper measures and corrections were taken on time for data completeness and accuracy. The collected data were edited, coded, and cleaned up in Excel before being imported into SPSS version 25 for analysis. Knowledge, defined as an understanding of environmental fundamentals, was assessed by asking ten questions about basic environmental concepts. All of the inquired questions had five responses, and correct answers to each knowledge statement received a score of one, while incorrect answers received a score of zero. As a result, the overall knowledge score for each student was calculated by adding the correct answers to the ten knowledge statements.

An attitude, defined as how one feels about something and is highly subjective, was assessed by asking ten questions about students' attitudes toward environmental issues. Using a 6-point Likert Scale, respondents were asked to indicate their level of agreement/disagreement with each of 15 broad ecological statements (1 – strongly agree; 5 – strongly disagree; 6 – no opinion).

For attitude questions, a pro-ecological statement received a score of 1 and less favorable ecological statement received a score of 5, with a low overall score indicating a more pro-ecological viewpoint. Before total individual scores were calculated, 'no opinion' responses were removed from the data set. The possible scores ranged from 15 to 75. As a result, a score of 15 indicated a pro-environmental attitude, while a score of 75 indicated a less favorable environmental attitude.

Knowledge assessment scores taken were in the range of 0-4 (low), 5-7 (moderate) and 8-10 (high). Attitude assessment scores taken were in the range of ≤ 28 (Pro attitude), 29-35 (Moderately positive) and >35 (Negative attitude). Descriptive statistics used to summarize the results. Chi^2 test of independence was used to understand the impact of independent variables on knowledge and attitude. Pearson's correlation was done to see the association of socio-demographics, knowledge, and attitude scores, at $p \leq 0.05$ level of significance.

3) Results

Socio-demographic profile of students

A total of 219 students participated in the online survey with 100% response rate. The mean age (±SD) of respondents was 18.87 (± 1.21) years (Table 1). Among them, 75.3% were female students (N = 165), 47.9% (N=105) of students were from urban areas, 40.6% students (N=89) from MBT (Medical Biotechnology) actively participated in the survey. The students mean percentage of marks obtained in the last academic program studied (12^{th}) was found to be 84.04 (±SD 10.68). About 80.4% (N=176) of students' families had a family size of 4-5 members and half (50.7 %) of the students' family average income was below 35 thousand INR.

Table 1: Socio-demographic of study participants

Demographics inquired		N=219	Percentage (%)
Gender	Female	165	75.3
	Male	54	24.7
*Age	18 to 19	182	83.1
	20 to 21	26	11.9
	>21 Years	11	5.0
POB	Rural	80	36.5
	Semi-Urban	34	15.5
	Urban	105	47.9
**Percentage (%)	>80	152	69.4
	66-79	51	23.3
	<66	16	7.3
Family Size	2 to 3	18	8.2
	4 to 5	176	80.4
	6 & above	25	11.4
***Family Income (INR) Thousands	≤35	111	50.7
	36-75	59	26.9
	75-100	34	15.5
	>100	15	6.8

*Mean age: 18.87 (± 1.21 SD); Mean Percentage (%): 84.04 (±10.68); *** Mean family income: 64627 (±92496) INR.

Students' knowledge on Environmental ethics

Based on students' responses to the knowledge assessment questions, the knowledge assessment test yielded scores ranging from 0 to 10 on a scale of 10. The analysis demonstrated that about 14.2% of students were found to have high knowledge assessment scores and half of the students (50.2%) participated in the survey had a low knowledge assessment score (0-4) (Table 2) includes 17 (7.8%) students with nil knowledge score.

Table 2: Frequency table of knowledge assessment scores

Assessment Score	Ranged values	N=219	Percent (%)
Knowledge assessment score	0-4 (Low)	110	50.2
	5-7 (Moderate)	78	35.6
	8-10 (High)	31	14.2

The students' level of knowledge about environmental ethics was calculated using ten questions rating how many the students thought they knew about each inquired question and responses were summarized in Figure 1. Among the inquired questions, students responded to a great extent (60.3%) to the question "Ecology is the study of the relationship between what?" with a high knowledge assessment score (0.60 ± 0.49). Likewise, 56.2% and 52.5% of students

responded to a reasonable extent for the inquired questions ‟ Burning coal for energy is a problem because it" and ‟ Animals alive today are most likely to become extinct because of?" respectively. On the other hand, students participated in the survey were found to have modest to low knowledge assessment scores for the other inquired questions.

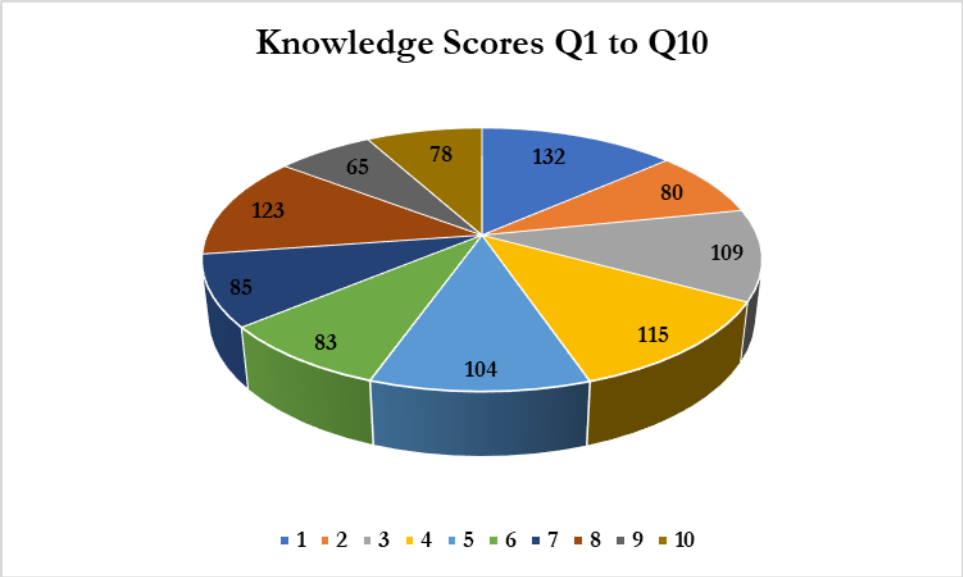

Figure 1: Mean of knowledge assessment scores, N=219.

Students' attitudes on Environmental ethics

Students' scores on the attitude assessment test ranged from 15 to 10 out of 75 questions (Table 3). Interestingly, 82.6% (N=181) of students were found to have negative attitude for the environmental protection and maintenance with assessment values ranges >35. Only 5% of students were observed to have positive attitude towards environmental ethics with assessment values ranges ≤ 28.

Table 3: Frequency table of attitude assessment scores

Assessment Score	Ranged values	N=219	Percent (%)
Attitude score	≤ 28 (Pro attitude)	11	5
	29-35 (Moderately positive)	18	8.2
	>35 (Negative attitude)	181	82.6

The students' attitude towards environmental ethics was analyzed using fifteen statements related to environmental issues. Figure 2 presents Mean and SD of knowledge and perception assessment scores. About 49.3% of students strongly agree that plants and animals have as much right as humans to exist. As well, 41.6% of students strongly agree that the earth has plenty of

natural resources if we just learn how to develop them. 40.2% students strongly agree that humans are severely abusing the environment and 8.2% had no opinion for the inquired statement. Only, 7.3% of students strongly disagreed for the inquired statement "Humans has the right to modify the natural environment to suit their needs". Most of the students who participated in the survey had mildly agreed or had given unsure for the inquired questions.

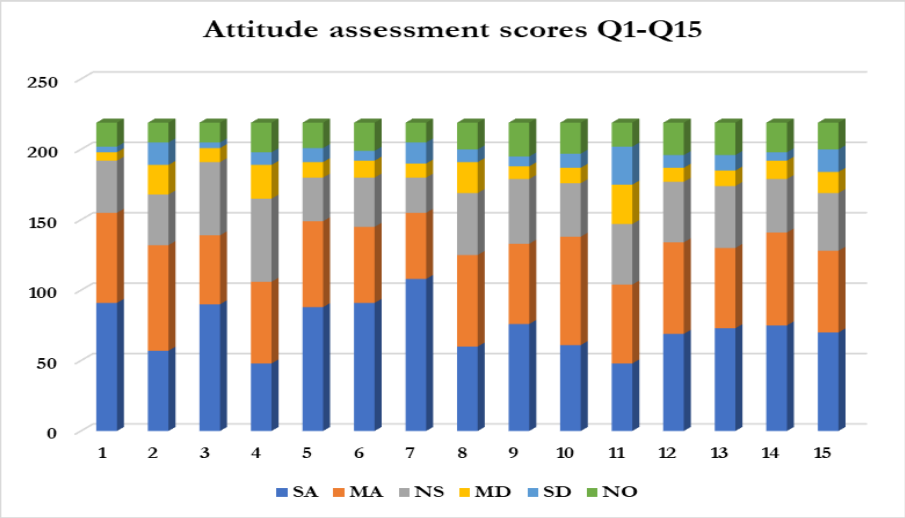

Figure 2: Frequency table of attitude scores, N=219.

Relationship among Students' socio-demographics, knowledge, and attitudes on Environmental ethics

To determine the impact of various socio-demographic characteristics such as place of birth, family size, family income on students' Environmental ethical knowledge and attitudes, a Chi^2 test of independence was used (Table 4). The findings of the Chi^2 independence test revealed the association between respondents' demographic and knowledge level, as well as students' attitudes on environmental issues. The independent variables, place of birth, family size, family income had significant impact on knowledge scores at p=0.05 significant level. Only percentage (%) variable showed significant relationship with attitude scores.

Table 4: Chi^2 test' of independence, independent variables relationship with knowledge and attitude scores, N=219, p (Two-tailed).

Independent variable	Knowledge score		Attitude score	
	Chi^2 value	p value	Chi^2 value	p value
POB	11.335*	0.023	-	-
Family size	32.48*	0.038	-	-
Family income	13.486*	0.036	-	-

Percentage (%)	-	-	111.567*	0.024

* Statistically significant at p=0.05 level

As student's place of birth had substantial impact on knowledge scores, Pearson's correlation was calculated, and it revealed place of birth had a weak correlation on knowledge scores at p=0.01 statistically significant level with a Pearson's value of r = 0.203 (Table 5).

Table 5: Correlation of knowledge score and POB, p=0.01 (Two-tailed)

Parameter	Mean	SD	Pearson's r
Knowledge score	4.46	2.648	0.203

Pearson's correlation was further calculated to measure the strength of the linear relationship between two variables, knowledge score and attitude score. The Pearson's bivariate correlation analysis between knowledge and attitude at p=0.01 indicated a weak correlation with r = 0.195 (Table 6).

Table 6: Correlation of knowledge score and attitude scores

Parameter		Attitude
Knowledge	**Spearman r**	0.195
	Sig (Two-tailed)	P=0.01
	N	219

4) Discussion

Environmental problems are the most crucial problems all mankind face today and reasons include industrialization, over population, developments in science and technology, increasing demands and globalization[7]. The mankind is considered as the most effectual factor in environmental problems in terms of their thinking and way of behavior[8]. Therefore, environmental education is ever-increasing importance with regard to a sustainable habitable environment and the aim of environmental education is to extend a world population with knowledge, skills and attitude to provide contribution to solutions of present environmental problems[9]. The keystone of environmental responsiveness lies behind raising environmental awareness of people[10] and requires individuals with environmental knowledge[11].

In the present study, an online survey was used to assess the knowledge and attitude on Environment among the community associated with Higher education institutions among Undergraduate students of Allied Health Sciences, Malla Reddy University, Hyderabad. A total of 219 students actively participated in the survey conducted at university. A self-administered

Google form questionnaire was used as a tool for data collection with questions related to socio-demographics, knowledge and attitude on environmental knowledge. Chi^2 analysis revealed the relationship between students' demographic and knowledge level, as well as students' attitudes on environmental ethics.

In the present survey, higher female preponderance was observed over male students in the active participation and students from urban areas enthusiastically participated in the online survey. A number of studies have found that females are more receptive towards environmental issues than males and are also more inclined to be in favor of conservation and environmentally favorable behavior [12, 13].

Among the socio-demographics, students' place of birth, family size and family income had significant impact on environmental knowledge scores. An additional socio-demographic determinant of environmental attitudes that have been researched worldwide is socio-economic status and income[14]. Several research studies revealed that higher monthly income correlated positively with the tendency to regard environmental destruction as a priority and with concern for protecting the environment[15].

Even though some research works has shown that no significant relationship exists between environmental attitudes, knowledge and pro-environmental behavior and socio-demographic characteristics, a number of recent studies have shown noteworthy support that environmental attitudes and pro-environmental behavior are mediated and moderated by socio-demographic characteristics particularly in a developing country context[16-18].

Environmental knowledge can be defined a person's "capability to discover or define a number of ecologically related symbols, concepts and behaviors"[19]. The present study confirmed that about (50.2%) of students participated in the online survey had a low knowledge assessment score and only 14.2% of students were found to have high knowledge assessment scores. This confirms students' environmental knowledge levels ranges from modest to low.

Milfont and Duckitt[20] defined environmental attitudes as a psychological inclination expressed by evaluating the natural environment with some degree of favor or disfavor. In the current study, only 5% of students were found to have positive attitude towards environmental ethics whereas 82.6% of students had negative attitude for environmental ethics. Any of the socio-demographic features showed noteworthy relationship with attitude scores of students in the University. Furthermore, students did not consider the environment as being under threat from humans as reflected on their relatively low knowledge and attitude scores on environmental fragility and eco-centric concern. Hence, there is a need to create awareness and to develop ecological sensitivity among the students. The results of this study contribute to design more efficient strategies to encourage environmental protection, particularly among current young students.

5) Conclusion

The findings indicate that interventions might be needed to temper environmental attitudes related to the utilization of nature for anthropogenic purposes. Furthermore, the findings revealed that demographic factors like place of birth, student's family size and income significantly correlated with students' knowledge. However, percentage (%) showed its impact on students' attitudes towards environmental ethics. Therefore, suitable well organized curricular and co-curricular activities need to be organized at all levels of education especially at the higher level to promote awareness among students regarding environmental issues. Recurrent workshops, seminars, conferences, symposia, exhibitions, field visits, etc need to be organized in educational institutions to involve the student community to practice all the skills they have learnt in relation to environment.

Acknowledgement

We want to extend our thanks to the all the students who participated in the survey. We also would like to thank to the faculty of SOAHS, staff and administration, Malla Reddy University, Hyderabad for their cooperation during the conduction of this study.

Conflict of Interest

We declare no conflict of interest

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The Ancient Indian Medical Practice & Health Remedies

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Abstract

Indian medicine has a long history. The period of Vedic medicine lasted until about 800 BCE. [1] Āyurveda, the traditional medicine is practiced in different parts of India since Vedic times. Over 70 percent of Indian population is dependent on this ancient knowledge of healing. Ayurveda uses a holistic approach to health. It considers the body, mind, and soul when treating a condition. It's mainly practiced in India but has gained popularity around the world.[2] This article aims to bring into limelight the concept of ancient Indian medical practice and age-old remedies to cure various health problems. For this, I have collected and considered the information from different ayurvedic journals, articles, and most importantly the views, experiences and practices of grandparents and great-grandparents. So, I hope definitely this would help the people to know the prominence of a traditional system of medicine and natural healing of health issues by various herbs and products from the kitchen and backyard to organize their lives in an effective way.

Keywords: Traditional medicine, Ayurveda, Doshas, Herbs, Triphala churna, Tulsi kadha

1) Introduction

The Rig Veda and later Vedic Samhitas, particularly the Atharva Veda, have references to the healing and curing of ailments.[3] The physicians in the Vedic period employed all five senses in diagnosis. The Indian materia medica was extensive and consisted mainly of herbal and vegetable drugs, all of which were from indigenous plants. Charaka knew 500 medicinal plants, and Sushruta knew 760. For certain health issues, animal remedies like the milk of various animals, bones, gallstones, and minerals like sulfur, arsenic, lead, copper sulfate, and gold were also employed. The physicians only collected and prepared their own vegetable drugs in ancient medical practice.[1]

The ancient Indian wisdom of natural healing known as Āyurveda, from the Sanskrit words Ayur- Life, and Veda-Science is a part of the spiritual tradition of the Vedas.[4] Ayurveda includes almost every aspect of life i.e. health, astrology, army, poetry, and spiritual living and behavior. Vedas are the roots of modern medicine. Among all Vedas, the Rigveda, a compilation of verse on the nature of existence, is the oldest compilation of any knowledge system.[1,3]

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The most fascinating aspect in Āyurveda is the use of herbs, foods, aromas, gems, colors, yoga, mantras, lifestyle and surgery. There were two main schools of Āyurveda named Ātreya– the school of physicians, and Dhanvantari– the school of surgeons. These two schools made Āyurveda as a more significant medical system with possible scientific reasons.[1] Traditional remedies have long been a rich resource for pharmaceutical companies. According to Ayurveda, a combination of elements determines the type of energy or dosha in the body. The doshas include: vata - air and space elements, pitta - fire and water elements, kapha - earth and water elements. As per Ayurveda, every person contains all three doshas, but one among them is typically dominant while the other two should be in balanced form in order to maintain good health. It is said that one may be ill when all doshas are out of balance. Ayurveda mainly concenrates on body detoxification, herbal remedies, dietary and lifestyle changes and soothing techniques.[3,4,12]

2) Remedies To Cure Stomach Problems

A. Tulsi, Clove, Honey And Warm Water Solution For Abdominal Pain

Tulsi leaves are loaded with anti oxidants that improve the functioning of the digestive organs. This flushes out the toxins and cleanses the stomach by easing the digestion. Cloves are one of the common spices that are largely used in Indian households and are rich in antioxidants and antibacterial properties. Cloves contain compounds that help to relax the lining of the gastrointestinal tract, which provides relief from common digestive troubles. Especially this solution eases the muscles in intestine and helps to absorb nutrients from the diet efficiently. So consuming warm water solution boiled with some tulsi leaves and cloves can fix any kind of abdominal pain or discomfort very effectively.[5,8,13]

Tulsi, Clove, Honey and Warm Water Solution

B. Honey, Ginger and Lemon Extracts Solution for Stomach Infections

Blending lemon extracts with ginger and honey can soothe abdominal infection. Lemon is a rich source of vitamin C and antioxidants. Honey and ginger have immunity-boosting properties and can guard against some bacteria. This combination was traditionally used to soothe the digestive

system, settle the stomach and relieve mild nausea. Consuming honey, ginger and lemon extracts in warm water can aid stomach infections very effectively.[6,8,13]

Honey, Ginger And Lemon Extracts Solution

C. Ghee, Salt And Hot Water Solution For Constipation Share On Pinterest

The combination of ghee and warm water helps to get rid of the toxins which in turn helps in smooth bowel movement if digestive system is sluggish. Ghee is rich in butyric acid which is known to help relieve constipation. It also improves metabolism and helps in the frequency and movement of stool. So ghee helps in lubricating the inner walls of the intestines and clears the intestinal passage while salt removes bacteria.[6,8,13]

GHEE, SALT AND HOT WATER SOLUTION

D. Pippali, Fennel Seeds, Basil Leaves, Honey And Hot Water Solution For Bloated Stomach & Acid Reflux

Pippali is a magical herb and acts as an antidote for acidity. This spice has medicinal compounds that stimulate digestion and balance the pitta doshas of the body very effectively and keep check for heart burn. Fennel seeds acts as immunity booster and regulates the intestinal function. So, by

consuming pippali and fennel seed powder with two spoons of honey and few basil leaves in a warm water after meals can control the acid reflux effectively.[6,8,13]

PIPPALI

SOLUTION OF ABOVE HERBS

FENNEL SEEDS

E. ONION JUICE, BLACK PEPPER AND HONEY SOLUTION FOR INDIGESTION

Consuming equal quantities of onion juice and honey with black pepper powder[5,8] or a glass of buttermilk mixed with a 1/4 teaspoon of garlic paste would be very effective in control of indigestion.[5,8,13]

ONION, HONEY AND BLACK PEPPER

BUTTERMILK AND GARLIC

F. Amla, Dry Ginger And Black Pepper Solution For Diarrhea And Dysentery

As amla is rich in polyphenols and vitamin C, it supports the digestion and strengthen the immune system. It helps to control bleeding and reduce contraction of the smooth muscles of the gastrointestinal tract with its powerful antioxidant and laxative properties. Dry ginger also contains antimicrobial and antifungal effects and regulates the functioning of stomach. Piperine a potent compound present in black pepper has antidiarrheal activity. So, Consuming the mixture of powdered amla, dry ginger and black pepper in equal proportions with lukewarm water twice a day can combat diarrhea and dysentery in an effective way.[5,8,13]

AMLA

DRY GINGER

BLACK PEPPER

3) **Remedies To Cure Various Types Of "Headaches"** [8,13,14]

a) Application of chandan or sandalwood paste on forehead.
b) Putting few drops of brahmi leaf juice and ghee in the nostrils before bed time
c) Consuming two table spoons of aloevera gel thrice a day
d) Massaging warm coconut oil or brahmi oil onto the scalp and soles of the feet
e) Smelling lavender oil often
f) Consuming triphala churna with empty stomach
g) Drinking ginger decoction twice a day

Chandan

Triphala Churna

Brahmi Leaves

4) **Remedies To Cure "Cold and Cough"** [8,11,15]

a) Consuming hot milk which is boiled with ¼ th spoon of Tumeric and two garlic pods.

b) Having Honey solution with equal quantities of Mulethi and clove powder twice in a day.
c) Drinking two table spoons of Giloy Juice with pinch of turmeric with empty stomach.
d) Drinking decoction made of dry ginger, turmeric and lemon.
e) Steam inhalation by adding ajwain, eucalyptus oil and turmeric in boiled water.
f) Consuming the decoction of coarsely powdered cinnamon bark, black pepper with a teaspoonful of honey and lemon.

Giloy Juice

Garlic Milk

Mulethi

5) REMEDIES TO CURE "FEVER"

a) BASIL, GINGER AND HONEY SOLUTION FOR FEVER

Basil is a medicinal herb and very effective in bringing down fever. Make this solution by boiling them in water, strain it and add 1 teaspoon of crushed ginger in the strained tulsi water, and boil it again until the solution gets reduced to half. Now add two table spoons of honey and drink this decoction twice or thrice in a day for three days.[8,11,15]

b) Herbs, Jaggery and Black Pepper Solution (Tulsi Kadha) For Fever

An ayurvedic decoction prepared with several herbs, a pinch of black pepper and jaggery by boiling with few basil leaves and medicinal herbs is known as tulsi kadha. Tulsi kadha is a natural immunity booster, can combat various ill effects and help relieve symptoms of a fever very effectively.[8,13,15]

Tulsi kadha

Magical Power of Certain Gifted Herbs

Tulsi has antioxidant, anti-inflammatory, antibacterial, and antiviral properties that will fight off infections very effectively. Turmeric contains an active agent called curcumin that has strong anti-viral, anti-bacterial, and anti-inflammatory properties which helps in treating infections. Ginger contains the major pungent compounds named gingerols which are responsible for its medicinal properties.Triphala is a powerful herbal and a combination of three different fruits:Amla, Bibhitaki, and Haritaki. It is used in traditional Ayurvedic medicine as it contains analgesic, antibacterial, anti-arthritic, hypoglycemic, antiaging, antiviral and anti-inflammatory properties. Giloy is an herb that soothes the respiratory system and boost immunity. Mulethi is a classical herb with has expectorant and bronchodilator properties and significant benefits in health.[8,9,10,11,12,13]

6) Conclusion

Herbs and natural products used in ancient medical practice have great importance in human health. Ayurveda is one of the most renowned traditional systems of medicine that has survived and flourished from ages till date.[4] The main intension in using traditional medicine is that it is more affordable, readily available in the kitchen or backyard and to avoid the adverse effects of chemicals present in the synthetic medicines. Consuming herbal medicines in required proportion at right time considering the age, nature of body and life style would give the positive result possibly. Changing lifestyles and demanding financial situations have introduced extreme distress in every individual's life. So, people have started looking into ways to organize their lives and practice healthy habits and traditional healing methods to ensure a happy living. In that order, ancient or age-old remedies are predominantly accepted for their best values.

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महाभारत में भेषज विज्ञान

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प्रारम्भ में वेद एक ही था। परमपुण्यमय सत्यवती नन्दन ने मनुष्यों की आयु और शक्ति को अत्यन्त क्षीण होते देख कर वेदों का व्यास अर्थात् विभाग किया। अतः वे 'वेदव्यास' नाम से प्रसिद्ध हुए। पुनश्च वेदार्थ दर्शन की शक्ति के साथ अनादि–पुराण को लुप्त होते देख कर भगवान् व्यास ने पुराणों का प्रणयन किया। उन पुराणों में निष्ठा के अनुरूप आराध्य की प्रतिष्ठा कर उन्होंने वेदार्थ चारों वर्णों के लिए सहज सुलभ कर दिया। अष्टादश पुराणों के अतिरिक्त बहुत से उपपुराण तथा अन्य ग्रन्थ भी महर्षि वेदव्यास के द्वारा ही रचित है। अत्यन्त विस्तृत पुराणों में कल्प भेद से चरित्र भेद पाये जाते हैं। समस्त चरित्र इस कल्प के अनुरूप हों तथा समस्त धर्म, अर्थ, काम और मोक्ष सम्बन्धी सिद्धान्त भी उनमें एकत्र समावेश हो जाये इस निष्चय से महर्षि वेदव्यास जी ने संसार के महान् एवं अलौकिक ग्रन्थ महाभारत की रचना की। महाभारत को पंचम वेद भी कहा जाता है। 'पंचम वेद' का अर्थ समस्त 'चार वेद' अर्थात् श्रुति का सारांश भगवान् व्यास ने महाभारत में एकत्र कर दिया। परम्परा के अनुसार इस महान् ग्रन्थ–रत्न को महर्षि वेदव्यास बोलते जाते थे और उसे प्रभु श्रीगणेश जी लिखते गये। जब व्यास जी ने महाभारत लिखने के लिए श्रीगणेश से प्रार्थना की तो श्रीगणेश जी ने कहा– लिखते समय यदि मेरी लेखनी क्षणभर भी न रुके तो मैं यह महनीय कार्य कर सकता हूँ। व्यास जी ने इस सर्त को सहर्ष स्वीकार किया और कहा– आप भी बिना समझे एक अक्षर भी न

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लिखें। श्रीगणेश जी ने भी इस सर्त को सानन्द स्वीकार कर व्यास जी के कहे हुए श्लोकों को लिखने लगे। कहा जाता है कि महर्षि ने आठ हजार आठ सौ ऐसे श्लोंको की रचना की है, जिनका ठीक–ठीक अर्थ वे स्वयं और उनके पुत्र भी शुकदेव जी ही समझते हैं। जब श्रीगणेश जी ऐसे श्लोकों का अर्थ समझने के लिए कुछ देर रुकते, तब तक व्यास जी कितने ही श्लोकों की रचना कर डालते थे।

महर्षि वेदव्यास ने ऋग्वेद, सामवेद, यजुर्वेद और अथर्ववेद का अध्ययन क्रमशः अपने प्रधान शिष्यों पैल, जैमिनी, वैशम्पायन और सुमन्तु को कराया। महाभारत का विशेष अध्ययन उन्होंने रोमहर्षण सूत को कराया।

महर्षि वेदव्यास ने संजयको दिव्यदृष्टि प्रदान कर दी, जिससे उन्होंने महाभारत युद्ध ही नहीं देखा, अपितु भगवान् श्रीकृष्ण के मुखारविन्द से निस्मृत परम पावन श्रीमद्भगवद्गीता को श्रवण कर लिया, जिसे महाभारत में अर्जुन के अतिरिक्त अन्य कोई नहीं सुन पाया था। इतना ही नहीं उक्त दिव्य दृष्टि के प्रभाव से संजय ने महाप्रभु श्रीनारायण के विश्वरूप का भी दुर्लभ दर्शन प्राप्त कर लिया। महर्षि वेदव्यास श्रीहरि विष्णु के कलावतार थे। वे परमज्ञानी ऋषि पराशर के पुत्र रूप में प्रकट हुए थे। उनका जन्म देवी सत्यवती के गर्भ से यमुनाजी के द्वीप में हुआ था। अतः उन्हें 'पाराशर्य' और 'द्वैपायन' भी कहते है। उनका मानवीय वर्ण घननील (कृष्ण) था, अतएव वे 'कृष्ण द्वैपायन' नाम से संसार में प्रसिद्ध हुए। पुनश्च बदरीवण में अवस्थान करने से उनका नाम 'बादरायण' भी है। जन्म के उपरान्त उन्हें परमात्मतत्त्व का ज्ञान और संपूर्ण वेद का ज्ञान भी स्वतः प्राप्त हो गया था, जिसे दूसरे ऋषि, महर्षि आदि यज्ञ, व्रत और तप से भी प्राप्त नहीं कर पाते; अतः वे स्वयं श्रीहरि विष्णु के अंश या अवतार थे यह निश्चित हो जाता है।

महार्षि वेदव्यास आयुर्वेद के विशेष ज्ञाता थे। महाभारत में उन्होंने भिन्न–भिन्न स्थान पर स्वास्थ्य रक्षा के उपाय, दीर्घायु के उपाय, स्वास्थ्य एवं योग, आयुर्वेद के आचार्यों का नाम आदि विषयों पर प्रकाश डाला है।

आयुर्वेद के प्रमुख आचार्यों में से अश्वनी कुमार का नाम सर्वविदित है। अश्विनी कुमार देवताओं के वैद्य कहे गये है–

अश्विनी देवभिषजौ यज्ञवाहा वितिस्मृतौ।[1]

देव वैद्य होने से देवराज इन्द ने इनकी पूजा की थी। इसलिए ये यज्ञ के भागी बने। महाभारत में भी चिकित्सा के सन्दर्भ में अश्विनी कुमारों का नाम उल्लेख प्राप्त होता है।

महाभारत के अनुसार अयोदधौम्य के तीन शिष्य थे, यथा– आरुणि, उपमन्यु और वेद। उपमन्यु ने क्षुधार्तावस्था में आक के पत्ते अर्थात् अर्कपत्र खा लिये थे। फलतः वह अन्धा हो गया था। उपाध्याय ने चक्षुलाभ करने के लिए उपमन्यु को अश्विनी कुमारों की स्तुति करने के लिए कहा था।[2] नकुल और सहदेव अश्विनी के पुत्र माने जाते हैं। कारण यह है कि पुत्र पानेके लिए माद्री ने अश्विनी कुमारों का ध्यान किया था– यह महाभारत में उल्लेख है, जो निम्न प्रकार है–

ततो माद्रीं विचार्यैव जगम मनसाश्विनौ।
ता वागम्य सुतौ तस्यां जनयामासंतुर्यमौ।।[3]

अश्विनी कुमारों के समान नकुल और सहदेव भी अपने समय में भैषज विद्या के प्रसिद्ध विद्वान् थे। इसके साथ–साथ महाभारत में जतुकर्ण, परार, पैल, काश्यप आदि आयुर्वेद के प्रसिद्ध आचार्यों का नाम उल्लेख (मिलता) है। आयुर्वेद के प्रसिद्ध उपदेष्टा एवं ग्रन्थकर्ता अग्निवेश या अग्निवेश्य का भी उल्लेख महाभारत में हुआ है, यथा–

अग्निवेश्यं महाभागं भारद्वाजः प्रतापवान्।
प्रत्यपादयदाग्नेयमस्त्रं धर्मभूतां वरः।।[4]

अर्थात् अग्निवेश्य या अग्निवेश[5] को धर्मशास्त्र वेत्ताओं में श्रेष्ठ भारद्वाज ने अग्नेय अस्त्र की शिक्षा दी थी। गुरु द्रोणाचार्य इन्हीं अग्निवेष्य[6] के पास अस्त्र–शस्त्रों की शिक्षा तथा धनुर्वेद का ज्ञान प्राप्त करने के लिए गये थे। एक स्थान पर अग्निवेष्य के साथ आयुर्वेद के प्रसिद्ध आचार्य हारित का नाम भी उल्लेख है यथा–

हारीतः स्थूलकर्णश्च अग्निवेश्यो शौनकः।[7]

पुनश्च आयुर्वेद के आचार्य काश्यप एवं आचार्य काश्यप एवं आत्रेय का नाम भी महाभारत में उपलब्ध है।[8] इस प्रकार अन्य आयुर्वेद के आचार्यों का नाम भी महाभारत में उल्लेख हुआ है।

आयुर्वेद का प्रमुख सिद्धान्त 'त्रिदोष' है। मनुष्य शरीर में इनका सन्तुलित रहना अत्यावश्यक है। अगर इन में से एक की बुद्धि हो जाए या कम हो जाए तो शरीर रोग से युक्त हो जाता है। आचार्य सुश्रुत के अनुसार वात, पित्त और कफ – ये तीनों ही शरीर की उत्पत्ति के कारण है। इन्हीं अकुपित तथा नीचे, मध्य और ऊपर यथाक्रम से रहने वाले वात, पित्त और कफ से यह शरीर धारण किया जाता है, जिस तरह तीन स्तम्भों से मकान धारण किया जाता है। अतः कई आचार्य इस शरीर को त्रिस्थूण कहते हैं। गलत आहार–विहार से प्रकुपित हुए ये ही वातादि दोष शरीर के विनाश में कारण होते हैं।[9] व्यास कृत महाभारत में भी वात, पित्त और कफ की साम्यावस्था को ही स्वस्थ का लक्षण कहा गया है, यथा–

शीतोष्णे चैव वायुश्च गुणाः राज शरीरजाः।
तेषां गुणानां साम्यं चेतदाहुः स्वस्थलक्षणम्।।
उष्णेन बाध्यते शीतं शीतेनोष्णं च बाधते।[10]

उपर्युक्त श्लोक में शीतगुण प्रधान श्लेष्णा को ही 'शीत' तथा उष्णगुण प्रधान 'पित्त' को ही उष्ण कहा गया है। महाभारत में इन दोषोां के कुपित होने के कारण भी दिये गये है, जो इस प्रकार है–

क. असमय में तथा अपनी प्रकृति के विरुद्ध भोजन करना अनुचित है।[11]

ख. अत्यधिक अथवा अत्यल्प भोजन करना तथा उन वस्तुओं का भी सेवना करना जो हानिप्रद तथा रोग उत्पन्न करने में सहायक हों।[12]

ग. कभी दूषित अन्न को भी ग्रहण कर लेना, कभी एक–दूसरे से विरुद्ध गुण वाले पदार्थों को एक साथ खा लेना, किसी दिन गरिष्ठ और अधिक भोजन करन लेना, कभी एक बार भोजन न पचने पर भी दुबारा भोजन करना –यह सब अनुचित है।[13]

आयुर्वेद के अनुसार वात, पित्त और कफ 'त्रिदोष' कहलाते हैं, किन्तु शरीर का धारण एवं पोषण करने के कारण इन्हें 'त्रिधातु' भी कहते हैं। इन त्रिधातुओं के अतिरिक्त आयुर्वेदानुसार शरीर में सप्त धातुएं भी शरीर के प्रमुख घटक के रूप में विद्यमान रहती है यथा–रस, रक्त, मांस, मेद, अस्थि, मज्जा और शुक्र। महाभारत में मोक्ष प्राप्ति के उपाय दिग्दर्शन के सन्दर्भ में इन सप्तधातुओं के पारस्परिक सम्बन्ध एवं उनसे होने वाले शरीर–संवर्धन के विषय में प्रश्नोत्तर दिए गए हैं। शिष्य आचार्य से प्रश्न करता है– यह बार–बार खाया हुआ अन्न उदर में पहुंच कर कैसे पचता है ? किस तरह उसका रस बनता है और किस तरह वह रक्त के रूप में परिणत हो जाता है ? स्त्री–शरीर में मांस, मेद, स्नायु और हड्डियां कैसी होती है ? देहधारियों के ये समस्त शरीर कैसे बढ़ते हैं ? बढ़ते हुए शरीर का बल कैसे बढ़ता है ? यह सब महाभारत[14] में वर्णित हैं। आचार्य सुश्रुत के अनुसार इन सप्तधातुओं में प्रथम धातु उत्तरधातु का पोषण करती है। इन सप्त धातुओं का निर्माण भी उत्तरोत्तर होता है। जैसे सुश्रुत संहिता में कहा गया है।

रसाद्क्तं ततो मांसं मांसान्मेदः प्रजायते।
मेदोऽस्थि ततो मज्जः शुक्रं तु जायते।।[15]

अर्थात् रस से रक्त, रक्त से मांस, मांस से मेद, मेद से अस्थि, अस्थि से मज्जा तथा मज्जा से शुक्र उत्पन्न होता है। क्षीरदधिन्याय के अनुसार जैसे समग्र दुग्ध से दधि तथा दधि से मक्खन और मक्खन से घृत बनता है, उसी प्रकार समग्र आहार होते हैं। महाभारत के उपर्युक्त सन्दर्भ से यह स्पष्ट है कि उस समय तक सप्तधातु सम्बन्धी यह प्रक्रिया चिकित्सा विज्ञान में एक प्रामाणिक स्थान पा चुकी थी। सुश्रुत के अनुसार आहार–रस से शुक्र का निर्माण एक मास में पाना है।[16] महाभारत में वीर्य की उत्पत्ति दूसरे उपाय से कही गयी है। महाभारत के अनुसार इस शरीर में स्थित पृथ्वी, जल,

अग्नि, वायु, आकाश और मन के अधिष्ठाता देवता जो अन्न भक्षण करते हैं और उस अन्न से मनसहित वे पांच भूत जब पूर्ण रूप से तृप्त होतें हैं तब महान् रेतस् अर्थात् वीर्य की उत्पत्ति होती है।[17]

महाभारत एक अनोखा काव्य है जिसमें विविध विषयों का वर्णन मिलता है। अगर हम रोगों की बात करें तो इसमें भी अनेक रोगों के नामोल्लेख पाया जाता है। पाण्डवों के मूल पाण्डु, पाण्डु रोग से पीड़ित थे। अतः उनका यह अन्वर्थ नाम पड़ा था। आचार्य चरक के अनुसार पीलिया रोग से पीड़ित व्यक्तियों के नेत्र हलदी के समान पीले हो जाते हैं, त्वचा, नख और मुख का वर्ण भी हल्दी के समान पीला हो जाता है तथा मल और मूत्र रक्तमिश्रित पीले वर्ण के निकलते हैं तथा रोगी का शरीरिक वर्ण वरसाती मेंढ़क के समान हो जाता है।[18] महाभारत ने इस रोग को 'पिंगल' नाम शायद इन रोग–लक्षणों के साम्य के कारण ही दिया है। अनुशासन पर्व में कहा गया है कि जिसके शरीर का रंग पीला पड़ गया हो, जो कुष्ठ रोग वाली हो उसके साथ विवाह नहीं करना चाहिए, यथा–

'पिंगला' कुष्ठिनी नारी न त्वमावोढुमहसि।[19]

महाभारत में कुष्ठरोग का भी उल्लेख है। उस समय समाज में कुष्ठ रोग को अत्यन्त घृणा की दृष्टि से देखा जाता था। राजा प्रतीप के तीन पुत्र थे, यथा– देवापि, शन्तनु और वाल्हीक।[20] देवापि कुष्ठ रोग से ग्रस्त थे। इसीलिए शन्तनु से बड़े होने पर भी उन्हें राजगद्दी नहीं मिली। अनुशासन पर्व में कहा गया है कुष्ठ रोग वाले अथवा सफेद कोष्ठवाले मनुष्य के कुल में पैदा हुई कन्या से विवाह नहीं करना चाहिए।[21] महाभारत में अपस्मार अर्थात् मिर्गी रोग के विषय में वर्णन मिलता है। अपस्मार अर्थात् **'अपगता स्मृतिः यस्मिन् रोगे स अपस्मारः'** – इस व्युप्पत्ति के अनुसार चिकित्सा–शास्त्रियों ने स्मरण–शक्ति के नाश होने का नाम अपस्मार बताया है। मनुष्य शरीर में कम्पन, मुख से फेन का निर्गम आदि इस रोग के अन्य लक्षण है। महाभारत में कहा गया है कि जो कन्या मृगी रोग से दूषित कुल में पैदा हो उनसे विवाह नहीं करना चाहिए–

अपस्मारिकुले जाता विहीना चैव परिवर्जयेत्।[22]

महाभारत में इन सब बिमारियों के अतिरिक्त षण्ढत्व (नपुंसकता), अन्धत्व[23], जलोदर, श्वित्र (सफेद दाग), पलित (सफेद बाल), जड़त्व (लकवा), वधिरत्व आदि रोगों का भी स्पष्टतया उल्लेख किया गया है।[24] इन रोगों से ग्रस्त मनुष्य श्राद्ध आदि में निमन्त्रित होने के अधिकारी नहीं माने जाते थे। यह भी वर्णन मिलता है कि कुलच्छिनी स्त्रियां विविध जड़ी–बुटियां खिलाकर पतियों में नानाविध रोग उत्पन्न कर देती थीं।[25]

आयुर्वेद के ग्रन्थों में मानसिक रोग के विषय में विशद वर्णन उपलब्ध होता है। मानसिक स्वास्थ्य मनुष्य के लिए अत्यन्त आवश्यक है। जो व्यक्ति मन से स्वस्थ रहता है उसका शरीर भी स्वस्थ रहता है। महाभारत में उपर्युक्त शारीरिक व्याधियों के अतिरिक्त मानसिक व्याधियों का उल्लेख है। महाभारत के अनुसार इन दोनों व्याधियों का जन्म एक–दूसरे के सहयोग से होता है। दोनों के पारस्परिक सहयोग के बिना इनकी उत्पत्ति सम्भव नहीं। शरीर में जो रोग होता है, वह मानसिक रोग कहलाता है। जैसे कहा गया है–''**मन एव मनुष्याणां कारणं वन्ध मोक्षयो**:''। अतः मन जब प्रसन्न रहता है तब तो शरीर भी निरोग रहता है। सत्त्व, रज और तम ये तीन अन्तःकरण के गुण माने गये हैं। इन तीनों गुणों के साम्य को मानसिक स्वास्थ्य का श्रेष्ठ लक्षण माना गया है। इन में से किसी एक की वृद्धि होने पर उसके निवारण का उपाय भी बताया गया है। जैसे महाभारत में कहा गया है–

सत्त्वं रजस्तमश्चेति त्रयस्त्वात्मगुणाः स्मृताः।
तेषां गुणानां साम्यं चेत्तदाहुः स्वस्थ्यलक्षणम्।।
तेषामन्यतमोत्सेके विधानमुपदिश्यते।[27]

महाभारत में एक प्रसंगानुसार महर्षि नारद धर्मराज युधिष्ठिर से पूछते हैं– क्या तुम औषधि सेवन या पथ्य भोजन आदि नियमों के पालन द्वारा अपने शारीरिक कष्ट को तथा वृद्ध पुरुषों के सेवारूप सत्संग के द्वारा मानसिक सन्ताप को सर्वदा दूर करते रहते हो ?

कच्चिच्छारीरमा बाधमौषधैर्नियमेन वा।

मानसं वृद्धसेवाभिः सदा पार्थापकर्षति।। [28]

उपर्युक्त श्लोक में वृद्ध पुरुषों की सेवा रूप सत्संगति को मानस सन्ताप को दूर करने वाला बताया गया है। अर्थात् ज्ञान सत्र, अध्यात्म–चर्चा तथा प्रवचन आदि में भाग लेने से मानसिक दुःख कम हो जाता है।[29] इन सब अध्यात्म सत्संग तथा धार्मिक आयोजनों में भाग लेने से मनुष्य मानसिक तनाव से बच सकता है –यह महाभारत का उपदेश या संदेश है और यह आज सब के लिए ग्रहणीय भी है।

इस प्रकार महाभारत में प्रसूति–तन्त्र[30], गर्भ विक्रान्ति[31], ऋतुकाल[32] संजीवनी विद्या[33], मन्त्रौषधि एवं जड़ी–बूटियों का प्रयोग[34] आदि विविध (आयुर्वेदीय) रोग और उन सबके निदान के विषय में विशद वर्णन उपलब्ध होता है। महाभारतकार व्यास एक आयुर्वेद के आचार्य भी थे। अतः वे औषधि विज्ञान से सम्बन्धित अनेक तथ्य उपदेश के माध्यम से विषयानुसार और प्रसंगानुसार उपस्थापित किये हैं जिससे मानव निश्चित रूप से लाभान्वित हो सकता है।

सन्दर्भ

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6. महाभारत, आदिपर्व, 122.24.
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Vedic Traditions and Scientific Applications

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Abstract

Hindus are staunch believers of spirituality. They follow traditions and customs, based on Santan Dharma, that is eternal; which are derived from the Vedic scriptures and two great epics Ramayana and Mahabharata. They are meant for a prosperous, healthy, and spiritual environment in the society which would be free from the infections and crime rate. The individual or society who follows systematically experience peace and harmony. The results one may notice in the long run. In this materialistic world, people have either neglected or have forgotten to adhere to traditions and cultural values, may be due to the lack of understanding of their importance in everyday life.

The sudden outbreak of pandemic COVID19 has compelled them to realize and understand their importance, how our forefathers and sages designed without any flaws, and passed from one generation to another for the wellbeing of people and to protect from unforeseen incidents and epidemic diseases. Modern studies show that there is a strong relationship between spirituality and medicine.

There are a large number of traditions and customs in Hindu scriptures. Some of the prominent traditions such as hygienic and satvik food, eating habits, isolation, cleanliness, healing prayers, healthy children, yagnas , cremation , ruthless killing of animals etc and how one can use Vedic culture and traditions in daily life to be prosperous, and be away from viral infections and crimes; are systematically analysed and presented in this paper. All the Vedic traditions are scientifically based and they need to be explored further for understanding the science behind that. This paper will motivate the readers and scholars to investigate further the ideas of Vedic culture

Keywords: COVID19, Hindu traditions, spirituality in medicine, lighting lamp, namaste, masks, cleanliness, isolation, tilak, clothes, healing prayers, vegetarian diet, eating habits, yagnas, cremation and alcohol drinkers etc.

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1) Introduction

India is a resource centre of spirituality in the world. Indian Rishies or Sages received the wisdom through "*Divya Drishti or Farsight*". The Hindu way of life is based upon the teachings of the Vedic scriptures. The two great epics the Ramayana and the Mahabharata, and holy scriptures the Bhagvad gita[1] and the Srimad Bhagvatam[2] are sources of inspiration and direction to establish proper civilized society. They led to the formulation of proper rituals and traditions, and cultural and moral values for human society. They are based on the concepts of Dharma,

Ahimsa, and Karma. The customs and rituals are eternal and their culture is very rich. They have been framed by our great ancestors by considering all aspects of cosmic elements for the welfare of all living entities on this earth planet. These are challenges and eye-openers for scientists to explore Vedic science.

As per the scriptures, the birth and death cycle continue as per the law of Karma.[3,4] The human form is very rare to get it and that should be utilized for liberation from this materialistic world and to go back to Godhead. These beliefs have made them follow and practice traditional and cultural values, which together give a proper direction to act in a particular way to lead a happy life in harmony with nature and other living entities. The studies have shown that the science of spirituality has a psychological influence on the behaviour and self-confidence of patients and the relation between spirituality and medicine cannot be ruled out. [5]

For every action, there is an equal and opposite reaction. The natural calamities, droughts, floods; and cyclones environment pollution, water crisis, and the regular epidemic diseases are consequences of the ruthless activities of humans in the name of civilization and industrialization of a country. The drunken people can enjoy themselves, but excessive drinking is harmful to self and others. Because of one drunken driver may kill innocent passengers and outside standing vehicles and other people and their properties. Professor Robin Room, Director, Centre for Alcohol Policy Research, University of Melbourne writes in a given year 367 people Australians die because of another's drinking and 13,600 are hospitalized etc. [39]

It is believed the regular epidemic diseases such as Ebola virus, Zika virus, Chikungunya, Plague, H1N1, Swine flu, and the present Coronavirus were caused due to the merciless activities killing of animals for consumption of unhealthy meat, beef, pork, and chicken, etc. These diseases are mostly originated from slaughter centres and unhygienic places from different parts of the world. The present dreadful Coronavirus which was originated from the Wet market, Wuhan, China, spread globally and cause pandemic diseases and claimed millions of lives of innocent people. [6,7]

To save people from the deadly COVID1, the most of the world leaders-imposed lockdown in their countries to avoid gathering of people and prevent the virus, it is suggested to maintain social distance, cleaning hands regularly with sanitizer or soap water, and use a mask to cover mouth and nose, whenever one goes outside and the infected people are put in quarantine (Isolation) for

14 days. These types of precautionary measurements saved and cured a lot of people from COVID positive patients.

The impact of lockdown is so powerful that it has touched the hearts of many people in the world and cautioned them to follow ancient traditional values which were forgotten or neglected intentionally or unintentionally in the name of human civilization and the development of society. The basic concepts of moral and ethical values such as neatness and cleanliness; respect all living and non-living bodies are taught to all children right from primary schools too, apart from the values they learn from their families. But people have either forgotten or not understood the basic fundamental laws and concepts taught in our schools, colleges, or may be our education system has failed to inculcate these values through texts and curriculum.

Some believe the Hindu cultural values are too complicated to perform and to understand its procedures, and implications may not be scientifically proved. They are perfect and intact. No one can find out any flaws and shortcomings. During ancient period people were following Vedic culture and rituals relentlessly and passed from one generation to other, which yielded peace and harmony in the Hindu families thus the Vedic culture was rich in the world. Western people used to come to India to learn in Takahashila and Nalanda Universities.

But the present generation people are unable to understand or might not have reached that level of consciousness to realize what is written in the literature. As a result, the people are materialistically oriented and following unethical values for corrupt practices and lust for power that is prevailing in the present society causing violence and unrest in the world.

Now we can see during this pandemic COVID19 the Government authorities of all countries are educating people, the basic principles of cleanliness, washing hands and feet periodically, social distances, stay at home and quarantine for COVID positive patients, etc, which are basics and common practices in Hinduism. Some of the Hindu traditions and customs and practices in daily life are studied and presented below

2) Traditions and Customs.

1) Greetings - Namaste

Namaste or Namaskar is a special type gesture to greet each other when two people meet each other. Every living entity has a soul and a super soul. It implies "I bow to the Supreme Lord in you". It means “The Supreme Lord in me recognizes the Supreme Lord in you”. In other words, two souls are coming to unite for fruitful discussions. Namaste is usually spoken with a pleasant voice by slightly bending and hands pressed together, palms touching and fingers pointing upwards, thumbs close to the chest. This mode of

Fig 1 : Nameste

greetings avoids physical contact of persons and stop spreading infections. It is being followed by most people in the world after the outbreak of Coronavirus.

2) Cleanliness: Infections -Purity

a) Hands & Feet

The well-known concept is "*Cleanliness is next to Godliness*". One needs to be pure internally and externally. Purity needs to be in the heart as well as on the surface of the human body. The yoga and meditation yield internal purity whereas the cleaning hands and feet regularly with soap water or sanitizer leads to external purity. One needs both moral purity and personal hygiene. Cleaning your hands (Fig.2) and feet with regular soap and with water is a highly effective way to stop the spread of germs and bacteria; and removes fungal infections if any.

Fig.2 Cleaning Hands and Feet

b) Shoes & Socks

One must remove shoes and socks before entering the house and temples. (Fig.3) One must be pure of the purest form to enter into the sanctity place at religious places. The Supreme Lord in Bhagavad-gita says one out of one million will reach Me. Thus one must be pure internally as well as extremally. The basic thing bringing shoes and socks odor inside means allowing soiled things and bacteria into the house or temples. It is a courteous way in respecting the house and temple to keep floor free from fungus and harmful substances come along with shoes. It is a strict custom in Hindu families to clean your hands and wash your feet and legs before entering in to the house (Fig.3) and clean hands before taking food. One must wash hands and feet after coming from toilets. Rest room shoes or slippers must be avoided to use in the houses. In some of the of the orthodox families, outside cleaners and maid servants are also discouraged. One can see these customs in some of traditional Brahmin houses that they clean their houses, utensils and wash their clothes by themselves. The way one cleanses one's own body, one can clean one's own rest rooms. If the

Fig 3 Remove shoes

anatomy of human body parts is not secret, humans could have appointed maid servants to clean those parts also.

Visitors are not allowed into ICU of hospitals with their own shoes. As per the reports, the during the Coronavirus period in *Italy*, most of the patients in the hospitals are infected by the doctors, nurses and other medical staff, they were carrying the contagious Coronavirus through shoes[13]. These small values could have saved people from death. Keeping your hands and feet clean and dry is an effective way to prevent these health issues.

c) Rangloi

It is the general practice in Hindu families that everyday morning, the front portion of the house, the open place is swept and cleaned with water; and especially in rural areas, they use even cow dung to wipe out dirt and insects. Before performing morning and evening prayers, it is mandatory in Hindu families to clean and mop the houses every day, using detergents to remove dirt, dust, and insects for a hygienic atmosphere in the house.

Fig.3 B . Rangoli

The way one cleanses one's own body, one should clean one's restrooms. If the anatomy of human body segments is not concealed, humans could have appointed maidservants to clean those parts also.

3) Lighting Lamp

We are in a world of darkness. The light leads us from darkness to enlightenment. It symbolizes the presence of goddess Laxmi and goddess Sarswathi.[8]

Fig 4. Lighting a Lamp

a) Lighting lamp is a symbol of truth and wisdom and increases the worship
b) Lighting lamp in the morning and evening before the deities in the house gives peace,
happiness, and positiveness in the house.
c) In any organization, a program starts with lighting a lamp.
d) Diyas are lit in during dusk and place in front of the door to purify the house and air to welcome goddess Laxmi in the evening and prevent insects and reptiles entering the house.
e) According to the Science of Spirituality lighting lamps with pure ghee is more satvic (mode of goodness) when compared to oil. The pure ghee produces more satvic vibrations and it spreads longer distance, the satvic effect is more predominant on the atmosphere when it stops burning than the oil used lamps.[9] When ghee comes in contact with fire, the atmosphere becomes a more

sacred and pleasant smell, and it removes diseases from the place. A house without a lamp is considered to be a ghost place.

4) Early to bed and early to rise

This is a well-renowned thought.[10] *Early to bed and early to rise makes a man healthy and wealthy*. One should sleep early and wake up early. The early morning period is considered to be an auspicious time known as *Braham Murtha* nearly one and a half-hour time before the Sunrise.[11] During this time the environment is very clean and birds are cheerful for waiting to see the rising Sun. It will have a considerable effect on the body and mind when one practices Meditation and Yoga. The early morning sun radiations will keep the body fit and healthy. These are basic principles in Gurukuls and Vedic schools to learn scriptures and chanting Vedic hymns during Braham Murtha time. The power of retentivity is very high; and students would be sharp and bright if one utilizes this golden period for studies. Another advantage is, that one feels the day is longer.

The human body requires at least four to five hours of sleep so that body is not overburdened with conscious activities and concentrates on unconscious activities to rejuvenate for the next day's work. The regular night shift jobs in present MNCs may not be advisable for employees in regards to health issues.

5) Bath

The human body temperature varies from 36.1^0C to 38.3^0C (under extreme situation it may go up to 40^0 C). Under these conditions dynamics of various parts of the body release sticky oil through oil and sweat pores of the skin which accumulate bacteria and other microorganisms with dirty smell. It gives irritation and suffocation to the self and unpleasant to others who are standing nearby. To keep a healthy body and hygienic one must take bath with soap preferably using hot water that removes the dust particles and bacteria. As per the scriptures: [2]

a) One must take bath at least twice a day i.e. morning and evening. It is mandatory to take bath before preparing the food and worshiping God.
b) Once taken bath you should not touch others who did not take bath.
c) After coming from a barbershop and funeral, one must take bath.
d) One should not touch anything or anybody in a home without taking bath
e) Once should touch others who are in isolation. These are further discussed in detail in sections 13 and14.

6) Clothes – Decency

Fresh or new clothes make you feel pure and happy. The used clothes generally will have dust particles or dirty oil layer due to one's sweating and bacteria from our own body, and from outside. The body oil and sweat, other junk generated from glands reach out through the oil and

sweat pores of the skin. They cause skin infections and unpleasant smell to self as well as to nearby people. Once the unwashed clothes and bed sheets especially pillow covers are used, again and again, the sweat rubs off the bacteria and it gets multiplied which can cause a stinky smell and potentially skin irritations or cause fungal infections. Thus it is suggested to have a bath at least twice in a day i.e. morning and evening.

The conservative families avoid giving dirty clothes to washer men, thinking they mix and boil with other's infectious clothes. Either they were calling washer men to homes or washing clothes by themselves only. Washing machines are better to avoid spreading outside infections. One should generally avoid giving clothes to laundrymen or dry cleaners unless there is an emergency of important dresses.[12]

The old clothes must be periodically disposed off to avoid the growth of germs. In the past, people used to have a lot of manual work in the fields and outside, thus new clothes were generally preferred to purchase during festivals and other occasions. The trend still is going on to wear on important festivals. Turmeric powder is sprinkled or few dots are placed on new clothes to kill bacteria. Special woollen or silk clothes kept separately are used for devotional activities.

The types of new clothes or dresses we wear affect our behaviour, attitude, personality, mood and confidence, and even the way we interact with each other. In Hindu rituals, the dress code is the most important attribute for both males and females. Specific dresses are meant to wear on specific functions during rituals and marriages. To have proper decency, dress codes are also observed in some of the educational institutions and organizations. The indecency or sexy dresses will put her self-others in problems. Most of the crime rates are alarming problems in the world because of dresses of women clothes. The difference between the human and animal is that we wear clothes they do not wear, because we intelligent. Those who do not wear clothes they are worse than animals.

7) Customs: Harmony - Reduce Crime

a) Tilak


Fig.5. Tilak

Tilak or Tika is a religious mark on the forehead that represents as Hindus. The location on the forehead is of immense significance for both males and females. Applying Tilak is mandatory females and especially for married people. Human bodies are energy possessing bodies, where energy continuously flows within the body; and between the body and surroundings and vice verse. This energy flows through Nadis (Astral nerves)[13] distributed through the body. All these Nadis will meet at a divine point on the forehead between two eyebrows and above the nose or in other words the whole body is controlled from this point. The point is also known as Ajna Chakra (it is one of the seven chakras).[14] This symbolic location is very sensitive and more powerful for two reasons - 1) negative energy

directed at this point, passes through the body and cause damage to the body and imbalance to take place within in the body, 2) positive energy flows out the body from this point to protect as well as destroy harmful incidents.

It is believed that the Lord Shiva's third eve or sixth sense is located at this point12. The scriptures say when Lord Shiva opens the third eye; mahapralayam or disastrous events may take place in the world.

The wrinkles on the forehead imply a person's facial expressions. Applying a tilak, ensures happiness, comfortable and peaceful, and gives self-confidence and appears to be a pure Hindu devotee.

b) Bangles

The bangles and earrings are God gifted ornaments for ladies. The wrists are always in regular movements. The bangles on the wrists are in constant friction with each other which increases the blood circulation in the body. They control high blood pressure and recharge the energy levels of the body. The circular-shaped bangles revert the electricity which is passing through them. [32]

Fig.6. Bangles

A function called "Seemantham" is arranged during the 7th month of pregnancy. The mother is gifted with various types of Bangles and Sarees. The tinkling sound of bangles of a mother, helps the child to develop the baby's audibility during the pregnancy period (more details in section18). The various types and colours of bangles have different significances. Gold bangles yield fortune Red colour gives energy, etc. The sound vibrations of bangles protect the ladies from negative energy sources. Thus, Hindu girls are mandatory to wear bangles. The colourful of bangles and tilak on the forehead represent they are married and respectable women and mothers in a society. Those representations reduce the crime rate in society. The western culture of ladies which is more luring to opposite gender causing more crime rates in the world.

c) Healthy Children

Keeping in view of the healthy children and safety of pregnant ladies, the Indian government has generously sanctioned six months of maternity leave for employees so that they get proper rest in the home, and to be away from infections and virus-like COVID19 in offices and at other places

and a risk factor for child and mother for daily commuting, thus country will be free from birth defective or special needs children.[33]

Proper care and service to the pregnant lady and providing nutritious food daily, the happy joyful environment in the house will have a great impact on the mother as well as the child in the womb. Music is divine. In traditional families, classical music, divine slokas, and moral stories are recited and audiotapes are played before pregnant ladies. The rhythmic sound vibrations would give pleasure to the mother as well as pass on to the child which stimulates auditory senses and improves the reflexes of the child. It is believed, the type of music she listens during pregnancy would formulate the personality of the child when she or he grows up. The soft music develops calm and quite whereas loud music leads to an aggressive child. The loudness of sound also affects the sense organs, it is recommended to keep the volume around 50-60 decibels as other sound vibrations such as heartbeats, the gurgling of the tummy.[34] The alarming sound vibration due to the regular movement of trains and excessive labour work or activities for pregnant ladies may have adverse effects on the child and sometimes she may have a deformed child.

8) Pure Devotees

The scriptures reveal, the human form is very rare to get it and its purpose is for self-realization and to go back to Godhead.1 To achieve this realization, one has to be a pure devotee. The conditions for a pure devotee are: one should in the mode of goodness (Satvic) and should follow four regulative principles[1,2] -1) No eating meat, fish, or eggs. 2) No gambling, 3) No use of intoxicants and 4) No illicit sex. They are said to satvic pure devotees. (discussed in detail in section 21)

If such saintly people are admitted to the hospital, they may be termed as Ideal Spiritual Patients (ISP). It is believed that their health conditions are better than others as they are satvic people. They are physically as well as mentally strong and always be in a transcendental state irrespective of any happiness or sorrowfulness.[5] They realize the physical pain is due to their law of karma and they accept it as per the Lord's wish.

9) Prayers - Healthy Environment

Prayers and deity worships are two divine activities of their daily schedule during the Sunrise and the Sunset periods. Their payers are for the welfare of all living entities, for self as well as for family members. They worship *Trimurti, Four vedas, Five cosmic elements, Six seasons, Seven rivers, Eight directions and Navagrahas and Dashvathaaras* (Sanskruthi Song)[15] for providing optimum conditions for the liveable, healthy and prosperous environment on the Earth for living entities and some other prayers for Lord Shiva to destroy evils and curb diseases and negative energy prevailing in the premises. The deities radiate positive energy and make free from miscreants. A house without a God's portrait, daily prayers, and lighting lamps are considered to

be non-inhabitant or ghost house. These prayers will bestow happiness and make them psychologically strong.

a) Healing Mantras - Spirituality and Medicine

As per Hindu traditions, when people are under a critical situation in fighting for health and illness, or fear of threat and death or to protect from epidemic diseases or no hope on medicines, the final remedy for them is to plead the God of medicine "Dhanwantari" and the God of Destroyer "Lord Shiva" through a recitation of powerful mantras :[16]

- Maha Mrityunjava, Mantra
  Om tryambakam yajāmahe sugandhim puṣṭi vardhanam ;
  urvā rukamiv bandhanān mṛtyor mukṣīya mā'mṛtāt .

- Hare Krishna Mantra
  Hare Krishna Hare Krishna Krishna Krishna Hare Hare .
  Hare Rama Hare Rama Rama Rama Hare Hare.

- Vishnu Sahasranama Stohram.

They may get survived as per their Law of karma. In order to give the importance of Indian medicines, the Indian Government has declared that Dhanwantari Trayodashi every year would be celebrated as "National Ayurveda Day" [17]

"Spirituality and medicine are closely associated and they are indelible; the quality of life of spiritual patients is overall better than non-spiritual patients; the need for the medical community to support the spiritual lives of patients. Do Spirituality and Medicine Go Together?" as reported by Michel Balboni and Tracy Balboni in their article.[5]

b) Navagrahas- Effects on Human health and Peace

Hindus firmly believe astrology, the study of nine planets (Sun, Moon, Mars, Mercury, Jupiter, Venus, Saturn, Rahu, and Ketu) forecast the effectiveness of planets on the earth atmosphere and the lives of individual people.[18] The interplanetary motion reflects some rays on the earth which influences the lives of people. The body derives energy from the Sun, any small changes affect the energy levels of the human body. It controls digestion and health, and healing process; Moon controls the mind and emotions; Mars(Mangal) controls blood circulation and diseases; Mercury(Budh) influences intelligence and grasping abilities; Jupiter (Brihaspathi, Guru) is a powerful symbol of spirituality, fortune and causes hurdles and diseases when it comes to different positions; Venus (Shukra) is benevolent, brings wealth, honor and fame; Saturn (Shani, son of Sun) creates most of the problems in life, fear, sorrow and diseases, sometimes he gives happiness also; Rahu and Ketu are shadow planets, they are also like Shani cause problems. Thus together all these planets control entire living bodies on the earth.

*Shani Shingnapu*r is a famous place in Maharashtra , India, where no house has doors but only door frames are found in the house. Still no theft takes place and no crime rate since centuries. The Shnai temple known as Jagrut temple , meaning the Shani god resides alive and He punishes anyone who attempts to theft from houses. The place is peace full and villagers are happy.

c) Panchanga Shravanam

As per the tradition, kings in the ancient period and the present government authorities would request astrologers to recite Panchanga Shravanam (recitation of the yearly calendar) on the day of the new year festival, Ugadi (which occurs during the last week of March or the first week of April every year), to know the predictions, the effects of planetary motion on the earth particularly seasonal rains for agriculture, human health, diseases natural calamities, the safety of the people and security of the country, etc. Based on those predictions they take precautionary measures and allocate budget accordingly for the coming financial year.

The astrological effects are mainly due to the gravitational fields of various planets which are moving around the sun in our solar system. The impacts are prominent when they approach and deviate from the earth and when they lie on the same line. The Moon's gravitational pull on the earth is the main cause of the rise and fall of ocean tides. On no Moon day (Amavasya) is considered to be as inauspicious[19], causes negative effects whereas on full Moon day (Poornima) is considered to be as auspicious, yield positive effects, these are visible human body and human behaviour. The solar flares of sun, electric and magnetic field of planets have also critical influences on the earth's atmosphere, climatic and seasonal changes.[20]

People worship regularly, especially on every Saturday, would visit the temples and perform prayers to minimize the effects of Planets (Nava Graha). Thus considering these effects on the human body and mind, people give offerings to them before any auspicious or religious ceremony.

10) Yagnas

A Yagna is a powerful ancient method of ritual to satisfy Supreme Lord Vishnu by reciting sacred Vedic verses through the fire of God (Agni) as a medium.[21] It is a fire pit in which different materials like, pure ghee, cereals, navratnas, camphor are added such that they all get merged with cosmic elements.

a) Yagnas yield bliss and benediction for the welfare of the members and remove bad karmas of individuals and society.
b) Oaths are taken before the Fire God (Agni) are authentic and He stands as witness. Such rituals are mandatory during marriage functions.

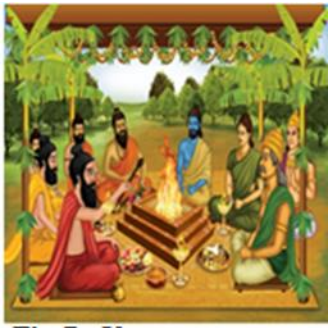

Fig 7 . Yagnas

c) Maha yagam (large number of yagans together) are performed for the welfare people and to minimize the effects caused by natural calamities such as drought, cyclones, and foods, etc.
d) The significance of yagans is studied by a team of research scientists under CPCB(Central Pollution Control Board) conducted several experiments to observe the effect of yagnas.[22] It is noticed that Particulate Matters 2.5 and 10 in the environment are found to be reduced the PM level after the yagna or hawan is performed. The results have shown that these yagnas reduced indoor microbes, bacteria, fungi, and pathogens (viruses or microorganisms that cause diseases). Thus Yagnas purify the environment of the place and drive away infections and negative energy from that place.

11) Vegetarian Diet

Hindus perform several rituals that are based on the mode of goodness (satvic nature). To be in a mode of goodness one has to follow vegetarian food (plant-based food includes dairy products and honey). It is one of the basic conditions of four regulative principles of a pure devotee who are eligible to perform rituals and go back to Godhead. They are termed as pure devote.

The Bhagvad Gita (BG17. 8-10)[1] says, there are three types of foods based on three types of modes of material nature (Gunas).

a) Foods prepared in the mode of goodness (Satvaguna) are pure and sweet and increases the duration of life, increase strength, happiness, and satisfaction.
b) Foods that are bitter, too sour, salty, pungent, hot belong to the people of the mode of passion(Rajoguna).
c) Foods cooked more than three hours before taking food is tasteless, decomposed and unclean, such people are mode of ignorance(Tamoguna).

The three types of material nature determine the behaviour, nature, and health conditions of people.

The scriptures say the soul carries good and bad deeds to the next birth. To progress in the next birth, one should not do any misdeeds. As per the law of karma[3], slaughtering and consuming animal meat are considered to be bad activities. Despite this, some people who are in the mode of passion and mode of ignorance do take animal meat as a regular diet, however, they undergo austerities as per their karma either in this birth or next birth.

The satvic vegetarian food has many merits than that of a non-vegetarian diet, in terms of human behaviour, ethical and moral values, and health problems in everyday life. To maintain good health, proper regular diet, and to have good health habits, and to be away from epidemic diseases and infections and environmental effects people are shifting towards vegetarian diet.[23-24] Sometimes medical doctors also advise patients to take a vegetarian diet to avoid complications. Dr. N Gopal krishan (CSIR) scientist and Dr. T P Sethu Madhvan, Physician in an article in

Mathribhumi Daily (April 25, 1999) pointed out that the daily requirement of energy for a normal human being is 2400 calories. The vegetarian food contains carbohydrates fats and proteins and the variety of minerals such as calcium, phosphorus, iron, zinc, etc are plenty available in grains, dal, vegetables, and fruits, which form healthier food. These are sufficient to produce the required energy for humans. One may avoid animal food which causes contagious diseases to human beings.[25]

Ayurveda recommends to respect eating habits, timings, avoid overeating, processed packaged foods, and reduce fried items cold foods, and cold drinks, Thus traditional Vedic diets improve the immunity and make them as satvic people. [26]

12) Eating Habits

a) Sitting on floor


Fig.8. Eating on Floor

Earlier days, people were comfortably taking food by sitting on the floor. They were feeling healthy and maintaining a good physique. There are many benefits such as digestion, blood circulation and reduces muscle and joint pains. They sit on the floor with crossed legs (Sukhasana) before the meal plate (Leaf plate) and move the body front and back to take food. These repeated movements will activate abdominal muscles, which increase the secretion of stomach acids and allow food to digest faster. It is said that Sukhasan increases blood circulation and evenly distributed in the body. This posture reduces the muscle and joint pains in the legs and gives flexibility in the body and feel you feel comfortable. [27] This is still prevailing in traditional families.

It is not advisable to have meals always on the dining table. It may not add any benefit to the body except giving comfortable and adding richness to your home.

b) Leaf Plates


Fig.9 Leaf Plates

The general practice in India, people generally take food on leaf plates such as on banana, dhaka, betel palm and teak plant leaves by sitting on the floor. They are called “Pattal or Vistarlu”. They are hygienic and biodegradable. In some rituals it is mandatory to offer food on leaf plates for Brahmins. The conventional leaf plates are superior to plastic plates.

WHO says plastic papers are made of chemical substances like Melmine, Polypropylene, Bisphenol A(BPA), when hot food comes in contact with plastics,

chemicals are leached into the food. These chemicals are absorbed by human body and gradually results in diseases, like breast cancer and heart diseases and others. [28]

The most preferable plates are Gold, Silver or Copper. But they are unaffordable to middle class people, one can choose stainless steel plates which are less expensive as well as less harmful. However, the conventional leaf plates are superior to plastic plates.[29] One can manufacture leaf plates and leaf cups.

c) Chitrahuti

It is considered that whatever is getting to us because of God's Grace and our Karma, be it food or clothes or anything. In some regions especially Brahmins sprinkle water around the food plates before taking the food by chanting Vedic mantras offering to the Supreme God, who is a fire of digestion residing in living beings, requesting for proper digestion of food with upward and downward of energy (BG 15.14)[1]. This process is known as Chitrahuti. Another reason is that sprinkling of water around the plate does not allow insects or germs to enter and mix with food that gets impure and infectious.

d) Buffet System

In the present days, we come across another type known as the Buffet system. The eating habits are neither recommended nor preferred anywhere in Hindu scriptures. This western culture is prevailing in the society for the past four to five decades.

It is not advisable for a health-conscious point of view, and in more philosophically the *rich man becomes a beggar with a bowl in front of a caterer.*

13) Cremation


Fig.10. Cremation

He who takes birth must take death also. In Hindu rituals, it is customary to do the last rites by consigning the body to fire. The human body is composed of five cosmic elements earth, fire, water air, and sky. The Hindu cremations are directed towards returning the body to these elements by burning it. It is the method for the final disposition of a dead body through fire.[30] The dead body is kept on a pyre (wooden structure or electric cremator) and then it is set on fire with rituals so that all parts of the body get burnt and no pathogens survive at that high temperature of the fire and ensure that all remnants are wiped out and preventing it from being a source of spread of any infections and diseases. To offer the dead body to fire (Agni) with earnest

prayers signifies to purify and lead the individual soul for better and brighter life, and release of spirit that gives a feeling of detachment from the loved ones.
In general, cremation is preferred over burial for space constraints, and the gradual decomposition of the whole body is not seen clearly, and the possibility of infections and insects around the place. The ancestors have meticulously planned, the cremation of one body takes nearly one tree, it seems in the past one Hindu person used to plant at least three trees during one's whole life span on special occasions.

On the third day, the ashes and bones are collected and mixed any one of the Indian holy rivers, preferably the Ganges river. The family members are allowed to enter the house after taking bath to prevent in spreading of bacteria or viruses if any on their bodies or clothes. Even the sons of the deceased will cut hairs and go for a bald head as per rituals. This cremation procedure is being followed in foreign countries also, especially recently the USA government allowed the cremation procedure for dead bodies of innocent people who lost their lives during the COVID 19 crisis due to the space constraints and spreading of infections.

14) Isolation

Isolation means Sutak (Sutakam), in other words, it is a type of untouchability. In Hinduism, sutak is aimed towards the purification of Atma (Soul). At heart, humans are uncleaned. One must be pure both physically and spiritually. The family member must stay for 10 days in isolation at the time of the birth of a child as well as at the death of a person in the house. If parents are departed, the children stay in isolation for 12 days whereas wives are in isolation for 10 days. These details are well narrated in Sri Garudapuran[31] which is generally recited during the isolation period if a person is demised in the house. In orthodox families, four days of isolation is observed for ladies during the menstruation period. They come to normal and will be allowed to interact with family members after taking a head bath.
Thus, the concept of isolation was introduced in Vedic literature. It is nothing but, what we are calling now as the social distance to avoid shaking hands, staying, and sleeping together which would prevent in spreading deadly Coronavirus.

15) Masks

It is an etiquette to use masks or put a hand before the nose and mouth while speaking with someone so that droplets will not fall and cause infections to others. The main traditional reason is the concept of Ahimsa, one should neither kill nor eat and inhale the air which contains germs or insects. This is still strictly

Fig. 10 B. Jains use Mask

followed in Jainism and orthodox families. They wear masks, especially during the Sunset period.

16) Neem Leaves

Fig 11. Neem Leaves

The Neem trees are abundantly seen in India. It is a medicinal plant, known as the divine tree and Village Pharmacy tree. They increase the fertility of the soil, the neem oil, or neem water is used as a pesticide. The twigs are used for cleaning teeth, the leaves reduce the boils, rashes, and wounds, they are placed near and under the patient as insect repellent who is suffering from chickenpox. The leaves are placed at the entrance of a door to protect harmful insects, viruses, and bacteria.

17) Killing of Animals

All living creatures are part and parcel of supreme Lord. Even they have equal rights to survive on this earth. There is no theory, no law and no prayer to kill other living entities. Killing animals and selling their meat products for consumption is one of the easiest and lucrative businesses in the world. No proper scrutiny on their products

It is strong belief in Hinduism, killing animal is a misdeed activity and it is a curse which leads to bad karma. As per the Newton's 3rd law , one day there would be a revolt they chase humans for retaliation; and as per the law of Karma he (Killer) has to face the situation either in this present birth or next births. We find many examples in the literature how people are affected by the curse

18) Eating Meat


Fig 12. Meat Shop

As per Hindu customs killing animals is a crime and eating meat is a double crime. The designated place for dead bodies of humans and animals is graveyard. But people are buying meat (pork , beef etc.) from unhygienic slaughter centres, keeping in houses that too in refrigerators , then frying them as mouth –watering dishes and finally eating and storing in human body for digestion . In this context lot of questions arise:

a) Is human body a graveyard?
b) Does the anatomy of human body adjust with foreign material?
c) Does it not create risk to human health?
d) Why doctors do not recommend non vegetarian food to patients and old age people?
e) Why non vegetarian food is not served in the temples? .
f) Why don't they eat agro products which also give same amount of energy?

"If you eat meat, that animal of that meat will eat you" **[14].** As per the law of karma eating animal food is bad deed. To overcome this one has to do lot of positive deeds either in this birth or next births.[9, 14] The first basic condition in spirituality is violence (Himsa) is not allowed and the meat eaters are not eligible to become pure devotees

19) Carpets

Carpets beautify the houses and palaces that illustrate richness. Despite the glaring appearances, the carpets are generally avoided in traditional houses for health hazards associated with allergic, coughing, wheezing and skin infections due to i) accumulation of dirt, dust, mites, particle pollutants ii) growth of bacteria due to the shoes, and pets paws iii) falling of eatable items when taking food over the carpet. iv) infants and children get easily infected especially due to the chemicals and adhesive used in color combinations are made with volatile organic compounds v) these pollutants may become airborne while walking and cleaning, may cause allergic vi) they are not easily washable. The houses and hotels appear to be multi-colored with carpets and curtains but a lot of risk factors in terms of health.[35,36]

20) Bats

The bats are blood suckling or harmless wild creatures but they are important to our ecosystem because they pollinate the crops otherwise they get ruined. They eat mosquitoes. They generate a deadly virus once if they are infected. There are a lot of myths about bats, if a bat enters the house, it is considered to be an omen and saddening news in a family and the house has to be vacated and one can return after performing rituals.37 One can see the repercussions and chaotic situations, spreading of Coronavirus for eating the meat of bat at Wuhan, China.

Fig.13 Bats

21) Alcohol

Taking alcohol is injurious to health is a well known noble thought, but difficult to make alcohol free country. Everyone knows regular drinking causes health problems. The consumption of alcohol and non-vegetarian food does not give any environment in society. In spirituality, they are called impure devotees. They neither go to temples nor attend religious functions, on the day when they drink and eat meat.

In order to avoid the problems faced by the people during the lockdown period of Covid19, the government authorities had relaxed some of the rules for the benefit of the business people and daily labours so that they get employment. The permission to open the liquor shops had a negative

impact and the purpose of lockdown, social distance to curb the virus are futile, which have been strictly monitored by the emergency service providers and security guards, that efforts are null and void. There were a lot of questions in minds of people like it is not necessary that the revenue would be generated only from wine shops. There are many other avenues also.

Do they not survive without liquor at least in the lockdown period? The long queues in front of the wine shops led a bad impression as "Are they Starving or Feasting?" The excessive drinking of alcohol adversely affects health conditions such as cancer of mouth throat, liver, heart failure, and brain damage, etc. and affects the immune system.[38] While some people may have multiple visible effects like slurred speech, vision impairment lack of coordination, etc. Professor Robin Room, Director, Centre for Alcohol Policy Research, University of Melbourne writes in his article titled " *My drinking, your problem: alcohol hurts non-drinkers too*." It is not only harmful self but it badly affects others such as family life, bad moments or may lead to diverse, financial loses, violence in the family and friends in the society or offices, a risk factor for co-passengers while driving and in some occasions, it causes a nuisance in the street.

The article says in a given year 367 people Australians die because of another's drinking and 13,600 are hospitalized etc. This report attracted internationally; the World Health organization decided to measure alcohol's harm to others as a major strand in its Global Strategy to reduce harmful alcohol consumption. [39]

22) Conclusion

Ancestors were methodically practicing the traditions and customs for a healthy environment for the family and to the society. Unfortunately, those who do not understand their inherent meanings insulted and laughed at the followers and used to make counter-arguments. As a result, the rituals are being disrespected, decreasing, and discarding one by one for the fear of being isolated and forced to sit blindly in one place for a few days. Some others are tending towards simple rituals of the western culture.

The procedures of rituals laid down in Hinduism are appropriate and authentic to the society till today. In the present scenario of Covid19, some of these traditions are being implemented and educating people through social media as precautionary steps to wipe out the Coronavirus.

The industrialization and solid wastage, usage of plastic materials, global warming unhygienic food items, clean water, slaughter centers, killing of animals and viral infections, terrorism, nuclear as well as chemical weapons, and human values and healing of the earth, etc are some of the global challenges in 21st century for all countries.

The Coronavirus has exposed the success of science and technology as no medicine or vaccine is yet available to cure the patients, but it manifested the Indian traditional values social distances

(isolation), cleaning hands, and healing prayers saved a lot of people from death. Thus to preserve harmony with nature, a healthy environment in society, adaptability to a vegetarian diet; and to reduce infections, one should not abandon to practice Vedic traditions and customs which are eternal in the nature and incorporation of spirituality in medicine improves the psychological status of patients. Thus, there is a need for the scientific exploration for Vedic traditions.

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Mathematics at the Time of Vedic Period - A Positive Review

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Abstract

The aim of this article is to review and brief analysis of Mathematics at the time of Vedic period. How Vedic mathematics is helped the ancient people to check the Vastu and get the required energy from the source (Sun) and how it is useful to the modern mathematical society is reviewed.

Keywords: Indian Mathematics, Vedic Era, Ancient mathematics.

1) Introduction

Aryabhata (476–550 CE) was one of the major Mathematician-Astronomers belonging to the classical age of Indian Astronomy and Mathematics. Born in Pataliputra,Magadha, he is regarded as one of the greatest Mathematician of all time. He invented 'zero'. His famous works include the 'Aryabhatiya' whose Mathematical parts consists of topics on algebra, trigonometry and arithmetic, continued fractions, sum of power series, quadratic equations and sine tables. Solar and lunar eclipses were scientifically explained by Aryabhata.

Varahamihira (505–587 CE)was an Indian astrologer whose main work was a treatise on Mathematical astronomy which summarized earlier astronomical treatises. He discovered a version of Pascal's triangle and worked on magic squares. The most famous work by Varahamihira is the *Pancasiddhantika* (The Five Astronomical Canons) dated 575 AD.

Brahmagupta (597- 668AD) was one such genius Astronomer - Mathematician. He made advances in astronomy and most importantly in number systems including algorithms for square roots and the solution of quadratic equations.

Virasena (792-853 CE) was proficient in astrology, grammar, logic, mathematics and prosody. He wrote Dhavala, a commentary on Jain canon Shatakhandagama. He also started the work on Jayadhavalaa which was completed by his disciples. He was among the jewels of Rashtrakuta king Amoghavarsha.

Mahaviracharya, was a 9th-century Jain mathematician possibly born in Mysore, in India. He authored Gaṇitasārasaṅgraha (*Ganita Sara Sangraha*) or the Compendium on the gist of Mathematics in 850 AD.

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Āryabhaṭa II (920 –1000 CE) was an Indian Mathematician and astronomer, and the author of the Maha-Siddhanta. The numeral II is given to him to distinguish him from the earlier and more influential Āryabhaṭa I. Scholars are unsure of when exactly he was born, though some give dates of his main publications being between 950–1100. He also deduced a method to calculate the cube root of a number. HeI played a vital role in it by constructing a sine table, which was accurate up to five decimal places

The founder of Vedic Mathematics, Jagadguru Swami Bharti Krishna Tirthji, was born on 14 March 1884. Jagadguru Swami is an exceptionally brilliant since from his childhood days and stood in first place throughout his academics (Trivedi 1965 & Swami 1992). He was a student of National College, Trichenapalli, Church Missionary Society and Hindu College, Thinnavelli. He was highly intelligent in Mathematics, Science, humanities and Philosophy. After winning highest honour in B.A., he appeared for his M.A. of the American College from Bombay center in 1903. He passes M.A. in seven subjects at a time by securing highest marks in all subjects. This is world record of his academic excellence. Even though he was proficient in many fields, his prime interest was in Philosophy. He was initiated by Sharadapeeth Swami Trivikram Tirth into the order of Sanyasa on 4th July 1919. Thereafter Saraswati Venkatraman was called as "Swami Bharati Krishna Tirht". It is said that Swamiji discovered this Vedic formulae between 1911-1918 in the forest of Shringeri. Swamiji did not discover the formulae of Vedic Mathematics by deduction but he discovered them out of deep meditation. It is said that he had practiced meditation in deep silence around the forest.

2) Mathematics Philosophy during Vedic era

The extraordinary mathematics was developed at the time of the Vedas. Most of us are generally aware of the well-known theorem of Pythagoras in plane geometry. But many of us may yet be unaware of that the theorem was known in India since much before the time of Pythagoras. The same theorem is clearly recorded in several texts that predate the time of Pythagoras by many centuries. In fact, the debate on the dating of ancient Indian knowledge and discoveries is far from settled and has suffered much damage at the hands of many zealous historians from schools of thought that lean to the left or to the right.

In 1877 Cantor realizing the importance of Indian geometry is derived from Alexandrian knowledge. Seidenberg (1978) expanded the study of Vedic sources, including 'Shatpath Brahmana' and 'Taittiriya Samhita' closely comparing 'Greek and Vedic Mathematics'. Perhaps mathematicians should take a greater interest in these matters to keep the record straight and neutral. Last we stray from the matter at hand, I must iterate that a whole body of important mathematical knowledge grew around the practice of the Vedic rituals through fire sacrifices. This corpus of mathematical knowledge was recorded in texts known as the Sulba-Sutras. There are other texts too. The Sanskrit word Sulba stands for a piece of cord or string and the word sutra translates to formula. Hence, the Sulba-Sutras stand for mathematics that

grew out of the use of lengths of cord for the purposes of construction of sites for sacrificial altars associated with the practice of Vedic rituals.

The members who is familiar with any construction work in modern times shall recognize at once that the cord referred to in the Sulba-sutras is essentially the same sort of cord that a mason uses even now for construction purposes. There are many important ideas of geometry that are recorded in these ancient texts. Each Sulba-Sutra is ascribed to a mathematician and the Sulba-Sutra of Baudhayana that predates Pythagoras by a few hundred years at least—as agreed by all experts—clearly records the theorem of Pythagoras. Incidentally, what many may not know is that Pythagoras visited India in search of knowledge. Voltaire says this clearly when he records, "All the world knows that Pythagoras, when he resided in India, attended the school of the Gymnosophists." There is other hard evidence that indicates that Pythagoras had visited India.

It is not indicating that he stole the idea of the theorem. However, the theorem was much in vogue in India much before Pythagoras came to India. There have been plenty of other great mathematical principles that India developed during the Vedic age. This includes Pingala's Meru prastara rediscovered in Europe 1800 years later as Pascal's triangle. Of course, we are aware that the decimal system is India's contribution, with zero playing a central role. The story is very impressive and India's achievements, derived from the Vedic tradition, were phenomenal in terms of substance and breadth. I must also mention that calculus—one of the finest inventions of the human mind—was discovered in India by Bhaskaracharya in the 12th century AD. Many important ideas of calculus were invented in India from the time of Bhaskaracharya to the time of Madhavacharya in the 15th century AD, a good two hundred years before Newton.

What is in the book Vedic Mathematics? This book has been authored by the late Swami Bharati Krishna Tirtha, who served as the Shankaracharya of the Govardhana matha at Puri from 1925 till his demise in 1960. The venerable Shankaracharya says in the preface that he has been inspired by the Vedas. Significantly, he does not state anywhere that the contents of the book are taken from the Vedas. Are the contents in any significant manner related to the Vedas or to the great mathematics that came about during the Vedic period or thereafter in direct continuity of the grand Vedic tradition? I am afraid the answer to this question is emphatically in the negative. One can infer this also from the fact that the sutras of the book cannot be found in any ancient text, let alone the Vedas. In addition, the Sanskrit of the Shankaracharya is distinctly different from the Sanskrit found in the Vedas.

This has also been stated in the foreword to the Shankaracharya's book, written by Dr Agrawala, who was the General Editor of the series under which the book was published. What the book offers are methods that facilitate quick arithmetical and algebraic computations in special cases. To that extent it has some value as it helps make some computations easier, but there is nothing magical or mysterious there and the methods are of limited practical value for various valid reasons. The main point to be recognised is that the book does not carry any

mathematical ideas in the real sense that can be compared to the idea of the theorem of Pythagoras or to the idea behind the Meru prastara or even the binomial theorem that was discovered in India by Halayudh in 1200 AD via the Meru prastara. Thus it is wise to keep in mind that the book has very limited use in true mathematical learning at the level of schools.

A whole body of important mathematical knowledge grew around the practice of the Vedic rituals through fire sacrifices. This corpus of mathematical knowledge was recorded in texts known as the Sulba-Sutras. There have been plenty of other great mathematical principles that India developed during the Vedic age. This includes Pingala's Meru prastara rediscovered in Europe 1800 years later as Pascal's triangle.

3) Vedic Mathematics during Vedic Period

One must be familiar with the proverb "Necessity is the mother of invention". Well when we try to understand the development of mathematics or any other science, we should always keep this proverb in mind. Whenever a scientific development happens in history, it does not happen by itself, but happens because there was a grave need for it. This is also true for Vedic Mathematics, it came into existence because there was a grave need of mathematics in performing the religious rituals in those times and so our ancestors adapted mathematics.

There is a very long period in the early Vedic period where we did not have writing and most of the knowledge was transferred orally. The script of Indus valley civilization is not yet been decoded. Therefore it is very difficult to really pinpoint the origins of mathematical concept and how our ancestors learned about these mathematical concepts. Also since all this information was transmitted orally, the information had to be coded in the mnemonic form so that it was easy to remember and pass on to next generation. Thus came the sutras (literally meaning thread), which were short sentences, which packed a lot of information and were easy to remember.

4) Shulba-sutra

Eventually as writing came along, these sutras were written down and all the information that we know about Vedic mathematics is through these sutras. By 1000BC we start to see the texts, which talk about ancient Indian mathematics. The major text on Vedic mathematics from the Vedic period is the Shulba Sutra, which was composed between 800-200BC. Shulba Sutra provides us a window to all the knowledge that our ancient sages had about mathematics. It shows us that the sages of Vedic period had knowledge about how to

1. Create very accurate geometrical shapes of given dimensions

2. Split a certain area into smaller areas

3. Enlarge a given area

4. Change one shape into a different shape while keeping the area the same

Now as I mentioned earlier, all this knowledge was gathered not for the sake of knowledge but was developed because there was a specific need for it. We know that during performing Yajna and religious rituals was a major aspect of life during Vedic times. And all these rituals required the construction of very accurate fire altars called Mahavedi. In the interest of time I will not go into the details of the Mahavedi and how it was constructed that will be a separate topic, at present, keep in mind that it was very important to build these fire altars in the right shape and of accurate area. To construct such accurate fire altars vedic sages needed knowledge of mathematics and this was the reason why Vedic mathematics came into existence.

5) Origins of the knowledge

The natural question that comes to our mind now is, how they learned about it. As mentioned previously there is no written record on this and whatever we know right now is only speculation. People have compared Vedic geometry with Greek geometry and seen many similarities. Both of them were used to create fire altars with the difference being that Greek's were interested more in the volume of the altar while Indians were more interested in the area of the altar. Both of these cultures solved their problems by making use of the Pythagorean Theorem (which most people should know was not invented by Pythagoras and was known in India and other places of the world long before Pythagoras was born). Considering these similarities between Greek and Vedic mathematics, it is generally theorized that the origins of this knowledge belongs to a common culture, which predates both these cultures.

6) Misrepresentation of Vedic Mathematics

Since the publication of the book "Vedic Mathematics" by Swami Bharati Krishna Tirtha, there is a lot of hype associated with the term Vedic mathematics. Although named Vedic mathematics that book is not a true representation of the mathematics during Vedic Period in India. We should note that the original Vedas do not talk much about mathematics. If you really want to learn more about the knowledge of mathematics during Vedic period then your best reference will be Shulba Sutra.

7) Conclusions

Many of the existing concepts in Mathematics were invented much before the present. But these were not properly recorded due to unavailability of common script. Vedic Mathematics is highly dominated by Greek and European Mathematicians and not given the sufficient recognition our stalwart. It's our prime duty to promote the Vedic Mathematics to our modern society.

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The Theory of Cause-and-Effect Relationship in Śuddhādvaita Vedānta

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Abstract

Traditional Ācāryas and modern interpreters have presented their views regarding the theory of causality from their point of view. Suddhādvaita school of philosophy also has discussed the theory of causality in detail. The doctrine of Suddhādvaita (pure non-dualism) school of Philosophy is propounded by Vallabhācārya (1479-1531). According to Vallabhācārya, in the beginning, there was only Brahman who wanted to be plural and brought the world of plurality out of Himself and by Himself for his *līlā* or divine play. That is why the universe *(jagat)* which is formed by the combination of name and form is called self-creation which is for its enjoyment which is found in this world. Therefore, it has to be taken as real. The aim of the paper is to discuss the doctrine of causation from the perspective of Śuddhādvaita Vedānta. Vallabhācārya claims that Brahman is regarded as the efficient cause and material cause *(abhinnanimittopādāna kāraṇa)* of the universe. The universe *(jagat)* is the *ādhibhautika* aspect of Brahman. No reality other than Brahman plays a role in the creation of this universe. Brahman, Himself is the creator of the universe and Brahman Himself became the form of this universe (*jagat*). The so-called 'creation' is the manifestation (*āvirbhāva*) and the destruction is simply *tirobhāva.* Although Brahman contains innumerable names and forms of the world, there is no change in the form of Brahman. Although gold turns into jewelry, it remains gold and gold does not become extinct to become jewelry. In the same way Brahman himself remains as Brahman. The jagat is identical with the Brahman.

Keywords: Vallabhācārya, *abhinnanimittopādāna kāraṇa*, *Ādhibhautika, Āvirbhāva, Tirobhāva*.

1) Introduction

According to Vallabhācārya (1479-1531), in the beginning, there was only Brahman who wanted to be many and brought out the world of plurality from Himself and by Himself for his divine sport *(līlā).* That is why the universe *(jagat)* formed by the combination of name and form is called self-creation *(atmasṛṣṭi)* which is for its enjoyment *(ramaṇa)* or enjoyment which is found in this world[1]. The universe *(Jagat)* is the effect *(kārya)* of Brahman. When the supreme Brahman desired to manifest the creation, first of all, the phase of *Akṣara* Brahman

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was activated. All the three attributes of *sat, cit and ānanda* (Existence, consciousness, and bliss) are present in *Akṣara* Brahman. By the will of the Supreme Brahman, this *Akṣara* Brahman itself manifests as the insentient and the sentient universe. Hence, the cause of all causes held by the supreme Brahman to manifest the creation is addressed as *'Akṣara* Brahman'. Brahman when manifests His '*sadaṁsa*' only and keeps the *cit* and *ānandāṁsa* non-manifest, He becomes the universe. Making a clay pot is the work of a potter. The job of a goldsmith is to make gold ornaments. Similarly, the same theory applies to the creation of the world. This is the work of Brahman. Because He created the universe from Brahman Himself. Thus, Brahman itself has become a material of the universe. The aim of the paper is to discuss the cause-and-effect relationship from the perspective of Śuddhādvaita Vedānta.

The article is divided into three parts: **(A)**The first part of the article discusses that there is no difference between instrumental cause and material cause. **(B)** In the second part, I will argue that an effect comes into existence through unmodified transformation, and **(C)** the third part of the article claims that there is no creation and destruction of an effect, only appearance, and disappearance.

(A) Brahman is The Non-Differential–Instrumental–Material Cause:

Generally, the material cause and the efficient cause are always separate in all functions. In Śuddhādvaita Vedānta, two types of causes have been acknowledged.

a) *Samavāyī kāraṇa* (inherent cause) and
b) *Nimitta kāraṇa* (efficient cause)

Puruṣottamācārya (1668-1781 A.D.) who is a seventh descendant of Vallabhācārya, points out that material cause is nothing but a particular form of inherent cause[2]. Naiyāyikas accept a permanent relationship between an inherent cause and the effect. Vallabha accepts the relationship called *Tādātmya* which is defined as an identity that can tolerate- difference. All other factors are included in the *nimitta kāraṇa*.

It is noteworthy that Vallabhācārya refers to the word "*samavāyī* (inherent)" instead of "element" of *upādāna* because Brahman (cause) is properly connected with *Jagat* (effect).
Brahman has revealed himself as a subject, soul and inner soul, so he is called the underlying cause of the world. Vallabhācārya mentions that the Sūtras of Bādrāyana clearly establish that Brahman is the underlying cause of the world. Brahman is everywhere and the essential nature of its existence, consciousness is in bliss. Vallabha does not accept the inherent relationship propagated by Naiyāyikas. Puruṣottamācārya claims that the causation of the inherent cause is unaffected by the will of God. Because, because what is not is nothing but the position of possibility, which manifests the action It can be established on the basis of positive and negative combinations. Puruṣottamācārya distinguishes between material cause and inherent cause, saying that material cause is only a specific condition of the underlying cause. This is explained by the fact that finite clay is used by a manufacturer and finite yarn is used to make a certain part. Fabric, i.e. the amount of material used to make a pot or cloth. If not, the pot can be made from clay, even if it does not take the shape of a lump[3]. Therefore, the inherent cause of God by one part of Him does not change.

The question may arise that just as a potter needs things like wheels, sticks water, etc. to perform his work, Brahman may also need some things at the time of creation of the world. In answer to this question, Vallabhācārya responds that yogīs and sages perform certain tasks through their yogic power without the help of external objects. As such, no external help is required for the creation of Brahman[4]. He has power beyond human imagination, that is, omnipotence. He created everything from gross inanimate objects to gods and goddesses. This is a well-known fact which is clearly stated in the *Śrutis*[5].

(B)Transformation of an effect:

Although Vallabhācārya is critical of the Sāṅkhya theory of causation, he accepts *Satkāryāvādā,* which indicates that the causal function already exists. Transformations are of two types:(1) *Vikṛta pariṇāma* (The Modified Transformation) (2*) Avikṛta pariṇāma (*The Unmodified Transformation)

(1) *Vikṛta pariṇāma* (The Modified Transformation):

When the milk coagulates, it turns into yogurt. As it turns into yogurt, the properties of milk change. It is sour in taste and dense in shape. After being turned into yogurt, it cannot be converted back to the original form of milk. Yogurt cannot be milk again. For this reason, yogurt is called *Vikṛta pariṇāma* or the modified transformation of milk. To understand *Vikṛtapariṇāma* properly, now we can say that when *Upādāna* (material cause) (milk) results as *kārya* - the effect (curd), and by becoming so, if the modification or the alteration takes place in its original fundamental form, then such transformation is called *Vikṛtapariṇāmavāda* (the modified transformation).

(2) *Avikṛta pariṇāma* (The Unmodified Transformation):

Contrary to the above-referred kind, when *Upādāna* - the material cause (gold) results into the form of kārya (ornament) and even when no kind of modification takes place in its original realistic form, in that case, such an effect is called Avikṛtapariṇāmavāda (the unmodified transformation). If any object results in an unmodified form, its transformation is possible in its original form.

The universe is an unmodified transformation of Brahman:

It has already been considered that Brahman is both the instrumental cause and the material cause of the world. No reality other than Brahman plays a role in the creation of the universe. Brahman himself is the creator of the world and Brahman himself takes the form of the world. Vallabhācārya considers the world as an unchanging transformation of Brahman. The universe is also an absolute reality. Although Brahman contains innumerable names and forms of the universe, there is no slightest change in the form of Brahman. Although gold has become ornamental, remains gold and gold does not vanish after becoming an ornament. In the same way, though Brahman himself remains in the form of Brahman, he can unify the world as his own at the time of Pralaya. At this time the world becomes non-different (identical) with Brahman.

(c) *Āvirbhāva* (manifestation) and *Tirobhāva* (non-manifestation)

Naiyāyikas may question here that if the universe is real, then the universe and the objects of the universe cannot be destroyed. There are countless examples of such objects being destroyed in our daily lives. The scriptures also say that the absence of the entire created universe occurs at the time of the pralaya. Vallabha asserts that the absence of the universe does not happen at all, what happens is just disappearance. Here, it is necessary to understand the difference between absence and disappearance. For example, if water is heated in a pot for a long time, the pot will become empty and dry after a certain period of time. It does not deplete water, it evaporates. When the steam water is put in the container again, water appears again. That is why Vallabhācārya's decision is that there is no origin and destruction of worldly objects, but there is appearance and disappearance[6]. Vallabhācārya asserts that the object is not produced, but is manifested. It comes into existence through manifestation, not through production. *Āvirbhāva* means to come into the state of *kārya* of an object that has remained in the state of *kāraṇa*. *Āvirbhāva* is a divine potency of Brahman. Through this potency Brahman manifests, what is unmanifested and unrevealed, what is subtle is made gross and what is inactive is made active. Puruṣottamācārya has elucidated the concepts of *Āvirbhāva* (manifestation) and *Tirobhāva* (concealment). *Āvirbhāva* is that power which is present in material cause and is an instrument in revealing the effect present in the material cause. *Tirobhāva* is that power that is instrumental in the cessation of the effect and which puts the effect back into the material cause.

2) Conclusion

From the above discussion, we can conclude the following about the cause-and-effect relationship:
1.Through His Divine sports *(līlā),* Brahman became many and manifested Himself as the universe.
2.Brahman is both the inherent cause and efficient cause of the universe. There is no difference between the cause and the effect.
3.There is no creation and destruction of worldly objects, but there is appearance and disappearance. The so-called creation is the manifestation and destruction is the disappearance.
4.The effect is an unmodified transformation of the cause, essences are the same, but the names and forms are different.

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[1] tadabhidhyānaṃ sṛṣṭau upadiśyate 'bahusyāmiti' svasyaiva bahurūpatvābhidhyānena sṛṣṭaṃ svayameva bhavati. suvarṇasya anekarūpatvaṃ suvarṇaprakṛtikatvaeva. *ibid, p.58.*

[2] upādānantu samavāyinaeva avasthaviśeṣa:—*PR*, .p-43..

[3] parichinnasya kartṛ kriyayā vyāptasyaivamṛtpiṇḍasūtrādirūpasya pṛthivyaṃśasyaiva ghaṭapaṭāddupādānatvadarśanāt, anyathā pṛthivītvāviśeṣāt piṇḍādirūpatābhāvepi ghaṭādiḥ utpadyeta। ataeva bhagavān avikṛtaeva jagata:ekāṃśena samavāyī, *PR, p.43.*

[4] yathā devarṣipitaro bāhyanirapekṣāeva svayogabalena sarvaṃ kurvanti evaṃ brahmāpi anapekṣya tatsamavāyaṃ svataeva sarvaṃ karoti —*Anu Sūtra* 2-1-25.

[5] sarvakartṛtvaṃ liṃgaṃ tasyaiva sarvatra vedāṃteṣu avagataṃ jaḍato devatāyā vā yatkiṃcij jāyamānaṃ tat sarvaṃ brahmaṇaeveti siddham—*ibid-su*. 2-3-13.

[6] nāsato vidyate bhāvo nābhābo vidyate sata: —*Śrīmad Bhagavad Gītā*, 2/6.

A Study on Inheriting the Old Practice of Learning the Vedas by the Science of Learning

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Abstract

This article discusses a study on an antiquated method of learning the Vedas that has been passed down through learning science theories. Additionally, it covers the many influences on learning and suggests a strategy based on psychometric research.

Keywords: Vedas, Sravana, Manana, Nididhyasana, Active Learning, Passive Learning

1) Introduction: Ancient Form of Learning

Education is an inward journey from information to knowledge and from knowledge to realization. As instructors, we naturally research educational theories. In spite of the fact that theories of learning like behaviorism, cognitive psychology, constructivism, social learning, and others have been discussed and developed in response to the phenomenon of learning, in actual classroom settings, we are still perplexed by the mystery of learning and keep searching for, learning about, and implementing better teaching strategies. Old Indian Vedic knowledge comes to mind in this context. As one of the many routes to learning for self-realization, Vedantin's also teach their students how to employ three key sequential methods for understanding a subject as shown in Fig.1.

- Śravaṇa (listening),
- Manana (reflection/contemplation/clearing of doubts), and
- Nididhyasana (meditation on the truth/integration/experience).

The three tactics were created to aid in self-discovery, but they are still applicable and acceptable in the educational setting of today. A successful internal transition from dependence on the teacher to independence and self-reliance with regard to the subject can be set up by incorporating Vedic techniques into lesson plans and course design, especially in the first few weeks of coursework, given the learning difficulties that online students experience.

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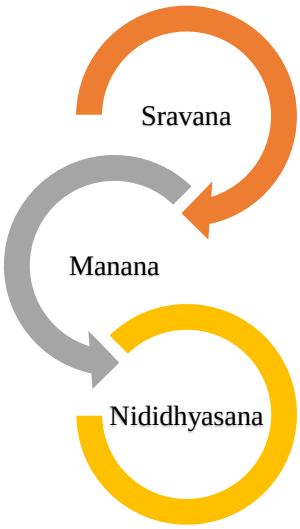

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Figure 1: Three sequential ancient forms of learning

2) Methods

Śravaṇa: Hearing and listening to the guru

Hearing or listening to the Guru is what the name "Sravana" (the first stage) refers to. An online learning module's initial stage in the learning process is the lesson that the instructor teaches through audio-video lectures, readings, or demonstrations. The teacher's guidance through the content depends heavily on the student's concentration and attentiveness. The lecturer advises students to keep their brains clear of any prejudices, misconceptions, or biases throughout this stage. In her 2017 book How Adults Learn: A Reflective Essay, Dr. Sridevi Yerrabati writes, "One of the things that astonished me was that the students were leaning on culturally and socially imposed experiences or preconceived notions rather than what they had actually encountered."

"***Stage 1 of Learning: Listening/Reading/Understanding (How focused are you?)"***
To help students practice paying attention and focusing, a teacher could include games and/or formative assessments in such a module in addition to readings and lectures (without affecting the grade). This can be assisted by a number of resources, such as Quizlet, EdPuzzle, Hot Potatoes, and Canvas Studio. Sravana is similar to the concept of a "campfire" as it is described in Thornburg's Campfires in Cyberspace (2004). Teaching as storytelling has a holy component, and this activity took place in holy places, typically by the fire, according to him. The storyteller instructs the trainees, who then become storytellers to future generations, using the flame as a focal point and the sounds of the night as a backdrop. In this sense, "campfire" alludes to the sacred space where the Guru dispenses his or her wisdom through rava, and is analogous to cognitivism. However, the student determines the knowledge's actual relevance rather than just being a passive recipient of it. The process of learning has just started. The role of the Guru in the contemporary online environment may

have changed to that of a mentor, but the fundamental elements of the triad—teacher, teaching medium, and student remain the same.

Manana: Reflecting, contemplating, and clearing of doubts

After Sravana, the class moves on to manana, when they pause, consider, and clear up any last-minute doubts. Here, they reason and think about the situation until they fully understand it. They struggle through uncertainties, misunderstandings, and confusion while they conduct the analysis. Their goal is to fully understand the teachings of the Guru. Speaking with classmates and approaching the teacher with questions should happen at this time. This kind of studying necessitates work and dedication and calls for taking notes and reading the same texts repeatedly.

"Stage 2 of Learning: Reflecting on the readings and converting the understanding to knowledge."

The Manana module can be used for conversations as well as other activities like blogging and online chats with neighbors. Modern learning management systems have excellent discussion features that work with teaching tools like Padlet. Manana in Vedic methodology refers to a teacher-student Q&A session, but the concept might also apply to an online course. Introspection is valued in the pursuit of wisdom. Manana is comparable to constructivism and social learning theories, as one may anticipate. It is important to emphasize that Manana is the process of digging deeply into the knowledge gained during the Sravana stage.

Nididhyasana: Deepening knowledge and realizations

From Manana, students move to Nididhyasana, where understanding expands and epiphanies take place. During this stage of meditation, one is by themselves. Here, the knowledge created during the preceding two stages is assimilated to make it a real-world reality. The information is used and put into practice. Students who have had their doubts cleared go on to experience and conviction. Nididhyasana continues after the course, thus the journey is not over yet. In regard to Thornburg, the term "Nididhyasana" can allude to the place where one retreats for more in-depth contemplation. The title of this phase in a learning module could be:

> ***"Stage 3 of Learning: Integrating (It's not enough to know. Can you implement this knowledge? Experience it? Let it flow easily into action?)"***

When one is fully utilizing their own power, they are in the Nididhyasana stage. Such a curriculum can contain exams and other assignments, including essays. Even if a collaborative assignment was provided, individual contributions would still be required, necessitating a solitary retreat to the "cave" and a demonstration of how well the knowledge or skill was applied. This exemplifies how crucial Nididhyasana is for learning to lead to knowledge or enlightenment.

A student's mental environment was given a lot of attention during the Vedic era because it was believed that a sound, awake, and focused mind could more easily move from knowledge to realization. These Vedic practices appear to be more important and applicable in view of today's struggling, overloaded, underprivileged and distracted students. If a teaching strategy can aid in students' mental development and has a proven track record dating back at least 5,000 years, adding it to a teacher's toolkit may make sense and be beneficial for both the student and the teacher.

I. Dale's cone of Learning

A model that takes into account several theories on instructional design and the learning process. In order for learning to be effective, the environment must be rich with memorable experiences that children may see, hear, taste, touch, and try. Rich experiences include features that Dale (1969) outlined as shown in Fig.2. In a rich experience, students are immersed in it and use their eyes, ears, noses, mouths, and hands to explore the experience. Students also have the chance to discover new experiences and a new awareness of them, have emotionally satisfying experiences that will motivate them to learn throughout their lives, have opportunities to put their prior learning into practice and combine it with new experiences, and feel a sense of personal accomplishment, and learn in a way that is stimulating and engaging.

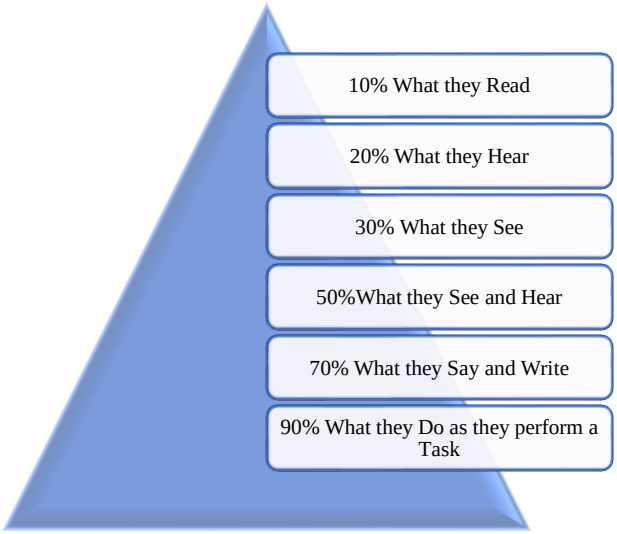

Figure 2: Dale's cone of Learning

To better understand the procedures and phases of learning mentioned in Table.1, the Dales cone of learning can be combined with the ancient Vedic system of learning. When we combine it with the idea of various bits of intelligence, we can clearly understand learners.

Dale's Cone of Learning	**Method of Teaching/Learning**	**MI theory**	**Bloom's Taxonomy**		
10% of What they Read	Read text	Verbal linguistic, Visual-spatial, Musical, Interpersonal, Intrapersonal, Bodily-Kinesthetic, Logical-mathematical, Naturalistic	Define Describe List Explain	**Passive Learning**	**SRAVANA**
20% of What they Hear	Listen to Lecture				
30% What they See	Watch pictures, Or animated pictures		Demonstrate Apply Practice		**MANANA**
50%What they See and Hear	View exhibit, Watch demonstrations				
70% What they Say and Write	Participate in Hands-on workshops, Role-play a situation		Analyze Design Create Evaluate	**Active Learning**	**NIDIDHY ASANA**
90% What they Do as they perform a Task	Model or simulate a real scenario				

Table 1:Integrating Dale's cone learning with form of learning in Vedas

II. Factors Influencing Individual Learning Capacity

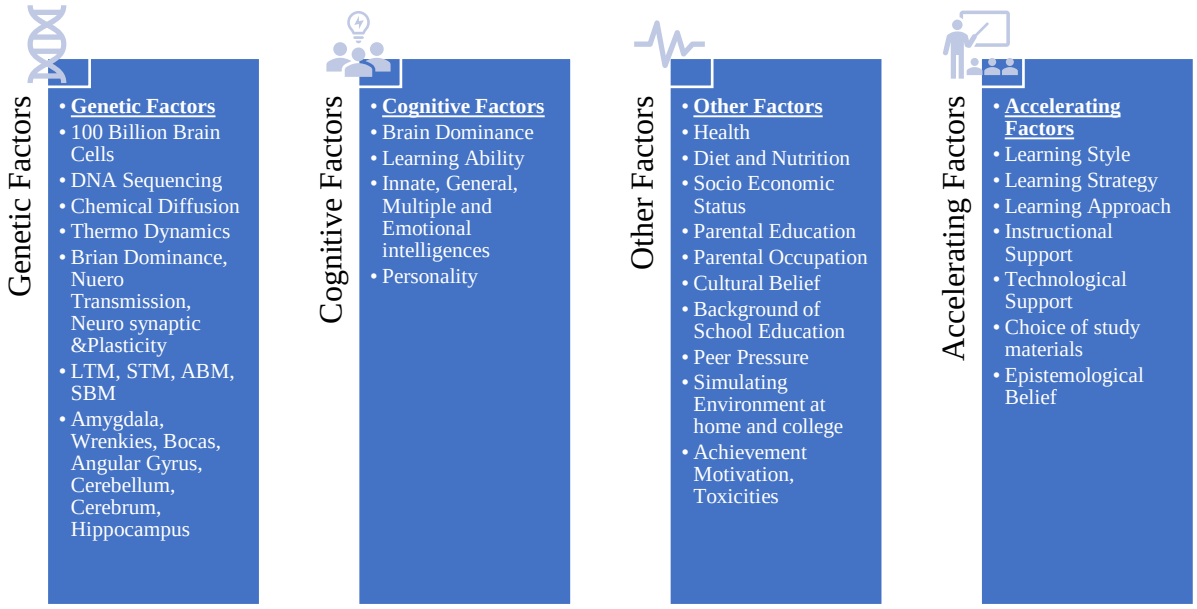

Figure 3:Factors influencing learners

Several of the traits shown in Fig. 3 have an effect on each person's capacity for learning. Researchers claim that when accelerating factors are used in conjunction with a teacher's teaching style that is adapted to the needs of each student, beneficial results are visible in each student's learning graph. This study proposes a method for understanding and analyzing students' multiple intelligence, personality evaluations, learning preferences, brain dominance analyses, and metacognitive abilities utilizing educational concepts derived from traditional teaching methods.

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Meet the Hidden Jesus within you in Namaste greeting: To find a deep connection between Javanese spirituality teachings and the Gospel of Thomas

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Abstract

This article is a continuation of our two previous articles [1][2], as a mere expression of our understanding of classic work by P.J. Zoetmulder, *Manunggaling Kawula Gusti*.[3] Then I try to connect it to the spiritual teaching of Jesus as we can find in the Gospel of Thomas, then from there, we hope to rediscover the hidden meaning of popular greetings, Namaste.

"*...behold, the kingdom of God is within you*." - Luke 17:21 (KJV)

1) Introduction: Summary of previous articles

In summarizing, allow me to say that there ia s striking similarity between Javanese spirituality's teachings with spirituality in Christianity, although we shall also remind the readers, that there are differences.

With regard the o present tendency of systematizing Christian beliefs, starting from medieval Christian leaders, allow us to write here that even in Johannes Calvin's books, such as Institutio, he cited several spirituality teachers before him, notably Bernard de Clairvaux. Therefore, what St Paul wrote in several letters, with phrase "*in Christ*," can be interpreted spiritually not rationally.

2) Aesthetics and right-brainer aspects of Javanese spirituality

Actually we're not specialized in Javanese philosophy, but as far as we both learn...there are two characteristics of Javanese thinking style:

a. A combination or emphasizing more on intuitive feeling..it is called "rasa" / emotion: It can be understood in the framework of intuilytics, or how to balance the left hemisphere brain and right hemisphere function of the brain (cf. Iain McGilchrist), or we can also refer to our colleague (RNB)'s idea: penetrative insight.

Perhaps one way to do that is by use of 528 hz or 963 hz, called Solfeggio Scale, that is what I advise to you...see the ebook by Horowitz

b. Javanese students strive to reach union divina (unity with the Infinite God, that is only possible by going beyond Aristotelian logic [1][5]. We remember that Jan Lukasiewicz declared how he opposthe e aristotelian/binary way.

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actuallly that is one of the reason, I guess, why many mathematicians are interested in many valued logic and fuzzy logic theory.
Prior of Lukasiewicz many-valued logic around 1920s, we can go to sentential logic as known as french logician, Peter Abelard, where it can be extended further to become proposition calculus. [5]

What we found is there is Javanese statement like this : "you can do that , but don't do that." it means there are things that we can do by laws, but ethically it is a bad way. Such as law enforcement by military style: it can be done, but the people don't approve of the hard way of enforcing laws.

Javanese people think that, something can be true but at the same time, ethically not appropriate. We once wrote an article on such a form of propositional non-Aristotelian thinking. [5]

3) Several implications for a philosophy of discovery

Regarding intuition, it is well known among researchers, that finding a brilliant idea cannot be simply by tinkering with formulas. There are several ways. For example:
- lateral thinking theory - Prof. Edward de Bono
- ultramind theory - Jose Silva etc.

If you use intuition, that's rarely discussed …because our education seems to emphasize the rational deductive process. Even though the holistic function of the right brain is also important, and it is even more important for a healthy civilization.
Intuition also leads to "the path to enlightenment." And enlightenment is a spiritual path, not a rational-left brainer way, although reportedly there are also people who get a PhD for spiritualism.
If you use the Javanese line of thinking, then the healthy way after adulthood and towards the elderly:
- olah pikir (think)
- olah raga (sport)
- olah rasa (aesthetics / intuition)

We hope this short remark make our point a bit clearer for readers.

4) Looking for a True Guru: aspects of interfaith dialogue

Let us discuss a bit concerning several aspects of interfaith dialogue with the Javanese spiritualist community based on the Gospel of Thomas (Nag Hammadi Scrolls, 1945).

a) Guru Sejati (True Guru)[1]

In Javanese ancestors since time immemorial, the concept of sangkan paraning dumadi has been known which means the origin of the birth or the incarnation of the soul or human spirit called pancer, namely from the supernatural world, it is born into

[1] https://gurusejati.wordpress.com/2008/10/24/guru-sejati/ (accessed 17 Juni 2022)

the world, it enters the body or body as a container for the soul (suspicious manjing warangka). This is an outline of Javanese science since ancient times called 'sedulur papat, limo pancer' (four brothers, the fifth is pancer). This pancer or soul is none other than the essence of the True Guru. While sedulur papat are essentially four kinds of human passions, namely lust lauwamah (biological fulfillment), anger (angra wrath), supiyah (pleasure/lust), and mutmainah (purity and honesty). A true teacher as a guide/teacher for sedulur papat. The qualities of lust are then symbolized in wayang figures, namely; 1. Lauwamah = Dosomuko, 2. Anger = Kumbokarno, 3. Supiyah = Sarpo Kenoko, 4. Mutma'inah = Gunawan Wibisono. While the fifth, namely pancer is manifested in the dimension of mulhimah lust (as the main controller or rope suh over the four previous passions. Sedulur papat lima pancer, in the puppet concept is also in line with the meaning of the essence of the Pendawa Lima character (see Pusaka Kalimasadha). essence of the science of Sastrajendra Hayuningrat.

In humans (inner world) sedulur papat is manifested in the four elements of the human body that have accompanied since humans were born on earth, namely; When the baby is born, it will be preceded by amniotic fluid or crater water. After leaving the mother's womb, the placenta or placenta will follow. At birth a baby is also accompanied by the discharge of flesh and blood. So sedulur papat consists of the elements of the crater as the older brother, the placenta as the younger brother, blood, and flesh. If the four elements are united, then there will be five pancer, namely the soul that is united into the self. This conception is closely related to the concept of amaeg aji (instinctive intention or articulation of the stability of the intention in initiating all activities/plans/businesses) by way of saying; kakang kawah adi ari-ari.

b) Sedulur papat limo pancer[2]

In terms of language, the term sedulur papat limo pancer means four brothers and five as the center. Meanwhile, based on the Javanese concept, the term means a form of unity in the human form when humans are born on earth. That is, in the history of Java, the people use the term sedulur papat limo pancer to describe that when a human is born, four human brothers are also born.

The term is believed by the Javanese as part of the work of Sunan Kalijaga in the 15-16 centuries. It is known, this term was first found in Suluk Kidung Kawedar, Kidung Sarira Ayu, in the 41-42 stanzas. Sedulur papat limo pancer is believed to be a unity that influences each other in humans.

Finding *Hidden Jesus*

My consideration is that dialogue with our non-Christian brothers and sisters tends to get bogged down easily, if it only relies on standard teachings, because some of the differences are quite clear. But through the Gospel of Thomas, we can develop a deep

[2] https://www.hops.id/trending/amp/pr-2942104716/mengenal-sedulur-papat-limo-pancer-wujud-kesatuan-manusia-jawa (accessed 17 June 2022)

dialogue about true spirituality, without having to get caught up in apologetic nuanced discussions. For example, in the Pangestu community (one of popular Javanese spirituality school of thought), one of their goals is to find a True Guru, namely God Almighty Himself.
Based on my experiences, indeed spirituality conversations really help us to have interfaith dialogue with the others (*Sang Liyan*), although we also need to be careful with Kejawen concepts which may not all be compatible with Christianity.. that's what we understood so far.

If we reconsider this matter of Christianity and spirituality, it seems that there are some theologians who wrote that the Gospel of Thomas was written by the Apostle Thomas (Mar Toma who later served in Kerala, India), around the 1st century AD, and was probably written in the Alexandrian area...If true, then : No wonder the Gospel of John, which has a slightly spiritualistic-Christian mysticism in the first century, looks a bit different from the three Synoptic Gospels.

The possibility, this is again hypothetical, is that the Gospel of John and the Gospel of Thomas originated in early church Christianity which tended to emphasize aspects of Christian spirituality, but had been lost for centuries behind a pile of theological works. (See for instance Philip Jenkins, *the Lost Christianity in Asia and Africa*.)

But once again that does not mean to deny the meaning and significance of the three Synoptic Gospels (Gospel of Matthew, Gospel of Mark and Gospel of Luke).

In fact, in the context of biblical studies, perhaps we can put an analogy to what is meant by "*sedulur papat limo pancer*" (an ancient principle in Javanese spirituality) are none other than the four Gospels, plus the Gospel of Thomas to *complete the message of the Good News that Jesus Christ* preached to the disciples in the first place, around 1st century AD. Such an interpretation may be considered as a path to *kasampurnan urip* in Christ (the wholeness of life in God).

Once again, this is just a few hypotheses. I just found a few sources (cf. David P. Gushee, *The sacredness of life*).

5) Meet the Hidden Jesus in popular greeting, Namaste

Interestingly, according to Maatie Kalokoh, a popular word for greeting and farewell Namaste, has an ancient spiritual meaning:
“Namaste attracts the Divine Consciousness (Chaitanya) and increases the spiritual force and attracts the Consciousness of the Divine.
Why is namaste a spiritually meaningful word? Namaste, also known as Namaskar, is a way of greeting each other, as opposed to Western culture, where one shakes hands.

It's about showing respect for the person you're talking to, regardless of age or gender. One gives an attitude of devotion and gratitude, and this is done through the spiritual emotion of the bhav.
Namaste is also a spiritual greeting of respect when you meet with spiritual teachers or fellow students or greet someone who honors you.
A translation is that *it means bowing to the Divinity, and if you honor a divine person for it, you honor the Divine*.
Namaste expresses the essence of respect for the presence of God, and the other common sense is to greet and greet God, to be with Him…"[3]
Moreover, according to Subhamoy Das, as follows:
"Namaste is an Indian gesture of greeting one another. Wherever they are, when Hindus meet people they know or strangers with whom they want to initiate a conversation, "namaste" is the customary courtesy greeting. It is often used as a salutation to end an encounter as well.

Namaste is not a superficial gesture or a mere word, it is a way of showing respect and that you are equal to one another. It is used with all people one meets, from young and old to friends and strangers.
Though it has its origins in India, Namaste is now known and used throughout the world. Much of this has been due to its use in yoga. Students will often bow in respect to their teacher and say "Namaste" at the end of a class. In Japan, the gesture is "Gassho" and used in similar fashion, typically in prayer and healing practice.
Because of its global usage, Namaste has many interpretations. In general, the word tends to be defined as some derivation of, "*The divine in me bows to the divine in you*." This spiritual connection comes from its Indian roots."[4]
Although it is not my intention here to suggest exact similar meaning, nonetheless there seems to be a striking similarity with a known logion in Gospel of Thomas, where Jesus said to Mar Thoma: "*Split a wood, I am there. Lift up a stone, I am there*."
That logion would imply Jesus or Divine essence in everything.

To connect it with philosophy discussion, we can recall it has resemblance to pan-theism, or some would prefer panentheism, but instead allow me to argue in favor to similarity with Leibniz's philosophy…where Divine essence and consciousness can be found in everything, and it actually can be connected to Cosmic Christology, where Christ was and is the hidden cause of all life forms (cf. David P. Gushee, *the sacrednes of life*).
Let us call it : "*pan-Christic biogenesis*." That is we can find Jesus within me, within you, and within all forms of life..That is also the true meaning of Aleph Tav as found in Genesis 1:1, and more than 1000 occassions in the Hebrew Bible. And actually, that is a correct interpretation of the following verses:

[3] Source: Maatie Kalokoh, url: https://www.yourtango.com/2020334634/what-spiritual-meaning-namaste (accessed 11 Aug. 2022)
[44] Source: Subhamoy Das, url: https://www.learnreligions.com/what-does-namaste-mean-1770004 (accessed 11 Aug. 2022)

Luke 17:20-22 (King James Version):

20 And when he was demanded of the Pharisees, when the kingdom of God should come, he answered them and said, The kingdom of God cometh not with observation:

21 Neither shall they say, Lo here! or, lo there! *for, behold, the kingdom of God is within you.*

22 And he said unto the disciples, The days will come, when ye shall desire to see one of the days of the Son of man, and ye shall not see it.

See the *Appendix* section.

6) Concollusions

In this article, I summarize the results of previous articles, and outline some problems in doing interfaith dialogue with the others (Sang Liyan.) Concluding, allow me to say that in the context of biblical studies, perhaps we can put an analogy to what is meant by "*sedulur papat limo pancer*" in Javanese spirituality cosmogony are none other than the four Gospels, plus the Gospel of Thomas to complete the message of the Good News that Jesus Christ preached to the disciples in the first place, around 1st century AD. Such an interpretation may be considered as a path to *kasampurnan urip* in Christ (the wholeness of life in God). That is to say that to find the Hidden Jesus inside all of us, it is necessary to read and comprehend properly the meaning of the four gospels, and then to complete the study with the Gospel of Thomas. That is the true meaning of "Namaste" word, a common word for greeting and farewell in India.
I hope this short exploration would be found interesting for the readers. Further study is of course recommended.
Version 1.0: 19 July 2022, pk. 13:32
Version 1.1: 20 July 2022, pk. 8:28
Version 1.2: 11 Aug. 2022, pk. 7:46

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शोध-पत्र

“उपनिषद एवं अद्वैत वेदान्त के मूल सिद्धान्तो की वैज्ञानिक उपादेयता”

भारतीय दर्शन का आदिकाल वेदों के प्रादुर्भाव काल से प्रारम्भ होता है या वेदों के समय से ही माना जाता है।अनेक दार्शनिक ऐतिहासिक, ज्योतिष आदि प्रमाणो के द्वारा ऋग्वेद का आरंभिक काल ईशा की उत्पत्ति के पूर्व 5000 से 10000 वर्ष तक मानते हैं। भारतीय दर्शनों का काल भी उतना ही प्राचीन मानना उचित प्रतीत होता है क्योंकि ऋग्वेद में ही अनेक जगह अनेक दर्शनों के मूल स्त्रोत अवस्था में यथासंभव उपलब्ध होते हैं। वही यजुर्वेद,अथर्ववेद,सामवेद अनेक ब्राह्मण ग्रंथ और उपनिषदों द्वारा अब समुद्र के समरूप गंभीर एवं विशाल हो गए एवं उनका प्रवाह धर्म,देश,काल,जाति आदि से भी बाधित होता हुआ मनुष्य मात्र को शांति आनंद विवेक जान करुणा और सर्वात्मभाव दर्शन आदि के अनेक अमूल्य निर्देश एवं उपदेश देता हुआ सर्वदा अखंड रूप से प्रवाहित हो रहा है। अतः वे उपदेश तत्व मनुष्य मात्र के लिए हमेशा आचरण एवं प्रचार के योग्य है।

जगत रूपी पेड़ पर मित्र रूप में दो पक्षी बैठे हैं एक का नाम है जीव तथा दूसरे का नाम है ईश्वर। इस पेड़ पर एक सांसारिक या जागतिक पदार्थों का उपयोग करता है तथा दूसरा विषयों का उपयोग करता हुआ केवल जगत पर नियंत्रण एवं शासन करता है। यही मंत्र भगवान भाष्यकार शंकराचार्य आदि द्वारा अजात दर्शन को छोड़कर सभी दर्शनों का मूल स्त्रोत है।

मूलतः अजात तत्व की व्याख्या मान्डूक्य उपनिषद में देखने को मिलती है

<u>माण्डूक्योपनिषद में ब्रह्म तत्व की वैज्ञानिकता:-</u>

माण्डूक्योपनिषद अथर्ववेद का एक उपनिषद है। मात्र बारह मंत्रों का माण्डूक्योपनिषद सबसे छोटा उपनिषद होने पर भी अति महत्वपूर्ण समझा जाता है। इस अथर्ववेदीय उपनिषद में परमेश्वर के प्रतीक ॐ (प्रणवाक्षर) की व्याख्या के साथ-साथ ब्रह्म की चार अवस्थाओं - जाग्रत, स्वप्न, सुषुप्ति और तुरीय - का वर्णन है।

॥ अथ माण्डूक्योपनिषद ॥

ॐ भद्रं कर्णेभिः शृणुयाम देवा भद्रं पश्येमाक्षभिर्यजत्राः।

स्थिरैरङ्गैस्तुष्टुवांसस्तनूभिर्व्यशेम देवहितं यदायुः॥

स्वस्ति न इन्द्रो वृद्धश्रवाः स्वस्ति नः पूषा विश्ववेदाः।

स्वस्ति नस्तार्क्ष्यो अरिष्टनेमिः स्वस्ति नो बृहस्पतिर्दधातु॥

ओमित्येतदक्षरमिदँसर्वं तस्योपव्याख्यानभूतं भवद् भविष्यदिति सर्वमोङ्कार एव।

यच्चान्यत् त्रिकालातीतं तदप्योङ्कार एव ॥1॥

सर्वं ह्येतद् ब्रह्मायमात्मा ब्रह्म सोऽयमात्मा चतुष्पात् ॥2॥

जागरितस्थानो बहिःप्रज्ञः सप्ताङ्ग एकोनविंशतिमुखः स्थूलभुग्वैश्वानरः प्रथमः पादः ॥3॥

स्वप्नस्थानोऽन्तःप्रज्ञः सप्ताङ्ग एकोनविंशतिमुखः प्रविविक्तभुक्तैजसो द्वितीयः पादः ॥4॥

यत्र सुप्तो न कञ्चन कामं कामयते न कञ्चन स्वप्नं पश्यति तत् सुषुप्तम् ।

सुषुप्तस्थान एकीभूतः प्रज्ञानघन एवानन्दमयो ह्यानन्दभुक् चेतोमुखः प्राज्ञस्तृतीयः पादः ॥5॥

एष सर्वेश्वर एष सर्वज्ञ एषोऽन्तर्याम्येष योनिः सर्वस्य प्रभवाप्ययौ हि भूतानाम् ॥6॥

नान्तःप्रज्ञं न बहिष्प्रज्ञं नोभयतःप्रज्ञं न प्रज्ञानघनं न प्रज्ञं नाप्रज्ञम् ।

अदृष्टमव्यवहार्यमग्राह्यमलक्षणं अचिन्त्यमव्यपदेश्यमेकात्मप्रत्ययासारं प्रपञ्चोपशमं शान्तं शिवमद्वैतं चतुर्थं मन्यन्ते स आत्मा स विज्ञेयः ॥7॥

सोऽयमात्माध्यक्षरमोङ्करोऽधिमात्रं पादा मात्रा मात्राश्च पादा अकार उकारो मकार इति ॥8॥

जागरितस्थानो वैश्वानरोऽकारः प्रथमा मात्राऽऽप्तेरादिमत्त्वाद्वाऽऽप्नोति ह वै सर्वान् कामानादिश्च भवति य एवं वेद ॥9॥

स्वप्नस्थानस्तैजस उकारो द्वितीया मात्रोत्कर्षात् उभयत्वाद्वोत्कर्षति ह वै ज्ञानसन्ततिं समानश्च भवति नास्याऽब्रह्मवित्कुले भवति य एवं वेद ॥10॥

सुषुप्तस्थानः प्राज्ञो मकारस्तृतीया मात्रा मितेरपीतेर्वा मिनोति ह वा इदं सर्वमपीतिश्च भवति य एवं वेद ॥11॥

अमात्रश्चतुर्थोऽव्यवहार्यः प्रपञ्चोपशमः शिवोऽद्वैत एवमोङ्कार आत्मैव संविशत्यात्मनाऽऽत्मानं य एवं वेद ॥12॥

परम्परा में "ॐ भद्रं कर्णेभिः शृणुयाम देवा ..." के शांतिपाठ के बाद माण्डूक्योपनिषद का आरम्भ होता है। ॐ अक्षर की महिमा से आरम्भ करके इस उपनिषद के सातवें मंत्र तक आत्मा के चार पादों का वर्णन है। इसके अनुसार, परम अक्षर ॐ त्रिकालातीत, अनादि-अनंत, और सम्पूर्ण जगत का मूल है। विश्व ब्रह्म से आच्छादित है और यह ब्रह्म चतुष्पद है। ब्रह्म के चार पदों की विशेषताएँ निम्न हैं:

प्रथम पाद, यानि जाग्रत अवस्था में ब्रह्म वैश्वानर कहलाता है और वह सात लोक तथा 19 मुखों से स्थूल विषयों का भोक्ता है।

द्वितीय पाद में स्वप्नमय निद्रा जैसे सूक्ष्मजगत में ब्रह्म तेजस कहलाता है।

ब्रह्म की स्वप्नहीन प्रगाढ़ निद्रा जैसी ज्ञानमय,आनंदमय, प्रलय अवस्था सुषुप्ति कहलाती है।

आत्मा का चौथा वास्तविक स्वरूप उसकी तुरीय अवस्था है जिसकी अभिव्यक्ति सरल नहीं क्योंकि यह तुरीयावस्था अन्तःप्रज्ञ, बहिष्प्रज्ञ, उभयप्रज्ञ, प्रज्ञानघन, प्रज्ञ, अप्रज्ञ कुछ भी नहीं, बल्कि शांत, शिव और अद्वैत रूप है। वही आत्मा है और वही साक्षात ब्रह्म का चौथा पद है।

माण्डूक्योपनिषद में प्रणवाक्षर ॐ की व्याख्या करते हुए कहा गया है कि ऊँकार देश-काल से परे, कालातीत, आद्यंतहीन और सर्वव्यापी है। अ, उ, तथा म, इन तीन मात्राओं से युक्त ॐ में ब्रह्मनाद है, ईश्वर की आराधना है।

ओंकार रूपी आत्मा का जो स्वरूप उसके चतुष्पाद की दृष्टि से इस प्रकार निष्पन्न होता है उसे ही ऊँकार की मात्राओं के विचार से इस प्रकार व्यक्त किया गया है कि ऊँ की अकार मात्रा से वाणी का आरंभ होता है और अकार वाणी में व्याप्त भी है। सुषुप्ति स्थानीय प्राज्ञ ऊँ कार की मकार मात्रा है जिसमें विश्व और तेजस के प्राज्ञ में लय होने की तरह अकार और उकार का लय होता है, एवं ऊँ का उच्चारण दुहराते समय मकार के अकार उकार निकलते से प्रतीत होते है। तात्पर्य यह कि ऊँकार जगत् की उत्पत्ति और लय का कारण है।

वैश्वानर, तेजस और प्राज्ञ अवस्थाओं के सदृश त्रैमात्रिक ओंकार प्रपंच तथा पुनर्जन्म से आबद्ध है किंतु तुरीय की तरह अ मात्र ॐ अव्यवहार्य आत्मा है जहाँ जीव, जगत् और आत्मा (ब्रह्म) के भेद का प्रपंच नहीं है और केवल अद्वैत शिव ही शिव रह जाता है।

गोस्वामी तुलसीदास कृत द्वैत-अद्वैत की समन्वयवादी वैज्ञानिकता:-

समन्वय शब्द सामान्यतः दो अर्थों में मैं लिया जाता है। अपने विस्तृत और व्यापक अर्थ में वह संयोग अथवा पारस्परिक संबंध के निर्वाह का द्योतक है। जब हम सांख्य और वेदांत अथवा निर्गुण और सगुण के समन्वय की बात करते हैं। तब हमारा अभिप्राय होता है, इन दोनों विचार धाराओं में सामंजस्य की स्थापना। इन दोनों ही दृष्टियों में तुलसीदास समन्वयवादी है।

समन्वय भारतीय संस्कृति की एक महत्वपूर्ण विशेषता है। समय-समय पर इस देश में कितनी ही संस्कृतियों का आगमन हुआ और आगे बढ़ा। परंतु वह घुल मिल - कर एक हो गई। कितनी ही दार्शनिक धार्मिक।, सामाजिक , आर्थिक , राजनीतिक साहित्यिक व सोंदर्य मूलक विचारधारा का विश्वास हुआ। किंतु उनकी परिणति संगम के रूप में हुई। यह समन्वय भावना का ही परिणाम है कि नास्तिक बुद्धा ने राम को बोधिसत्व मान लिया। और आस्तिक वैष्णवों ने बुद्ध के अवतार रूप में प्रतिष्ठा की।

अर्थ - काम और धर्म - मोक्ष में प्रवृत्ति और निवृत्ति में साहित्य और जीवन में समन्वय स्थापित करने के विराट प्रयत्न किए गए। अनेकता में एकता की स्थापना की गई। धर्म दर्शन और समाज सुधार के क्षेत्र में गौतम बुद्ध लोकनायक थे। उनके द्वारा प्रतिष्ठित माध्यम प्रतिपदा त्याग और भोग के समन्वय का ही मार्ग है।

लोकदर्शी तुलसीदास ने जनता के हृदय की धड़कन को पहचाना और रामचरितमानस के रूप में वह आदर्श प्रस्तुत किया है। जिसमें कवित्व और भक्ति दर्शन का अद्भुत समन्वय है। समन्वय सिद्धांत का व्यवस्थित निरूपण और कार्यान्वयन मदारी का वृक्ष नहीं है। वह प्रत्यक्ष अनुभव सूक्ष्म शिक्षण अन्वेषण और गहन अनुशीलन का सम्मिलित परिणाम है। उन्के अनुसार "जीवन स्वयं समझौता है"।

वे यौवन की कामाशक्ति के शिकार भी हुए थे। और वैराग्य की पराकाष्ठा पर पहुंचकर आत्माराम भी हो गए थे। उनकी समन्वय साधना बहुमुखी है।

द्वैत -अद्वैत

तुलसी का दार्शनिक समन्वयवाद अत्यंत विवाद का विषय रहा है। तुलसी के युग में वेदांत का प्रभुत्व था। उसके भीतर भी दो प्रकार के संघर्ष थे। पहला सभी वैष्णव आचार्य शंकर के निर्गुण ब्रह्माबाद और माया के विरोधी थे। दूसरा सभी अदैतवाद मध्व के द्वैतवाद के विरोधी थे।

जहां अद्वैतवादियों और वैष्णव वेदान्तियों में मतभेद है वहां उन्होंने समन्वयवादी दृष्टि से काम लिया है। माया अविद्या है उसके अस्तित्व के विषय में कुछ नहीं कहा जा सकता। सगुण ब्रह्मा ही अवतार लेता है। एकमात्र निर्गुण ब्रह्म ही सत्य है। जीव जगत और ईश्वर सब मिथ्या है केवल ज्ञान ही मुक्ति का साधन है।

निर्गुण और सगुण

निर्गुण और सगुण का विवाद दो क्षेत्रों में था। दर्शनशास्त्र के क्षेत्र में और भक्ति के क्षेत्र में। शंकराचार्य निर्गुण ब्रह्मवाद को मानते थे। रामानुज और वल्लभ सगुण ब्रह्म्मा को। तुलसी ने दोनों का समन्वय करते हुए राम को निर्गुण- सगुण कहा है।

वस्तुतः राम एक है। वह निर्गुण और सगुण निराकार और साकार , व्यक्त और अव्यक्त है। निर्गुण राम ही भक्तों के प्रेम वश सगुण रूप में प्रकट होते हैं।

विद्या और अविद्या माया

अद्वैतवाद में माया और अविद्या पर्यायवाची है। वैष्णव आचार्य ऐसा नहीं मानते , वे माया को स्वभावत सगुण ब्रह्मा की शक्ति मानते हैं। तुलसी की विद्या माया शंकराचार्य की माया से भिन्न है। क्योंकि वह जगत की रचना करती है , और भक्तों का कल्याण भी करती है। उसके अनुसार माया की भाव रूपा अभिन्न शक्ति है।

माया और प्रकृति

साख्य योग के अनुसार स्वतंत्र प्रकृति सृष्टि का कारण है। यह स्थुल जगत उसी का विकार है। अद्वैतवाद में माया को विच्छेप - शक्ति का कार्य माना गया। वैष्णवों ने पर ब्रह्मा और उसकी शक्ति माया द्वारा विश्व का निर्माण माना। सृष्टि प्रक्रिया में तुलसी ने वैष्णव - वेदांत की माया और साथियों की प्रकृति का समन्वय किया। उन्होंने प्रकृति को राम के अधीन और माया के अभिन्न मानकर दोनों में एक सूत्रता स्थापित की।

जगत की सत्यता और असत्यता

सांख्य योग वैष्णव वेदांत आदि ने जगत की सत्यता स्वीकार की गई है। वेद विरोधी आतमनादि और अनीश्वरवादी बौद्ध तुलसी की दृष्टि में सर्वथा तिरस्कृत है। जिसके विरुद्ध राम को विश्वरूप तथा जगत को राम का अंश बताकर उन्होंने जगत की सत्यता प्रतिपादित की है। क्योंकि राम से अभिन्न जगत मिथ्या नहीं हो सकता। दूसरे शब्दों में तुलसी ने द्वैतवाद और अद्वैतवादी मतों का समन्वय किया है। राम और जगत में तत्वतः अभेद है।

जीव का भेद -अभेद

तुलसी का जीव विषयक सिद्धांत वैष्णव - वेदांतिओं के मतों का समन्वय है। तुलसी ने भेदवाद और आप अभेदवाद दोनों का समन्वय किया है। जीव ईश्वर का अंश मात्र है वह माया का स्वामी नहीं है। मुक्त होने पर ईश्वर का स्वरूप प्राप्त कर लेता है, किंतु ऐश्वर्य को नहीं।

कर्म - ज्ञान - भक्ति

जीव की पूर्णता इन तीनों में समन्वय में है। वही साधना सिद्धिदायिनी होती है जो साधक की पूरी सत्ता के साथ की जाए। सत्कर्म के बिना चित निर्मल नहीं हो सकता। और मूल से युक्त चित ज्ञान भक्ति का उदय असंभव है। अतः तुलसी ने तीनों के समन्वय पर बल दिया है।

जीवनमुक्ति और विदेहमुक्ति

अद्वैतवादियों के अनुसार आत्म साक्षात्कार या ब्रहम्म साक्छात्कार होने पर देहावसान के पूर्व ही आत्मा जीवउन्मुक्त हो जाती है। अधिकतर वैष्णव आचार्य जीव मुक्ति नहीं मानते।समन्वयवादी तुलसी को जीवनमुक्ति तथा विदेह मुक्ति और विदेह मुक्ति के उक्त चारों प्रकार माननीय है। इसमें कोई विरोध नहीं है।ज्ञान और भक्ति का उदय ही मनोमुक्ति है।

हिग्स बोसॉन (गॉड पार्टिकल): अद्वैतवाद के संदर्भ मे दार्शनिक विवेचना-

उदाहरण के रूप में बात सांख्य दर्शन हो तो इन्होने परम तत्व को व्यावहारिक रूप में प्रकृति और पुरुष के नाम से संबोधित किया है। भले ही ये दो नाम हो लेकिन इन एक दूसरे का एकल रूप में कोई अस्तित्व नहीं माना जाएगा ये एक दूसरे के पूरक के रूप में देखे जाते है। इंका कार्य निर्माण और संचालन है। और यही उस परम तत्व के व्यावहारिक रूप की व्याख्या करते है। द्वितीय उदाहरण आदि शंकराचार्य द्वारा प्रतिपादित अद्वैत वेदान्त से है। जिसके

अनुसार निर्गुण ब्रह्म को ही परम तत्व एवं परम सत्ता के रूप में परिभाषित किया है। इनके अनुसार जगत ब्रह्म और माया के द्वारा संचालित होती जिसमें माया को हम वास्तविक मान लेते है। इस जगत केवल ब्रह्म ही वास्तविक और पूर्ण सत्या है। बाकी जो कुछ भी जगत में घटित होता है वो माया के कारण है। तथा वो मिथ्या रूप है। अतः कह सकते है कि निर्गुण ही परम सत्ता एवं तत्व है।

अन्य भारतीय दर्शन की शाखाओं ने भी किसी न किसी रूप में परम तत्व की सत्ता को माना है आस्तिक दर्शन ने भी इसे ब्रह्म के रूप में न मानकर भौतिक तत्व अथवा विचारों के रूप में स्वीकार किया है। किसी ने इसे आत्मा और परमात्मा के रूप में परिभाषित किया है। जिसमे आत्मा भी उसी परमात्मा का अंश माना गया है। लेकिन सभी भारतीय दार्शनिक शाखाओं ने इस जगत के निर्माण और संचालन की व्याख्या हेतु परम तत्व, परम सत्ता कि अवधारणा अवश्य दी है।

जर्मन दार्शनिक लिबनिट्ज़ ने परम तत्व को अपने चिदणुवाद के सिद्धान्त के द्वारा व्याख्यायित किया है। उनके अनुसार जगत का निर्माण जिस तत्व के द्वारा हुआ है। जो सभी तत्वो का मूल है। जिसे इन्होने चिदणु के नाम से परिभाषित किया है । लाइब्निट्ज़ के अनुसार चिदणु ऐसा तत्व है जिस पर किसी बाह्य वस्तु का प्रभाव नहीं है बल्कि समस्त बाह्य वस्तुओं का निर्माण इस चिदणुके द्वारा ही हुआ है। साथ ही साथ इन्होने परम चिदणु की भी व्याख्या की है जिसके कारण सभी सजीव एवं निर्जीव तत्व में चेतना व्याप्त होती है उनमे बस मात्रा का भेद होता है जिससे उसकी प्रकृति सजीव और निर्जीव रूप में भिन्नता लिए होता है। आधुनिक गॉड पार्टिकल की व्याख्या में इसे उस तत्व के रूप में देखा जाता है जो समस्त वस्तुओं में द्रव्यमान अथवा मात्रा प्रदान करती है। इस प्रकार से हम कह सकते है कि लाइब्निट्ज़ के द्वारा दी गई चिदणुवाद का सिद्धान्त आज के हिग्स बोसोन के सिद्धान्त से मेल खाती है।

निष्कर्ष

उपरोक्त लेख के द्वारा ये सिद्ध करने का प्रयास नहीं किया जा रहा की आज की वैज्ञानिक विचारधारा एवं प्रयोग का हम खंडन कर रहे है। बल्कि हमारा उद्द्येश्य ये बताना है कि हमारी प्राचीनतम दार्शनिक और आध्यात्मिक विचारधारा कही न कही वैज्ञानिक आधारो पर निर्मित हुई है। तथा जिस परम सत्ता को हम ईश्वर या परमात्मा के रूप में प्राचीन काल से मानते आए है। उसे आज हमारे वैज्ञानिको ने परम तत्व के रूप परिभासित किया है। जिस प्रकार प्राचीन दार्शनिको ने एक तत्व के द्वारा ही समस्त जगत का निर्माण और संचालन माना है। उसी प्रकार आज के वैज्ञानिको ने भी हिग्स बोसान के जरिये समस्त ब्रह्मांड के निर्माण की

बात मानी है। अतः हम कह सकते है कि आज के गॉड पार्टिकल की अवधारणा प्राचीनतम परम दार्शनिक परम तत्व की अवधारणा से मेल खाती है।

संदर्भ ग्रंथ सूची

1.उपाध्याय, बलदेव

(A) भारतीय दर्शन, शारदा मंदिर, वाराणसी

(B)श्री शंकराचार्य का मायावाद, हिंदुस्तान अकादमी इलाहाबाद

2.गौड़पादकृत

माण्डूक्यकारिका,गीता प्रेस, गोरखपुर, हिंदी अनुवाद सहित

3.डायसन पाल

वेदान्त दर्शन, अनु-संगमलाल पांडेय,उत्तर प्रदेश हिंदी ग्रंथ अकादमी, लखनऊ

4.तिवारी, डॉ नित्यानंद

साहित्य का स्वरूप, एनसीईआरटी नई दिल्ली,

5.तुलसीदास

रामचरितमानस,गीता प्रेस,गोरखपुर

6.देवराज, डॉ नंदकिशोर

भारतीय दर्शन (संपादित) उत्तर प्रदेश हिंदी ग्रंथ अकादमी, लखनऊ

7.द्विवेदी,आचार्य हजारी प्रसाद

कबीर, राजकमल प्रकाशन, नई दिल्ली

8.नौलक्खा, डॉ राम स्वरूप सिंह

आचार्य शंकर का ब्रहमा वाद किताब घर आचार्य नगर कानपुर

9.नागार्जुन कृत

मूल माध्यमिक कारिका

10.पाठक राममूर्ति

भारतीय दर्शन की समीक्षात्मक रूपरेखा,अभिमन्यु प्रकाशन इलाहाबाद

11.पांडेय प्रोफेसर संगम लाल

मूल शंकर वेदान्त सेंट्रल बुक डिपो इलाहाबाद, हिंदी अनुवाद व्याख्या सहित चौखंबा संस्कृत प्रतिष्ठान, नई दिल्ली

12.ब्रह्मसूत्र शांकरभाष्य संपादित,अनंतकृष्ण शास्त्री पांडुरंग जावजी,निर्णय सागर प्रेस,मुंबई

13.भागवत गीता शंकर भाष्य हिंदी अनुवाद सहित गीता प्रेस गोरखपुर

14.माण्डूक्य कारिका (मूल)

15.माण्डूक्य उपनिषद शंकरभाष्य, आनंद आश्रम संस्कृत सीरीज

16.मूल माण्डूक्यउपनिषद

17.शर्मा,चंद्रधर

भारतीय दर्शन: आलोचन और अनुशीलन, मोतीलाल बनारसीदास पब्लिशर्स प्राइवेट लिमिटेड नई दिल्ली

बौद्ध दर्शन और वेदांत स्टूडेंट्स फ्रेंड्स, इलाहाबाद

पाश्चात्य दर्शन,मनोहर प्रकाशन जतनबर वाराणसी

18. शर्मा,राम मूर्ति

अद्वैत वेदांत नेशनल पब्लिकेशन हाउस, दिल्ली

19. शांतरक्षित

20. शारीरकभाष्य (मूल)

शोध-पत्र प्रस्तुत कर्ता-

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Living in a Holographic World

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Abstract

The nature of a holographic world is described in terms of the holographic principle of quantum gravity. This description requires a radical transformation of our understanding of quantum theory. Instead of unitary time evolution as the defining principle of quantum theory, this reformulation of quantum theory is inherently observer-centric and observer-dependent. The only valid definition of time is the observer's own proper-time as the observer follows an accelerating world-line through its dynamically curved space-time geometry, which is a holographic aspect of the observer's own holographic world. The observer's holographic world only appears to come into existence when the observer's event horizon, which arises in the observer's accelerated frame of reference, encodes qubits of information and acts as the observer's holographic screen. Instead of unitary time evolution as the defining principle of quantum theory, the only foundational principles of this reformulation of quantum theory are the nature of entropic information and the observer's own accelerated motion that gives rise to its event horizon. The observer itself can only be understood as the perceiving consciousness present at the central point of view of its own holographic world. This reformulation of quantum theory tells us that the observer must come first. First the observer comes into existence and then its holographic world appears to come into existence as the observer enters into an accelerated frame of reference. This reformulation of quantum theory tells us that there must be a source of the information, energy and consciousness that characterizes the observer and its holographic world. That source can only be described in terms of negation as absolute nothingness or a void of undifferentiated consciousness.

1) Introduction and Motivation

Feynman famously stated that "No one really understands quantum theory". Feynman also remarked that "The measurement problem of quantum theory is so confusing that we don't even know if there is a real problem". The pragmatic motto of most theoretical physicists is "Don't ask what it all means, just shut up and calculate". Of course, this pragmatic strategy runs counter to Einstein's philosophy "I'm not interested in the details. I want to know the mind of God". This article attempts to give a much deeper understanding of the nature of quantum theory, not just at

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the level of the mind of God, which is the nature of one's own mind, but at the level of God itself, which is the nature of one's own Self. To know one's own Self is to know the mind of God. The basic argument of this article is that the very foundations of quantum theory are flawed. All of the quantum theory, including quantum field theory, is built on the foundation of unitary time evolution. There's a straight path from the assumption of unitary time evolution to the path integral formulation of quantum theory to Feynman diagrams. The problem is the whole thing is based upon the invalid assumption of a universal definition of time that all observers will agree upon, which is only a valid assumption in Minkowski space, where observers can only move relative to each other with uniform motion and there is a notion of time translation invariance. In a dynamically curved space-time geometry with gravity, this assumption is no longer valid. The only possible valid definition of time as an observer follows an accelerated world-line through a curved space-time geometry with gravity is the observer's own proper-time, which is the only invariant quantity of relativity theory. The principle of equivalence tells us the effect of gravity is equivalent to the observer's own acceleration, but this premise is not consistent with the premise of unitary time evolution, where all observers must agree upon a universally valid definition of time. If the very nature of time is not a fundamental thing, then the whole structure of quantum field theory as built upon the premise of unitary time evolution cannot be a fundamental thing. The assumption of Minkowski space may be a useful approximation for experiments in the physics lab, but that assumption cannot be fundamental.

Ultimately, the nature of space is not Minkowski space. We live in a universe with gravity, which implies a dynamically curved space-time geometry. An argument can be made that without gravity, there would be no world with a space-time geometry. The holographic principle tells us that no gravity means no world, since all the information for a holographic world must be encoded on an accelerating observer's event horizon. That requires the observer's accelerated motion, and acceleration is equivalent to gravity. If the observer enters into an ultimate state of free fall, the observer experiences no acceleration and no effect of gravity, and the observer no longer perceives a world because the observer no longer has an event horizon that encodes all the information for that holographic world. In this scenario, the electromagnetic and nuclear forces are just other forms of gravity that can be understood with 11-dimensional super-gravity.

2) Problem: The Foundations of Physics are Logically Incompatible

The problem with physics is that the foundations of physics, as we currently understand them, are logically incompatible. The big question we have to answer is how do we fix this fundamental problem? We can only make scientific progress if we answer this question. Along the way, we'll gain an understanding of what we mean by spirituality, including the concept of God, which paradoxically, cannot really be conceptualized.

The first foundation of physics is the principle of equivalence, which tells us that all the perceived effects of gravity are equivalent to the accelerated motion of an observer. The second foundation of physics is the idea of unitary time evolution, which is the first principle of quantum theory, both

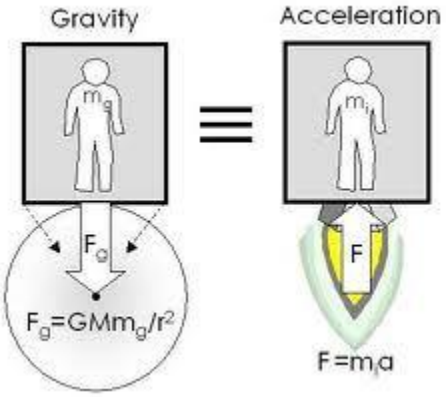
at the level of ordinary quantum mechanics, as in the Schrodinger equation, and at the level of quantum field theory, as in quantum electrodynamics. The premise of unitary time evolution says that the total energy of any system, as represented by the Hamiltonian operator operating on the wavefunction for that system, is proportional to the time derivative of the wavefunction.

$$i\hbar \frac{\partial}{\partial t}|\Psi(t)\rangle = \hat{H}|\Psi(t)\rangle$$

The Hamiltonian operator tells us how to calculate energy eigenstates of that system in terms of an eigenvalue equation involving the wavefunction, and unitary time evolution tells us how a linear superposition of those energy eigenstates will evolve in time.

$$|\Psi(t)\rangle = e^{-i\hat{H}t}\,|\Psi(0)\rangle$$

A problem arises when we consider the system of interest to be the entire observable universe. The observable universe is characterized by the force of gravity, which we understand as the dynamical curvature of the space-time geometry of the universe. The principle of equivalence tells us that the observed force of gravity, as observed by any observer, is equivalent to the accelerated motion of that observer.



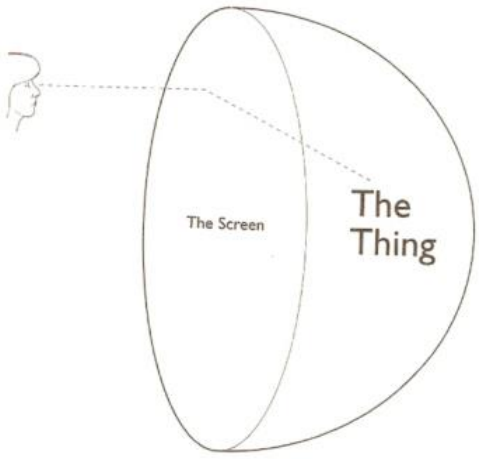
Principle of Equivalence

The problem is that in a dynamically curved space-time geometry with gravity, all observers will not agree upon the same definition of time. There is no notion of time translation invariance that gives a universally valid definition of time in the sense of a time derivative that all observers will agree upon when different observers undergo different accelerated motions. In general, the only valid definition of time in a dynamically curved space-time geometry with gravity is the observer's own sense of proper-time in its own rest frame, which is the only invariant of relativity theory. One accelerating observer's proper-time is not the same as another accelerating observer's proper-time, as demonstrated by the effect of time dilation. If different observers can't agree upon a

universally valid definition of time, then the whole concept of unitary time evolution is called into question as a fundamental defining principle of quantum theory.

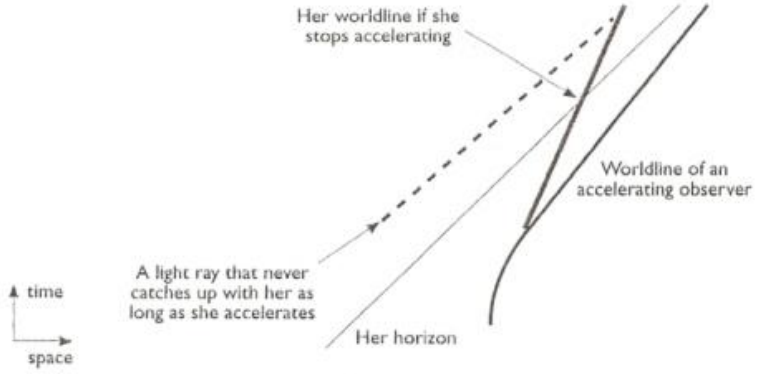
Only in gravity-free, flat Minkowski space, in which different observers can only move relative to each other with uniform motion, is there a valid way to define time translation invariance so all observers will agree upon a universally valid definition of time. All quantum field theories are built upon the premise of unitary time evolution and rely upon this idea of time translation invariance, which is only valid in Minkowski space. Quantum field theories can only be constructed in Minkowski space where there's a notion of time translation invariance and unitary time evolution. In the general case of a dynamically curved space-time geometry with gravity, the idea of time translation invariance breaks down, which means that unitary time evolution breaks down, and it is not possible to formulate quantum field theories in a consistent way. The problem is all observers will not agree upon the same definition of time. From the point of view of any particular observer, only the observer's own proper-time is a valid definition of time.

How do we rectify this fundamental problem? The first thing we have to recognize is that there is a subtle assumption underlying this problem. We're assuming that all observers observe the same universe. What if every observer observes its own universe from the central point of view of that universe? This sounds absurd, but this is exactly what the holographic principle of quantum gravity tells us. What exactly is the observer? The observer is nothing more than a point of view that arises at the center of its own holographic world. The observer is observing events in that holographic world. Those observable events are being displayed on the observer's own holographic screen that encodes information for all those events. The perception of an event is like an image projected from the screen to the observer's own point of view. In the sense of an object of perception, all perceivable objects are forms of information encoded on the screen. If that screen is like a computer screen that encodes bits of information, all perceivable objects are reducible to bits of information, which John Wheeler called "It from bit".



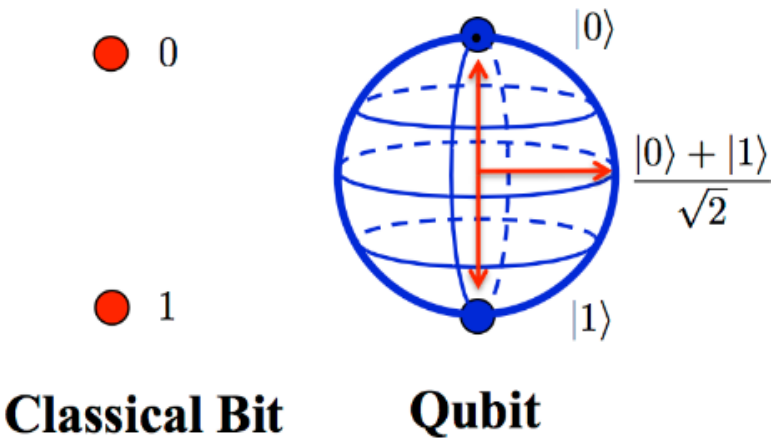
The Observer, the Observer's Holographic Screen, and its Object of Perception

What exactly does relativity theory tell us about the observer? Relativity theory doesn't attempt to explain what the observer is, only that the observer is at the central point of view of its own coordinate system, which is a frame of reference. If that frame of reference is characterized by accelerated motion, which is called an accelerated frame of reference, the observer observes effects of gravity occurring in a dynamically curved space-time geometry. One of those effects of gravity is the observer's event horizon, which limits the observer's observations of events in space. The observer's event horizon is a two dimensional bounding surface of space that limits its observations of events in three dimensional space. We really don't need the whole formalism of relativity theory to understand the nature of an event horizon. We only need the concepts of an observer that undergoes accelerated motion and the invariance of the speed of light, which is the maximal rate of information transfer in three dimensional space. A light ray that originates on the other side of the observer's event horizon can never reach the observer's point of view as long as the observer continues to undergo accelerated motion along its world-line, and so nothing is observable beyond its event horizon.



Accelerating Observer's Event Horizon

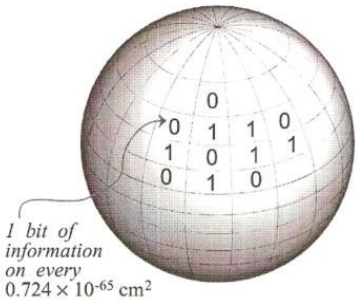
Once we have an observer in an accelerated frame of reference and the observer's event horizon, which naturally arises as a bounding surface of space due to the observer's own accelerated motion, we can then construct the holographic principle. The basic idea is that the observer's event horizon acts as its holographic screen that displays images of everything the observer can perceive in its own holographic world. How are those images constructed? The images are all forms of information that can be reduced to bits of information encoded on the observer's event horizon. These bits of information are not classical bits in the sense of a classical computer, but are quantized bits of information in the sense of a quantum computer, which are called qubits.



Qubit of Information Encoded on a Planck-size Event Horizon

A qubit is mathematically represented by a two dimensional array of numbers called a matrix, like a Pauli spin matrix, which is an SU(2) matrix. The eigenvalues of the matrix give a mathematical representation of information encoded in a binary code, like a spin variable that is only observable in either a spin up or spin down state, but this information is encoded on the surface of a 2-sphere in a rotationally invariant way since the SU(2) matrix gives a mathematical representation of rotational symmetry on the surface of the sphere. At the level of qubits, what we call quantum entanglement is a mathematical representation of this rotational invariance.

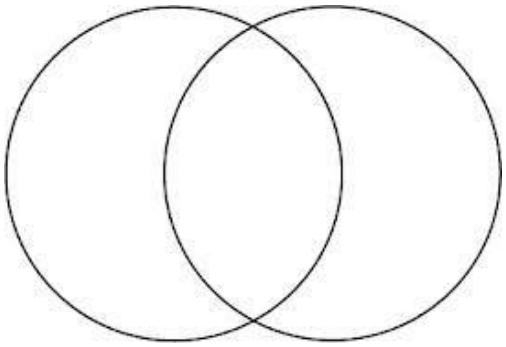
Since qubits of information are encoded in terms of matrices, which are two dimensional arrays of numbers, this information must be encoded on a two dimensional surface of space. Where does that two dimensional surface of space come from? The answer is the two dimensional surface of space is the observer's event horizon that arises due to its own accelerated motion, limits its observations of events in space, and acts as its holographic screen when that horizon encodes qubits of information. Everything the observer can observe in its own holographic world is a form of information encoded on its own event horizon that acts as its holographic screen. The holographic principle is simply a statement that everything the observer can observe in its own holographic world can be reduced to qubits of information encoded on its own event horizon that arises due to its own accelerated motion and acts as its holographic screen.



Holographic Principle

The holographic principle tells us that a Planck-size event horizon is the smallest event horizon that can be created since it encodes a single qubit of information, which is the smallest amount of information that can be measured. This explains why the Planck length is the smallest distance scale that can be measured. Larger event horizons encode more qubits of information, but always in terms of an integral number of Planck areas. It is as though each Planck area on the event horizon encodes a single qubit of information, like pixels on a computer screen. The basic idea of the holographic principle is the number of qubits of information encoded on the two dimensional surface of an observer's event horizon, which arises in its accelerated frame of reference, is given in terms of the surface area, A, of the event horizon and the Planck area, $\ell^2=\hbar G/c^3$, as $n=A/4\ell^2$.

How do we explain a consensual reality shared by many observers, each present at the central point of view of their own holographic world? The answer is information sharing. When holographic screens overlap like Venn diagrams, they can share information.



Information Sharing Among Overlapping Holographic Screens

The holographic principle is telling us the observer is nothing more than a focal point of perceiving consciousness that arises at the central point of view of its own holographic world. That holographic world only appears to come into existence when the observer enters into an accelerated frame of reference and its event horizon arises that acts as its holographic screen when its horizon encodes qubits of information. Everything the observer can observe in its own holographic world is a form of information encoded on its own holographic screen. This includes the space-time geometry of the observer's own holographic world. The space-time geometry the observer perceives can also be reduced to qubits of information encoded on its screen.

3) Reformulating the Laws of Physics in a Holographic World

The holographic principle demonstrates that the laws of physics in a 3+1 dimensional space-time geometry can be reduced to qubits of information encoded on an observer's holographic screen that arises as an event horizon in its accelerated frame of reference. This is exactly what Ted Jacobson demonstrated when he derived Einstein's field equations for the space-time metric from the laws of thermodynamics. Jacobson only had to assume the laws of thermodynamics, that entropy is given in terms of a holographic entropy that only depends on the surface area of the

observer's event horizon, $S=kn=kA/4\ell^2$, and the thermal energy inherent in the temperature of the observer's event horizon at thermal equilibrium is given in terms of the observer's acceleration, $kT=\hbar a/2\pi c$. The holographic nature of entropy is understood in terms of qubits of information encoded on the surface of the observer's event horizon, which is called a matrix model.

The laws of thermodynamics tell us that $\Delta E=T\Delta S$, where holographic entropy is given in terms of the surface area of the observer's event horizon as $S=kn=kA/4\ell^2$, and the temperature of the observer's event horizon at thermal equilibrium is given in terms of the observer's acceleration as $kT=\hbar a/2\pi c$, which is the Unruh temperature. A change in energy implies a change in entropy, which implies a change in the surface area of the observer's event horizon, which implies a change in the space-time geometry of the observer's holographic world. That's how Ted Jacobson derived Einstein's field equations from the laws of thermodynamics. Einstein's field equations are not really fundamental, but are more like an effective field theory that describes gravitational events in the observer's holographic world when things are near thermal equilibrium.

This way of deriving Einstein's field equations from the laws of thermodynamics tells us that Einstein's field equations for gravity only have the validity of thermodynamic equations of state. Once we have Einstein's field equations, then all the usual quantum field theories of the standard model of particle physics, which include the electromagnetic and nuclear forces, can be derived using the usual unification mechanisms of super-symmetry and extra compactified dimensions of space. This tells us that all the usual quantum field theories of the standard model of particle physics are only valid as thermodynamic equations of state or as effective field theories.

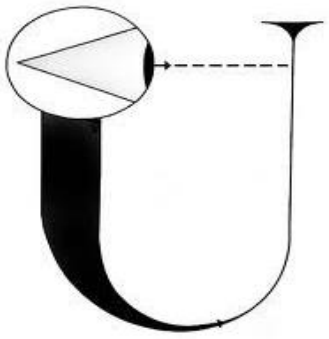
The holographic principle is a way to reformulate quantum theory without the assumption of unitary time evolution, which is not a valid assumption in a dynamically curved space-time geometry with gravity. Instead of assuming unitary time evolution, a foundational principle of quantum theory is the nature of entropic information, which is a qubit of information. A matrix model is the most fundamental way to reformulate quantum theory since a qubit of information is represented by an SU(2) matrix, which is a two dimensional array of numbers that must be encoded on a two dimensional surface of space. That two dimensional surface of space arises as an event horizon in an observer's accelerated frame of reference and acts as the observer's holographic screen when the horizon encodes qubits of information.

The holographic principle fundamentally reformulates quantum theory in an observer-centric and observer-dependent way since it tells us that the observer is at the central point of view of its own holographic world and that the appearance of its holographic world is dependent on its own accelerated motion. The appearance of its holographic world is understood in terms of images displayed on its holographic screen that arises as an event horizon due to its accelerated motion. The images of its own holographic world that are perceived by the observer can always be reduced to qubits of information encoded on its own holographic screen. This way of understanding quantum theory is a radical transformation of our understanding of the physical reality of the observable world that we perceive. If we really want to get our understanding of the observable

world correct, we first have to get our understanding of the observer of that world correct. We have to begin with a correct understanding of the observer. The existence of the observer must come first since the observable world the observer perceives can only appear to come into existence when the observer enters into an accelerated frame of reference.

In reality, there is no objective physical reality of the world out there, only a holographic world that appears to come into existence whenever the observer enters into an accelerated frame of reference and its event horizon arises that acts as its holographic screen when its horizon encodes qubits of information. Instead of an objective physical reality of the world that the observer can perceive, there is only a subject-object relation of perception that arises as the observer perceives objects of perception in its own holographic world. Those objects of perception are all forms of information that can be reduced to qubits of information encoded on its own holographic screen.

In reality, the observer's holographic world is no more real than the projected and animated images of a computer-generated virtual reality. The observer itself creates the quantum computer that gives rise to the appearance of its own holographic virtual reality with its own accelerated motion. The quantum computer is created due to the observer's own accelerated motion that gives rise to its event horizon that acts as its holographic screen when the horizon encodes qubits of information. In reality, that holographic world only appears to exist in the eye of the beholder.



Universal Observer

The Problem of Personal Self-identification in a Holographic World

A peculiar aspect of living in a holographic world is the nature of personal self-identification. Perception always occurs in a subject-object relation, where the true nature of the subject is the observer, which is the perceiving consciousness present at the central point of view of its own holographic world, while all the observer's objects of perception are forms of information that appear in its holographic world. The observer perceives both the forms of things, which are projected like images from its own holographic screen to its point of view at the center of its own holographic world, and also the flow of energy that animates those forms. Just as the observer's holographic screen arises as an event horizon due to its own acceleration, the animating flow of energy also arises from the observer's own accelerated motion. That accelerated motion gives rise

to the expression of emotional energy that animates the form of the observer's own body. The observer's body is just a form of information that appears in its holographic world, but its body is animated by the flow of emotional energy that arises from the observer's own accelerated motion. The expression of the emotional energy that animates the form of its body relative to the form of other things that appear in its holographic world is what makes the observer emotionally identify itself with the form of its body, which is called personal self-identification.

As the observer perceives the flow of emotional energy that emotionally animates the form of its body relative to the form of all other things that appear in its holographic world, the observer feels emotionally self-limited to that personal form, which makes the observer emotionally identify itself with that personal form. When the observer emotionally identifies itself with its body and takes itself to be its body, it is as though its body is the subject in the subject-object relation of perception. The observer's body is taken to be the perceiving subject, and all other objects that appear in the observer's holographic world are perceived as objects of perception.

In reality, the observer itself is the subject, and its body is just another object of perception that appears in its holographic world among all the other objects of perception, but when the observer emotionally identifies itself with its body and takes itself to be its body, it is as though its body is the perceiving subject and everything else that appears in its holographic world is an object of perception. The only thing that makes the observer's body different from all other forms is that its body is the central form and is always emotionally animated relative to the other forms, which creates feelings of self-limitation and leads the observer to identify itself with its body. This strange state of affairs is called personal self-identification, which gives rise to the observer's experience of self and other. The observer's experience of self and other within its holographic world is only possible because the observer emotionally identifies itself with the emotionally animated form of its body that appears as the central form within its own holographic world.

This explanation for personal self-identification is not new. The basic idea for this explanation was given in the 1950's, 60's and 70's by a group of psychoanalysts, who called the explanation object relations theory. In the 1990's, the neuroscientist Antonio Damasio gave a similar explanation based on the findings of neuroscience. The linguist Noam Chomsky understands the nature of language in a similar way. The basic idea is that perception always occurs in a subject-object relation, where the true nature of the subject is the observer and the object of perception is whatever the observer observes. When the observer emotionally identifies itself with its body, it is as though its body is the perceiving subject. The observer's body is always emotionally related to all other objects that appear in its world. The observer's perception of the emotional energy that animates the form of its body is what makes the observer feel emotionally self-limited to that personal form and emotionally identify itself with its body. Personal self-identification only happens as the observer perceives the flow of emotional energy that animates its body in relation to the form of all other things that appear in its world, which leads the observer to emotionally identify itself with the form of its body. With self-identification, there is a mistaken assumption that the source of the

observer's consciousness is its character that appears in the holographic virtual reality world it perceives, which is logically impossible.

The only thing that is lacking in this explanation for self-identification is an understanding of the true nature of the observer. The holographic principle tells us the observer can be nothing more than the perceiving consciousness that arises at the central point of view of its own holographic world. That holographic world can only appear to come into existence when the observer enters into an accelerated frame of reference and the observer's event horizon arises that acts as its holographic screen when the horizon encodes qubits of information. Even the flow of emotional energy that animates the observer's body arises from its own accelerated motion.

The observer is nothing more than a point of perceiving consciousness that arises at the center of its own holographic world, and all the images of its holographic world are displayed on its own holographic screen that arises in a void of nothingness. The observer's holographic screen is the boundary of its own holographic world. That boundary is an event horizon that arises due to the observer's own accelerated motion, which limits its observations of things in space and becomes its holographic screen when information is encoded. That holographic world only appears to come into existence due to the observer's accelerated motion. In reality, there is nothing inside that holographic world and nothing outside that holographic world. There only appears to be something inside the observer's holographic world due to the holographic projection of images from its own holographic screen to its point of view at the center of that holographic world.

Nothingness

The Problem of Nothingness as the Source of Everything

The observer's accelerated motion is not really along an accelerating world-line that it follows within its space-time geometry. The observer's space-time geometry is only a perceivable aspect of the holographic world it perceives that only appears to come into existence when it enters into

an accelerated frame of reference. The observer's accelerated motion is relative to nothingness, which is inherently motionless. The observer's event horizon is arising within that nothingness.

What exactly is this nothingness? Theoretical physics really has no explanation for the nature of this all-pervading nothingness, which physics simply calls the void or vacuum state. In terms of the holographic principle, this mysterious nothingness is not a space-time geometry. The perceived space-time geometry of the observer's holographic world is a holographic effect that can be reduced to qubits of information encoded on the observer's own holographic screen. Like everything else that it can perceive, the space-time geometry the observer perceives in its own holographic world is a holographic effect that only appears to come into existence due to the observer's own accelerated motion relative to that motionless nothingness.

Where does the observer come from? The answer is the observer comes from the same nothingness within which it undergoes accelerated motion. The observer's motion is relative to that motionless nothingness, which is also the source of the observer. If we think of the observer as a presence of individual consciousness at the central point of view of its own holographic world, then that nothingness can be understood as a void or empty space of pure undivided or undifferentiated consciousness. In some mysterious way, the individual consciousness of the observer, present at the central point of view of its own holographic world, is dividing or separating itself from its undivided source of pure undifferentiated consciousness, which is only understandable as a void of absolute nothingness. When the observer begins to move with accelerated motion relative to the motionless void, the observer's holographic world appears to come into existence. At the level of existence of the observer and its holographic world, the observer must come first. First the perceiving consciousness of the observer comes into existence, and then the holographic world the observer perceives appears to come into existence as the observer enters into an accelerated frame of reference. What exists prior to the existence of the observer and its holographic world? What exists when the observer's acceleration comes to an end and its holographic world disappears from existence?

What happens when that accelerated motion comes to an end? In relativity theory, the end of accelerated motion is called a freely falling frame of reference. In an ultimate freely falling frame of reference, the observer no longer has an event horizon, and therefore no longer has a holographic screen that displays images of its own holographic world. The concept of time only applies at the level of the space-time geometry of that holographic world. The observer's perception of that holographic world is like the perception of the projected and animated images of a computer-generated virtual reality. The observer's experience of time can only arise from the animation of that holographic world in the sense of the animation of the projected images of a virtual reality. In an ultimate state of free fall, the animation of the observer's holographic world comes to an end, which means the experience of time also comes to an end as the observer's own holographic world disappears from existence from its own point of view.

What happens to the observer when its experience of time comes to an end and its own holographic world disappears from existence from its own point of view? The answer is the individual consciousness of the observer returns to and dissolves back into its undivided source of pure undifferentiated consciousness, like a drop of water that dissolves into the ocean. This experience of the dissolution of individual consciousness into undivided consciousness is called spiritual enlightenment. Enlightened beings describe the experience of becoming enlightened as a state of free fall in which they fall into the void and their individual consciousness dissolves back into its source of pure undivided consciousness.

Spiritual enlightenment is a timeless state of being. The experience of time only applies at the level of the observer perceiving the animation of its own holographic world as the images of that world are projected from its holographic screen to its point of view at the center of that world and are animated in the flow of energy through that world. The animation of the observer's holographic world only arises from its own accelerated motion relative to the motionless void, which is how its event horizon arises that acts as its holographic screen. The observer's own accelerated motion is the nature of the energy that animates its own holographic world.

When its accelerated motion comes to an end, the observer's experience of time also comes to an end. When its accelerated motion comes to an end, the observer no longer has an event horizon that acts as its holographic screen, its observations in space become unlimited, but it perceives nothing as its holographic world disappears from existence. When its accelerated motion comes to an end, the observer's individual consciousness, present at the central point of view of its own holographic world, dissolves back into its source of pure undivided consciousness, like a drop of water that dissolves back into the ocean. Individual being dissolves back into undivided being. This is exactly how enlightened beings describe the experience of spiritual enlightenment.

What is the nature of God? The world we perceive is built upon three fundamental ingredients: information, energy and consciousness. Perception of the world always occurs in a subject-object relation as an observer perceives its objects of perception. In physics, we call the perceiver the observer and call the objects of perception the observables. Modern physics tells us the observables are constructed out of nothing more than information and energy. Spirituality tells us that the observer is nothing more than a focal point of consciousness. The individual spirit is present as a presence of individual consciousness at the central point of view of the holographic world that it perceives. That holographic world only appears to come into existence due to its own accelerated motion as a point of consciousness relative to the motionless void, which is how all energy arises. That accelerated motion gives rise to its own event horizon that acts as its holographic screen that displays all images of its own holographic world as qubits of information are encoded on the horizon. The perception of time, as an aspect of the space-time geometry of that holographic world, can only arise from the animation of that world, which fundamentally arises from the observer's own accelerated motion.

4) Conclusions

The holographic world we perceive is just like a computer-generated virtual reality that consists of nothing more than forms of information encoded on a holographic screen that are projected like images from the screen to our point of view and are animated in the flow of energy that arises from our own accelerated motion. At the level of individual being, we can only know ourselves to be a point of consciousness at the center of our own holographic world. When we undergo the experience of spiritual enlightenment, we know that the source of our individual being is an ocean of pure undivided being. That ocean of pure undivided being can only be described as a void of absolute nothingness.

Spirituality tells us that what we call God is the Source of all information, energy and consciousness. Take away all that information, energy and consciousness, and what remains? The answer is nothing. What we call God is that ultimate nothingness, which is the Source of everything, including our own individual consciousness. That absolute nothingness is only describable as a void of pure undifferentiated consciousness.

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Sanskrit as a Programming Language- An Overview

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Abstract

This article presents the importance and special features of Sanskrit and compares them with programming language.

1) Introduction

Indian civilization is the oldest and traditional civilization. Its literature is thousands of years old. This literature are the oldest literature in the world and they are written in Sanskrit. Sanskrit is the mother of most of the languages and it is always kept in high esteem and used mostly for religious and scientific discourses in Hinduism, Buddhism and Jainism.

The new education policy 2020 of government of India makes a significant emphasis on Sanskrit and other Indian languages. According to the policy Sanskrit will be mainstreamed with strong offerings in school. This will greatly help in the upliftment of Sanskrit.

The grammar of Sanskrit was composed by Pāṇini and the work is known as Aṣṭādhyāyi. It comprises of about 4000 aphorisms called Sūtrās [1]. These sūtrās are divided into 8 chapters and thus got the name Aṣṭādhyāyi. In this work Pāṇini develops the Sanskrit alphabet reads like a system of code which is known as the Maheśvara sūtrās and is 14 in number. All the grammar rules in this work are based on these Maheśvara sūtrās.

Some Characteristics of Sanskrit

- Sanskrit has a clear correspondence between pronunciation and spelling which makes the language ideal.
- Sanskrit is the only language that accelerates all the nerves of our tongue. The pronunciation of Sanskrit makes an amazing impact on our body. It is used in the field of meditation also.
- The feature of Vibhakti of Sanskrit makes possible to place a word anywhere in a sentence. A three word sentence could be written six different ways. The sentence cannot change in their meaning.

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For example

रामः पुस्तकं पठति।

पुस्तकं रामः पठति।

पुस्तकं पठति रामः।

पठति पुस्तकं रामः।

पठति रामः पुस्तकम्।

रामः पठति पुस्तकम्।

- The role of a word in a sentence can be understood by knowing the end of a word. Because of the use of declensions, a lot of information is packed in fewer words. This makes transmission of information extremely efficient in speech. For example – The word वदामि gives not only its meaning but also gives that the subject is.
- There is a derivational process in Sanskrit. There is a base meaning, a suffix meaning and a combination meaning. The base is the constant part and the suffix is the variable part. We can derive new Sanskrit words every time because of this feature. For example

  पठ् + तिप्(प्रत्यय) - पठति

  पठ् + शतृ - पठत्

- In Sanskrit a word can convey a sentence meaning. For example पिबसि

  Here from the word "पिबसि" we can get "त्वं पिबसि"

- In Sanskrit, words represent properties of objects not represent the objects themselves. We can go through with an example. For denoting a 'tree' in English and Hindi has a word, such as tree in English and पेड in Hindi. But since a tree is an object there is no word in Sanskrit for a tree. In fact, for any object there is no word in Sanskrit (There are some exceptions). The word वृक्षः is used to represent a tree in Sanskrit. But actually it represents a property. That is something that is cut and felled down is वृक्ष . So far any object which posseses this property can be denoted by this word वृक्षः. Similarly to denote

a tree many words can be used. For example तरुः, पादपः also may denote a tree. But even these words don't necessarily mean a tree.

तरुः - Something that floats

पादपः - Something that drinks using its feet.

A tree posseses these properties, so these words can be used to denote a tree also. Then infact there are infinite words in Sanskrit. For, the words in Sanskrit are derived from the properties. Because of this feature there are numerous synonyms for each word in Sanskrit.

- The basic units of Sanskrit sentence are dhātus. Above 2000 dhātus were described by Pāṇini. Many words can be derived from a single dhātu. For example भू is a dhātu. From this dhātus, many nouns, adjectives, verbs can be derived. From भू dhātu the words like भवान्-प्रभाव-वैभव-भूत-भविष्य-भावी-अभाव- संभवेत् etc. can be derived.

Sanskrit as a Programming Language

A computer friendly language implies when talking to a computer the language need to be understood by the computer unambiguously. If we want a computer to formulate sentences we have to teach it all the grammar rules plus the exceptions of that language. In this context Sanskrit is a good option because of its unambiguous features. But it didn't mean Sanskrit is the best language for computer programming. According to Subhash C. Kak the knowledge representation methodology of Pāṇini and his successors is in many ways equivalent to the more powerful currently researched artificial intelligence schemes.[1]

There are many similarities between modern programming language application theories and Sanskrit grammar. Some of them are described here.

- In modern programming language the collection of data which are meaningful is known as database. In Aṣṭādhyāyi of Pāṇini there are 14 sutras called Maheśvara sūtrās , which work as a data to pronunciate any word. This is almost similar to databases[2] in modern programming languages.
- As in the programming languages Pāṇini used many conceptual techniques. One of them is recursion[3]. Each sutra in Aṣṭādhyāyi consists of minimum amount of words. For make it meaningful he took some words from previous sutras.

For example

ईदूदेद्द्विवचनं प्रगृह्यम्॥११॥ पदानि। ईद्-ऊद्-एद् द्विवचनं प्रगृह्यम्।[4]

A dual case affix ending in ई, ऊ or ए is called प्रगृह्यम्, or excepted vowels which do not admit of sandhi or conjunction. this sutra gives three exceptions in which the duals of nouns or verbs ending in ई(ईत्), ऊ(ऊत्), ए(एत्).

अदसोमात्॥१२॥ पदानि॥ अदसः, मात् (इदूदेत् प्रगृह्यम्)[5]

the same letters after the म् of the pronoun अदस् are प्रगृह्य. In the pronoun अदस्, the dual termination in ई, ऊ or ए will be प्रगृह्य by force of the last sutra, but the present sutra makes this addition.

- The 14 sutras in Aṣṭādhyāyi are like an array in programming language. The last part of each sutra has no value. For example in 'अइउण्' we get only 3 letters. That is अ, इ and उ. This concept is same as the null character arrays or strings. For example

  H A R A Y E \0 N A M A H \0

  Here in both strings Haraye and Namah there is a null character at last, which has no value in output result. Likewise symbol \n makes new line, but it does not appears in the output. The combination of two strings was defined by Pāṇini as सन्धि.
- In modern programming languages a function can be used by a programmer according to the purpose of the program. Just similar to this concept, Pāṇini used one word for different meaning. The meaning of the word can be determined by the user according to the situation. For example the word पीताम्बरः generally means a yellow color cloth. The same word also implies the God who wears a yellow color cloth or The God Vishnu . This method is referred to as polymorphism. Now a days this is one of the crucial features of object oriented programming.
- मूर्खः परिहर्तव्यः प्रत्यक्षः द्विपदः पशुः।[6]

  In this example there are only 5 Sanskrit words. These 5 words represent 5 properties. Here the vibhakti of the 5 properties are taken and then got 5 new object name. But all represent the one object. There is a rule behind this, in which words having the same

vibhakti represent the same object and not different objects. Here first vibhakti is used. This feature of Sanskrit can be compared with class[7] and pointer in java programming. Here the base of the Sanskrit word is like class in java and the specific form of that word is like a pointer to an object of that class.

2) Conclusion

Sanskrit is a vast language. It has a great vocabulary and very adaptable grammar. There are many similarities between Sanskrit and modern programming languages. English is the most commonly used language for computer programming. But English has an ambiguous grammar. So we need a strong and unambiguous grammar which is more suitable for programming language. From the above explained features of Sanskrit, it can be said that Sanskrit is such a language which follows the unambiguous grammar of Pāṇini's Aṣṭādhyāyi. But a majority of computer users didn't learn Sanskrit and it is much easier for them to learn a computer friendly language than to learn Sanskrit. As English as the world language, people already have developed a big portion of Natural language processing based on English. However if ever we will make a computer language that can also be spoken like a natural language, then Sanskrit has a fair chance to be the first choice. This is because of the predictability it offers.

Sanskrit has many synonyms for one word and it has a complicated compound letter system. These features reduce the possibilities for Sanskrit to be used in computer programming. But there is a lot of research on going on how Sanskrit can be used as a programming language. From the above explained features of Sanskrit it can be said that compared to any other languages Sanskrit is more computer friendly, because of its high power of speech recognition. Knowing Sanskrit won't make a better programmer. If someone interprets Sanskrit, it can be easily understood by the computer. It can be hoped that the current emphasis on Sanskrit in India will lead to a Sanskrit programming language revolution in the future.

Endnotes

1. Subhash C Kak , The Paninian Approach to N L P pp 118.
2. Database - A database is an organized collection of data.

3. Recursion - Recursion is the process of repeating item in a self similar way. In programming languages, if a program allows you to call a function inside the same function, then it is called a recursive call of the function.
4. Aṣṭādhyāyi of Pāṇini 1-1-11
5. Ibid 1-1-12
6. Rajanitisamuchchaya of Acharya Chanakya 3-7
7. Class – class represents the set of properties or methods that are common to all objects of one type.

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Letting Go - A central theme in spiritual practice

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Abstract

Learning how to let go is a universal need, and a skill that can make your life happier, more peaceful, and even more productive. Of all us have one or more "sticky thoughts" that are not really doing anything for us, and are not really pleasant—yet we find it hard to let go or move on. Many references, audios, motivational classes were referred to understand this wonderful topic. It is a universally accepted subject by all now that it is essential to let go of the bitter past and make fly the mind free. Some best ways to heal the mind and relations are to create a positive mantra to counter the painful thoughts; Practising mindfulness; Being gentle with the self; accept that the other person may not apologize; and forgive those who gave the hurt. To let go of past hurts, you need to make the conscious decision to take control of the situation. However, this can take time and practice. Be kind to yourself as your practice refocusing how you see the situation and celebrate the small victories you have.

Keywords: Stress, Complexity of life, Spiritual practice, Chhodo toh Chootey, bitter past

1) Introduction:

In the stress and complexity of our lives, we may forget our deepest intentions. But when people come to the end of their life and look back, the questions that they most often ask are not usually, "How much is in my bank account?" or "How many books did I write?" or "What did I build?" or the like. If you have the privilege of being with a person who is aware at the time of his or her death, you find the questions such a person asks are very simple: "Did I love well?" "Did I live fully?" "Did I learn to let go?"

These simple questions go to the very center of spiritual life. When we consider loving well and living fully, we can see the ways our attachments and fears have limited us, and we can see the many opportunities for our hearts to open. Have we let ourselves love the people around us, our family, our community, the earth upon which we live? And, did we also learn to let go? Did we learn to live through the changes of life with grace, wisdom, and compassion? Have we learned to forgive and live from the spirit of the heart instead of the spirit of judgment?

2) Importance

We have all had at least one point in our lives where we have faced the decision of whether we should let go of or hold on to something or someone. Letting go is often one of the most difficult things that we have to do in our lives, yet sometimes it is the only way that we can get ourselves to move forward. It can be especially difficult to let go of things that we still really want to

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hold on to. These things often times, whether they are objects, people, or ideas, are usually things that we have a hard time admitting that we don't need because we still like them so much. For some reason, we have conditioned ourselves to think that we need to hold on to them because the thought of them going away or the thought of us missing them is just too much. However, we need to take a step back and see beyond the act of letting go itself which is hard and can take time. We instead need to look forward and see what letting go will allow new room for in our lives.

Some of us may have a hard time letting go because we feel insecure. We may think that we will never find something that's good enough or better than what we already have. We have to understand that this simply is not true. As long as we remain hopeful, there are far better things that will begin to come our way. We cannot let our attachment to something get in the way of our letting go processes. If we truly love ourselves, we will take time to reflect. Is what we have truly good enough for us? If there is any shred of doubt, we need to begin to consider letting go of whatever it is. We are the masters of our own destinies. Our choices ultimately determine how much we grow and succeed. We will now allow ourselves growth if we are remaining stagnant in our lives. In order to give ourselves room to grow, we need to practice evaluating what we have and deciding whether or not it is really worth holding on to. I'm telling you from experience that once you are honest with yourself and make a decision that something needs to go, it will be hard at first, but when you give yourself time to get used to the idea, you will never look back because you will see how taking this step truly benefits your growth and your life.

3) Analysis

Letting go is a central theme in spiritual practice, as we see the preciousness and brevity of life. When letting go is called for, if we have not learned to do so, we suffer greatly, and when we get to the end of our life, we may have what is called a crash course. Sooner or later we have to learn to let go and allow the changing mystery of life to move through us without our fearing it, without holding and grasping.

Just as the bird has to find the courage to let go of the branch in order to fly, so we also must let go of our worldly branches if we are to know the exhilaration of soaring to the highest potential of our life. The branches we hold to are our inner attachments - our false beliefs, confused ideas and nagging memories of the past... And then there are the outer attachments - people, possessions, positions and privileges and relationships, to mention a few. As long as we hold on to these we will live in constant fear (of letting go, and loss) and we will never be free.

Just watch birds... by letting go of one branch they are able to spend the rest of their life alighting on a million other branches, and they enjoy the view from each. Are you flying and soaring in your life, or are you stuck on one branch, cursing your fortune as you see others as they fly past. The branches are not tying you down, YOU have to let go. Go on, try it ...let go! Chhodo toh Chootey.

4) Conclusion

So without wasting any more time speed up and put in your best efforts to come. Enough evidence show that the practice of Rajayoga meditation has helped lakhs of people to live enlightened by leaving their unpleasant past. Our mind gets affected with the food we eat, the company we live in and our lifestyle. To love fully and live well requires us to recognize finally that we do not possess or own anything—our homes, our cars, our loved ones, not even our own body. Spiritual joy and wisdom do not come through possession but rather through our capacity to open, to love more fully, and to move and be free in life.

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What or who is reborn after death and how can be explained KAMMA and REBIRTH in the Absence of AATMA?

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Abstract

Some religious philosophies accept *Aatma* or the permanent soul while some do not believe in a permanent soul. In this paper, an attempt is made to analyze the concept of rebirth, based on *Kamma*, actions dealing with *Avijja* or Ignorance and *Thana*, Attachment, in the absence of the permanent soul according to the Buddhist philosophical point of view.

Key words: Kamma, Kammapphala, Cetana, Patisandhi, Aatma, Pancakhandha, Nama, Rupa, Sankhara, Kusaladhamma, Akusaladhamma, Avijja paccaya sankhara, Vithicitta.

1) Introduction

The process of birth and death of beings is considered to be a normal phenomenon of nature occurring every moment in some part of this world. Yet, it is difficult to know who or what is born, what is birth and how is birth and is this rebirth relating to the previous life etc.? Most philosophers attempt to understand and answer these questions. Human beings are still far from the truth while studying various views of Philosophy. However, there is a brief answer in connection with the above questions according to Buddhist teachings. It is the Doctrine of action or natural law "in Pali is called '*Kamma*'" and rebirth is called '*Patisandhi*'. On this regard, the Buddhist philosophy pointed out that "after death, one rebirth-linking consciousness together with physical phenomena, which is caused by *Kamma*, will be reborn in new life, in the absence of *Aatma*". For some clarity on this question, we have to understand or study 'the Doctrine of non-self, the Doctrine of Action or natural law and the Doctrine of Rebirth.

What is the Doctrine of Non-self, Anatta?

Based upon the Pali literature, the meaning of 'Anatta' is not 'atta'(i.e aatma). It is a compound word, composed of 'na' and 'atta' and then grammatically changed into 'Anatta'. 'Na' refers to 'not' and 'atta' is translated as 'soul or self. Non-self, no-soul or non-permanent soul in Pali is called 'Anatta' and 'anatmaan' in Sanskrit. On the contrary, the meaning of *Aatma* is self, soul or permanent soul. *Anatta* actually has several meanings but here it should be translated as 'non-self and non-soul. According to Buddhist teaching, all living beings are composed of five aggregates (*panca-khandha*).[1]

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[1] Bhikkhu Bodhi, ***A Comprehensive Manual of Abhidhamma***, Buddhist Publication Society, 2008.
Note (five aggregates (*panca-khandha)* 1. Rupakkahandha-the aggregate of physical form, 2. Vedanakkhandha-the aggregate of feelings, 3. Sannakkhandha-the aggregate of perceptions, 4. Sankharakkhandha-the aggregate of metal formations, 5. Vinnanakkhandha-the aggregate of consciousness.

The ones who are composed of the five aggregates undergo changes at every moment. These five aggregates without permanent soul arise and disappear day by day as well. It is called 'living or being alive'. This is the nature of all living beings that are composed by the five aggregates.

When the five aggregates cease to arise and disappear it is called 'death'. The concept of 'non-self' is explained in the Dhammapada as follows: "*Sabbe dhamma anatta'ti yada pannaya passati*."[i] It means 'all conditional things are non-self-when one sees this with wisdom.' And if we are carefully considering, even this present moment is 'no-self' and so how 'self' or 'atta' could exist after death? Nonetheless, mostly, we are living without noticing and being conscious that we are arising and passing away every moment. In the series of daily activities, mind (*Nama*) and matter (*Rupa*) arise and disappear depending on conditions. When there are conditions, they will arise and disappear, whether we want them to arise or not. So, we have no control over their arising and disappearing. Hence, having no control over them, or exercising of power over them is said to be the mark of being non-self, Anatta.[ii] It is true that in our daily life, we cannot control or say that 'I do not want to be old, I do not want to be ill, or I do not want to die etc.' So, we have to live based on the nature because everything in this world arises, exists and passes away in the end. This is the nature of the world. There is nothing which can exist eternally and permanently because all things are part of conditions to be changed. As explained in the Dhammapada, the Buddha expounded that "*Sabbe sankhara anicca*"[iii] which means "all conditioned things are impermanent". If we really have permanence of 'self' or 'soul' (Aatma) we might be able to control not to age, pass way and change. That is called non-self 'Anatta'. In order to understand the Absence of *Aatma,* we must be clear about the 'Doctrine of Non-self. It is one of the most fundamental teachings in Buddhism and also the second discourse of the Buddha. Thus it is very different from other religions , because there are no real 'Self' in Buddhism whereas other religions accept Soul or Self, personality in some form or another.

On the theory of *Anatta*, there is an interesting story. During the lifetime of Buddha, a wanderer named *Vacchagotta* asked the Buddha several questions about the '*Aatma* or soul.' But the Buddha did not reply to his questions. The Buddha was silent when being asked about 'the *Aatma* or soul.' After the wanderer had left, the Buddha explained his silence to Ananda. Thus "when he asked, Is there a self if I had answered: "there is self", then Ananda, that would be taking a side with those recluses and Brahmanas who hold the externalist theory (*Sassata-vada*). Also if I had answered, "there is no self", then that would be siding with those recluses and Brahmanas who hold the annihilationist theory (*Uccheda-vada*).[iv] It is equally wrong to hold the opinion 'I have no self' (which is the annihilationist theory) as to hold the opinion 'I have self' (which is the eternality theory) because both are fetters, both arising out of the false idea 'I am'. Regarding Anatta, we should not take hold of any opinions or views, but to see things objectively as they are without mental projections, to see that what we call 'I' or 'being', is only a combination of physical and mental aggregate working together freely within the law of cause and effect, *kamma* and *kammaphala*.There is nothing permanent, everlasting, unchanging and eternal in the whole of existence.[v]

What is the Doctrine of Kamma, Natural Law ?

On each day, we only perform three sorts of actions- bodily action, verbal action and mental action. These three kinds of actions in Pali are called '*Kamma*'. The origin word of *Kamma* has come from the Sanskrit word '*Karma*'. The basic meaning of *Kamma* is action or deed. But here, we should understand that in a technical sense. It is called volition (cetana). Without volitional act (*cetana-kamma*) is not considered as '*kamma*'. The Buddha explains it through the "*Cetanaham bhikkhave kamman vadami*"[vi] Oh! Monks, I call Karma action with *Cetana*-intention: having willed, one acts by body, speech or mind. Therefore that actions we perform volitionally or intentionally are called '*Kamma*'. There are two kinds of *Kammas* namely: (1) *Akusalakamma*-bad action (2) *Kusalakamma*-good action. '*Akusala-kamma*' is divided into ten kinds what the Buddha urged his followers to totally refrain during their entire life. Following are the ten *akusala kamma*: (1) killing, (2) stealing, (3) sexual misconduct, (4) false speech, (5) slandering, (6) harsh speech, (7) frivolous talk, (8) covetousness, (9) ill will and (10) wrong view.

Similarly, there are also ten kinds of *Kusala-kammas*, which the Buddha urged his followers to regularly put into practice. They are as follows: (1) giving, (2) virtue, (3) meditation, (4) reverence, (5) service, (6) sharing of merit, (7) rejoicing in others' merit, (8) hearing the Dhamma, (9) teaching the Dhamma, (10) straightening out one's views.[vii] These are called the ten wholesome actions or *Punna kiriya vatthu* in Pali. Through these two actions whether good action or bad action, we must reap its results without exception. According to Buddhist belief, because of one's action we live in the world of inequality. At the very beginning of human history, all living beings were equal. However, they are different from one another according to their respective good or bad deeds such as animal beings, human beings, and spiritual beings. Different kinds of beings have different kinds of planes of existences and their own *Kammas*. *Kamma* or natural law is applicable to all creatures, not just human beings. Even in human beings, through experience, we know that some people are intelligent and some are not; some are reborn into wealthy families and some into poor families; some grow up with a luxurious life and some do not. All the inequalities, according to the Buddhist beliefs are based on the results of the good action (*Kusalakamma-vipaka*) or bed action (*Akusalakamma-vipaka*) of our three actions (bodily action, verbal action and mental action) in the past. The inequality of our circumstances in our life is not a punishment or reward doled out to us by an entity. Everything is created by us from the past by our own action. So, everyone has to take their own responsibility. No entity or God can help and take responsibility for us according to Buddhism. The Buddha has said that "By oneself is evil done; by oneself is one defiled. By oneself is evil left un-done; by oneself is one made pure. Purity and impurity depend on oneself; no one can purify another."[viii] In the same manner, impurity within oneself cannot be washed away by any river or holy water as per the Buddhist belief.

During life time of the Buddha, in Gaya, modern Bhihar state, as is prevalent even today, one used to immerse his body in the river-water to wash away his evil deeds because he believed

that one could become a noble one by doing this. Then the Brahmin *Sudarika Bharadvaja* asked the Buddha: "What can these rivers do?" At that time the Buddha replied that "If the water could wash away one's evil deeds, *Akusalakamma*, fishes and frogs living in the water would be noble ones". The Buddha added, "The water cannot purify the bad person or one who is intent on evil. For the good person, every day is holy because they practice good things every day. If you speak no lie, do no harm, steal not, if you believe and are generous, what can be the good of going to river Gaya? The water in river Gaya is the same as the well in your home."[ix] So nothing can wash away or purify one's evil deeds. At the same time, there is nothing can take away one's good deeds as well. One cannot escape from one's action and its results. The Buddha says that "Not in the air, nor-ocean-midst, nor hidden in the mountain clefts, nowhere is found a place on earth, where man is freed from evil deeds."[x]

Action begets the action. When there is an action, there is a reaction, when there is result, there must be a cause, when there is a cause there is an effect . This relationship of cause and effect goes on and on. That is called the law of *kamma*. The doctrine of *Kamma* existed before the Buddha appeared in the world. There is also a *Kamma* in Hinduism. But Buddha refined it. Buddha follows it. Buddha brought it into higher level, thus in Buddhism the doctrine of *Kamma* was talked without the permanent soul. It means creation of the world is not by any entity.

This *kamma* is also caused by ignorance and attachment. So long as we have ignorance and attachment, we will be accumulating *Kamma*. "*Avijja paccaya sankhara*"[xi] In Theravada, there is a *kamma* but there is not a doer of the *kamma*. *Kamma* only exists by itself. What we called *Kamma* is the volition, will, or *Cetana*. The *Cetana* arises in our mind when we do good or bed and then it disappears. There is no doer of the kamma.

"*Kammassa karako natthi, vipakassa vedako, suddhadhammam pavuttanti eveti sammadassanam*." It means there is neither doer nor experiencer of good and bad deeds. Only actions and the result of actions without the soul or *Aatma*, arises and disappears, this is a view of true understanding.[xii] Regarding this, in the world, in the sense of ultimate reality, there is no any other doer except *Kamma*. In the sense of conventional reality, in the occurrence of actions, both action of physical and mental body associated with volitional attention is called 'he', 'she', 'self' or 'I'. Likewise, seeing, hearing, are the result of *kamma* (physical and mental body) which is appreciating the good or bad of the object and is conventionally called 'Experiencer' but ultimately there is no any other experiencer except the result of *kamma*. It is a conventional truth. Therefore, when we practice meditation, the most important things is to be remove the concept of 'self", 'soul', '*Aatma*' which is not reality and to get clear vision that only both of physical and mental body exist.

The relationship between Kamma and rebirth

Thus *Kamma* or Volition is important because it is this *Kamma* or Volition, which creates different existence or rebirth. According to *Abhidhamma*, Buddhist philosophy, this *kamma* is one of the mental factors. But it is different from other mental factor because it has the

potentiality to give the result. It is like a seed. The mango seed has a potential to grow into mango tree again and to give mango fruit as a result. In the same way, this mental volition or will has the potential to give result. As one of the mental factors, it just comes into beings and disappears. After that it leaves a potential in the continuity of beings. And this potential give results in the same present life or in the future life whenever circumstances are favorable which is good *kamma* or bad *kamma*.

When asked 'If the *kamma* has a potential, where is *Kamma* restored this potential?' the Venerable *Nagasena* explained it as a following simile- just as mangoes are not to be stored somewhere in the mango tree, we cannot say the mangoes are restored in trunk, in the roots or in the branches. We cannot say where mangoes are stored.[xiii] But dependent on the mango tree, when it grows up, dependent on the season, when it gets water and sunlight, the fruits are come out. We can say that it has only potential to give the fruits when the season will arrive and when it gets nutriment from the earth, from the water, from the air.Similarly we cannot see that the *Kamma* is stored in our consciousness, in our physical body. But depending on the mind and matter; it arises at the opportune time to give the results.

Every moment we do, say and think good or bad thing we are creating the fresh *Kamma* in this life. We are the result of what we were in the past, whatever good or bad we did in the past. Because we have done good *kamma*, we are reborn as human beings in this life. In this life, we are creating or incurring a fresh *kamma*, which will result in the future.

Thus, we will not receive the result of *kamma* of another person. Another person cannot give us the result of *kamma*. We alone are responsible for our self. We have to rely on ourselves to make our future life of good or bed. Nobody is responsible for us.[xiv] We are the architects of our future life. We can make the future life into good life or bad life. *Kamma* is our creator, beings are owners of their actions, heirs of their actions, they originate from their actions, are bound to their actions, have their actions as they refuge.[xv]

The doctrine of *Kamma* explains the inequality in beings not only human beings but all beings, whether we are ugly or poor in this life, we can make our future life better by incurring wholesome *Kamma* in this life. When we accept the doctrine of *Kamma*, we also accept the doctrine of rebirth because *Kamma* and rebirth are two sides of one thing. If we accept in present life, we must also accept the past life, as well as future life. In our daily experience, we know and accept 'today'. If we accept 'today', we must accept 'yesterday' and 'tomorrow', because they are concept of the people. They are components or parts of one series. In the same way, we have different thoughts at each moment. There is no time or space between today and tomorrow. Likewise, rebirth is just another moment after the death in this life. There is no time or space between 'this life' and 'next life'. It is another moment of next life. For example, today is December 31st. After midnight, Tomorrow will be January 1st. It is called that time as new day, new month, New Year. But actually, it is one moment after the other moment.[xvi]

In the same way, one's death comes. This death occurs just at one moment. Immediately after death, there is a rebirth. It is just one moment after death. In this way, we Buddhist believed that there have been many rebirths in the past. We will have many rebirths in the future. So long as we cannot eradicate ignorance and craving or so long as mental defilements with us, we will be reborn again and again. And we believe in this rebirth without a permanent soul. Buddhism accepts the doctrine of *Kamma* and Doctrine of rebirth without a longevity soul.

According to the teachings of the Buddha, there is nothing we can call permanent soul everlasting and entity. Everything is changing in every moment. We are not the same in two moments. Who is reborn after death? It is not the same person. Neither is he, totally different, we have a "neither he nor the other". A person who is reborn in another life, is not the same person as in this present life. That person reborn is totally different from the person who dies however, they have a connection of cause and effect, Action and result from the action. If someone asked: 'if we are 20 years ago, now we are the same person or the different person?' we will reply, as 'neither the same nor the different'. If we say 'the same', we might be 20 years younger than now. In the same way, a person who is reborn in another world, it is not identical person, not the same person. And this is not totally different because he has the connection as Cause and Effect with the past person. In this way, Buddhists believe in rebirth without the permanent everlasting soul or *Aatma*.

In another example given is that of lighting one candle from another candle, the flame we get is not the identical to the flame of the other candle. It is a totally new flame since the flame of the previous candle still exists. In the same way, the rebirth of beings is occurred without the unchanging of a permanent soul. One is reborn from one existence to another, that means the different mental and phenomena although they are changing every moment; there is a sort of continuity running to the series of life.

2) Conclusion

In one of the mind processes, *Vithicitta*, called Rebirth-linking process, it has been explained that "the one who is on the approach of death, the death consciousness, the consummation of the present life, arises and ceases in the way of death. Immediately after that death consciousness has ceased, a rebirth consciousness of the appropriate kind arises and is established in the subsequent existence, apprehending the object thus obtained. It is generated by a volitional formation that is enveloped by latent ignorance and rooted in latent craving".[xvii] A being is a combination of physical and mental aggregates reborn according to his good or bad *kamma* what he had done in the past life. Both are working together interdependently in a flux of momentary change within the law of Cause and Effect. In that way, he continues his present life by doing or accumulating good or bad *kamma*, again, according to his understanding, in that life. And then, he will be reborn again as a new life in the future according to the result of *kamma*. In this rebirth, there is no permanent, everlasting, unchanging and eternal soul or *Aatma*. Only the result of *Kamma* causes one to reborn in new life or the only result of *kamma* reborn itself in new life. Whatever we get in the world good or bad, it is the result of the past *kamma*. The result of good action *Kusala kamma* brings good

result, and the result of bad action, *Akusala kamma* brings bad result. In this way, the continuous of rebirth occurs again and again so long as we have attachment and ignorance in our mind process.

On the question of "What or who will be reborn after deathand how can be explained *Kamma* and rebirth in the Absence of *AATMA*?" The answer is that "after death, one rebirth-linking consciousness together with physical phenomena, which is caused by *Kamma*, will be reborn in new life, in the absences of *Aatma*," according to the Doctrine of Non-self, the Doctrine of *Kamma* and Rebirth.

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The Ideal of Scientific Objectivity and the Theory-Ladenness of Observations in Psychiatry

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Abstract

Objectivity is a key concept in philosophy of science and also in day-to-day discourses on science. The nature and achievability of objectivity is discussed by philosophers of science. Talking about the nature of objectivity reveals various senses in which the term objectivity is used. In case of psychiatric disorders and the objectivity of classifications of psychiatric disorders there is an array of questions that may arise. Though the concept of disorder is partly value laden, in order to claim objectivity, the distinctions between types of mental disorders must still depend on psychological and biological facts. The Diagnostic and Statistical Manual of Mental Disorders (DSM) assumes that the categories of mental disorders are objective. However, the DSM categorisation being solely dependent on observation of symptoms, it is likely to be challenged by the problem of theory ladenness of observations. This essay discusses whether the possibility of theory ladenness would breachthe ideal of scientific objectivity.

Key words: Objectivity, Theory-ladenness, Psychiatric Classification, DSM, Contextuality

1) Introduction

The relevance of the notion of scientific objectivity is contributed; to a great extend, by its implication for authority and reliability of science. By objectivity means a property of various aspects of science pertaining to scientist, methodology, and also subject matter of study. In very general terms objectivity can be explained as the claim that scientific statements, methodologies, results, and scientists themselves should not be influenced by subjective perspectives or values. As these standards are conceived as the very essential characteristics of scientific enterprise, the term objectivity can be seen as used synonymous with the term “scientific”. That is, when something is said to be scientific it is assumed that it is objective, and similarly objectivity said of a body of knowledge is seen as guaranteeing it is scientific.

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Going deeper into the notion of objectivity, different conceptions of the ideal of objectivity can be traced. One major conception is that objectivity is about the **truthfulness to facts**. As per this view, scientific claims are said to be objective if they are faithfully explaining and describing the facts out there. This conception is underpinned by the scientific realistic position that there are facts out there which are to be discovered, analysed, and synthesized by scientists. Another important conception views objectivity as standing for **absence of normative commitments**. This conception occludes the involvement of value judgements in the "core of scientific reasoning". Objectivity is damaged by the involvement of values that are non-epistemic. Apart from these two conceptions, objectivity is given another explanation which concedes it as **freedom from personal biases**. What makes science objective, as per this view, is its intersubjectivity.

Objectivity is a concept that is seen either as an attribute of the scientist, or as an attribute of the methodology, or as an attribute of the subject matter under study. Objectivity of world means it has an existence independent of how it is represented by individual observers. Thus, the conception of truthfulness to facts presumes that the world has an objective structure. Scientific studies attempts to describe this objective structure as it is given. Any advancement in science, according to this view, is a replacement of a less adequate account with a more adequate one. This position on the objective structure of world is the foundation for the scientific realist argument that observation can decide conflicts between two more competing views. However, theory ladenness of observation has been explicated by thinkers and it became a hurdle for the "truthfulness to nature" conception of objectivity. Theory-ladenness of observation makes scientific statements exclusive to particular perspective determined by the theory which is accepted by the agent at that time.

In this essay I focus on the problem of theory-ladenness of science, as explained by Kuhn, and its implications for the ideal of scientific objectivity in relation to psychiatric classifications and observations in psychiatry.

2) The Ideal of Objectivity and the Classification of Psychiatric Disorders

Objectivity is a key concept in philosophy of science and also in day to day discourses on science. The nature and achievability of objectivity is discussed by philosophers of science. Talking about the nature of objectivity reveals various senses in which the term objectivity is used. Each of the conceptions illustrates the standards or characteristics that qualify a scientific claim as objective. We can construe the different conceptions of objectivity to three major heads namely: (i) truthfulness to facts, (ii) value-neutrality, and (iii) freedom from personal biases. Among the three, the standard of truthfulness to facts attaches objectivity to the subject matter under study, as an attribute of it. In other words, it conceives the external world, which is the subject of scientific studies, as having an objective structure that is independent of individual perceptions. It supposes a realistic world view according to which there is mind independent world.

When it comes to the objective reality of psychiatric disorders and thereby to the objectivity of classifications of psychiatric disorders there is an array of questions that may arise. Though the concept of disorder is partly value laden, in order to claim objectivity, the distinctions between types of mental disorders must still depend on psychological and biological facts. The classificatory system thereby can claim to have been truthful to facts. The major classificatory system of psychiatric disorder is the diagnostic and statistical manual of mental disorders (DSM). According to DSM the categories of mental disorders are objective. Rachel Cooper writes, "A fundamental assumption of the D.S.M. project is that empirical research can tell us how mental disorders ought to be classified. When the A.P.A. committees developed the D.S.M.-IV they reviewed thousands of empirical studies. These studies examined matters such as the biochemical correlates of disorders, how people with different disorders respond to particular treatments, and whether a particular disorder disproportionately affects people of a certain age or sex. The assumption is that by examining all this data it will be possible to construct a classification system that at least approximately reflects the true natural similarities and differences between cases of mental illness. The similarities and differences between types of mental disease are assumed to be not only objective but also of great significance to psychiatric theory" (Cooper, 2004). To say that psychiatric disorders have objective reality is to say that they are natural kinds. "'Natural kind' is a technical term used by philosophers to refer to the kinds of thing or stuff studied by the natural sciences. Sodium, fleas, dandelions, and electrons are all examples of natural kinds. Members of a natural kind are thought to be naturally similar to each other because they are alike at a fundamental level" (Cooper, 2004).

George Graham in "Being a Mental Disorder" tries to explain what makes a mental disorder an objective reality and to illustrate what is the nature of their reality. Graham's central argument is against the brain-disorder model of mental-disorder realism. The brain-disorder model is equating mental disorders with brain disorders which have physiological damage of brain as causal factor. Given that, the brain-disorder model is an attempt to establish that mental disorders are natural kinds, as they tries to pin point an essential causal story for a psychiatric condition. Graham asks the question whether it is necessary for mental disorders to be natural kinds, or brain disorders in order to claim reality. Graham's answer for this question is negative and he further explains how the existence of mental-disorders can be defended without abandoning RMD.

The term 'realism' definitely cannot be used to mean the mind-independent existence of mental disorders as it may be used when we talk of other entities such as molecules. Another sense in which existence can be talked of is in the sense that we employ to assert the existence of any social constructs. Graham says Father's Day exists only as a social convention, thus dependent on human being's practice of labelling. This sense of reality is thus, in Graham's terms, act-of-classification dependent (AC dependent). That means if human beings have not performed the act of assigning a meaning to that particular expression it does not exist. However, realism about mental disorders holds that the ***act-of-classification independence*** (AC independence) is one of

the two necessary features required of mental disorders to be real. As per this standard, mental disorders do not exist as something relative to a social convention of classifying conditions. Rather they exist regardless of the practice of labelling, and as an inhering property of people. ***Inherence***, according to Graham, is the second feature or condition that realism about mental disorder regards as a requirement for being really existing.

How the defenders of RMD claim AC independence of mental-illnesses is with the help of the notions of brain disorder or natural kinds, or biomedical diseases. That is, the argument identifies mental disorders as brain disorders, which are believed to be AC independent. Through this identification act-of-classification independence is attributed of mental disorders. This line of defence is termed by Graham as ***mediated defence***. Whether mental disorders can be explained as brain disorders is not the concern for Graham here, though he takes the approach for granted. Graham is taking up a different question, that is, whether it is necessary that mental disorders should be brain disorders or natural kinds in order to claim existence. Here he proposes a different defence of existence of mental disorders. Using Graham's terminology, there is an ***unmediated*** way to prove the reality of mental disorders, in which we are not required to point out a damage in brain to attribute being to a mental disorder. This model conceives disorders not in terms of the abnormalities of the brain, rather in terms of the impairments in person's psychological faculties.

But the notion of theory ladenness of observations poses a problem here. Before discussing how the problem of theory ladenness challenges the claim that psychiatric disorders are natural kinds with objective reality, looking at the notion of theory ladenness would be helpful.

3) The problem of Theory-ladenness

Theory-ladenness is the idea that there is always a theoretical framework that is presumed and it is what shapes the perception. It is the implications that observation always contains perspectival-content. Allowing perspectival content in scientific content goes against objectivity in the sense of perspective-independence. Though it act on only a specific sense of objectivity it is worth considering, for denial of perspective-independence has implications to destruction of science's authority.

Kuhn asserted that observations are theory laden and therefore there are no observations that view the world as it is.

Kuhn's arguments on historicality of science and the theory-ladenness of data bring the idea of objective truth into question. Kuhn stresses on the point that scientific theories are products the human activity which is conditioned by the historical context in which they take place. And every scientific investigation is happening within the conceptual framework provided by the theories prevalent during that time. Kuhn called these fundamental assumptions underlying a scientific investigation as paradigms. Paradigms define a scientist's scientific outlook. More than a theoretical framework, paradigms are a compound of assumptions, beliefs, and values that are

held by a scientific community. And establishment of new theories, according to Kuhn, is an emergence of new paradigms. Once an old paradigm is replaced by a new paradigm the scientific researches happening during that point of time will be held within the frame work given by new paradigm. Every paradigm is talking of 'different worlds'. Therefore, Kuhn argues, no two paradigms can be compared with each other. This, he called, the incommensurability of paradigm. Kuhn's position on paradigms is against the position that science describes objective facts about the world that is independent of who is viewing it.

Kuhn's second argument, of theory ladenness of data, proposed the idea that there are no facts that are theory-neutral. Data are contaminated by theoretical assumptions. For him, it is impossible to find a set of data that all scientists with different theoretical persuasion will accept. Kuhn's argument of theory ladenness is attacking the scientific realist claim that conflict between different scientific theories can be resolved by appealing to empirical observations. Another consequence of this argument is that there can be no correspondence between objective reality and scientific judgements, or theories about them, if what is considered as the objective structure of world itself is relative to a paradigm.

The pertinence of Kuhn's argument here is that it implies that objectivity is never attainable as an ideal of aperspectival truth. Given that all our observations are contaminated by the theoretical framework, our judgements becomes necessarily perspective relative. That is, the theoretical framework provides a particular perspective to the scientist.

Harry Collins (1988) presents an argument in *Changing Order: Replications and Induction in Scientific Practice*, with similar effects. Collins' argument attacks the replicability of empirical observation which is considered core of scientific enterprise. As Kuhn argued about the theory ladenness of observation, Collins shows that the compelling experimental results and the reliability of apparatus producing the result forms a circle that of dependence for justification. That is, to know whether an experimental result is right one needs to assume that the apparatus producing the result and the theory underlying it is reliable. At the same time, the reliability of the apparatus is confirmed by evaluating whether results produced are correct. Collins opines that this circle cannot be broken by appealing to facts, as scientific realism affirms, for there are factors that are connected with scientist's career and the social and the cognitive interests of the community. For Collins, the impression of a stable universe with an objective structure is contributed actually by the communal agreement over phenomenon, not by the order the nature has. Experimental results and observations being products of a collaborations of the world, the scientific apparatus and the psychological and sociological factors, is not aperspectival.

Having seen Kuhn's account of theory ladenness of observations, the possibility that observations in psychiatry can be theory laden cannot be discarded. According to Cooper there are kinds of perceptions that are theory-laden whereas there are certain other kinds of perceptions which are not theory laden. However, in the case of psychiatry, since the descriptions of

psychiatric disorders in a clinical set up is mostly based on psychiatrists observations of the patients, the theoretical beliefs of the clinician can have influence on the observed data.

4) Redefining Objectivity

The notion of objectivity concerned with being "truthful to facts" without getting distorted by subjective factors is in conflict with the fact that human knowledge is always perspectival. Admitting the view that scientific knowledge reflects the historical, social, cultural background in which they developed, as Kuhn did, gives the idea that scientific knowledge is contingent. Being dependent on perspective of the particular agent belonging to a particular historical context denies objectivity to scientific claims. Perspectivism in science concedes that both the processes of observing and theorising are both moulded by the specific perspective from where they are viewed from. The perspective is a result of combination of subjective aspects as well as the theoretical framework presumed. As we said earlier, one of the important consequences of this in science is that no scientific claims can be regarded as claims about the world. Scientific observations and theorising is, in this sense, relative to a particular point of view. However, despite all the doubts the ideal of scientific objectivity still persists, as it is a highly relevant notion in science. Now, what is that which can retain the notion of objectivity?

4.1) Can the pluralism about scientific objectivity solve the problem?

Along with theory-ladenness, the subjective contributions to the experience of the world abstract a scientific claim away from the ideal of objectivity. Now, if nothing can be found shared by the different perspectives, this position will lead to relativism. Taking the fact that human observation are always from a particular perspective for granted, an alternative account should be given to explain in what sense then a scientific statement of a theory can claim objectivity.

An easily accessible solution to the problem lies in multi-layered nature of the notion of objectivity. As mentioned earlier, aperspectival truth is just one of the relevance senses in which objectivity is been interpreted. Thus, refusing scientific claim this particular conception of objectivity does not imply that the claim is not objective. Heather Douglas (2007) gives a similar line of argument to substantiate her refusal of value-free ideal of science. Objectivity is a concept that has multiple nuances. Value-free meaning is one among the multiple meanings of the concept. For this reason, Douglas argues, science being value-laden will not inflict significant damage to objectivity. For Douglas, there is no necessary relation between "value-free" and "objective". There are several interpretations of the concept of objectivity that does not have any correlation with value-free. ". There are several interpretations of the concept of objectivity that does not have any correlation with value-free, namely; (i) Manipulable objectivity (attributed to the existence of things when they are manipulated as a tool) and (ii) convergent objectivity (objectivity attributed when different methodologies give the same result) are focusing on the human interaction with the world. Some interpretations emphasize the individual thought process, such as (iii) detached objectivity (prohibiting values from the place of evidence), and

(iv) value-neutral objectivity (taking a neutral-value position that is necessary). Concerned with social processes, objectivity has nuances such as (v) procedural objectivity (eliminating the need for personal judgment), (vi) concordant objectivity (inter-subjective agreement), and (vii) interactive objectivity (consensus on what the outcome should be). It shows, objectivity can be rescued even after the rejection of the value-free ideal.

The layered nature of scientific objectivity, as interpreted by Douglas, gives the impression that objectivity has senses which are irreducible to each other. The aperspectival-truth conception of objectivity has nothing to with other senses of objectivity, say manipulable objectivity or interactive objectivity. But the difficulty with this solution arises when we consider the question whether irreducibility imply that these different nuances of objectivity are unrelated to each other. What can be found common with all the different conceptions of objectivity is that, all of them are closely related reliability of science. A theory or a study being objectivity in any of the given senses is actually giving us reasons to rely upon the results of a study or a formulated theory.

Thus, the problem with appealing to the multiple nuances of scientific objectivity to solve the problem is that the different conceptions do not deny the possibility of objectivity to have a common core meaning. Looking back into the various nuances of objectivity Douglas lists, as having nothing to with value free ideal, can be seen interrelated and interdependent. Interpreting objectivity is a graded concept discloses what is wrong with Douglas' solution. Objectivity is not an "on or off" concept. Rather it has grades which are in direct proportion with the reliability of the knowledge. Lesser the objectivity the reliability is disappointed. Suppose a study satisfies, say all seven conditions of objectivity listed by Douglas, but it clearly is biased study. The result was apparently a distorted one for the researcher or group of researchers prioritized economical value over other values. In such cases we will certainly think twice before granting it the label of 'objective study'.

4.2) Objectivity as a Contextual Value

A different account of objectivity is in need which can remain even after admitting that scientific claims are perspective-dependent or theory-laden. It must be kept in mind that our focus here is not on whether reality has a perspective-independent structure or whether scientific methods can attain that objective structure. Rather, we will be trying to see if we can have an account of objectivity as a normative notion amidst the theory-ladenness and perspective-dependence of claims.

Inkeri Koskinen (2020) in 'Defending a Risk Account of Scientific Objectivity', attempts to present an account of objectivity based on the notion of reliance Koskinen argues the multiple senses of objectivity has limitations which may become a threat to objectivity. Illusions, subjectivity, idiosyncrasies, and collective biases are 'contrasts to objectivity'. Koskinen admits

that we, as human beings, has many limitations as epistemic agents, but we cannot claim that all these limitations have a bearing on the objectivity one can achieve in a study. According to Koskinen, "We start talking about objectivity only when facing certain kinds of risks. For instance, when the results of an experiment are incorrect because of malfunctioning equipment we do not worry about objectivity, we just say that results should not be taken into account. Epistemic risks arising from the imperfections of a machine usually do not induce us to talk about objectivity. Neither do occasional errors of reasoning: only recurrent errors can count as threats to objectivity, particularly ones arising from cognitive biases typical to us as human beings" (Koskinen, 2020, pp.1196). Thus, malfunctioning equipment does not affect objectivity, but a researcher's refusal to take the malfunctioning into account after being aware of it will do.

That means, only those epistemic risks that arise from the failings of individual agents draw the question of objectivity. Letting one's personal values influence a study in such a way that it produces a fraudulent result is clearly a failing of the epistemic agent. Taking Koskinen's view for granted, whether theory-ladenness has anything to do with objectivity of scientific claims can be decided by seeing if theory- ladenness is a failing of the epistemic agent conducting the study. In my opinion, an observation being theory-laden is not a risk that arises from agent's imperfections as epistemic agents.

Now, from Koskinen's position I draw a solution to the problem. Acquaintance with certain theories and adaptation of theoretical framework in the process of investigation are not cognitive biases capable of damaging objectivity. Perspectives of agents being shaped by the theoretical frame work makes objectivity something of a contextual nature, but it does not demolish objectivity. No human perceptions are 'a view from nowhere'. And this is a limitation that we have as humans. The inability to have a perspective-independent view of the world and the inability to keep away one's personal interests from interfering his/her study are not problems of the same kind. The objective structure of the world is not known by scientific methods, for all methods are loaded with theoretical conceptions capable of shaping the results. Thus, objectivity cannot be claimed in the sense that the result provides an aperspectival view of the world. Rather, what we can claim is that if the theory is the adequate explanation of the world, the scientific method gives a result that is in correspondence with the facts of the world. Here, I see objectivity as a contextual quality that is framed by theory which is in use.

Koskinen opines that the reliability of scientific study is affected by only those biases that may enter into the study, stemming from our failings as epistemic agents. In his words, "when we who use any of the applicable senses of objectivity call X objective, we endorse it. We say that we rely on X, and that others should do so too. But the word 'objective' is reserved for a specific type of reliance: it is based on the belief that important epistemic risks arising from our imperfections as epistemic agents have been effectively averted" (Koskinen, 2021. pp.1196). In Koskinen's view the tie between the notion of objectivity and the notion of reliability are much stronger that the relationship between objectivity and truthfulness to facts or objectivity and value-free ideal, or between objectivity and any of its interpretations for that matter.

Now considering Kuhn's point on the contextuality of scientific truths again, it is been held that as new theories replace the old one changing the whole conceptual foundation on which a study would base upon is not proving that that the scientific claims made from the older theoretical perspective was not objective. Rather it just proves the older theory was a wrong representation of the world. Certain statement was objective in the context of the older theory. With the emergence of new theory, what is to be considered as objective truths of the world also changes.

Here, I propose redefining objectivity as a contextual quality, conditions of which is (i) defined by the best view of the world that prevails at that particular period of time, and (ii) accepted by the scientific community appealing to the theory.

Whether interpreting objectivity as a contextual or contingent concept degrades the notion is out of question, objectivity is attainable only in this sense. Take any other conceptions of objections. Let us take interactive objectivity for instance. Interactive objectivity conceives objectivity as a consensus on what the result should be. Now, the conditions for giving consent to a particular result are not a static factor. With developments in the concerned area, interactive objectivity will have to revise its conditions.

5) Conclusion

Having to admit that there are social, political, cultural, and subjective factors that shape a scientific belief is where science fails to meet the standard that the goal of science is to discover the *truth about the world*, which is independent of individual subjects. The methods science adopts for the purpose of discerning the true structure of the world was believed to be objective. Kuhn's work, *The Structure of Scientific Revolutions*, is considered as responsible for drawing attention into historical aspects of science. Kuhn insisted that the development of science is embedded in the context. Also, all our observations are loaded by the theory that we accept. Theory-ladeness implies that none of our observations can give aperspectival truths of the objective structure of the world. This view aroused the question how we can attribute objectivity to scientific claim about the world when it is relative to a particular theory. Or in other words, whether say a scientific claim is objective knowing that it is the case only from the perspective of a given theory. In my opinion, seeing objectivity as a contextual quality solves the problem. When the standards to satisfy for a claim to be objective is held as standing only in the context of a particular theory the problem of theory-ladeness does not become a threat to objectivity. Granting that human being cannot reach at the objective structure of the world averting all their individual perspective, objectivity that we can claim will always be limited.

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Panpsychist Accounts in Indian Philosophical Systems

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Abstract

The panpsychist theory of consciousness is proposed as a potential solution to the 'hard problem' of consciousness that has been troubling the physicalist theorists for decades. Taking a panpsychist route helps them to escape this problem. However, the panpsychist route itself is not free from problems and is threatened by the combination and de-combination problems. This paper discusses the 'hard problem' of consciousness and the panpsychist approaches to this problem from Abhidharma Buddhist, Viśiṣṭādvaita Vedāntic, and Advaita Vedāntic perspectives.

Keywords: Consciousness, Panpsychism, Combination problem, Brahman, Jīva, Jagat, Dharmas

1) Introduction

Consciousness is arguably the most puzzling and mysterious phenomenon in the universe. This problem of consciousness is as old as the philosophy itself; however, the approaches toward the issue have changed radically over time. In the contemporary philosophy of mind, consciousness is the central issue. What makes this problem most challenging is that there is no agreement among philosophers regarding what we mean when we ask what the problem of consciousness is because of the significant difference in the concept and meaning of the term 'Consciousness.' Nevertheless, the core of these problems can be said to be the problem of the nature of consciousness and how consciousness is related to other nonconscious aspects of the universe. It is the primary subject of inquiry not only in philosophy but also in other disciplines such as neuroscience, cognitive science, artificial intelligence, psychology, etc.

The contemporary analytical philosophy of consciousness begins with the mind-body distinction given by Descartes. He divided reality into two spheres - the mental and the physical. Consciousness was the essence of everything that was mental while it was absent in the physical substances. This Dualism of mental and physical was challenged by many philosophers, resulting in doctrines such as Materialism, or Physicalism, and Idealism. Each of these theories attempted to explain consciousness in their own terms. Because of these differences, today, there are many theories of consciousness that can be broadly categorized

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into two groups: Metaphysical theories and Specific theories. The metaphysical theories attempt to locate consciousness within the whole picture of the universe. It includes (a) Dualist theories, (b) Physicalist theories, (c) Panpsychists theories, and (d) Neutral Monist theories. The specific theories focus on the specific features of consciousness. (a) Higher-order theories, (b) Representationalist theories, (c) Cognitive Theories, (d) Information Integration Theories, (e) Neural Theories, and (f) Quantum theories are some of the specific theories. Two central metaphysical theories of consciousness in the present times are the dualist and the physicalist theories. Both of these theories have fatal flaws. Dualist theories cannot answer the questions of mental causation, whereas physicalist theories are silent on the questions regarding the explanatory gap and the conceivability argument. Nagel (1974), Jackson (1982), Levine (1983), and Chalmers (1995) made us realize that there is no straightforward way to explain consciousness in physical terms. The seeming impossibility of an explanation of consciousness in physical terms and lacking any conception of material reality beyond the structural aspect makes panpsychism one of the most viable options. Panpsychism provides an escape from both of these difficulties and suggests that perhaps the fundamental reality of the physical world itself consists of some aspect of consciousness.

Modern sciences like Neuroscience, Psychology, and Cognitive sciences are only trying to understand the 'Easy problem of consciousness.' i.e., explanation of various cognitive functions like discriminatory ability, reportability of mental states, the focus of attention, and the control of behavior (Chalmers, 1995). Philosophers believe that even if all these questions are answered, the problem of experience will stand as it is because the subjective aspect of any experience is resistant to all the available methods of scientific explanation. Difficulty in explaining the subjective aspect of our experience is termed the Hard problem of consciousness by Chalmers (1995). Thinkers like Strawson, Chalmers, and Thomas Nagel believe that panpsychism can provide a solution to the 'Hard Problem' of Consciousness.

2) Panpsychist approach

Panpsychism is the doctrine that everything in the universe is phenomenally conscious or that experience is all-pervasive in the universe. However, this is an extreme version of panpsychism which is hardly accepted by any philosopher today. The most accepted version of panpsychism holds that some fundamental physical entities have mental states (Chalmers, 2017). It is a theory that attempts to encompass both mind and matter into one entity. Thus, it is a theory that states that the mind exists, albeit in different degrees, from humans down to animals, from trees to insects, from unicellular organisms down to the subatomic level. It exists everywhere. (Similar to Leibniz's degrees of mentality) This does not mean that panpsychism claims everything to be conscious. It only claims that fundamental entities are conscious and as far as complex entities are concerned, whether or not they are conscious depends entirely upon the arrangements of its fundamental constituents, on some kind of 'mental chemistry' which binds or transforms the fundamental consciousness of its constituents or the micro-consciousness into a complex form of consciousness, or macro-consciousness (Seager, 2020). Panpsychism

neither claims that high-level, human-like, sophisticated consciousness is ubiquitous. This confusion that panpsychism ascribes human-like consciousness to everything arises because of the ambiguity in the meaning of the term consciousness. The reason for this is the self-recursive structure of consciousness. Panpsychism is also not a spiritual doctrine like Pantheism (the belief that reality is identical with God), Panentheism (belief that God is both within and transcendent to the universe), Animism (everything in the universe possesses a spiritual essence), or Hylozoism (the doctrine that all matter has life).

Most scholars today find panpsychism implausible, but often for the wrong reasons. Philosophers like Searle and McGinn label this theory as 'absurd' and 'ludicrous,' respectively (Seager, 2020). There is no denying that panpsychism, *prima facie*, seems an implausible theory. One reason for this reserved opinion in most people about panpsychism appears to be that they have implicitly absorbed something like the mechanistic view of the material world and its conception of the nature of the physical (Seager, 2020). But the history of science has often shown that the theory that looks most implausible turned out to be true. Quantum mechanics, for example, in the 20th century, proved that matter is nothing at all like the "matter" that classical mechanics says it to be. Quantum theory asserts that fundamental reality does not consists of matter at all but instead of strange universal fields. Similarly, panpsychism promises to integrate the physical picture, the causal structure of the material world, and the personal view of the role of consciousness. Thus, it provides a point of reconciliation between the physicalist and the anti-materialist theories.

The primary motivation behind panpsychism is the theory of non-emergentism, which says that consciousness cannot just emerge out of something which lacks consciousness. Panpsychism can be traced back to Thales, and it has recurred throughout the history of western and eastern philosophy in one form or the other. In Indian philosophy, the traces of panpsychism can be found in Abhidharma Buddhism, Viśiṣṭādvaita Vedānta, Advaita Vedānta, and other schools derived from these. However, with the development of science, this view was considered absurd and unrealistic. With the recent discoveries in Quantum mechanics, this has once again come to be viewed as a plausible hypothesis. The contemporary panpsychist theory in the analytical philosophy of mind is borrowed mainly from philosophers like A N Whitehead, Bertrand Russell, and others. Presently the advocates of this theory are Thomas Nagel, David Chalmers, and Galen Strawson, among others.

Modern panpsychist theorists have classified panpsychism into three groups broadly: (a) Constitutive panpsychism, (b) non-constitutive panpsychism, and (c) Russellian panpsychism**.** Constitutive panpsychism holds that micro-experience (conscious experience of micro-entities such as atoms or quarks etc.) constitutes the macro-experience (conscious experience of macro-entities such as humans). Non-constitutive (Emergent) panpsychism holds that there are micro-experience and macro-experience, but the micro-experience does not ground the macro-experience. (Chalmers, 2017). In other words, microphenomenality does not constitute the macrophenomenality in the literal sense, but rather the macrophenomenality emerges somehow out of microphenomenality. Russellian panpsychism (along with insights from Arthur Eddington) holds that physics does not really tell us what matter is; it tells us only what it does.

There must be an intrinsic nature to physical things, but sciences tell us nothing about it. Conscious states are just the intrinsic nature of brain states. Russell called these intrinsic properties *quiddities.* Some of these quiddities are microphenomenal properties.

Constitutive Panpsychism can be further classified into Constitutive Micropsychism and Constitutive Cosmopsychism (henceforth Micropsychism and Cosmopsychism, respectively.) Micropsychism is a bottom-up approach that holds that the macro-consciousness is wholly or partially grounded in the micro-consciousness. Cosmopsychism, on the other hand, is a top-down approach that holds that all facts about macro-experience are grounded in the facts concerning the universe as a whole. (Goff, 2020).

3) Panpsychism in Indian Philosophical Systems

This paper focuses primarily on the panpsychist approach as found in the Indian philosophical schools such as Advaita Vedānta, Buddhism, and Viśiṣṭādvaita Vedānta. One distinction should be considered before diving into the discussion on Indian panpsychism. In Indian philosophy, the psyche of panpsychism is commonly understood as consciousness (cit) or soul (ātman or jīva) and not about mentality (manas, buddhi). The mentality is a general kind that covers mental capacities like memory, rationality, sensation, and perception. (Vaidya, 2022).

3.1) Advaita Vedānta

Advaita vedānta is a monistic school of classical Indian philosophy. The core doctrine of this school is *Brahma satyam jaganmithyā jīvo brahmaiva nāparaḥ* which can be roughly translated as -Brahman is the sole reality, this world is an illusion, and there is no difference between Brahman and jīva (individual soul). In Śaṁkara's interpretation of Advaita, the ultimate reality (Brahman) is pure consciousness. It does not have any form or attributes (nirguṇa or nirviśesa). The world, which appears to us as having parts, form, multitudes of selves, etc., is a result of ignorance (avidyā). In other words, this world can be called a vivarta of Brahman. Jīva who is illusioned by māyā sees the world in this form, but the one who attains true knowledge or Brahma-vidyā sees the true nature of reality as the sole Brahman. However, it should be made clear that the world is illusory from a transcendental (pāramārthika) standpoint, while from the practical (vyavahārika) standpoint, this world is real. Albahari (2018) interprets panpsychism in Advaita Vedānta as 'Perennial Idealism.' All that appears as concrete reality is fundamentally grounded in universal consciousness. This universal consciousness is beyond space, time, and causality limits. It also forms the common backdrop to all individual conscious experiences. The self is a cognitive illusion that makes the consciousness appear from a perspective or point of view. The existence of one universal, fundamental, cosmic consciousness, as discussed above, is termed cosmopsychism. Advaita Vedānta is interpreted as a form of cosmopsychism by the majority of thinkers while some of the thinkers also interpret it as a form of idealism. The whole world is grounded in universal non-dual consciousness, and the individual consciousness is derived from the same.

This view of cosmopsychism will also help solve the decombination problem that cosmopsychist theories face. Albahari (2020) suggests renouncing the primary assumption

present in every panpsychist theory that consciousness must belong to a subject. This will expand the scope of consciousness to ground everything we mean by the world, including its subjects and objects. She is taking Śaṁkara's metaphysics and argues that fundamental consciousness is aperspectival because perspectives presuppose a subject and an object other than that. However, in the non-dualistic theory of Śaṁkara, the perspective does not make much sense. Following this approach will help escape the de-combination problem.

3.2) Viśiṣṭādvaita Vedānta

Rāmānuja offers a different interpretation of the Upanisaḍs, which resulted in a different branch of Vedānta school called the Qualified non-dualism (Viśiṣṭādvaita). Vaidya (2022) translates this as "the organic unity of the many in the one through individualized embodiment and enlivening." For Rāmānuja, too, the ultimate reality is one, i.e., Brahman but unlike Śaṁkara, the world and individual jīvas are not unreal. They are equally real though they depend on Brahman for their existence and sustenance. Jīva and Jagat are different kinds of reality, but that does not make them any less real than the Brahman. Brahman is a personal God (Īśvara) who is not devoid of form or attributes like in Advaita Vedānta. Many attributes can be predicated to Brahman (saguṇa or saviśesa). This whole world (Jagat), including conscious and nonconscious entities, forms the body of Brahman. The world is a mode (prakāra), and the Brahman is the mode processor (prakākin). Reality has three layers- The supreme person, conscious finite selves, and nonconscious material bodies. The first is ontologically distinct from the latter two because it transcendent both, even though they are inseparable from it. (Vaidya, 2022).

The kind of panpsychism found in Rāmānuja's philosophy is also a cosmopsychist version of the constitutive panpsychism since the fundamental universal consciousness (God/ Brahman) grounds everything that exists in the world, inanimate or animate. Inanimate entities don't have souls; hence they are only sustained by the Brahman. On the other hand, animate beings do have souls which make them animate, nevertheless, these souls are dependent on the Brahman itself. A novel feature of Rāmānuja's philosophy is the relationship between Brahman and Ātman. He holds this is the internal relation of inseparability (apṛthak siddhi). There is an organic unity between Ātman and Brahman. The notion of embodiment can explain this.

Rāmānuja's answer to the de-combination problem may be that it is possible for finite conscious selves to be real and yet exist simultaneously with a supreme cosmic consciousness because there is an internal relation of inseparability between the two. Individual consciousness is the mode, whereas cosmic consciousness is the mode processor. There is a difference in the perspectives. The top-down perspective is the perspective of a supreme person where the conscious finite self is inseparable from the supreme person. The bottom-up perspective is the perspective of a conscious finite self where the world (Jagat) is seen to be distinct from the supreme person (Vaidya, 2022). Thus the de-combination problem can be solved.

3.3) Abhidharma Buddhism

Vasubandhu in his Abhidharmakośa-bhāsya proposed a version of panprotopsychism. Panprotopsychism in the western world is the view that holds that the fundamental entities that are not conscious in themselves have certain special properties that make them precursors to consciousness. Thus, these fundamental entities can be said to be proto-conscious which can collectively constitute consciousness in larger systems when grouped in a specific configuration (Chadha, 2022). Similarly, in Abhidharma, the mental atoms (dharmas) collectively constitute our conscious experiences, such as feeling pain, joy, etc. Our general conscious experience that is temporally extended and uninterrupted is analyzed in Buddhism as a sequence of rapidly occurring events that are causally connected. Conscious experience is explained in terms of physical and mental events and processes (Skandhas). Vasubandhu regarded skandhas as aggregates of dharmas. Dharmas are simple entities that do not have spatial or temporal parts. Dharmas are neither substances, nor they are universals. It can be best understood as a 'trope' in contemporary analytic philosophy. Tropes are particulars that are located in space and time, but they are not extended. Everything can be understood in terms of the aggregates or set of tropes.

According to Abhidharma Buddhists, there are six kinds of consciousness: five corresponding to sensory organs, and the sixth is the mental state, i.e., higher-order mental states such as awareness of thoughts, feelings, etc. Each kind of conscious experience is composed of different kinds of dharmas; therefore, it is a kind of panpsychism where the proto-conscious mental dharmas cause our macro-consciousness.

Chadha (2022) believes that this version of panprotopsychism can solve the quality-combination problem. But panpsychism is more threatened by the subject-combination. She also gives a brief sketch of how we can solve the subject-combination problem. But that is still in a very raw stage.

4) Conclusion

This paper presents a brief outline of the panpsychist theories discussed in western and Indian philosophy. The schools of Indian philosophy discussed in this paper are Abhidharma Buddhist, Viśisṭādvaita Vedānta, and Advaita Vedānta. Abhidharma Buddhism presented a version of panprotopsychism, whereas each Vedantic system presented a version of cosmopsychism. Cosmopsychist approaches claim to solve the problem of de-combination, whereas the Buddhist theory only presents a rough sketch of how the problem can be approached to reach a solution.

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Philosophically in the 21st century?

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Abstract

Philosophy is the last resort where human emotions, tendencies, perceptions, and comprehension rest. It is in philosophy that we take refuge during various occasions such as deep sorrow, suffering, or intense pain or misfortune. Philosophy is thus god's/natures' gift to mankind. Philosophy is the transition point where human thinking changes its phenomenon and new paths are naturally and incidentally formed. This phenomenon offers solace and great contentment. Hence it is the truth, the life, the guide, and the way forward. So great writers have narrated philosophy in their writings, works, and throughout their lives. This paper throws light on how different writers made use of philosophy to drive home some very important and valuable life points which are even relevant to the 21st century.

Keywords: Perceptions, Life points, 21st Century, Mankind, Truth and Distress.

1) Introduction

Philosophy is relevant to recent times and it is an undebatable question. But what is significant is, in what way, Philosophy is relevant to recent times. In an era, where everything is data centric and even the smallest of the smallest decisions are based on social media reviews, our lives are data-driven. We tend to see reviews even when we have to go to a hotel, or a movie and act on others' views. We hardly have said on our intuition or own views. Hence, we have more dependability and we hardly are autonomous. Here comes the role of Philosophy in the fullest measure. A strong Philosophical base makes mankind strong in whatever situations he is. Philosophy is simple. But its effects are so powerful. For instance, Mahatma Gandhiji's philosophy of truth and non-violence is so simple it attracted millions even today. The saga of his Philosophy with which he enabled Indians to attain freedom is never ending or a classic that will not be out of print. There are two reasons for this. On one hand, it offers the strength of the soul and on the other hand, it offers resilience which offers the ability to withstand and overcome. Fighting against the British who annexed the whole world with these simple Philosophical tools is worth studying deeply. This also helps us to gain insights into how these can be relevant to recent times.

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2) Importance

Life offers a multitude of dimensions. Are we capable to handle these dimensions? It is debatable. What we can say in one word is that Philosophy is one way to achieve this dimension. Philosophy is the heart and soul of everything. What has no Philosophy underlying it has to be rethought. Yes, Philosophy is not part and parcel of life but life itself. Especially in a country like India, we find different philosophies, the popular one of karma. India is a great land with Philosophers who gave the world treasures of life. For example, Mahatma Gandhi, Swami Aurobindo, and Rabindranath Tagore lived their Philosophy and gave the nation a new treasure of wisdom. Internationally Great Philosophers such as David Thoreau and, Khalil Gibran offered great inspiration through Philosophy.

3) Analysis

Gitanjali (1910) is a song offered to God. The lyrics have a high degree of philosophical element. For instance, the beginning verse 'Thou hast made me endless…. such is thy pleasure ', (Tagore, 1956) offers great insight that combines spirituality as well as philosophy. It reflects on God, his creation, and a feeling of benevolence for the benevolent. Endless refers to permanent and long-lasting which refers to the soul that incarnates without any end. The relevance to human life is that God is the master designer of all. He with pleasure made us endless which also means permanent as the universe. The inner significance is that we are all part of the universal self and that we are bound to his making with pleasure which also signifies love and concern for his creation. When we are part of the universal self, no suffering or joy is our own. It is distributed across. Further, Tagore offered non-conventional means to seek God in whatever we do. He has no importance to incense sticks, clothes that one has to wear, or any modes of ritualistic worship. Often, we are caught up in situations where we do things very much as a part of one's custom. Tagores' philosophy calls us to break the chains and understand the very nature of things and go accordingly. This helps us to think rationally and act purposefully. This saves a lot of time and energy. This also calls us to have faith in the innermost sanctum of our lives and in what we do. What is required is an understanding of our own faith and unity.

Khalil Gibran (1983-1931) adorned unity of faiths because of his parental formation at home where people of different faiths were welcomed to their home. His book 'The Prophet' is a great classic which is never out of print even today. The quote of Gibran, "You talk when you cease to be at peace with your thoughts" has deep psychological and spiritual, and philosophical insight into human communication. We tend to speak a lot although we don't mean much and that we take as a pleasure. Gibran views mindless talking as due to a lack of coherence with thinking and thoughts. We talk a lot because we can't/ don't think much. If we know what we are thinking we can be at peace and keep silent. We tend to talk about what we communicate to others but to be at peace we need to know what we talk to ourselves which are our basic thoughts. The relevance of this quote to today's human life is that we need to have harmony with our thoughts to have harmony with

our life. Failure to maintain that inner connection to maintain harmony with thoughts entails great discontentment and confusion.

4) Implications

Thus, Philosophy is relevant and has implications in recent times and days ahead in the following ways:

a) Philosophy as a multitude of attitudinal confrontation and acceptance to situations, issues, and prospects is a boon to mankind in times of turbulence.
b) No humanities or social sciences is complete or absolute without Philosophy.
c) Philosophy is rooted in theory and practice. Hence, it is a guide and way ahead for our systems.
d) Everything rests on Philosophy. There is nothing great than solace in difficult times, or in times of uncertainty which Philosophy offers irrespective of person.
e) Our literature in various languages offers many views and lessons. What is important in recent times is that we have to promote an understanding of it means to derive implications.

5) Conclusion

In this era of the pandemic, the disease has caused the destruction of personal lives and those human achievements were not able to stop the greater distress. However, at this juncture acceptance and philosophical understanding of nature have caused much relief to the public.

Philosophy offers resilience to human life in difficult times. For example, when the WTO tower in the U.S was destructed, it offered implications to various aspects of human life in America rooted in philosophy. Hence, Philosophy can be a way forward or a backup to things and issues that mankind has been confronting from time to time. Thus, living philosophically in the 21st century has relevance.

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Refutation of Knowledge Closure Principle by Fred Dretske

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Abstract

Knowledge closure principle is an epistemic principle that underwrites most of the arguments formulated by skeptics. There have been disagreements among recent epistemologists regarding the validity of the principle. Fred Dretske is one of the epistemologists who try to invalidate closure principle and thereby trying to refute skepticism. Relevant alternative theory and the notion of Epistemic Operators are the significant concepts in his effort to invalidate closure. The paper aims at evaluating and responding to Dretske.

Key Words: Epistemic Closure Principle, Epistemic Operators, Relevant alternatives and Skepticism.

1) Introduction

Knowledge closure principle is an epistemic principle and is often referred to as epistemic closure or deductive closure. Epistemic closure principle states that if a subject S knows some proposition P and S also knows that P entails some other proposition Q then S knows that Q as well. Arguments with skeptical hypothesis use epistemic closure to attack knowledge. Epistemic closure principle is considered to be underwriting most of the skeptical arguments (DeRose 1999). Hence epistemic closure has gained attention among the contemporary epistemologists (See Dretske, Nozick, Stine, and Hawthorne). There are epistemologists who consider epistemic closure to be valid considering that epistemic closure is deductive and the structure of the principle resembles that of *modus ponens*. Despite the similarity between *modus ponens* and epistemic closure, there are considerable differences between them. *Modus ponens* states, if P entails Q and if P is true then Q is also true. On the other hand according to epistemic closure when S knows that P is true and S also knows that P implies Q, then not only the consequent Q is true but S also *knows* that Q is true (Dretske 2014). From epistemic closure it follows that knowledge is closed under known entailment. Dretske asks why S must know Q to be true. Dretske rejects the claim that knowledge is closed under known entailment.

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The aim of this paper is to provide a response to Dretske's denial of epistemic closure. The paper is divided into two sections. The first section of the paper details the debate on the validity of the epistemic closure principle. The second section is divided into parts. The former part of the second section explains Dretske's case against epistemic closure. The latter part of the second section is concerned with the analysis of Dretske's arguments against the validity of epistemic closure and objections to those arguments.

2) Denial of Epistemic Closure Principle

In the beginning, it was mentioned that skeptics frame some of their arguments based on skeptical hypotheses.

P1. S does not know that not-H (H is a skeptical hypothesis).

P2. If S does not know that not-H then S does not know that O (O is a necessary implication).

C. Therefore, S does not know that O.

The initial responses to skeptic's arguments were from Moore. But Moorean response emphasized on the first premise of the argument. It was also noted that Moorean response also formulated the arguments based on closure. Dretske and Nozick are some of the prominent epistemologists who found the second premise of this argument to be problematic and questioned the validity of the closure principle that underwrites this sort of an argument. By denying closure principle Dretske and Nozick tried to provide their own account on what constituted knowledge. Their aim was not simply to reject epistemic closure but to refute skepticism. Nozick's account on knowledge and rejection of epistemic closure mainly depends on his notion of subjunctive conditionals. Despite the general conditions for knowledge like P is true and S believes that P, Nozick provides two more additional conditions for knowledge. The first additional condition states, if P were not true, S would not believe that P. the second additional states that if P were true, S would believe that P. These four conditions comprised the subjunctive conditionals for knowledge (Nozick 1981). The most significant aspect in Nozick's account is the third conditional, if P were not true, S would not believe that P. It is mainly because the third condition not only contributes to Nozick's account on knowledge but challenges the arguments by skeptical hypothesis. Consider the skeptical hypothesis brain in a vat and in that situation, the belief that you are not a brain in a vat does not satisfy this condition. If the belief that you are not a brain in a vat is not true, meaning, if you are a brain in a vat one would still hold the belief that it was true that is to say one would believe you were not a brain in a vat. One should also consider that in brain in a vat situation one is supposed to have all the perceptual experiences one would have. In that case one would believe everything you believe and that would also involve the belief that one is not a brain in a vat. Given this situation Nozick claims that the belief that one has hands does meet all of his subjunctive conditionals for knowledge. Therefore if we consider Nozick's subjunctive conditionals to be correct then one would know that he or she has hands and does not know that one does not know that he or she is

not a brain in a vat. With this argument Nozick refutes the second premise of the argument by skeptical hypothesis along with the epistemic closure that underwrites the argument.

Dretske's criticism to epistemic closure is based on his theory of relevant alternatives and epistemic operators. According to theory of relevant alternatives for a true belief to be counted as knowledge one must be able to avoid relevant alternatives. He claims that epistemic closure to be counterintuitive. One does not have to know all the known logical consequences of a belief but only the relevant alternatives. Dretske concludes that one need not have to know the skeptical hypothesis to be false in order to know some belief because skeptical hypothesis does not count as a relevant alternative. This will be discussed in detail in the following section.

On the other hand some of the epistemologists who hold the validity of epistemic closure are Stine and Hawthorne. Both Stine's and Hawthorne's arguments are a response to Dretske's rejection of epistemic closure. Stine tries to discard skepticism with the help of a relevant alternative theory along with accepting the validity of the epistemic closure. Stine do agree that we do know some of our beliefs to be true without the knowledge of skeptical hypothesis. Some of the skeptical hypotheses do not even count as a relevant alternative. Epistemic closure will not fail as far as range of relevant alternatives remains constant (Stine 1976). What constitutes a relevant alternative is prone to vary and that eventually leads to the questioning of epistemic closure. The range of relevant alternatives is often determined by the contexts. So in order to avoid such problems the range of relevant alternatives is to be maintained throughout. Stine also gives a qualified version of epistemic deductive closure. That version is as follows:

S knows p

S knows q

S knows (p-q entails r)

Therefore, S knows r.

Hawthorne in his reply to Dretske offers various versions of epistemic closure and defends the preferred version. He argues that if we refute epistemic closure then that will also lead to refuting of Distribution principle. Distribution principle is similar to epistemic closure. If one knows the conjunction P and Q. If one can deduce P from the conjunction then, one is also able to know P and similarly Q as well (Hawthorne 2014).

2.1. Dretske's Case against Epistemic Closure

Dretske argues that epistemic closure principle is counterintuitive. If some S walks into a zoo and sees a black and white stripped equine animal under the name zebra then S knows that there is a zebra. There being a zebra also guarantees that it is not a cleverly disguised mule. But someone might think that S does not know that it is a not cleverly disguised mule. Dretske rejects closure principle and thereby claiming that knowledge is not closed under known logical

entailment. Closure does not hold for mental states like regret. For instance one may not regret everything one knows that are implications to what one regrets. Suppose S regrets P. S knows that P implies Q. I would be wrong to say that S regrets Q as well. Dretske asks if that be the case then why epistemic closure would be valid.

According to Dretske one might know some P and that P has some implications and still may not know what is to be implied by that P is true. In other words Dretske argues that one need not have to know all the logical consequences of P to be true to know P. To refute epistemic closure is to argue that there are cases where S knows P and S also knows the implication but fails to know Q. Otherwise to refute closure principle is to argue that one does not have to know all the known logical consequences or implications of some P to know that P. One may know P despite the knowledge of the necessary implications of P.

To defend Dretske's claim that knowledge is not closed under known entailment and to refute closure principle he begins by elaborating the notion of transmission of evidential warrant or simply transmissibility. It does not follow that one's means of knowing of P will necessary be the same as for knowing what is to be implied by P. The ways for discovering P are not necessarily ways for knowing the necessary consequences of P. One might know P implies Q. Knowing some P from perceptual means does not necessary follow that one can know necessary consequences of P by the same means. For instance one could know that there are cookies in the jar despite knowing that there are mind-independent objects. That is to argue that one can see cookies in the jar and thereby come to know that there are cookies in the jar. But one cannot claim for mind-independent objects by the same means by which one came to know that there are cookies in the jar. Just by the knowledge of P implies Q one cannot claim that I can see P and similarly I can see Q as well.

By the notion of transmissibility Dretske is claiming that our reasons for believing P do not transmit to things which are to be implied by P. Here Dretske is trying to give a positive account for some of our beliefs. For instance when someone says that there is wine left in the bottle they are not claiming that what is left in the bottle is not merely colored water which is still a necessary known consequence of it. One's reasons for believing that there is wine left in the bottle does not transmit to the reasons for believing that what is left in the bottle is not simply colored water. Perception being one of the major means for knowledge does not transmit the evidential support to all the known logical consequences of what we know by perception.

In that sense the following argument is to be considered invalid.

R is the reason for S to believe P.

S knows that P implies Q.

Therefore, R is the reason for S to believe Q.

Dretske also makes a distinction between lightweight implications and heavyweight implications. When we perceive and come to know P one may transmit the evidential backing on to some of the lightweight implications but not on heavyweight implications. A case for knowing the lightweight implication would be, when you see that there are cookies in the jar one can also see that the jar is not empty which is a necessary known consequence. Heavyweight implications are something like the skeptical hypothesis, necessary consequences of P which are incompatible with P.

Dretske's main objection towards closure principle is that if someone is to know P they must also know the necessary consequences of it to be true. It may be the case that the reasons to know P may not transmit to the knowledge of Q but one should have other reasons to know that Q. That is to say one must have some reasons to know Q in order to know P. Without the knowledge of Q one cannot know P. Even if the truth of P depends on some of the heavyweight implications of one need not have to know those heavyweight implications to know P, says Dretske. Closure insists us to know that we are not deceived in order to know something like there is wine in the bottle, cookies in the jar, zebra in the pen etc.

Consider Q as a necessary consequence of P. With this assumption Dretske suggests few other ways in which this statement can be presented. For instance, if Q is a necessary consequence of P, then it can also be said that if it is true that P, then it is true that Q. If it is a fact that P, then it should also be a fact that Q. If it is possible that P, then it should also be possible that Q. If it is necessary that P, then it should also be necessary that Q. The purpose of listing out these statements is to point out some of prefixes used in these statements, such as, it is true that, it is possible that, it is necessary that and it is a fact that. These prefixes are what he calls the sentential operators or just operators. Since they function in such a way that when these operators are affixed to a sentence they operate on it to produce another statement. The striking similarity of these four prefixes is that they have a common property: if P implies Q, then, O (P) implies O (Q), where O is the operator. This kind of operators which exhibit this property are called penetrating operators. That is to say, in operating on P they penetrate to all necessary consequence of P (Dretske 1970).

All sentential operators are not fully penetrating operators. Some are non-penetrating and some are semi-penetrating. Operators like, reason to believe that and know that are considered as epistemic operators. Dretske emphasizes on these kinds of epistemic operators and their efficiency in penetrability. However he also lists out few other sentential operators like, assert that, hope that, strange that, mistake that, to show that there are operators which have least penetrability. For instance, she lost implies someone lost. But it may be strange that she lost and not at all strange that someone lost. And it is at this context that he argues that, since these kinds of operators fail to penetrate to certain necessary consequences of a proposition they should be categorized as non-penetrating operators. Having stated this he asks to consider the spectrum of penetration from non-penetrating to fully penetrating operators. The main point that he wants to

establish here is that no operator has the ability to penetrate fully on the necessary consequences of a proposition. Therefore all epistemic operators are semi-penetrating operators.

The specific problem he identifies with the closure principle is that S may know P and the entailment P implies Q and S may not know Q. There can be cases where S can know P without knowing the known necessary implications of P. Epistemic closure principle enables S, to know Q, if S knows P and the entailment P implies Q. If the epistemic operators are fully penetrating then S must be in a position to know Q because the epistemic operators should penetrate to all known logical necessary consequences of P but that is not the case. Even if we restrict the analysis on epistemic operators to the known necessary consequences, Dretske argues that epistemic operators are merely semi-penetrating.

Consider this example given by Dretske, S knows that this is a tomato and since it is a tomato the necessary consequence of it would be that it is not a clever imitation of a tomato.

P1. S knows that if it is a tomato then it is not a clever imitation.

P2. S does not know that this is not a clever imitation.

C. Therefore, S does not know this is not a tomato.

This example illustrates the way in which a skeptic argues with the help of epistemic closure principle. He adds further that this kind of argument can be replied with a Moorean response but he says Moore also presupposes the principle (Dretske 1970).

Dretske adds, when skeptic makes an argument presupposing epistemic closure principle the only difference between a skeptic and Moore is that skeptic presents the argument in Modus Tollens and Moore in Modus Ponens. The skeptic always brings in certain skeptical hypothesis like, the dream, demon, illusion or fake but the pattern remains the same in all the arguments (Dretske 1970). Dretske argues that, skeptics assume epistemic operators like ‘knows that’ as fully penetrating. Most skeptical arguments try to exploit those consequences of a proposition to which the epistemic operators do not penetrate.

Epistemic operators penetrate only on relevant alternatives. To know something is to know it within some framework of relevant alternatives. This theory of relevant alternatives is similar to the lightweight implications mentioned above. Heavyweight implications do not fall in the purview of relevant alternatives. One does not have to exclude the irrelevant alternatives to know some P but only the relevant ones.

2.2. The response to Dretske’s denial

The main point in Dretske’s case against epistemic closure was the notion that knowledge is not closed under known entailment. Since knowledge is not closed under known entailment skeptics fail to employ their argument by skeptical hypothesis. But Dretske’s reasons do not stop the

attack from the skeptical arguments nor does provide adequate reason to discard closure. Closure principle does not insist someone to know all that is not P to know P but at least the known necessary consequences. "Perhaps, in order to know something, p, I do not need to know the falsity of all those things that are incompatible with p, but it can seem that at least I must know the falsity of all those things that I know to be incompatible with p" (Stroud 1984, 28). However there is a commitment for the subject to know the falsity of the things that are incompatible with P to know P. When Dretske proposes his theory of relevant alternatives he argues one has to rule out only the relevant alternatives. How do we determine what are the relevant alternatives.

When someone claims that P is P, they also claim that P is not not-P and that is by virtue of Law of Non-Contradiction. In regard to this, when you have a true belief P, in order for you to say that you know that P you must also be able to say that P is not not-P. In other words when you know P, it implies that you know what that P is not as well. So, to know P one must know what contradicts with P as well. Now, according to Dretske, do these contradictions be counted as relevant alternatives? Stine tried to solve the limitations of theory of relevant alternatives by restricting the range of the relevant alternatives but both Stine's and Dretske's approach is pragmatic and it does not have any logical backing up. When they consider the theory of relevant alternatives (i) an alternative is relevant when there is some reason to think it is true or (ii) there has to be some reason to think that it could be true. In both these cases they are looking for some reasons and that does not give an exhaustive explanation. The some reasons that they prefer to consider to make an alternative relevant one is still pragmatic in approach. The relevant alternative theory is not conclusive enough to expand knowledge and to answer skeptical worries. Any alternative can be made to be relevant by expanding the scope of relevance.

Dretske's aim was to refute skepticism by discarding epistemic closure. Abandoning epistemic closure can have various consequences apart from giving up Distribution principle. Epistemic closure enables us to expand our knowledge through valid deduction. Abandoning epistemic closure may even question the foundations of deductive inference as well. Dretske tried to provide conclusive reasons for adopting a theory of relevant alternatives for knowledge but that effort is not satisfactory as we have seen earlier.

3) Conclusion

Dretske's denial of closure solely depended on the claim that S does not have to know all the known consequences of some P to know that P. But is has been noted that without ruling out the incompatibles of P one cannot claim that they have conclusive evidence to justify their belief. To provide conclusive evidence he relied on his theory of relevant alternatives and that is nothing more than a pragmatic approach. Relevant alternatives may vary according to the context and to limit its scope one would have to provide a criterion that is not pragmatic. Otherwise, the skeptic's claws may still find ways to trouble the epistemologists.

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Socio-Economic Dimensions of Pandit Deendayal Upadhyaya's Integral Humanism and Its Relevance

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Abstract

Pandit Deendayal Upadhyaya (1916-1967) propounded the philosophy of Integral Humanism (Ekatma Manav Darshan) and drew the social and economical morality for the welfare of individual and society. As the individual, a society also has a body, mind, intellect and soul. The institution of family facilitates various types of support fulfilling the fundamental, physical and emotional needs of every individual from the society. Pandit Deendayal Upadhyaya says, "the social structure which has been developed in India is extremely scientific." Further he says that the individual and society must be mutually cooperative and conducive to authentic mutual development. The Four Purusharthas are connected to each other and every aspect has its own significance. Dharma maintains unity, harmony, force reflecting integrating principle. He wanted decentralization of economy for the welfare of individual and nation. Pandit Deendayal Upadhyaya advocated nation's economic growth with growth of values. BJP emerged as ruling party having manifesto of Integral Humanism of Pandit Deendayal. For the development of nation under the concepts of Antyodaya, Atmanirbhar Bharat and Sab Ka Saath Sab Ka Vikaas, the government of BJP serving the deprived and nation.

Keywords: Ekatma Manav Darshan (Integral Humanism), Samaj Shastra, Dharma, Decentralisation of economy, Purusharthas, Antyodaya, Atmanirbhar Bharat.

1) Introduction

Pandit Deendayal Upadhyaya was born on September 25, 1916 in Madhura, Uttar Pradesh. He passed BA examination from S.D College, Kanpur. In 1937 he joined RSS and he became General Secretary of BJS in 1953. He became president of BJS in 1967. He was died on 11th February, 1958. He was a great political leader of BJS and served the nation. He propounded the philosophy of Integral Humanism (Ekatma Manav Darshan) and drew the social and economical morality for the welfare of individual and society.

Samaj-shastra is the study of society and how it bridges an individual and a nation .Society is an entity of power and it is more powerful than state. Therefore, it is an obligatory factor to study the science of society called Samaj Shastra. The purpose of samaj-shastra is to bring

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about harmony between an individual and the society to ensure that there is no conflict between the two. A society is an organized entity of individuals who have come together for a common goal and an organic entity. As the individual, a society also has a body, mind, intellect, and soul. For instance, when any club is created, its members build the body; the activities of the club build its mind. The rules and regulations make intellect, and the reason for the formation of the club acts as its soul. A society has its own intellect, emotions, and strength. An individual who is otherwise weak may end up doing a heroic deed for the society he belongs.

2) Social Dimension of Integral Humanism

Pandit Deendayal says, "Thinkers who discuss the individual's development and his dependence on society are commonly seen advocating two separate strains of thought. There are some who believe that the development of the individual is supreme. They state the individual is the main concern. Society exists for him; society has been established to nurture him. There are others who give society primary importance. They are of the view that finally all individual behaviour is dependent on society and that is why it is appropriate to make society more powerful. To the extent that even if the individual is disregarded, it does not matter. In their opinion, every issue should be addressed only keeping society in mind and not the individual. Because of these two viewpoints, the Western nations have even divided themselves into camps, subscribing to two different schools of thoughts. But both these schools of thought are one-sided and not the complete truth. If the first category of thinkers disregards society in the name of developing the individual, then others, in their passion to make society the supreme embodiment of power, disregard the spirit of multi-artistic diversity of the individual. The dispute regarding the predominance between society and the individual in actuality forms two extremities of the same kind of philosophical system. The tug of war between the two only yields tension. In one, the individual develops at the cost of society and in the other, in order to strengthen society, the individual in whose name power is acquired is suppressed."[i]

The set of principles that maintains a balance between the individual and the society is called culture. Society is expressed through its culture which forms the harmony and designs code of an individual and social behaviour. Culture has the potential so that it can create harmony between the individual and society following their interests. In Indian culture the family institution became role model for the world, the word family is not only confined to the husband, wife, father, son and kids but the many other relationships like brothers, sisters, sister-in-laws, brother-in-laws, paternal and maternal uncles, grandmothers and grandfathers, etc. It is an institution which maintains a sense of belonging and joint life.

Family facilitates various types of support fulfilling the fundamental, physical and emotional needs of every individual from the society. At the same time the family institution demands sacrifice and service of the family members.

Pandit Deendayal expresses, "When the question of the protection of society arose, then those who had masculine aggression and strength naturally came forward. For the progress of knowledge and science in society, those people who were adept in the spheres of asceticism, knowledge and worship, volunteered. To make society prosperous, experts in the skills of art, builders of commercial trade and those who were adept at agriculture and cow protection, were

ready to undertake the responsibility to provide sustenance for it. Even those who could not do any of these things became useful for society. They took the pledge for service because of which every individual would get adequate leisure time for contemplation. They undertook the responsibility for the fulfilment of the small daily needs of society. No one was big or small among them. Being the inseparable parts of the *virat purusha* (cosmic man) in the form of society, all of them are essential and worthy of respect. He, who says that of the different parts of the entire body, some are supreme and others are trivial, can only be described as foolish. In this attitude to the different parts of the body, there is definitely no place for rivalry, jealousy or struggle. No part can be self-reliant or self-completing. 'Interdependent'- and if this has to be expressed with a more appropriate word, then 'mutually compatible'; this is the system that was constituted in India. The social structure which has been developed in India is extremely scientific."[ii]

A society cannot facilitate education and employment for its members when the individuals of that society exploits for their goals only. They do not follow the principle of paying back to the society. For the development of every individual of society, it is needed to strengthen the family and the society. The problems of a family are the problems of the society.

Hence, Pandit Deendayal advocates that the individual and society must be mutually cooperative and conducive to authentic mutual development. Following this there is notion of balanced society in which the individual develops himself and the society in a coordination manner.

Pandit Deendayal reiterated that a man should follow the four-fold 'Purusharthas' for the sake of development himself and society. But he focused more on 'Dharma' than other factors of four-fold Purusharthas. He envisioned the society where individual and society strives for mutual growth to build a peaceful and just world on the basis of Dharma. Hence, he found a total coordination among four Purusharthas which causes for the 'Chiti' and 'Virat' of the nation. He supported social reform and lashed at hierarchy and untouchability in Hindu society. He wanted harmonious relationship between individual and society.

For the harmonious society Deendayal says, "In a social system in which there is mutual compatibility in the behaviour between two individuals or society, the freedom of the individual and his respect will remain secure. The individual is independent; the meaning in this context will then be that he is free and because of this he should consider it essential to believe that he is competent and has the capacity to be compatible with others. Only he who competent and has the capacity to be compatible with others. Being compatible with others does not mean being dependent on them. Dependence has a sense of lowliness and selfishness. It has an attitude of subservience. Mutual compatibility does not have any kind of attitude of subservience. It has the freedom to deal in a compatible manner with others. This means that one's endeavours are displayed through mutual compatibility. In this way, the feeling that propels one to use the inherent powers in an individual to the maximum, to help others, provides one with the opportunity to develop in a sustainable manner."[iii]

3) The Four Purusharthas

The Four Purusharthas are connected to each other and every aspect has its own significance. In human life, we have to emphasize on each aspect of these according to the stage of life. The failure of the western idealism is the product of extreme trend of one ideal having unnatural to human nature. The Four Purusharthas are the perfect coordination of ideals justifying human nature following humanity. The spiritual quest and need of human being neglected completely in western thought where Indian thought successfully offered the solution for this challenge in the form of 'Four Purusharthas.'

Deendayal explains like this: Here in Bharat we have placed before ourselves the ideal of the four-fold responsibilities of catering to the needs of body, mind, intellect and soul, with a view to achieve the integrated progress of man, Dharma, Artha, Karma and Moksha are the four kinds Purusharthas-human effort. Purushartha means effort which befit a man. The longings for Dharma, Artha, Kama and Moksha are inborn in man, and the satisfaction of these given him joy of these from efforts to, we have thought in an integrated way. Even though Moksha has been considered the highest of these Purrusharthas efforts for Moksha alone are not considered to bring benefit to the soul. On the other hand, a person who engages in action, while remaining unattached to its fruits, is said to achieve Moksha inevitably and earlier.

And says, *Artha* includes what are known as political and economic policies. According to the ancient, it used to include justice and punishment as well as economics. *Dharma* includes all these rules, fundamental principles and ethical codes in accordance with which all the activities in respect of *Artha* and *Kama* are to be carried out and all the goals thereof to be achieved. This alone will ensure progress in an integrated and harmonious manner and lead ultimately to *Moksha*.

The four Purusharthas are connected to each other. Human happiness connected to all-body, mind, intellect and soul. In the similarly Moksha/Salvation being the highest bliss. All paths leads to Moksha.

4) Dharma

Etymologically the word "Dharma" is derived from the Sanskrit root "Dhri" which means to hold or sustain one of the definitions of Dharma is like this: Dharma is that which does Dharana of the people. The word Dharma implies maintenance and development. Thus the words Srishti dharma, Samashti dharma, Vyashti dharma will mean the Dharma that sustain Srishti (world), Samishti (society) and Vyashti (individual) respectively consider the material, moral and spiritual progress of the individual and of the society, the smooth running of their lives, the continuance and growth of their mutual understanding and cooperation, the continuous awareness of their life-ideals.

Dharma maintains unity, harmony, force reflecting integrating principle. If one maintains 'Dharma' it will protect him in its own way. Hence, Dharma offers the fruits who sow it. Among the masses of Mother India, Dharma has been very popular word for centuries. Generally people may utilize this term for justification in the realm of humanity. If we lead our lives with the practice of Dharma, we can feel that we are part of God's creation and his task.

The founder of RSS, Dr.Keshavrao Hegdewar considered the untouchability as a great sin. Veer Savarkar, freedom fighter and the leader of the Hindu Mahasabha demanded the abolition of untouchability, Varna system and caste system. The same demanded by Dr.B.R Ambedkar and gave legal safeguards through Indian constitution. The RSS and its political wing BJS, later BJP, began uniting the Hindus on the basis of nationalism following innate secular traits of Hindu religion within constitutional frame work Pandit Deendayal propounded his theory of Integral Humanism based on the Indian cultural and spiritual values leading to the great inclusive trends. He denied the present social practice of caste/varna systems which became obstacle for the individual growth. He purely denied the casteism and casteist politics. He supported staunch nationalism through cultural renaissance.

5) Economic Dimension of Integral Humanism

Pandit Deendayal Upadhyaya rejected both socialist economy and capitalist economy based upon their respective crises. He propounded a coherent economic philosophy as part of Integral Humanism. His alternative economic philosophy is synthesis between socialism and capitalism. In capitalist economy, an economy follows an extreme material consumption leading to excessive competition and quantity. This is no viable in the long time and paves the way for economic crisis.

The economy in current economic thinking, the absence of values; the obsession of economists with unqualified economic growth; their failure to take into account our dependence on the natural world- these are dangerous trends leading to dehumanization of the individual and disintegration of society. Post-war economic order was primarily a race between the USSR and USA. Both countries argued that their economic policies develop and protect economy of nations. But by the seventies of 20^{th} century, both countries failed to benefit humanity through their economic policy. The economy in current economic thinking, the absence of values; the obsession of economists with unqualified economic growth; their failure to take into account our dependence on the natural world- these are dangerous trends leading to dehumanization of the individual and disintegration of society.

- Equality and freedom in the economic life for every citizen.
- Abolishing economic exploitation in society.
- Employment for every citizen.
- Decentralisation of economic independence.
- Utility of natural resources in proper manner.
- Appropriate utility of technology.
- Balanced economy following an optimum level of state interference in the economic realm.

Pandit Deendayal wanted Nations economic growth with growth in humanistic values. Emphasized rural development and demanded development of small scale industries or cottage industries for the self-Reliance of nation which paves employment for everyone who can perform the job. In his economic model, he provided minimum standards of life for everyone. He did not believe in the large scale industries and economic man. He criticized Nehruvian socialist model from western thought which created economic, regional, linguistic and other

disparities. He denied both capitalism and socialism where man is neglected and regarded as mission of production. Pandit Deendayal Upadhyaya seeks middle ground between these two economic models. Approximately he followed Gandhi and economic model based on Indian cultural value system for the authentic growth of individual and nation developing humanity. He is economic self-reliance model for the authentic development of nation and preventing it from various forms of imperialistic forces. The historical fact is that India as the nation of ancient civilization, became a prey for Islamic and British imperialism since the pre-medieval period to modern times. The ancient Indian thought developed by Rishis, Scholars and Great Kings of India, was suppressed by these imperial forces.

6) Relevance of socio-economic dimension of Integral Humanism

Pandit Deendayal Upadhyaya decolonized the Indian thought and constructed the philosophy of integral humanism emphasizing on Indian cultural framework. At this juncture, he claimed the significance of Indian thought and the failure of western thought. For his theory he followed integral approach (synthetic way) and repudiated the Western approach as peace-meal approach. He brilliantly included pragmatic approach in his integral approach and achieved a political form for his theory. A national political party n, BJP, in free India free, which accepted Pandit Deendayal Upadhyaya's philosophy of integral humanism as its Central part of manifesto. This party has been transformed from responsible opposition party to ideal ruling party on the basis of this philosophy as its manifesto. Under the premiership of Sri Narendra Modi, the central government implementing various schemes under the concept of Antyodaya. And various policies and their implementation are being practiced on the basis of ideology of Pandit Deendayal Upadhyaya. Following the national integration the central government abolished 370 article and made Jammu and Kashmir as union territories in successful way. Central government managed COVID-19 and prevented the nation from this pandemic. A revolutionary measure against black money as part of abolishing corruption, central government did away with ₹500 and ₹1000 currency notes as a remarkable event in the history of world economy. Programs of government under "Atmanirbhar" are striving for the nation towards self-Reliance. Emphasizing on rural development government planned to develop the economy of Indian farmer also many states of governments, having BJP as ruling party, conducting various welfare programs and policies ideology of Pandit Deendayal Upadhyaya. Various NGOs and research institutions are functioning following philosophy of integral humanism propounded by Deendayal Upadhyaya. When India follows indigenous knowledge system including Indian cultural values, then only it can mean for Indian independence aggrandizing the masses .The BJP (farmer BJS) and its sister organisations are making real the dreams of Pandit Deendayal Upadhyaya who unearthed and decolonized Indian thought and wrote philosophy of integral humanism.

Deendayal Upadhyaya expresses: "We need decentralized economy. We will have to create a self-employed sector. The larger this sector is, the farther man will progress, the more humanity will progress and one man will be able to think about another. If we think about the needs and capabilities of every individual and give him work accordingly, then his abilities can be developed. India can give the word such a decentralized economy."[iv]

P.M Narendra Modi driving the party and government towards the service for India through implementation of the philosophy of Integral humanism. The concept of Antyodaya is acting as guiding formula, related to this Philosophy, to uplift of the deprived sections of the nation. The BJP, as ruling party, has been emphasizing on Antyodaya, good governance, e-governance, cultural nationalism, development and maintaining national security.

Through the Antyodaya concept, the NDA government under the Prime minister Narendra Modi endeavouring for the development of the deprived. It is implementing 221 schemes/programs uplifting the poor Indians. To control black money, he implemented the abolishing the ₹500 and ₹1000 notes and brought new enactment for the abolishment of terrorism.

7) Conclusion

Pandit Deendayal Upadhyaya deserved mutual cooperation and rejected all types of conflicts in society. Through a society of succour, according to him, individual can achieve his goals which in turn assist the society for the whole development in full manner. He signified Indian family system for the healthy Indian society and emphasized ancient Indian cultural ethical system through his theory of 'Ekatma Manav Darshan (Integral Humanism)' following his thoughts on economy, he wanted the economic development with the development of values. Deendayal advocated a nation of self-reliance leads to the successful economy of a nation. He demanded that state should provide minimum standards of human life for its subjects. He emphasized on cultural freedom for every individual in a society and decentralization of economy to fulfil the needs of every individual. This measure reduces economic inequalities and provides job for everyone. And the weak in the society should be secured by the state. In the case of agricultural economics, he demanded improvement of the income of farmers and production solving the challenge of food security. He had given several solutions for several challenges of contemporary issues and challenges through his philosophy integral humanism. Following his philosophy as its manifesto, the national party, BJP emerged as ruling party at central level and in many states have been striving for making reality of Pandit Deendayal's vision. Under the concepts of Antyodaya, Sab Ka Saath Sab Ka Vikaas and Atmanirbhar Bharat, the union government, following the premiership of Narendra Modi, has been implementing various schemes, programmes and policies to serve the deprived people of society and nation. PM Narendra Modi is successfully applying foreign policy based upon Pandit Deendayal's ideas. He controlled the black money through his revolutionary measure of demonetization. Also the union government successfully applying good governance and e-governance towards the growth of economy and welfare of the nation, in the form of digital economy.

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Consciousness and Perception; A Searlian Perspective

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Abstract

J R Searle is one of the prominent figures in contemporary analytical philosophy. Recently, his contribution to the philosophy of mind has received much appreciation from different domains. He has developed a theory of consciousness widely known as biological naturalism, according to which consciousness is a natural biological phenomenon. Consciousness, he says, is a higher-order neural activity that is caused and realized in the intrinsic structure of the human brain. In this context, it is argued that biological naturalism takes a radical move from all kinds of dualistic approaches like Cartesian substance dualism, property dualism of Spinozas, etc. It also questions most of the recent accounts of consciousness like behaviorism, functionalism, identity theory, and most importantly Computational theory of mind. This paper is an attempt to examine how Searle's account of perception fits with his theory of consciousness. The first section is the introductive part where I introduce Searle's account of consciousness, and the 2nd section will deal with his account of Intentionality. In 3rd section, the focus will be on perception, and finally an assessment of the paper included in the conclusion.

Keywords: Consciousness, Intentionality, Perception, Object, Experience, Content

1) Introduction

J R Searle, is one of the prominent figures in contemporary analytical philosophy. Recently, his contribution to the philosophy of mind has received much appreciation from different domains. He has developed a theory of consciousness widely known as biological naturalism[i], according to which consciousness is a natural biological phenomenon. Consciousness, he says, is a higher-order neural activity which is caused and realized in the intrinsic structure of the human brain. In this context, it is argued that biological naturalism takes a radical move from all kinds of dualistic approaches like Cartesian substance dualism, property dualism of Spinozas, etc[ii].

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It also questions most of the recent accounts of consciousness like behaviorism, functionalism, identity theory, and most importantly Computational theory of mind[iii].

Searle has developed a theory of perception within the backdrop of his concept of Intentionality. Intentionality according to him is a property of a conscious being to represent/ present the world. It is a natural phenomenon realized in the brain. He argues that we can develop a theory of perception within the conceptual scheme of Intentionality so that one can expose the ambiguities, and at the same time, provide an alternative solution to many of the puzzles that is inherited in the traditional account of perception like in the case representative realist, phenomenalist, sense data theorist's, etc.

2) Searle on Intentionality

Intentionality, according to Searle, 'is that property of many mental states and events by which they are directed at or about or of objects and states of affairs in the world.'[iv] Intentionality is a property of mind[v], and is natural to any conscious being. It is nothing but our (including some other higher conscious animal) ability to represent the world. We represent the world through different mental states. Once we represent the world through a mental state, that state could be counted as an intentional state. For instance, John believes that P, here P can be an object like chair or any state of affairs like 'it is raining outside'. Hence, what John does is that he/ she represents the world, and it is a different question whether John represents the object/ states of affairs as it is or not. All that we can say in this context is that John exercised Intentionality by believing P. Hence, "Intentionality is the feature of mental states which direct objects and states of affairs in the world."[vi]

In every intentional state there can be two fundamental properties. One is the psychological mode and the other is the representative/ intentional content. Every Intentional state consists of a representative content in a certain psychological mode.[vii] The psychological mode is the way our intentionality acts. For instance, John believes that P. Here, belief is the psychological mode whereas P is the representative content. One can represent the same content through different psychological modes as well. John can believe P, he/she can desire that P, want that P, hate that P, and so on. However, it is limited to the nature of the content as well.

3) Perception and Consciousness

Searle in his recent work *Seeing Things as They Are: A Theory of Perception*[viii] developed an account of perception within the backdrop of Intentionality. Like belief, action, desire, perception is an intentional state. In perception we have two fundamental components like every intentional state does, a representative content and a psychological mode. For instance, John visually perceives P, here P is the perceptual content and perceiving is the psychological mode. The peculiarity of perception among other intentional states is that it is a primitive intentional state

which is necessarily presupposed by other states. Perception is a primitive form of conscious intentionality. It is biologically as well as conceptually primitive like action. On the other hand beliefs, desires, hopes, etc are derivative forms of intentionality. They necessarily presuppose perception in their activity.

A visual perception involves at least three elements: the perceiver, the visual experience, and the object (more strictly: the state of affairs) perceived.[ix] Similarly In a successful/veridical perception there are two fundamental phenomena, namely the ontological objective object/ states of affairs and an ontologically subjective conscious experience of them. The former is always mind-independent i.e. objects like chairs, table whereas ontologically subjective represents our own experience which is observer relative phenomenon

The function of perception can be stated as a representation/ presentation of the world. Conscious veridical perception is supposed to represent how things are in the world. It is supposed to match the world. Hence, unlike intention and desire which are other conscious intentional states, perception is always supposed to fix with reality. If it fails to fit or represent or present or to fix with the world then it is not a veridical perception. For instance the perceptual experience of a snake on the floor by perceiving a rope. Similarly, conscious perceptual experiences unlike desire are not aimed at changing the world to match the content of the experience, rather experience directly presents the world as it is.

In Searle's account perception is an Intentional and causal transaction between the mind and the world[x]. It has got two senses of direction. The direction of fit is mind-to-world, and the direction of causation is world-to-mind. According to Searle conscious perceptual experiences are experienced as causal throughout, and the form of the causation is intentional causation. A veridical perception must be caused by the object it presents, otherwise, it cannot be counted as a conscious veridical perception. To put it in a different way, If one sees X, the perceptual experience E and E of X must be caused by the presence and features of the X, without which it cannot be supposed to be a veridical perception. In perception and hallucination, we may have type identical perceptual experience i.e. the content in both cases may be identical. But what distinguishes between them is that in the former case the content is caused by an actual object out there whereas in hallucination there is nothing out there that caused that content, but only the mental construction.

In every conscious perception, two senses of awareness are possible. Intentionalistic sense of awareness and constitutive sense of awareness[xi]. In the Intentionalistic sense what we are aware of is the ontologically objective object and state of affairs namely chairs and tables whereas in the constitutive sense we are aware of is the subjective experience itself that is ontologically subjective, in the sense it exists in us. Nobody else can have access to that subjective experience. Hence, Searle's theory of perception claims that the fundamentally our object of perception is always something existent out there which could be sharable and observable

Searle argues that "Perception of the appearance does not prevent us from the fact that we perceive the object itself." All perception is under an aspect, and the same object may present different appearances under different aspects. Hence, there is no way one can see the appearance of an object without seeing the object itself. The difference between a perceptual experience (visual) and a veridical perception (visual) is that veridical perception necessarily presupposes some perceptual experience whereas not all perceptual experience anticipates corresponding perception. For instance, one can have a perceptual experience of a red color without perceiving a car. But he/she cannot perceive a car without having some perceptual experience. But, it doesn't mean perceptual experiences are more fundamental than perception.

4) Conclusion

Searle's biological naturalism provides a realistic account of consciousness which tries to show the fact that consciousness is an existing phenomenon and the ontology of consciousness is subjective. One of the merits of his account is that it fits with the common sense understanding of consciousness. It is caused by the higher-order biological function of the human/ animal body, even though he refuses to reduce it to a mere brain process. In this context, one can say Searle goes on par with the Asatkaryavadins of Indian philosophy who argue that effect is as real as its causes are real. Here it is argued that consciousness is an effect of a certain biological phenomenon, however, still, it is real as much as the causes are real. Perception is a primitive form of intentional state and he argues once we draw perception within the scheme of Intentionality we may be able to show the ambiguities in traditional accounts of perception and at the same time, we may be able to show an alternative solution to those puzzles. According to his framework let's say that the representative theory, phenomenalism, and sense data theories differ from his account in treating experience itself as the object of perception which is a drastic mistake committed by the above theories which we can observe through the conceptual scheme of Searle's theory of perception.

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Epistemic Significance of Disagreement: Conciliatory and Steadfast Approaches

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Abstract

Disagreement is a common phenomenon in our day-to-day life. Given any belief we will find at least few people who will disagree with us on that matter. We can even find people who disagree with us even on matters like whether earth is round. Disagreements can happen even in most trivial things like where to go for dinner to more substantial matters like whether to launch a nuclear missile or not. Considering this pervasiveness of the phenomenon of disagreement it is important to understand its normative imports.

Keywords: Disagreement, Epistemic peers, Rationality, Social epistemology

1) Introduction

The fact that there are genuine disagreements among people is fairly uncontroversial. Yet not completely unchallenged. One such challenge comes from relativistic position. They can maintain that, the disagreements we observe in our day-to-day life is not genuine disagreements but they are just apparent disagreements which were caused by the idea that there is an objective truth out there. In short, everything is relative. But this sort of relativism is self-defeating. They undermine their own truth.

The fact that disagreement is a wide spread phenomena coupled with the fact that there are genuine disagreements demands more of our attention on the topic of disagreement. This can be done is two ways. One way is an attempt to provide a description of disagreement. The questions here will be: what constitutes a disagreement? Why do disagreements happen? What is the nature of its relation with other related concepts such us knowledge, truth, belief etc.? The second way is to ask questions about the normative aspects of disagreement. It is in this second way the debate on the epistemic significance of disagreements is concerned.

The central normative question raised in this debate is how should one respond to a disagreement. In order to appreciate the full weight of this question it is important to have some preliminary remarks on disagreements.

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Disagreements happen between two or more people. These disagreements are on the truth value of a particular proposition. In other words, two or more people disagree when they have two conflicting doxastic attitudes regarding the same proposition. These conflicting doxastic attitudes need not be necessarily contradictory. For instance, if we take a situation where the proposition "God exists" is in question. One of the parties believe this statement while the other does not believe in it. This example might give an impression that doxastic attitudes are always contradictory. But this is not necessary. There is more fine-grained formulation of doxastic attitude which allows for degrees of belief or credence value.

Disagreements happen when there are conflicting doxastic attitudes regarding a proposition. Now the normative question is to how to go about this disagreement. One can ask whether both the parties can rationally maintain their beliefs once they find about the disagreement they are having. How should they respond to the realization that the other person is disagreeing with them? Should they respond by reducing their confidence in the belief? Or should they hold on to their belief? Or should they suspend any belief on the matter? What is the rational response to the disagreement?

2) Kinds of Disagreements

There can be three kinds of relation between people who are disagreeing. One possibility is that one of the parties is an epistemic superior. In such situation the normative question is fairly simple to answer. If the person you find yourself disagreeing with is an epistemic superior of yours, i.e., S/he is in a epistemically better position to answer the question at hand, it is rational to reduce the confidence on your belief and possibly adopting epistemic superior's belief.

Second possibility is that you may find yourself disagreeing with someone who is an epistemic inferior of yours. Like a novice in a field which you are an expert in or a child. Such situation, even if you find your inferior disagree with you, it will be rational for you to maintain the belief you had in the first place. Since you are in a better position, compared to the person you are disagreeing with.

The third possibility is that, you may find yourself disagreeing with an epistemic peer of yours. An epistemic peer is someone who is more or less in the same epistemic position as you are in to answer the question at hand. The factors which determine this epistemic position will be factors such as evidence, expertise, cognitive capacity etc. How to respond to peer disagreements is not as straightforward as the other two kinds of disagreement. Most of the discussion concerning the epistemic significance of disagreement is related to peer disagreement.

3) Conciliationism contra Steadfast

There are two contrary positions regarding the answers to the question concerning the epistemic significance of disagreement. One is to hold that one should suspend one's judgement in the face of such peer disagreements. The other one is its contrary, one should hold on to the belief, despite the disagreement. First position is known as conciliationism and the second position is known as steadfast view. Thomas Kelly is one of the early proponents of steadfast view. His book chapter,

The Epistemic Significance of Disagreement presents one of the earliest arguments in support of steadfast view. In this paper I will explicate Kelly's position regarding epistemic significance of disagreement and attempt an evaluation of it. The claim that Kelly is trying to attack can be formulated in the following manner: any rational being who is confronted with a relevant disagreement should suspend their judgement. Some remarks about this position are due here. Firstly, in the literature, no one claims neither that all disagreements call for an amendment in one's belief, nor in every confrontation with a disagreement one should hold on to their belief. Hence the clause that 'relevant disagreement' demands special attention. There is no formal account for what counts as relevant, but mostly it is understood as disagreements with peers which are serious and genuine. Secondly, the position Kelly is attacking is an early version of conciliationism. This is evident from the fact that the position calls for a suspension of judgement. Tripartite doxastic framework is being adopted here. According to which there are only three doxastic attitudes one could hold regarding any belief. Either believe, disbelieve, or suspend judgement. Later works on the literature, makes use of more nuanced credence framework regarding doxastic attitudes. Kelly's own position regarding the issue as follows: Once someone has thoroughly understood the evidence and exercised his rationality efficiently, mere fact that a peer is disagreeing does not itself undermine her belief. Kelly's attack against conciliationism is constituted of two moves. Firstly, he alleges that disagreement leads to skepticism. When two people disagree with each other, this can lead to a skeptical attitude towards the issue at hand. If it is allowed to run wild this can lead to two possible skeptical situations. One is where the skepticism is generalized to a general skepticism towards factualism, i.e., there will be skepticism on whether there is an actual fact of the matter. We will have to contend ourselves with multiplicity of opinions. The other possibility is that, it could lead to a global skepticism. Since there are disagreement regarding almost everything, given this pervasiveness of disagreement, we will not be able to believe anything, we will have to suspend judgement on almost all matters. As mentioned above, Kelly is not claiming we should always hold on to our views. There are situations in which it is rational to amend one's views as a response to a disagreement.

Paradigmatic cases of this sort are, according to Kelly, cases were the one disagreeing with you enjoys some kind of epistemic advantage. This advantage can be in terms of superior cognitive ability or a privileged access to evidence. Kelly's main thrust is against epistemic significance of disagreements concerning epistemic peers. Kelly defines epistemic peers in the following way: Two people are epistemic peers iff:

1. They are equal with respect to their familiarity with evidence and argument which bear on the question

2. They are equal with respect to epistemic virtue Now the question is whether known disagreements among epistemic peers necessarily undermine the rationality of the belief.

Now if two people are truly epistemic peers, in an idealized sense, they do not have any reason to believe their own belief is any better than the others. In such a situation one will be forced to

suspend the judgement on the matter. This position presupposes that, given any proposition there is a unique rational doxastic attitude which is warranted. There is a considerable amount of literature on this issue, whether there is a unique doxastic attitude which is warranted. Kelly does not go on to challenge this presupposition. Instead, his strategy is to challenge the symmetry which is claimed among epistemic peers. His argument can be summarized in the following way: In order to hold on to your own belief in the face of peer disagreement, you should have some kind of epistemic advantage over your peer. In other words, there should be a break in the epistemic symmetry among peers. Kelly argues that, even after carefully scrutinizing the evidence, if the epistemic peer disagrees with you, the very fact that the peer is disagreeing creates an asymmetry. This gives an advantage to you over the peer.

4) Conclusion

From a first-person point of view of the one of the parties, the disagreement signifies that the other has misjudged the evidence. Kelly claims that this can be treated as a factor breaking the symmetry. This can give rise to following problem. One can ask whether considering this misjudgment as a epistemic advantage over the other, demotes the other from the status of epistemic peer. Kelly defends by, saying that this advantage is applied on a case-by-case basis and this does not mandate a demotion in peer-hood. He substantiates this with an analogy of chess players. Two chess players of the same skill level do not always play to draw. All that the person has to assume is regarding the particular case, she has done a better job compared to her peer. The first-person view that Kelly is appealing to has an obvious problem. First-person tends to have a bias. The first-person perspective bears a certain weight which pushes itself to the forefront an demands special consideration. This bias amount to saying that the view which I am holding is more likely to be true because I am holding it. Explicated in this way it sure seems to be implausible. The same argument has another issue. The weight first-person view has is not confined to a single party in the disagreement. It is present in both parties. Then the fact that both has this weight will cancel out each other when the situation is judged from a third-person perspective. And this third person judgement of the issue is demanded by the fact that the first-person views can be biased. Judgements from third-person perspective acts as a litmus test for the bias.

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Possibility of Free Will in Nietzsche's Perspective

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Abstract

Nietzsche proposes that, in reality, a Will can never be completely free or unfree; instead, any specific Will becomes strong or weak to some substantial degree. To be a strong Will means one can exercise their freedom. Freedom is the willingness to be responsible for ourselves. Simply it means it is a consideration of your genuineness by yourself. It is awareness about yourself, your taste, and accepting your individuality. So, the creation of subjectivity itself leads to the creation of freedom. This paper aims to show that, according to Nietzsche, freedom is not given to us; it needs to be achieved. Individuals can actively participate in creating freedom, in concluding that one is not a passive spectator of their creation of free will but an active participator.

Keywords: Free will, Subjectivity, Aesthetics, Art, Metaphysics, Will power

1) Introduction

Freedom is an evergreen question in philosophy. From the beginning, philosophers have engaged themselves in asking the question, what is ultimate freedom and the possibility of free will? Is it already given to us, or do we construct it the way we want to? In the present paper, I aim to explore the idea of free will according to Nietzsche.

Nietzsche, on the concept of free will

In Nietzsche, the notion of Free will develops in the sense of positive sense, not from constraints and interference but from freedom to participate. Individual choice is not simply a matter of free will but rather the freedom to do or to be something else. Freedom is the self-awareness of becoming. The idea of ‘freedom from constraints’ is only a fantasy. In Nietzsche's perspective, freedom is the expression within limits, and it is the identification of limitations that defines greatness.

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For example, there is a form of Japanese painting (Hitofude-Ryuu tradition) where the artist paints with just one brushstroke. Once the brush is lifted from the paper, the image is done; it is a challenge for great creativity. Or a poem is written with a fixed number of syllables, no more, no less, and the poet writes new poetry from those limited syllables. Hence, creativity is to produce within limits. Similarly, for Nietzsche, freedom means doing an action within those limitations. Human life is constrained by many things like cultures, traditions, biology, and circumstances. One can struggle against them in some sense and even reject them; nevertheless, there always be some or other constraints. Freedom for Nietzsche can be summarized in one word: ' creativity'; the word captures Nietzsche's view of freedom.

You are born into a particular pattern, a family, a social class culture, and a tradition; all of that cause a great deal about whom you become. But here, Nietzsche asks a lion-like posture of saying no, roaring against the convention. Suggesting the transvaluation of values, be the creator of your values according to your life. Nietzsche sometimes often says one has to trust one's instincts. When one acts based on impulse and instincts, one is often much more in tune with his life. Similarly, when you reason, what we are usually doing is accepting the wisdom of the culture around us, which may or may not be suited for us. Getting what's already been given will be quite against our ultimate interests. So a creative individual is participating in creating their subjectivity, so freedom is the by-product of this self-creation.

Here the question comes, what is the definition of Freedom in the works of Nietzsche?
"The 'unfree will' is mythology: in real life, it is only a matter of strong and weak wills."[i] From these explanations, we can see the possibility of Free will. Nietzsche argues that, in actuality, a will can never be completely free or unfree; instead, any specific will is going to become firm or weak to some substantial degree. Freedom is the willingness to be responsible for ourselves. Simply it means it is a consideration of your genuineness by yourself. It is awareness about yourself, your taste, and accepting your own individuality.

Nietzsche questioned all moral and religious orders. Why are we not able to access our free will? "From the beginning, Christian faith has meant a sacrifice: the sacrifice of freedom, pride, and spiritual self-confidence; it has meant subjugation and self-derision, self-mutilation. There is cruelty and religious Phoenicianism in this faith, which is demanded of a soft, differentiated, and often pampered conscience"[ii] Nietzsche vehemently criticizes both our moral and religious traditions and says they always prevent us from ever genuinely having free will.

He propounds that true free will is more precisely expressed by ambition and achievement. From the perspective of aesthetic justification, Nietzsche says that freedom means not going back to nature but must enjoin us to transcend nature. He claims it is the potential to fix a vision and act in such a manner as to conquer it. This is also known in his works as the Will to Power.

"Physiologists should think twice before deciding that an organic being's primary instinct is the instinct for self-preservation. A living being needs to release its strength; life itself is the will to power, and self-preservation is only one of its indirect and most frequent consequences"[iii] The struggle to attain the most excellent potential state in life is the supreme goal of the will to power. Contrary to desert-based free will, the will to power is only a platform for free will. Nietzsche considers such agency free will to be the most outstanding attainment, contrary to an ordinary endowment that deserts free will, the most commonly conceived form.

"We must know how to preserve ourselves: the greatest test of independence"[iv] True Freedom in Nietzschean view is the will to get assured and be accountable for their actions and passions, which need the struggle against hardship and an acceptance of life's pain and suffering in an optimistic life-asserting way. This doesn't mean the rejection of an individual's impulses and instincts. Shortly, it is the freedom from having to lean on them. But at the same time, it is the freedom to reject them categorically.

2) Conclusion

From this paper, we can assume that your freedom of the will is determined by the ability of your will, either strong or weak. When someone is ready to face the totality of life courageously, this is the way to freedom. To Nietzsche, a strong will can accept genuineness and authenticity; through this, be what you are. The creation of free will and the creation of subjectivity is not a separate process; it is happening simultaneously. To create their style for their character is an incredible and rare art; Nietzsche calls it art. Those people have shaped their free will by their participation; they denied existing laws and found new ways to live based on their genuine tastes and principles. Through this process, they are assuring their freedom. From these perspectives, you are not a passive spectator in the creation of free will but an active participant.

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Is there any significance of the *Care of the Self* in one's self-realization?

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Abstract

Most people will agree that one of the most important purposes of our life is self-realization. Because when a human subject becomes a self-realized subject, it can be assumed that s/he becomes creative, critical and an efficient subject for oneself as well as for others. Hence, this paper attempts to discuss, in particular, the importance and an implication of Michel Foucault's notion of the *Care of the Self* in personal, social and political relations for self-realization. However, this notion of self-realization is about how one can know truths about oneself, how one can realize one's process of subjugations, thereby one can achieve one's personal and political objectives in society by making one's existence a "work of art", which is unlike the Vedic account of self-realization where an individual achieves moksha, pure consciousness or perfect knowledge. The earlier approach to self-realization is about practical objective instead of an ideal objective of the Vedic account. Keeping this theme of self-realization in focus, this paper attempts to answer: 1) Does the notionof the *Care of the Self* help one in self-realization?; 2) How does the notion of the *Care of the Self* make one's life better as well as others?; 3) How doesthe notion of the *Care of the Self* linked with personal and political objectives?; and finally, 4) Is there any practical and contemporary relevance of the notion of the *Care of the Self* in our society?

Keywords: the care of the self, *parrhesia* (fearless speech), self-realization, conscience, moksha, social, political.

1. What is self-realization?

There can be several interpretations of self-realization from different philosophical perspectives. However, this paper discusses the sense of self-realization, which is practical rather than an ideal conception of self-realization discussed in the Vedic literature, such as the attainment of moksha, pure bliss or perfect knowledge, or pure consciousness. An attempt is made to understand the process of self-realization of an individual where s/he is already subjugated by personal, social and political norms. Thereby s/he makes himself/herself a self-realized human subject, which means a subject who has gained knowledge about oneself, who is now critical to norms and accepts any norms and any values with proper evaluation for the wellbeing of oneself as well as others.

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2. Significance of the *care of the self* in self-realization

In this section, an attempt is carried out to show the role of the Care of the 'Self'[2] in self-realization through personal (self-activities), social and political relations.

2.1 The Care of the Self

Michel Foucault's text titled *The Care of the Self* discusses in detail the acknowledged beliefs of people about the notion of care of the self in different traditions. It is a technique to make one's existence a work of art. It means mastering oneself and one's relations with others. It also means making one's existence creative, critical and innovative in one's speech, thinking and actions. It is neither about moral prescriptions nor reflections. It is a technique to guide spiritually everyday practices in speech, thinking and actions in the search for truth for "who are we?" today (1982, p.781). Foucault argues, "I think we could call "spirituality" the search, practice, and experience through which the subject carries out the necessary transformations on himself in order to have access to the truth" (2005, p.15). The meaning of the truth here is not anything related to transcendental truth, but it is about truths of our everyday life, which constitute the realities of our everyday life. These truths are given to us through different social sciences and cultural and social norms, which are socially constructed.

Moreover, different historical traditions and practices suggest several techniques for caring of oneself. However, we will discuss only two techniques of the care of the self, such as the cultivation of the self, and philosophical *parrhesia*.

2.2 The cultivation of the self

This technique of the care of the self is about intensifying a course of action with one's self. It does not mean to withdraw into the self, but one forms a relationship with oneself as a thing of knowledge to purify and modify one's conscience and actions to master oneself in relation to oneself and in relation to others to be an ethical subject. However, one can master oneself only when one knows truths about oneself and question their values as good or bad for oneself and others. It is about setting one's "ethos"[3]. This technique of the care of the self is a "soul service" (1986, p.54). It maintains a balance between one's soul and body. More emphasis has been given to the soul because one's soul's or self's job is not just to regulate one's body but also adequately to filter out things which are not suitable for oneself. It does not mean that one neglects one's body because one's self exists in one's body. Now we will proceed to discuss "philosophical *parrhesia*".

2.3 Philosophical *Parrhesia*

Parrhesia is a term that first appeared in Greek literature, 'Euripides'. The nominal meaning of this term is free speech. However, the one who practices *parrhesia* is called a *parrhesiastes*. Five essential characteristics are attached to this technique of the care of the self. These are frankness, truth, danger, criticism and duty. A person who practices *parrhesia* is frank in his/her speech which means s/he speaks whatever there is in one's mind without any force and hesitation. Second, a *parrhesiastes* always speaks the truth because he knows it is true, not because he infers something is true. There are two senses of speaking the truth. One is in the pejorative sense, where an individual speaks without qualification, like the chattering of one's

mind.

However, in the second sense, one speaks only when s/he knows it is true. There is an exact coincidence between belief and truth of a *parrhesiastes* (2001, p.14). However, this coincidence occurs in one's verbal activity, unlike the Cartesian approach to the truth of mental activity. It is a matter of courage to speak the truth because a *parrhesiastes* speaks contrary to what the majority believes for personal or political objectives. Third, a true *parrhesiastes* is one when he speaks the truth; he risks danger. Because he is weak in comparison to the ruler. Fourth, when a *parrhesiastes* speak the truth, there is a chance thathe will always hurt the other party. "The function of *parrhesia* is not to demonstrate the truth to someone else, but it has the function of criticism; criticism of the interlocutor or the speaker himself" (2001, p.17). Fifth, a *parrhesiastes* considers speaking the truth his/her dutybecause s/he is a free subject. However, there have been several shifts historically in this technique of the care of the self.

One technique is called *parrhesiastic* game. In this game, there is a dialogue between the *parrhesiastes* and the interlocutor. However, it is not the case that only another individual can be a *parrhesiastes*, but an individual can be a *parrhesiastes* to oneself to purify one's soul by telling the truth as a friend, guide, or master. In this way, one purifies one's conscience and develops s sense of self-realization. Foucault argues that "*parrhesia* was a guideline for democracy as well as an ethical and personal attitude characteristic of the good citizen" (2001, p.21). Later the technique of *parrhesia* shifted to philosophical *parrhesia.* Foucault contends, "philosophical *parrhesia* is thus associated with the theme of the care of oneself (*epimeleia heautou*) (2001, p.24). So, what is philosophical *parrhesia*? Philosophical *parrhesia* is "a *techne* for the spiritual guidance for the "education of the soul""(2001, p.24). However, one can raise the question, is it enough for an individual to be frank and courageous enough to speak the truth to be a *parrhesiastes*? It is not enough to have these qualities to be a *parrhesiastes*. Different historical and cultural traditions have suggested several qualifications to be true *parrhesiastes*. However, one of the most common qualifications apart from these five characteristics is that a *parrhesiastes* must have the proper education and some personal training to disclose the truth.

Following the notion of philosophical *parrhesia*, which is more about relationship withoneself than political relations, Foucault discussed the difference between "history of ideas"

and "history of thoughts". In the case of histories of ideas, a historian tries to figure out when an idea or concept appears, shifts in its meaning and its development. However, "the history of thought is the analysis of the way an unproblematic field of experience, or a set of practices, which were accepted without question, which were familiar and "silent," out of discussion becomes a problem, raises discussion and debate, incites new reactions, andinduces a crisis in previously silent behavior, habits, practices, and institutions. The history of thought, understood in this way, is the history of the way people begin to take care of something, of the way they become anxious about this or that- for example, about madness, about crime, about sex, about themselves, or about truth (2001, p.74). The technique of philosophical *parrhesia* with the history of thoughts can problematize the realities of truths ofour everyday life which can help an individual to analyse one's soul, subjectivity, or self. Thisproblematization through philosophical *parrhesia* helps a person to know 'who is s/he', which ultimately provides a

sense of self-realization. Therefore, one can set one's personal orpolitical objectives.

Michel Foucault contends that in a personal relationship, philosophical *parrhesia* assumes three types of activities connected to each other; 1) an epistemic role: an individual has to learn and teach truths about nature and the world; 2) a political role: an individual has a specific role towards one's political institutions, laws and the city; 3) exploration of the "relationships between truth and one's style of life, or truth and an ethics and aesthetics of the self (2001, p.106). However, the practice of philosophical *parrhesia* is not about just changing an opinion; however, it is about changing to a way of living in relation to oneself and others. Foucault explains this as follows.

> "These new *parrhesiastic* practices imply a complex set of connections between the self and truth. For not only are these practices supposed to endow the individual with self-knowledge, this self-knowledge in turn is supposed to grant access to truth and further knowledge. The circle implied in knowing the truth about oneself in order to know the truth is characteristic of *parrhesiastic* practice" (Michel Foucault, Fearless Speech, 2001, p.107).

This technique of the philosophical *parrhesia* in a personal relationship for the care of the self entails a relation between self and truth, which frees an individual from a self-entangled web of thoughts, truths and given truths to self-realization of "Who are we?". Thereby, one can make one's existence creative, critical and pleasurable for oneself and for others, and one can criticize, struggle and speak for one's personal or political issues.

3. Is self-realization a means or an end?

It is debatable whether self-realization is the means or the end. In a general sense, it is not difficult to understand that one gets self-realization through knowledge about the self or by eliminating the illusionary truths about oneself, which help us to understand "who are we?". Hence, if we try to place the notion of self-realization in the context of the care of the self, then I assume self-realization or self-knowledge will act as a means of caring for oneself. Because knowledge about the self is not enough to take care of oneself, it has to be practised as well. The ultimate aim of the care of the self is to master oneself.

If we discuss Indian philosophical schools relating to this issue, then it seems that most schools consider knowledge as a means for liberation, except the Vedanta school. However, it should be noted that self-realization or self-knowledge in the care of the self is concerned with the practical affairs of human life, which is a lifelong process. But the objective of self-realization or self-knowledge in the Indian philosophical schools is about an ideal goal, that is, spiritual liberation. Let us proceed to discuss some prominent schools as follows.

In the Jaina school, the right knowledge, faith and conduct about the reality will lead to the liberation of an individual. "Liberation is the joint effect of these three" (1948, p.120). And right knowledge is "the detailed cognition of the real nature of the ego and nonego, and is free from doubt, error and uncertainty" (1948, 221). In the Buddhist school, the ultimate end is freedom from the cycle of suffering. And the main reason for suffering is ignorance; hence the right knowledge and proper conduct regarding self and the world carry out freedom from the cycle of suffering, and therefore one will achieve Nirvāṇa. However, in Nyaya's philosophy, to attain liberation, which is the absolute absence of pain, "one must acquire a true knowledge of

the self and all other objects of experience" (1948, p.239). Moreover, in Sankhya's philosophy, liberation means the absolute "cessation of pain without a possibility to return" (1948, p.323). This school also claims that ignorance is the cause of suffering and that the right knowledge about oneself and the world is the way to liberation. However, in Mīmāṁsā's philosophy, knowledge of the self and proper following of one's duties must be carried out to free oneself from all "karma-ties" in order to attain liberation (1948, 389). In all these schools, knowledge seems to be the means to attain the end, which is liberation.

However, in the Vedanta school, the knowledge of the self means to attain pure consciousness or to become Brahman. The moment there is the self-realization that "I am Brahman", there is no distinction between the self and Brahman (1948, p.464). Here it seems that knowledge of the self that one is Brahman is sufficient to be Brahman. In this way, knowledge of the self is the end of pure consciousness or pure bliss.

Moreover, is it possible to have self-realization without anyone's guidance? In the care of the self, a friend or a mentor is required who can play the role of a *parrhesiastes* in our lives. In this way, he will disclose the truths about ourselves. But why do we need the presence of others as *parrhesiastes*? Foucault contends that Plutarch argues that we maintain a unique kind of relationship with ourselves, that is, "self-love". "This relation of self-love is, for us, the ground of a persistent illusion about what we really are" (2001, p.134). Therefore we need a *parrhesiastes* as a mentor to guide us. So, what if there is no one to act as a *parrhesiastes* for us? Then how can one take care of oneself? For an individual to tell truths to oneself, the thing required is *askesis*[4], according to the Greeks. It means "endowing the individual with the preparation and the moral equipment that will permit him to fully confront the world in an ethical and rational manner" (2001, p.144). Some prominent ascetic practices are; 1) 'examination of conscience; and 2) self-testing. However, is it possible that one can achieve self-realization in the absolute sense? Hanne Laceulle explains two states of self-realization. One is an ideal state, and another is a process to reach this ideal state (2018, p.95). In this way, self-realization is a lifelong process. Moreover, I contend that this ideal state of self-realization differs from the Vedic account of self-realization, which also proposes an ideal state of self-realization in the form of moksha or pure consciousness. However, in the Vedic account of self-realization, one attains spiritual liberation in the absolute sense, as claimed by the Vedanta philosophy.

4. Conclusion

The purpose of this paper is not to discuss the nature of the self but the role of the care of the self in self-realization; and how one can have it. However, the practice of philosophical *parrhesia* is a spiritual war with oneself which transforms one's way of life in relation to oneself, others and political relations as an individual's life are always affected by all these relations. *Parrhesia* suggests not just a problematization of one's freedom of speech, but a way of living in relation to oneself, others, society and politics. However, the absolute practice of *parrhesia* will be considered only in an ideal world. Nevertheless, it could be practised and discussed to know the truth of any issue affecting our way of life negatively or positively to make one's existence flourish.

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[2] Michel Foucault. *Discipline and Punish*, p.29. According to Michel Foucault, a self is the synthesis of our continuous experiences which gives an impression that there is something called self or soul rather than a substance or a soul in the Vedic sense.

[3] Michel Foucault. *Ethics, Subjectivity and Truth: The Essential Works of Michel Foucault* 1954-1984, p.286. Ethos means an individual sets a code of conduct in one's actions, speech and thoughts in relation to oneself as well as others to be an ethical subject.

[4] Michel Foucault. Fearless Speech, p.143. 2001. It means gaining theoretical knowledge and practical training, unlike ascetic practice of Chriatianity. However, according to the Greeks, it has a wider meanin

Intentionality of consciousness: A Heideggerian Approach to the theory of perception

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Abstract

The present paper offers an understanding to Heidegger's denial of consciousness and intentionality as purely mental phenomena. The point of departure in my paper is the epistemological structure on the basis of which Heidegger is proposing his thesis. I intend to show that Heidegger's apprehension of the notion of consciousness and intentionality as "directing oneself towards something physical" requires a thought to explain absent object cases. The idea for the paper stems from the two different views of consciousness, which appears as a central theme in the phenomenological tradition initiated by Franz Brentano and Edmund Husserl. In the first section of the paper, I will be describing the notion of consciousness as put forward by Brentano and Husserl and how their views were received by another phenomenologist, Martin Heidegger. The second section addresses how intentionality and consciousness is marked together to have natural perception of the world. I will try to see if intentionality and consciousness can only be ascribed to physical entities, if so, then how can we explain absent object cases as that of hallucinations and delusions. Third section presents a detailed analysis of the conditions necessary to have intentionality of consciousness with bodily presence.

To say that one is in a state that is (phenomenally) conscious is to say that one is having an experience, or one is in a state there is something it's like for her to be in. Some widely accepted examples of consciousness are feeling pain or dizziness and appearances of colour or shape. Every act of consciousness we perform, every experience that we have, is intentional: it is essentially "consciousness of" or an "experience of" something or other. All our awareness is directed toward objects. If I see, I see some visual object, such as a tree; if I imagine, my imagining presents an imaginary object, such as a car that I visualize coming down a road; if I am involved in remembering, I remember a past object; if I am engaged in judging, I intend a state of affairs or a fact. Every act of consciousness, every experience, is correlated with an object. Every intending has its intended object.

Keywords: Consciousness, Perception

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1) Introduction

Consciousness and Intentionality in Brentano, Husserl and Heidegger

According to Brentano, intentionality is the mark of the mental. He defines intentionality and consciousness as "every mental phenomenon is characterized by the intentional (or mental) inexistence of an object, and what we might call, though not wholly unambiguously, reference to a content, direction toward an object, or immanent objectivity. Every mental phenomenon includes something as object within itself."[i] These phenomena are to be analysed in terms of three fundamental classifications: presentations, judgments, and emotional or volitional phenomena (such as loving and hating). Presentations are the most basic kind of acts; we have a presentation each time when we are directed towards an object, be it that we are imagining, seeing, remembering, or expecting it. A judgement is a presentation and a qualitative mode of acceptance or denial. Emotions comprises love and hate, feelings, desires, acts of will and so on. And he holds not only that all these are marked by intentionality; but they have a kind of perception whereby mental acts are directed at or refer to themselves. For a mental phenomenon to be conscious is for it to contain such a perception of itself. Thus, according to Brentano, all mental phenomena are conscious.

Edmund Husserl presents three concepts of consciousness in his *Logical Investigations V* Vol 2:

1. What is conscious is whatever is a part of someone's occurrent experience; that is, what belongs to someone's stream of consciousness.
2. What is conscious is whatever is the object of inner awareness.
3. What is conscious is any mental act or intentional experience.[ii]

The above description of consciousness entails that according to Husserl, spatial perception is perspectival, meaning when we experience some object in space (say, a cube lying on a surface) we experience the object only partially, one-sidedly, perspectivally, via an "adumbration" (to use Husserl's terminology) of it. We cannot perceive the whole object in one go. When we perceive a cube, we first witness its front side, and as we move the cube the previously seen sides are adumbrated or hidden and we see the current side. Also, we anticipate the upcoming sides of the cubes when we are perceiving the current side. Likewise, Husserl maintains that we are never fully acquainted with the objects in the world as much as of our own mental states. His notion of phenomenological reduction renders a clear understanding of this point. According to the notion of phenomenological reduction, we should discard all our presuppositions of the world of objects and start our investigations from our own mental states, because one can have doubts about the external world but one's own mental state is infallible. The idea is to reduce the world of objects to pure consciousness, where the natural world is bracketed or erased and one concentrate on their mental act solely. Such is the view of consciousness in Husserl.

From the above description of consciousness, we understand that Brentano joins consciousness to presentation; that is, to appearance in a broad sense. To be conscious is to be a presentation that contains a perception of itself. And Husserl consider consciousness as the residuum which is left after the phenomenological reduction- that is, starting from the natural world to reaching pure consciousness. Heidegger, though marked his study of consciousness from Brentano and Husserl, but he also made a radical break with such understanding. Heidegger defines a phenomena as *how things show themselves to us*. And this "ways of showing" is such as is available from the perspective of one to whom things are shown, meaning we see these things from sides and perspectives which accounts for Hussserl's adumbration. Again, these "showing of things" include what Brentano describes as a "presenting" or a phenomenon based on a presenting. On this view, Heidegger is not ignoring consciousness, or denying its importance; he rejects the "inner awareness" and "phenomenological residue" conceptions of Husserl, and rather proposes a different framework for describing its forms- where "showing themselves" is understood either as "ready-to-hand" equipment, or "present-at-hand" occurrent entities in the world.

Present-at-hand entities refers to our theoretical understanding of a world made up of objects. When we talk about an object in isolation and we just look at the object as they are present. On the contrary, ready-to-hand entities describes our practical relation to things that are useful. The ready-to-hand entities are prior to the present-at-hand entities, because present-at-hand entities are not useful unless they become ready-at-hand entities. Let us understand the difference with an example, say a hammer. A hammer is a present-at-hand object because it is of no use unless we use it for hammering. Once it serves its purpose the object is no longer a present-at-hand object. Thus, Heidegger understands consciousness in terms of purpose. We are conscious of objects which are useful to us and our consciousness is always of physical objects, not of mental objects like unicorn or golden mountain.

2) Intentionality and Consciousness

Intentionality comes from the word intentio, which means "directing-itself- toward"; intentionality is the directedness of something towards something else, say mental state, for example- "What are you thinking of?" and "What are you thinking about?" So, if one is thinking about Hyderabad city, about the cost of living there, or about meeting someone in Hyderabad- then her thinking is directed toward Hyderabad. Intentionality is the mark of consciousness. All consciousness is not only consciousness but consciousness of something, intended to an object. Every mental phenomenon is "of an object" in the intentional sense.

This sense of 'intend' or 'intention' should not be confused with 'intention' as the purpose we have in mind when we act, say for example- she bought some wood with the intention of building a boat, or that she intended to finish law school a year later. The phenomenological notion of intentionality applies primarily to the theory of knowledge, not to the theory of human action.

"Consciousness is often understood in terms of a kind of fundamental self-transparency: the knowledge of one's existence and the awareness of the thoughts, perceptions, emotions, and volitions

within oneself".[iii] The characteristic feature of the conscious mind is intentionality, it's being always in each of its acts (perception, volition, etc.) directed toward something (an intentional object, which may or may not be a real existent outside the mind).

There is a deeper dimension of the intentionality of consciousness than its general understanding. To say consciousness is of something means that it intends the identity of objects, not just the flow of appearances of the object that is presented. When we perceive an object, we do not just have a flow of sides or profiles or a series of impressions of an object; we have one and the same object is given to us, and the identity of the object is intended and is given. All the profiles and all the aspects, all the appearances are given in one and the same thing. Identity belongs to what is given in experience, and we recognise the identity as belonging to the intentional structure of experience. This identity of one and the same object can be intended in absence as well as in presence.

3) Role of intentionality and consciousness in natural perception

To understand intentionality as merely directing itself towards something does not render a complete apprehension of the term. It is important to recognise how perception is made possible with this structure. We cannot talk about intentionality without the involvement of 'act' in it; all the forms of experiences- judging, representing, love, hate, and so on are acts. Act here does not indicate only activity or process; it means intentional relations. Intentional relation is our relation with the experiences that we are intending upon. All experiences that bear the character of intentionality are referred to as acts. For Heidegger, intentionality is possible only when there is a real object corresponding to the psychic state. We can only act upon objects that are presented to us. He has presented an example in The History of the Concept of Time to show how intentionality works in natural perception.

I am perceiving a chair in a room and I pushed it aside as it was standing in my way. In our perception of the chair, we undergo a psychic event; a psychic event is the totality of the human mind including both conscious and unconscious aspects of it. In this case, the seeing of the object in consciousness is the psychic event happening in our perception which corresponds to a physically real thing outside, that is, the chair. There arises an association between the subject (the reality of consciousness) and the object (a reality outside of consciousness). Now, going by Heidegger's contention, we can only explain cases of veridical perception and not any absent cases of perception, say for example the cases of hallucination and delusion. Hallucinations also have a kind of reality. It is metaphysically possible to have an experience that is subjectively indistinguishable from a veridical perception of an object, but where there is nothing of that kind being perceived. What happens when they occur is that we think we are perceiving when we are imagining. But to be able to hallucinate, we must enter into the process of intending. We could not hallucinate if we were not aware of the difference between perceiving and dreaming.[iv] There seems to be a general assumption in most of the accounts of consciousness and intentionality that there is a relation between the physical and the psychic. But it is not always necessary for this coordination to happen. Again, there can be cases of deceptive

perception too, where suppose I am walking into a dark wood and I see a person heading towards me. Upon closer look, that person happens to be a tree. So, it would be wrong to hold that every perception is a perception of something physical as Heidegger argues.

4) Perception and importance of bodily presence

Perception is the process of intentionally directing-oneself-towards the world without any sort of representation. It is the experience of responding to how the thing-in-itself shows itself to us. In other words, perception is direct and nonrepresentational. Heidegger claims that objects are directly presented to us without any mediation; thus, experience is transparent. Perceptual experiences are direct perceptual presentations of their objects. Human perception is determined by how we encounter things as they are. When I am perceiving a tree, I say I see the tree itself. And not any 'representations' of the tree, or image of it. I simply see it.

The perceived object as such has the feature of 'bodily presence'. The entity which presents itself as perceived has the feature of being bodily-there. Being bodily there means for the object to be physically present. There is a distinction in the mode of givenness to be made between the bodily-given and the self-given. To say the object is bodily there is the same as being self-given because it is there on its own without our knowledge of it. Also, they are not a representation, but a real thing existing on its own. And bodily there would mean when we place ourselves in order to conceive the entity. The distinction can be made clear with an example of an object of representation.

Representation is understood in the sense of simple envisaging. Envisaging meaning conceiving also means predicting or having a mental picture of something. Example- I can now envisage the India Gate which is in Delhi to my knowledge, but I have not placed myself before it. In this case, the object is itself given. It is not a representation or an image in my mind, a real object. But India Gate is not bodily given to me. It will be bodily given once I go to Delhi and place myself in front of the India Gate. Bodily presence is a mode of the self-givenness of an entity that plays a vital role in Heidegger's theory of perception. It is not necessary for what is itself given to be bodily given, whereas what is bodily given must be itself given. In the above example, even though I am not bodily present there, the object is still given. But if I am to be present there, it must be given. The self-givenness of the entity is required to have a bodily presence.

Heidegger mention two considerations that are necessary to have intentionality of consciousness with bodily presence. They are

1. Intentional presuming and its intentional fulfilment, and
2. Intentional comportments as expression[v]

The first condition shows that all our presumed intending are not fulfilled until it is bodily given. The presumed intending is the assumption of a thing which we make while representing or recollecting objects. It can also be the case that the presumed is given in its completeness in our thought, but it is not given in complete perception unless it is perceived bodily. The bodily

givenness of the object is fundamental to Heidegger.

The second consideration explains how perception works when we talk about things in our expressions, "that we see what we say of those things".

Suppose I give expression to my perception with the assertion "This chair is yellow and luxuriant." To give expression to perception can mean to give notice or to announce, an announcement of the act of perceiving, announcing that I am now performing it. I communicate that I am now having this perception. But does this assertion find its complete fulfillment in what is perceived? Are the 'this,' the 'is,' the 'and' perceptually demonstrable in the subject matter? I can see the chair, it's being luxuriant and its being-yellow but I shall never see the 'this,' 'is,' as I see the chair. "Colour can be seen, but being-coloured cannot. It is because colour is something sensory and real. Being, however, is not sensory or real. While the real is regarded as the objective, as a structure and moment of the object, the non-sensory is equated with the mental in the subject, the immanent".

I have argued that though Heidegger is of the view that we are only conscious of things that are presented to us, but he remained silent with the absent object cases. Towards the end of the paper Heidegger comes to a point where he says that when we perceive an object, we only see its colour, shape and other features but we do not see the "being" of the object, because "being" is something subjective(non-sensory) and it does not reside in the object. Having said this, one wonders how then can we be certain about the object being that object and not some other object. Also, I have attempted to open up the cases where there are no objects presented in front of us, like in the cases of hallucinations. Heidegger does not provide any substantial claim for these cases and he keeps his thesis limited to the perception of external object.

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Existence Is Not a Predicate: Understanding Russell's Project In "On Denoting"

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Abstract

The view that existence is not a genuine property of individuals has become a common/standard view in the early 20th century. Though some people have voiced more or less the same view in the history of philosophy, it was Russell who championed this view in his article "On Denoting". In this paper, first, I will argue that, according to Russell, existence is not a first-order property but a second-order property, a property of a propositional function. Second, I will elaborate on the Russellian project by responding to Parmenides's materialistic monism, which treats existence as a property of an individual. Third, I shall argue that the Russellian task of accounting for the cognitive significance of negative singular existential statements squarely depends upon accepting his claim about names being a disguised form of definite descriptions. In the end, I will point out the limitations of the Russellian project.

Keywords: Existence, Predicate, Denoting phrases, Singular negative existential statements.

1) Introduction

One of the fundamental problems regarding the notion of existence is whether it is a predicate/property or not. Before dwelling on the possible responses to this particular question, let us take a moment to understand the problem itself. One can ask: what does it mean to ask whether existence is a predicate/property or not? We can respond to this particular question by taking a look at the nature of properties and individuals as such. Properties and individuals are related via a relation called instantiation. An individual chair instantiates the property of being blue, whereas the property of being blue also has the property of being a color. So individual substances instantiate, whereas properties are being instantiated. If we understand the nature of properties in this sense of being instantiated, then we can also ask the same question regarding existence as well. If one takes existence as a property, then one can ask the following questions.

1. Is existence instantiated, and if so, is it instantiated by different individuals like Mark Zuckerberg, a chair or a cat in the same way?
2. Do individuals instantiate the property "existence" just like other properties like being red or being human, etc.?

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3. If existence is a property of individuals, then are their individuals that lack it?

Answering the above questions requires taking a substantive position on the nature of existence. However, there is no unanimous agreement among philosophers regarding the nature of existence. Broadly we can characterize three positions regarding existence. These positions are as follows:

1. The first view claims existence as a second-order property. People who take this view claim that existence is not a property of an individual. Both Frege and Russell take this position. For Russell, existence is a predicate of propositional function, whereas, for Frege, it is a predicate of a concept. One of the motives for "On Denoting"[i] is to account for the cognitive significance of negative singular existential statements and to explain it, Russell treats existence as not a predicate.
2. The second view claims that existence is a genuine property of individuals, but not every individual has this property. It means there are some entities which lack this property. It seems to me that the Greek philosopher Parmenides treated existence as a predicate while establishing his materialistic monism. At the same time, the ontological proof for God also treats existence as one of the predicates of god. In recent times, the Austrian philosopher Alexius Meinong has taken this position. According to him, there are some entities that lack this property, yet we refer to those entities using the (proper) names. On this account, proper names are devices of direct reference.
3. The third view (naive view) claims that existence is a universal property of individuals. This position faces difficulties in adequately accounting for the interaction of quantifiers and modal and tense operators.

The three positions have their own advantages and disadvantages. However, I will be only focussing on one position in this paper and contrast and compare to its rivalry when it is required. First, I will spend some time explaining Parmenidus' materialistic monism. I will argue that he has treated existence as a predicate while establishing his materialistic monism. In the later part of the paper, I will delineate two motivations of Russell in his article "On Denoting" and explain why he does not consider "existence" as a predicate. I will also point out limitations to the Russellian thesis.

2) Parmenides Thesis

According to Parmenides, only one material entity encompasses the whole world, and there is nothing else other than this entity. He calls this entity "Being," and his philosophy is termed materialistic monism. In establishing his material monism, he relied upon what is called the conceivability principle. In simple terms, to conceive of something is to assert that the conceived entity or thing exists. He claims that what is and what can be thought are the same. So he claimed that there is a connection between the "possibility of existing" and the "possibility of being thought

about." He reasons as follows: Whenever we think or conceive, our thought or conception has got subject or the other. Hence to conceive is to say that there exists the thing that is being thought of. But how do we move from the thinkability of a thing to the existence of the thing? Let me sketch out some details here.

1. If it is possible for X to be thought about, then it is possible for X to exist.
2. If it is possible for X to exist, then it is possible for X to be thought about.
3. Hence it is possible for X to exist if and only if it is possible for X to be thought about.

Parmenides also argues that it is impossible to think without any object. He seems to make a connection between the "impossibility of existing" and the "impossibility of being thought about". One can make sense of this connection as follows:

1. If it is impossible for X to exist, then it is impossible for X to be thought about.
2. If it is impossible for X to be thought about, then it is impossible for X to exist.
3. Hence It is impossible for X to exist if and only if it is impossible for X to be thought about.

Parmenides demonstrated his philosophical position in his epic poem. Let me quote parts of the poem to illustrate the conceivability argument that he has used to prove his materialistic monism.

1. (B2) But come now, I will tell you. . . the only routes of inquiry that are for thinking: the one, that is and that it is not possible for it not to be, is the path of Persuasion (for it attends upon Truth), the other, that it is not and that it is right that it not be, this indeed I declare to you to be a path entirely unable to be investigated: For neither can you know what is not (for it is not to be accomplished)nor can you declare it.
2. (B3) . . . *for the same thing is for thinking and for being*.
3. (B6) *It is right both to say and to think that it is what-is: for it can be, but nothing is not*. (emphasis added)[ii]

I'm going to focus on two phrases from the poem. Those phrases are: "It is" "It is not." What does he mean by "it" here, and how is he using "is" here? Is he using "is" as a predication or existential quantifier? It seems to me that Parmenides refers to "Being" as "it" in the poem, and he considers existence as a predication in the poem. And what is meant by B3 (for the same thing is for thinking and for being)? He seems to imply that thinking just is thinking of something that exists. And what is the meaning of "is for thinking?" Could it mean it is available for thinking? Or is it possible to thought about? Or is it a possible object of reference? And also seems to claim that we can only think of things that exist. So he asserts that there is a relation between thinking and what is real.

He seems to argue that nothing cannot be conceivable. Since nothing is inconceivable, nothing cannot exist. If it is impossible for nothing to exist, then nothing does not exist. Can we talk about the conceivability principle from a linguistic principle as well? If conceivability and speakability are equivalent, then one could also argue that what is speakable is. This means that if we can speak of, mention, or name something, then the thing that we are mentioning or naming is said to exist.

So the equivalence between conceivability and speakability implies that whatever is, is speakable and it has some reference. It picks out some entity out there in the world. Suppose we use the term A to name or speak of something. Then we must say, "A is." That means A is something, and it has some being. The linguistic expression "A IS NOT" would be contradictory and, therefore, false and meaningless. Accordingly, anything that we can think of or speak of has necessarily got some being. If they lack being, it is impossible for us to make propositions about them.

The main problem with Parmenides's dictum, from a Russellian point of view, is that it assumed existence as a predicate. Russell seems to argue that one should not treat "existence" as a predicate. He has used this intuition in addressing the problem of singular existential statements like "The present king of France does not exist" in his article "On Denoting." This sentence asserts the non-existence of the subject term "The present king of France." But in order for the sentence to be true, the subject term must refer to some entity of which the predicate "does not exist" is truly predicated. If that is the case, then the subject term (the present king of France) does not exist. This seems to be a contradiction. The primary motivation in Russell's On Denoting is to account for the meaningfulness of such singular negative existential statements. He contends that those sentences are cognitively significant, yet they do not commit to the existence of entities as such.

3) Russell's Project in "On Denoting"

Before talking about Russell's position, let us remind ourselves what we said about speakability and the real. By extending the Paramenides dictum, what is thinkable is we have argued for the equivalence of thinkability with speakability. We argued that if the equivalence relation holds between thinkability and speakability, then one can very well hold that to mention or term something is to say that it exists. So, according to Parmenides, a term refers to something that is actual. This claim is usually true for the subject-predicate statements. In a subject-predicate statement, a subject usually refers to or designates an existing entity. But as we discussed earlier, there seems to be a problem with the negative existential statements. One can claim that such statements are cognitively insignificant. However, on the face of it, those statements are meaningful. Then how do we explain the cognitive significance of such statements?

Russell has explained the meaningfulness of such statements in his article "On Denoting". According to him, a statement's cognitive significance or meaning is nothing but the truth value of a statement. So if he can assign a truth value to the singular non-existent statements, then we can successfully explain the cognitive significance of those statements. He has argued that singular terms in those statements are not genuine singular terms, and they can all be converted into denotative phrases or definite descriptions. According to Russell, definite descriptions are not genuine referring expressions. Instead, they are quantificational expressions[iii]. He has pointed out that the statements containing these definite descriptions can be meaningful without standing for or referring to entities. Let me illustrate this point with

two examples.

Consider the example "The present king of France is bald." The grammatical structure of this statement is similar to that of any subject-predicate statement. However, it differs from those statements with respect to their logical structure. The subject term in the example is considered grammatically a subject, but it's not a logically subject term. Hence it is not a proper subject-predicate statement. Russell has argued that the subject term is a denoting phrase, and it should be analyzed differently from that of a proper singular term. He has analyzed the statement as a disjunction of three statements (quantificational expressions) in the following way:

1. There exists some X, and X is the present king of France.
2. X is bald.
3. There exists one and only X, and he is the present king of France.

We know for a fact that there is nobody that is identified as the present king of France. Hence the first disjunct is false, making the entire disjunction false. Since we can assign a truth value to this statement, we can claim that this statement is cognitively significant. It is claimed that individuals do not enter directly into the proposition expressed by the sentence and are not part of the sentence's truth conditions.

Now consider a general existential and a singular negative existential statement like "Mark Zuckerberg does not exists" and "Sherlock Holmes does not exist." Russell argues that an ordinary proper name like "Mark Zuckerberg" is not a genuine proper name, and it can be converted into definite descriptions like "the youngest billionaire" or "the founder of Facebook," etc. We have seen that, according to Russell, definite descriptions are not genuine referring expressions. Instead, they are quantificational expressions. Hence the ordinary name "Mark Zuckerberg" can be converted into a disjunction of three quantificational expressions in the following way:

1. There is a unique person, X, who founded Facebook.
2. X is Mark Zuckerberg.
3. There is only one X who has founded Facebook.

Since the disjunction is true and a unique person is instantiating X in reality, one can claim that the statement is cognitively significant.

This way of treating ordinary names as descriptive phrases is helpful in accounting for the singular negative existential statements of the kind mentioned above. This strategy removes the need for entities to serve as the designation of the singular terms for the meaningfulness and truth of negative existentials. Take the example "Sherlock Holmes does not exist." The truth of this sentence does not require a designation for the term (Sherlock Holmes) of which nonexistence is

then predicated. One can say that "Sherlock Holmes" is short for the definite description "The most famous detective in the world." Then according to Russell's analysis of denoting phrases, the sentence "Sherlock Holmes does not exist" is written as the following: It is not the case that there is some X, and X is the most fictional character in the world. There is only one X who is the most famous detective in the world." Since the property of being the most famous detective in the world is not instantiated uniquely, the whole disjunction becomes false. Yet the sentence is meaningful in itself. Russell seems to decouple the relation between speakability and existence that Parmenides assumes. As we have seen earlier, we can meaningfully talk about the things that do not exist. Hence we can claim, against that Parmenides' thesis, that mentioning or speaking of something does not entail that they exist.

Russell's strategy in "On Denoting" depends upon two claims. The negation operator in the singular negative existential takes a wider scope. What does it mean to say that negation takes a wider scope in the singular negative existential? It means that the operator is applied to the whole sub-sentence rather than only to the predicate. For example, the sentence, "Sherlock Holmes does not exist," should be rendered as "it is not the case that there is a unique famous detective in the world." We are not applying the predicate "does not exist" to the subject term "Sherlock Holmes." Instead, the negation is applied more faithfully to the entire sentence as such. The second claim is that ordinary proper names like "Mark Zuckerberg" or "Sherlock Holmes" are not genuine referring expressions, and they can be converted into definite descriptions. Underlying these two claims, there is also one more assumption that serves to base these two claims. The underlying assumption in Russell's on Dentoing is that existence is not a predicate at all. Now I will turn to the debate concerning whether existence is a predicate or not and write more about Russell's take on it.

Russell thinks that existence is a higher-order property, and it acts differently than first-order predicates. He argues that assertions about existence are to be expressed through operators rather than by predicate terms. He distinguished between two types of statements: existential statements and predicative statements. He thinks that predicative statements add descriptions to things, whereas existential statements show that something actually exists. According to his analysis of existence, there seems to be no apparent difference between the two statements "The apple is red" and "The apple is red and exists." He argues that "existence" is a second-order property that applies to propositional functions. He says, "Existence is essentially a property of a propositional function. . . and it is of propositional functions that you can assert or deny existence"[iv]. If "existence" is a second-order property, then it is a fallacy to transfer to the individual that satisfies a propositional function a predicate which only applies to a propositional function. Hence "existence" is a 'property' or 'predicate', though not a property of individuals, but only of propositional functions. But what does it mean to say that "existence" is a property of a propositional function? Instead of indicating a property/predicate, existence only indicates whether something is instantiated in the space-time location. It means that to say that "dinosaurs do not exist" is to say that the property of

being a dinosaur is not instantiated; to say that "Mark Zuckerberg does not exist" is to say that some property—say, the property of being the only founder of Facebook is not instantiated.

4) Conclusions

Though Russell's thesis seems to be a coherent thesis, it has its own limitations. As mentioned earlier, Russell claims that some of the ordinary names are not genuine proper names and they are nothing but disguised definite descriptions. For him, names are not genuine reference terms. This claim about names being disguised as definite descriptions is countered with innumerable objections. For example, Russell claims that when someone uses a particular name, there is always a unique descriptive phase that is associated with that name that picks out a particular individual. However, there are cases where we don't associate enough information with a name to pick out an individual. At the same time, it is not the case that there is always a unique description that is associated with the use of a particular name to pick out an individual. One can have different descriptions for a particular name, all equally capturing the features of a particular individual. In those cases, Russellian theory doesn't give a proper explanation of how a name picks out the particular individual that we are referring to. It seems that there are cases where Russellian theory doesn't capture how the reference of names works, and thereby one can very well doubt the legitimacy of his claim about existence as well.

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A Buddhist Perspective on Human Emotion: Overcoming Negative by *Sati* (Mindfulness)

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Abstract

In day-to-day life, one is encountered destructive emotional states rather than constructive emotional states. However, one never investigates seriously how and why the destructive emotional states is taking place and what is the root cause of the problems. Likewise, one does not even find out the method to the solutions to the problems, particularly how to dissuade, prevent and suppress them. Also, one does not study how to handle and eradicate the arising of those destructive emotional states in a proper way. According to Buddhist teaching, it is clearly indicated that the cause of all human problems is generated by craving (*Taṅhā/Rāga*). 'Then how should one cope and eliminate craving (*Taṅhā/Rāga*)'? According to a Buddhist perspective, it is seen that the one who is affected and distracted by the destructive emotional states from time to time, he ought to put mindfulness (*Sati*) into practice. For this reason, in this paper, I would like to introduce the methods and ways of handling and eradicating the destructive emotional states with the Four Foundations of Mindfulness (*Satipaṭṭhāna*) along with the way how to apply the Four Foundations of Mindfulness with this contemporary world.

Keywords: Buddhism, *Taṅhā/* Craving, Humans, Emotions, Mindfulness *(Satipaṭṭhāna)*

1) Introduction

Feelings and reactions are always preceded by each and every moment of seeing, hearing, tasting, smelling, touching and the arising of our thought. Those feelings may be pleasant feeling (*Sukha-Vedanā*), unpleasant feeling (*Dukkha-Vedanā*) and neither-pleasant-nor-unpleasant feeling (*Adukkha-m-asukha Vedanā*). Through the experiencing with the pleasant things of life *(Sukha-Vedanā*), one reacts with sweet smile, laughter, excitement and agreement. But when experiencing with the unpleasant things of life (*Dukkha-Vedanā*), one reacts with the rejection, scowl, cry, boredom and disapproval. Again, when experiencing with neither-pleasant-nor-unpleasant things of life (*Adukkha-m-asukha Vedanā*), one reacts indifferently and coldly.

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These three feelings (Vedanā) and reactions are always caused by Taṇhā/Rāga which is rendered in English as 'craving' or, 'desire' or 'thirst'. Simultaneously, this craving drives and puts our human beings into different feelings, emotional states and unwholesome mental states. The questions should be raised here: 'How to prevent and suppress the non-arising destructive emotional states as well as the evil thoughts'? 'Then how should one cope with the arising of the destructive feelings, swinging emotional states (Cittavega) and the evil thoughts when encountering?' According to Buddhist teaching, it is advised and encouraged that one should handle them through the observing and contemplating of the Four Foundations of Mindfulness (Satipaṭṭhāna), namely, (1) Mindfulness of Body (Kāyānupassanā), (2) Mindfulness of Feelings (Vedanānupassanā), (3) Mindfulness of Mind (Cittānupassanā), and (4) Mindfulness of Dhammas (Dhammānupassanā) when confronting them. By constantly contemplating and following with these four stages, all destructive emotional states and evil thoughts caused by craving will be reduced and got rid of.

2) Human's Nature

The nature of humans is always expected and craved for the pleasant things of life, and making an effort to escape the unpleasant things of life. However, in reality, one cannot expect for the only positive or pleasant things since a human life is similar to a coin which has a smooth side and a rough side. This human life is also the same like a coin which has the pleasant side and unpleasant side. And pleasantness and unpleasantness is the pair, and they are also part of our human life. Where there is pleasantness and willingness the unpleasantness and unwillingness will always be followed by. This is the nature of the world. Therefore, one has to accept when confronting them either pleasantness/willingness or unpleasantness/unwillingness of life.

On the contrary, most people do not behave in such a way. They are only craving for pleasant things of life and always making an effort to avoid all kinds of unpleasant things of life. Through their craving for these things and non-craving for those things of life, they are earning their living life with restlessness, fear, nervousness, frustration, jealousy, lamentation, tense and disappointment in constant. Why is that? It is because they are too scared and afraid of being lost and separated from their lovely things as well as their loved ones. Owing to their attachment, with likes and dislikes, people are living their life in suffering.

In this regard, in the Dhammacakkappavattana Sutta (Setting the Wheel of Dhamma in Motion) reads: "piyehi vipayogo dukkho."[i] It means "Separation from the liked is Dukkha (suffering)." Likewise, the Buddha also exhorts: "appiyehi sampayogo dukkho."[ii] It means: "Association with the disliked is Dukkha (suffering)." Therefore, due to the attachment to the things and persons that one likes and dislikes, most people have been encountered with

the destructive emotional states in their daily life endlessly. In the reality, whatever is high, it will fall; whatever it gathers, it will disperse; whatever it is born, it will die since all conditioned things are impermanent and unreliable.

"Not only human beings living in fearful life, nervous life, hatred life, jealous life, sorrowful life and stressful life but devas (Gods), asuras (titans), nagas (serpents) and gandhabbas (celestial musicians) are also facing the same circumstances as human beings either for they are also living with stress, ill-will, enmity, fear, anxiety, envy, avarice, malignity and unease life. According to Sakkapañha Sutta, such jealousy and avarice take rise from like and dislike. What gives rise to like and dislike? Like and dislike gives rise to desire. What give rise to desire (Taṇhā/Rāga)? Desire (Taṇhā/Rāga) is arisen by thinking. What gives rise to thinking? Thinking is arisen by tendency to proliferation."[iii] Briefly speaking, either human problems or the problems of devas (Gods), asuras (titans), nagas (serpents) and gandhabbas (celestial musicians) are born out of from like and dislike or craving.

3) Destructive Emotional States generated by Craving (Taṇhā/Rāga)

Till now we have seen that all destructive emotional states is generated by our own craving (Taṇhā/Rāga). In fact, there are the three kinds of cravings described in the Canonical Buddhist Texts, namely; (1) craving for sensual pleasures (kāma-taṇhā), (2) craving for existence (bhava-taṇhā) and, (3) craving for non-existence (vibhava-taṇhā). Then the question arises: 'how to prevent and suppress the non-arising the problems or destructive emotional states'? 'And how does one deal with the arising problems or destructive emotional states in day-to-day life?'

In order to preventing and suppressing the non-arising of destructive emotional states and reliving and overcoming the arising destructive emotional states, one should stay on guarding one's six internal sense door faculties, that is to say, seeing, hearing, smelling, tasting, touching and the arising of thought. 'Why should we guard our own six internal sense door faculties? It is because these six sense door faculties are like energy and fuel to increase defilements and evil thoughts when lack of guarding them. As regards, the Buddha advises: "If monks do not train well, keep well and guard well on the six spheres of contact the eye, ear, nose, tongue, body and mind, they will endure great suffering. Nevertheless, the monks who trains well, keep well and guard well on the six spheres of contact, they will endure great happiness."[iv] Consequently, one should guard them as the Buddha advised in the following:

"On seeing a form with the eye, a noble disciple does not grasp at its signs and features. Since, if he left the eye faculty unguarded, evil unwholesome states of covetousness and

grief might invade him, he practices the way of its restraint, he guards the eye faculty, he undertakes the restraint of the eye faculty.

On hearing a sound with the ear, a noble disciple does not grasp at its signs and features. Since, if he left the ear faculty unguarded, evil unwholesome states of covetousness and grief might invade him, he practices the way of its restraint, he guards the ear faculty, he undertakes the restraint of the ear faculty.

On smelling an odour with the nose, a noble disciple does not grasp at its signs and features. Since, if he left the nose faculty unguarded, evil unwholesome states of covetousness and grief might invade him, he practices the way of its restraint, he guards the nose faculty, he undertakes the restraint of the nose faculty.

On tasting a flavour with the tongue, a noble disciple does not grasp at its signs and features. Since, if he left the tongue faculty unguarded, evil unwholesome states of covetousness and grief might invade him, he practices the way of its restraint, he guards the tongue faculty, he undertakes the restraint of the tongue faculty.

On touching a tangible with the body, a noble disciple does not grasp at its signs and features. Since, if he left the body faculty unguarded, evil unwholesome states of covetousness and grief might invade him, he practices the way of its restraint, he guards the body faculty, he undertakes the restraint of the body faculty.

On cognizing a mind-object with the mind, a noble disciple does not grasp at its signs and features. Since, if he left the mind faculty unguarded, evil unwholesome states of covetousness and grief might invade him, he practices the way of its restraint, he guards the mind faculty, he undertakes the restraint of the mind faculty. That is how a noble disciple guards the doors of his sense faculties."[v] This is one of the methods to prevent and suppress the arising of destructive emotional states. However, the effective method for the preventing and suppressing the non-arising of destructive emotional states, overcoming the arising of destructive emotional states/negative thoughts/negative moods and craving everlastingly and eternally, one should apply Sati (Mindfulness) particularly the Four Foundations of Mindfulness.

4) Overcoming Destructive Emotional States by Sati (Mindfulness)

There is one effective meditation method laid down by the Buddha to overcome destructive emotional states and problems. It is called 'Sati' in Pāli. The Pāli word 'Sati' has various synonyms in English, that is to say, "mindfulness or "memory" or "remembrance" or "attention" or "awareness"[vi] or "introversion of attention."[vii] It also refers to **"**self-mastery"

in general. Sati (Mindfulness) is the seventh factor of the Holy Eight Factors of the Deathless Path (ariya-aṭṭhāṅgika-magga). It is also one of the first seven factors of awakening in Buddhism. The original word 'Sati' is extended from Satpaṭṭhāna. And Sati (Mindfulness) is relevant and required everywhere because it is the key for governing one's daily life and also the key the solutions to all human problems. By applying Sati in every movement and every activity, the destructive emotional states and evil thoughts will be overcome since "Sati (Mindfulness) helps one to be aware of the state of mind, moment to moment before undertaking any action."[viii]

5) The Four Foundations of Mindfulness (Satipaṭṭhāna)

As a matter of fact, there are Four Foundations of Mindfulness (Satipaṭṭhāna) according to Satipaṭṭhāna Sutta of Majjhima Nikāya. One of the first Four Foundations of Mindfulness (Satipaṭṭhāna) is called 'Mindfulness of Body' (Kāyānupassanā). Mindfulness of Body (Kāyānupassanā) means to always be mindful and aware of with every movement of body. The second Foundation of Mindfulness (Satipaṭṭhāna) is called 'Mindfulness of Feelings' (Vedanānupassanā). Mindfulness of Feelings means to always be mindful and aware of with the arising and experiencing of all feelings and sensations. The third Foundation of Mindfulness (Satipaṭṭhāna) is called 'Mindfulness of Mind' (Cittānupassanā). Mindfulness of Mind means to always be mindful and aware of with one's thinking and mind. The last Foundations of Mindfulness is called 'Mindfulness of the Truth' (Dhammānupassanā). Mindfulness of the truth means to always be mindful and aware of every arising each thought in the mind.

The ways of observing the Four Foundations of Mindfulness (Satipaṭṭhāna) is given in the following passage: "First of all, he is constantly aware of his movement, sitting, standing and lying down. Then he should reflectively and wisely be aware and observe it through mental observation, for instance, when he is moving, he reflectively and wisely observes: "I am moving." When he is sitting, he reflectively and wisely observes: "I am sitting." When he is standing, he reflectively and wisely observes: "I am standing." When he is lying down, he reflectively and wisely observes: "I am lying down." This is the four postures of mindfulness and observation. This is called the mindfulness of body (Kāyānupassanā).

Second, he is reflectively and wisely aware of every feeling he experiences, that is to say, when he has a pleasant feeling, he is reflectively and wisely aware and observes: "I have a pleasant feeling." When he has an unpleasant feeling, he is reflectively and wisely aware and observes: "I have an unpleasant feeling." When he has a neutral or indifferent feeling, he is reflectively and wisely aware and observes: "I have a neutral feeling." This is the three ways of mindfulness and observation of

the arisen feelings. This is called the mindfulness of feelings (Vedanānupassanā). Third, he is reflectively and wisely aware and observes every thought arising in his mind. When he is thinking, he is reflectively and wisely aware and observes: "I am thinking." This is called the mindfulness of mind (Cittānupassanā). Last, when sensual desire arises in his mind, he is reflectively and wisely aware and observes: "A sensual desire arises in my mind." When there is no sensual desire, he is reflectively and wisely aware and observes: "There is no sensual desire arises in my mind." This is called the mindfulness of truth (Dhammānupassanā)."[ix]

A person who is fully being mindful and aware of all his postures, feelings, thinking or mind and every arising thought and the fact of life accompanied by closely staying on guard every sense door of his faculties, the evil thoughts and destructive emotional states will not be arising in him easily. At the same time, the arising evil thoughts and destructive emotional states will be got rid of as well due to the constant observing the Four Foundations of Mindfulness (Satipaṭṭhāna).

With reference to this, in the Vedanāsaṃyutta of Samyutta Nikāya declares: "A person who dwells contemplating the body in the body, feelings in feelings, mind in mind and phenomena in phenomena, ardent, clearly comprehending, aware or mindful, having got rid of covetousness and displeasure in regard to the world."[x]

Thereupon, "Sati (Mindfulness) holds the entire aspects of our being-our bodily movements, our feelings, our states of mind, our objects of thought. With sharpened awareness we can be aware absolutely what we are doing, what feelings and states of mind are impelling us towards particular courses of action, what thoughts form our motivations. Subsequently, by means of this sati (mindfulness), we can abstain from the unwholesome action (Akusala-Kamma) and develop the wholesome action (Kusala-Kamma)."[xi]

Apart from this, the Four Foundations of Mindfulness (Satipaṭṭhāna) are not only overcoming the destructive emotional states of human beings and wandering mind but they can also eliminate the insecurity of life (Dukkha) permanently and lastingly. It can also lead one to the noble path, fruit and ultimate goal of Buddhism, Nibbāna as a result of putting them into practice in every moment of movement, feeling, thinking and arising thought.

In this respect, the Buddha states: "Ekāyano ayaṃ bhikkhave, maggo sattānaṃ visuddhiyā, sokaparidevānaṃ samatikkamāya dukkha domanassānaṃ atthaṅga māya ñāyassa adhigamāya nibbānassa sacchikiriyāya, yadidaṃ cattāro satipaṭṭhānā."[xii]

It means: "This is the only one way, Bhikkhus, for the purification of beings, for the dispelling of grief and lamentation, for the eliminating of suffering and sorrow,

achieving the right path, for the attainment of Nibbāna, namely, the Four Foundations of Mindfulness."

Therefore, the Four Foundations of Mindfulness (Satipaṭṭhāna) is the only way or sole way to prevent ill, increase the goodness and purify one's mind. According to a Buddhist perspective, there is no other way to conquer and eradicate the agitation, frustration, disappointment, resistance, resentment and destructive emotional states, wrong states, the evil thoughts except the Four Foundations of Mindfulness (Satipaṭṭhāna) as mentioned above.

6) All Mindfulness (Sati) should be the Universal One

If we are further exploring and observing, the Four Foundations of Mindfulness (Satipaṭṭhāna) are not only for the solutions to all human problems and the spiritual path but it can also apply them to many aspects such as; in social aspect, cultural aspect, business aspect and political aspect as well. From the aspect of Mindfulness of body (kāyanupassanā), it is not only for awareness and mindfulness of oneself, one's own well-being, one's own group, one's own people, one's own culture and one's own party but should also include and being aware of and mindful on the other sides of well-being, culture, society, business, party and politics as well. In the same manner, the feeling (Vedanānupassanā) also should not be focusing on one's own feeling or selfish feeling. One should take into consideration with the other side's feelings either. Regarding one's own thought or mind (Cittānupassanā) should be a balanced mind or a mind which is free from the bias. For instance, praising one's own people and one's own group but putting the other sides, the other people and the other groups down etc. Accordingly whatever they are and who they are, one should treat them equally and accept them as they are (Dhammānupassanā). The one who does not want to accept the truth of life of oneself and others, he may constantly distract and encounter with the destructive emotional states even his life may be facing with a disaster life like the lady Paṭācārā or the elder nun Paṭācārā as a result of rejecting the truth.

"Once Paṭācārā was facing a huge loss in her life because her husband bitten by a poisonous snake and her young two sons taken away from a hawk and swept away by the current including her parents and brother when her family home had been destroyed in the storm, she was deeply upset and completely out of her mind and continued her journey alone to Sāvatthī without clothes on her body. Then she arrived at Jetavana monastery, where the Buddha was still teaching the Dhamma. When the Buddha addressed her as "sister," she regained her sanity, and became ashamed of her nakedness. A man threw her his cloak, which she put on. The Buddha listened to the story of her grief, and taught her about the suffering of Saṃsāra, and how relatives are no protection for one still subject to birth and death. As she listened to the Dhamma, Paṭācārā realised Nibbāna, gained Stream-winning,

and asked to become a nun. From her patient and pleasant demeanour (Paṭitā cārattā) she became known as Paṭācārā."[xiii]

Here it is evident that Sati (Mindfulness) can be applying into every aspect of life even a person who was out of the mind or being lost can get back to a normal life. However, one should always remember that Sati (Mindfulness) should be universal awareness or universal mindfulness which means without cultural discrimination, religious discrimination, economic discrimination, social discrimination, national discrimination and political discrimination. So all Sati (Mindfulness) should not have the boundary and limitation. It should apply it like the universal teacher, the Buddha applying.

"The Buddha was called the universal teacher because whatever he did, he did for all humanities. He was always being aware and mindful for himself as well as being aware and mindful for others. The Buddha used his awareness and mindfulness and helping every walk of life days and nights with his kindness and great compassion (Mahākarunā). And everyone who approached him he always guided them, instructed them and advised them about the deathless path regardless of race, caste, belief, religion, community, nation, culture and politics they were belonged to. Without any condition, he tirelessly helped, addressed and guided them the path to overcome the rounds of repeated birth and death (Saṃsarā) and liberating from the intense insecurity of life (Dukkha) to the eternal security of life (Nibbāna).

The Buddha always used his awareness and mindfulness and surveying all human beings through his divine eye to see whom he could help. Without the invitation he went for converting that person to the right path if that person needed his spiritual assistance. His daily routine went like this- shortly after lunch, he would deliver a short talk to lay disciples, establishing them in the Three Refuges, the Buddha, the Dhamma and the Saṅgha and the Five Ethical Precepts (Pañca-Sīla) along with showing them the path to Sainthood. As well as that he granted Ordination to them in case they seek admission to the Order and then retires to his chamber. In the afternoon session, he delivered the Dhamma to the monks who reside in the monastery along with instructing them suitable objects of meditation based on their temperaments.

In the evening time, again he preached the Dhamma to lay followers who flocked to him. From 6 to 10 p.m. or the first watch, he gave monks instruction and answering their doubts on the Dhamma. From 10p.m. to 2. a.m. or the middle watch, the Buddha answered the questions of celestial beings or Devas and Brahmas on the Dhamma. From 2 to 6 a.m. or the last watch, the Buddha spent his time for walking meditation by pacing up and down (Caṅkama). And then he radiated and extended the thoughts of loving-kindness towards all beings and softens their hearts. Subsequently, he surveyed the entire world with his Buddha-Eye to see whether he could be of service to any. In each night, the Buddha just slept only

for one hour. The rest of the time, he tirelessly stayed on awareness and mindfulness for the good and happiness of all till his last breath."[xiv]

The Buddha was never negligent to be aware and mindful either for himself as well as for his fellow human being. And a person, who is living life with negligence and carelessness, is like a dead person although he is still alive. In this regard, in the Dhammapada reads: "ye pamattā yathāmatā".[xv] It means: "The negligence is as if dead already."

Therefore, one should always live his life with Sati (Mindfulness). And all kinds of mindfulness should be free from taking sides and discriminations like the Buddha, the Sun and the Moon which shines day and night to everyone, every group, every community and every nation on this universe. Dealing with this in the Dhammapada reads: "Divā tapati ādicco, rattimābhāti candimā; Sannaddho khattiyo tapati, jhāyī tapati brāhmaṇo; Atha sabbamahorattiṃ [sabbamahorattaṃ (?)], buddho tapati tejasā."[xvi] It means: "The sun shines by day, the moon shines by night. The warrior shines in armour, the holy man shines in meditation. But the Buddha shines resplendent all day and all night."

7) Conclusion

In order to totally eliminate the arising of destructive emotional states and preventing the non-arising of destructive emotional states, practicing Sati (Mindfulness) is required. As a result of practicing Sati (Mindfulness) with every movement, feeling, thinking and thought, the destructive emotional states are not able to be arising easily. The arising destructive emotional states caused by craving (Taṅhā/Rāga) are also overcome and eliminated. By closely and constantly developing and contemplating Sati (Mindfulness), one will be realizing the truth and achieving the purpose of life, Nibbāna. However, Sati (Mindfulness) should always be contemplating as the universal awareness and mindfulness for oneself and others.

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Sushruta -A Review

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Abstract

His existence is shrouded in myth and mystery. Sushruta belonged to a rich heritage of learned scholars and practiced and taught surgery at Benares University around 600BC. His work is assembled into a monumental thesis, possibly the first text book on surgery, the 'Sushruta Samhita' where he describes surgical instruments, procedures, illnesses, medicinal plants and preparation, dissection and the study of human anatomy, embryology and fractures.[5] Sushruta is also the father of Plastic Surgery and Cosmetic Surgery since his technique of forehead flap rhinoplasty that he used to reconstruct noses that were amputated, is practiced almost unchanged in technique to this day. Sushruta is perhaps best known for the nasal reconstruction flap which is still used in different versions. For all his contributions, he has been aptly titled 'Father of Plastic Surgery'.

1) Introduction

Sushruta is known for his pioneering operations and techniques and for his influential treatise 'Sushruta Samhita', the main source of knowledge about surgery in ancient India.
Written in Sanskrit, the Sushruta Samhita dates back to the times before Christ and is one of the earliest works in the field of medicine. From dissecting dead bodies to amazing surgical procedures with the accuracy and curative efficacy. The medical treatise Sushruta Samhita—compiled in Vedic Sanskrit—is attributed to him. The Sushruta Samhita refers to the eight branches of Ayurvedic medicine. It forms the foundations of the ancient Hindu form of medicine known as Ayurveda and is highly regarded as one of the 'Great Trilogy of Ayurvedic Medicine.'

2) Analysis

Enigma in paraphrasing ayurvedic era. Three different adages of Sushruta Samhita-*Sharira Sthana* were analysed and its translations by respectable translators were studied.[12][13] he tried to explain the tough subject in simpler mode of knowledge for proper understanding to all. His teaching of anatomy, pathophysiology, and therapeutic strategies were of unparalleled luminosity, especially considering his time in the historical record. [1]

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The primary focus of this historical review is centered on Sushruta's anatomical and surgical knowledge and his creation of the cheek flap for nasal reconstruction and its transition to the "Indian method."

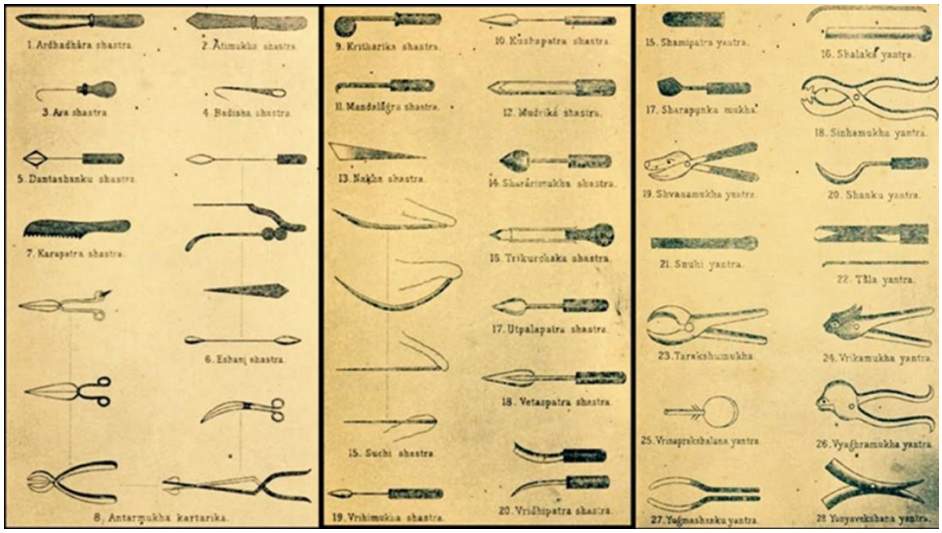
(commons.wikimedia.org)

The Vedic philosophies form the basis of the Ayurvedic tradition, which is considered to be one of the oldest known systems of medicine.The history of nasal reconstruction dates back to ancient times and it remains a fundamental challenge today. [18]Knowledge of the unique history of nasal reconstruction permits appreciation of this surgical integration of art and science. The story of nasal reconstruction has been one of global contribution and creativity that has stood the test of time.

He was one of the first people in human history to suggest that a student of surgery should learn about human body and its organ by dissecting a cadaver. Decomposing the body in the water streams and dissecting the body layer by layer.

(medizzy.com)

Sushruta details about 125 surgical instruments used by him, mostly made of stones, wood and other such natural materials. Use of shalaka, meaning foreign body (rods or probe).



(history-of-india.quora.com)

The influential nature of the Sushruta Samhita, the compendium documenting Sushruta's theories about medicine, is supported not only by anatomical knowledge and surgical procedural descriptions contained within its pages, but by the creative approaches that still hold true today.[4][6]

Sushruta described diabetes (madhumeha) as a disease characterized by passage of large amount of urine, sweet in taste, hence the name “madhumeha” — honey like urine. He goes on to say that diabetes primarily affects obese people who are sedentary and emphasized the role of physical activity in amelioration of diabetes.[7]

Though the discovery of circulation is attributed to William Harvey; it is interesting to note that Sushruta had the knowledge of a structure like heart and its role in circulation of “vital fluids” through the ‘channels’.[10]His vivid account of angina (“hritshoola “, meaning heart pain) is marvelous, though he did not use the exact term as angina. It embodies all the essential components of present day definition, i.e. site, nature, aggravating and relieving factors and referral. According to him angina is chest pain which is precordial, temporary, exertional, emotional, burning like and relieved by rest. He also linked this kind of pain to obesity (medoroga). Besides these, he has also described the symptoms of “vatarakta” which are similar to that of hypertension.

The treatise is the main source of knowledge about surgery in ancient India. Susruta Samhita, as we know it now, is not in the original form which Susruta gave it and which he called.[9] It was first called Shalya Tantra consisted of only five divisions, viz., sutra, nidana, sharira, chikitsa, and kalpa. Shalya Tantra was later revised and supplemented.[15] Later addition of uttara-tantra' consisting of three divisions called shalakya, bhuta-vidya and kalamara-bhrtya, makes eight divisions in the present Susruta Samhita.

Surgery forms a major role in general medical training.[14]The ancient surgical science was known as Shalya Tantra. Shalya means broken arrow or a sharp part of a weapon and Tantra

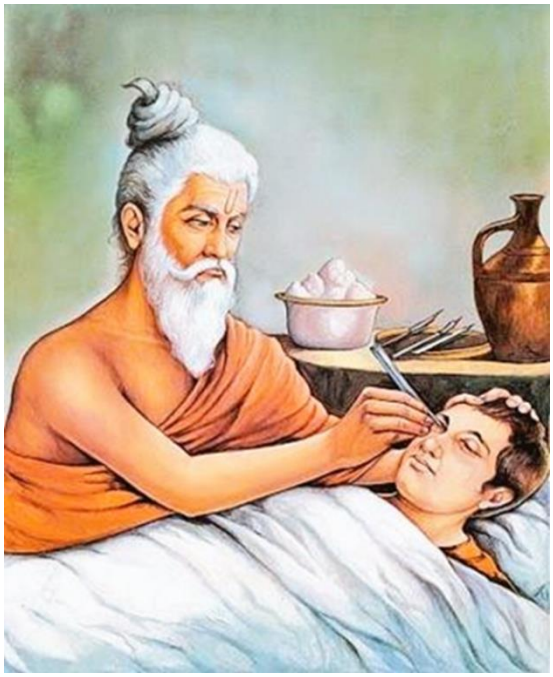
means maneuver. Shalya Tantra embraces all processes, aiming at the removal of factors responsible for producing pain or misery to the body or mind.[11]Since warfare was common then, the injuries sustained led to the development of surgery as refined scientific skill. Of the commentaries on Susruta Samhita, the most renowned is that of Dalhana called Nibandha Samgraha written in the twelfth century AD. Another commentary is by Chakrapanidatta written in the eleventh century. [16]

(history-of-india.quora.com)

Susruta Samhita was translated into Arabic before the end of the eighth century A.D. It was called Kitabshaw-shoon-a Hindi or Kitabi-i-Susrud. Rhazes, the famous Arab physician, often quoted from it and mentioned Sarad as an authority on surgery. It was translated in Latin by Hassler and in German by Ullers. [2][8]

It was translated into English, in part only, by U.C. Datta (1883), A. Chattopadhyaya (1891) and Hoernle (1897). K.L. Bhisagaratna translated it in full between the years 1908 and 1917.[3][17]

Sushrut Samhita and its Sage Sushruta received worldwide recognition, but with time, his name and importance dissipated.In the 20th century, when the world started looking at Ayurveda from a new perspective, they realized the importance of Sage Sushruta's medical science, and his contribution to surgery. Sushruta Samhita is believed to be one of the gems of ancient Indian medical literature. Sushruta gave a new meaning to the art of surgery in medieval India. The year 600BCE is known as the golden age of surgery. Inspired sushrutas incomparable knowledge. American surgeon Allen Ripple said "All in All sushruta must be considered as the greatest surgeon of the pre-medieval period." As Sushruta means one of good reputation.



(www.thehinduportal.com)

3) Conclusion

Sushruta is the father of surgery. If the history of science is traced back to its origin, it probably starts from an unmarked era of ancient time. Although the science of medicine and surgery has advanced by leaps and bounds today, many techniques practiced today have still been derived from the practices of the ancient Indian scholars.

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Human Value System in Artificial Intelligence – Ethics

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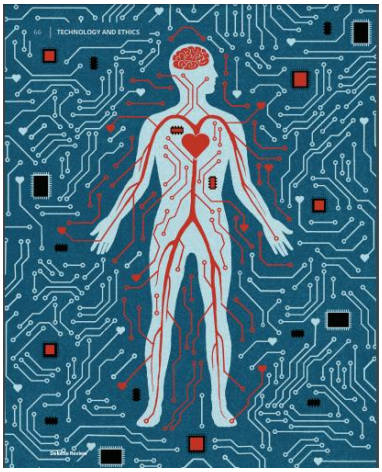
Abstract

An important public discussion on day to day the values and ethics of digital technologies as designers work to prevent of mis-information campaigns, online harassment, exclusionary tools, and biased algorithms. This monograph reviews 20 years of research on theories and methods for surfacing values and ethics in Technology design. It maps the history of values research, beginning with critique of design from related disciplines and responses in Human-Computer Interaction (HCI) research. The review then explores ongoing controversies in values-oriented design, including disagreements around terms, expressions and indicators of values and ethics, and whose values to consider. Next, the monograph describe frameworks that attempt to move values-oriented design into everyday design settings. These frameworks suggest open challenges and opportunities for the next 20 years of values in HCI research and this report deals with the ethical implications and moral questions that arise from the development and implementation of Artificial Intelligence (AI) technologies.



Until recently, it seemed fashionable to hold that societal values must conform to technology's natural evolution— that technology should shape, rather than be shaped by, social norms and expectations.

Keywords: Ethics, Human Values, Artificial Intelligence (AI)

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1) Introduction

Introduces the scope of the report and defines key terms. The report draws on the European Commission's definition of AI as 'systems that display intelligent behaviour'. Other key terms defined in this chapter include intelligence and how this is used in the context of AI and intelligent robots (i.e. robots with an embedded AI), as well as defining machine learning, artificial neural networks and deep learning, before moving on to consider definitions of morality and ethics and how these relate to Artificial Intelligence.

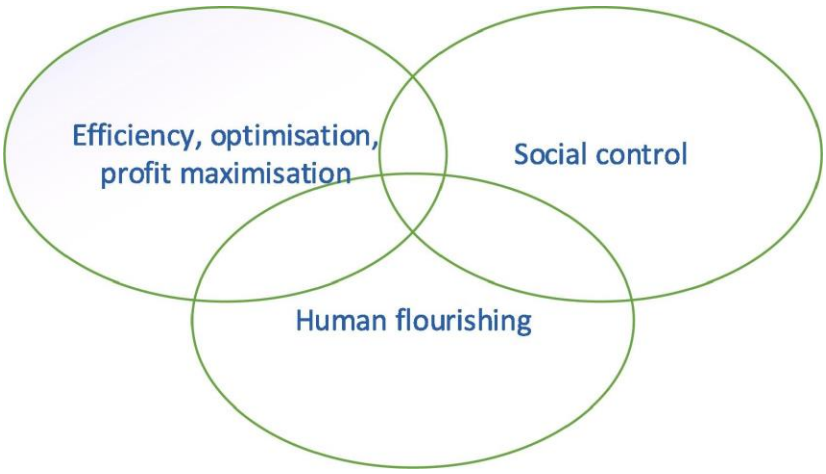

Fig. 2 Possible purposes of Artificial Intelligence

Artificial Intelligence ethics-or ethics in general-lacks mechanisms to reinforce its own normative claims. The enforcement of ethical principles may involve reputational losses in the case of misconduct, or restrictions on memberships in certain professional bodies. Yet altogether, these mechanisms are rather weak and pose no eminent threat. Researchers, politicians, consultants, managers and activists have to deal with this essential weakness of ethics. However, it is also a reason why ethics is so appealing to many AI companies and institutions. When companies or research institutes formulate their own ethical guidelines, regularly incorporate ethical considerations into their public relations work, or adopt ethically motivated "self-commitments", efforts to create a truly binding legal framework are continuously discouraged. Ethics guidelines of the AI industry serve to suggest to legislators that internal self-governance in science and industry is sufficient, and that no specific laws are necessary to mitigate possible technological risks and to eliminate scenarios of abuse (Calo 2017). And even when more concrete laws concerning AI systems are demanded, as recently done by Google (2019), these demands remain relatively vague and superficial.

2) Exploring the Ethics Considerations

The considerations in this section were chosen on the basis of expert consultations, desk review of examples of AI deployment globally, and interviews with agencies deploying AI solutions in India. The causes for considerations may be deeply interconnected and, in some cases, partially

overlapping. Considerations have thus been divided in a manner that identifies distinct risks they pose to various stakeholders.

a) Methodology of a multi-dimensional approach

While there is a large and quickly growing literature on ethical issues of AI, much of it is anecdotal or speculative. In our research, we therefore aimed to combine academic rigour with detailed insights into the way in which AI is realised in society and a broad and conceptual overview of the field. No one single established methodology can achieve this. We therefore decided to use a multi-dimensional approach that involved using and combining several methods to collect and interpret data and develop an understanding of the field of ethics and AI.

In order to understand this, to gain an in-depth understanding of the social reality of AI across different application domains at present and in the future and to understand the technical, ethical and human rights implications, we undertook a multi-dimensional study comprising the following:

a) 1.Ten interpretive case studies of AI application in particular application domains and organisations
b) 2. Five policy-oriented scenarios exploring near term (<5 years) use of emerging AI applications
c) 3. An ethical impact analysis of AI
d) 4. A human rights analysis of AI
e) 5. A technical analysis of threats and vulnerabilities connected with AI.

Fig. 2. Concepts and notions employed for human rights analysis of AI.

3) Conclusion

The purpose of this paper is to contribute to the discussion about how to identify, interpret and address ethical issues arising from AI applications. In order to achieve this, we need a comprehensive overview of both conceptual and empirical insights into AI and its use. We therefore draw on a range of research activities outlined below. The underlying empirical studies were not re-analysed but taken as the starting point for compiling and, more importantly, for categorising these issues. The important contribution to the AI ethics discourse that this paper makes is in the conceptualisation and proposed narrative which is based on the overall findings. It is therefore only possible to provide a high-level overview of the empirical work, all of which is published elsewhere.

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Thoughts are Metaphysical in nature

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Abstract

We are all the time thinking, but if we are asked to define "Thought" it looks difficult. In this paper focus has been put on a fundamental aspect of Thought. Is Thought "Matter" ie is Thought physical or "Non physical". Anything physical "bound by Time and Space" and it gets destroyed. A Thought which can be an Idea, an experience, a feeling or a perception cannot be destroyed by physical elements. A Thought is so powerful that it can bring tremendous changes in society in belief systems. It being a very valuable part of our lives, in this paper attention on its nature is discussed. Further work can be done on working on source of Thoughts, how to bring changes in Thoughts etc. This will help us to establish peaceful society.

1) Introduction

What is "Thought"? Are we not constantly thinking? Every human being thinks and every living being has consciousness and therefore the existence of Consciousness and Thought is a well established and irrefutable fact of life. Does a thought have weight? Any physical measurement? Can anything physical stop a thought? Can time stop a thought? Is thought physical or meta physical? Can we apply the law of mechanics or chemistry to thoughts? Let us try to understand the "Thought".

2) Analysis

Are thoughts physical or nonphysical? Now anything physical can be destroyed using some instruments or simply by the five elements of nature or with passing of time. Say a chair, it can be destroyed. Can a thought, an Idea or concepts of knowledge or experience or perceptions be destroyed like a chair? A chair can be destroyed but the Idea of a chair cannot be. We here people saying "You may kill me but not my belief or my thought". So thoughts, ideas, experiences etc is nonphysical.

If we use a physical thing over and over again there will be wear and tear, but the more you think the thought sets in you. The idea you use again and again it gets more refined and better ideas come, so the usage is better not that there is wear and tear. Physical things get worn out but thoughts and ideas become better and better. If I give my chair to you it no longer is with me, I cannot use it. If I share my thoughts with you and others,

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maybe they will grow in others and in me too, so much so that that thought or idea can become a social movement or a revolt, Such is the power of thoughts. So thoughts are non physical.

Are thoughts the product of the "Brain"? Brain is a physical entity, can it produce nonphysical thoughts or ideas or experiences? There is no doubt that the neurological capacities of the human brain are almost astronomical. The physiologists say that we have around ten billion brain cells and that every cell can be in relationship with as many as 25000 others so number of possible associations may be ten billion raised to the power of 25000, but it is still not infinite as the number of thoughts and ideas we think.

The connection between the thoughts and the brain is not denied, but that does not mean that the thoughts are created by the Brain. Just as the light in a florescent tube does not mean that the tube is producing the light or pedals chains etc of a cycle does not mean that they are causing the movement, so also it does not mean that brain produces thoughts.

Just as electricity passes in the tube and you get the light or a person pedals then there is movement of cycle so too a "soul" a "psychic energy a spiritual energy(non physical)" creates non physical or abstract thoughts feelings ideas etc and with the connection with brain puts it into action through the body.

What thought desire sensation and other mental states are like, each of us can observe directly by introspection and what introspection reveals is that they donot in the least resemble any bodily movement like muscular contraction or glandular secretion etc.

Due to the connection of the soul and brain chemical reactions, release of hormones, muscular movements happen in the body but it is not vice versa that due to chemical reactions in brain thoughts are created. Certain mental events are doubtlessly connected in someway with certain bodily events, say fear or sorrow due to detecting cancer in the body. But these mental events are not those bodily events themselves, the connection- is not the Identity.

3) Conclusion

All our Thoughts, Ideas, feelings experiences perceptions(in short if we use only the word thoughts) are a different order of existence, they are metaphysical in nature and even though they are connected with sensations(through brain), they are not another name for activities happening in the brain or in the body.

Thoughts actually help us to understand our existence at metaphysical level and so how we can use our mental powers and mental abilities to bring peace and happiness in life rather than only depending on material resources.

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Epistemic Disagreement, underdetermination of theory by evidence and objectivity

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Abstract

The paper aims to show that 'Underdetermination of theories by evidence' as a case of epistemic disagreement. Under the assumption that 'underdetermination of theories by evidence' is a case of epistemic disagreement, I would like to propose the 'Equal weight view' which gives evidential weightage for disagreement. 'Equal weight view' presupposes the 'Uniqueness Theorem' which states that for a given body of evidence and a given proposition, there is some one level of confidence that it is uniquely rational to have in that proposition given that evidence. Given the uniqueness thesis, the equal weight view can be used as a means to explicating the concept of 'objectivity' (the idea of 'objectivity' is defined in terms of the common consensus among the scientific community). 'Eddington expedition' - the experiment took place in relation to theory of relativity in 1919 is used as an example to explicate the above said ideas.

1) Introduction

Epistemic disagreement is termed as the situation where epistemic peers with almost same exposure to evidence in hand have opposing opinions .in such a case it is argued that the evidential weightage must be given to the disagreement as such, which in turn will reflect over the confidence one has over the theory. Underdetermination of theory is used rampantly in philosophy of science where the evidence at hand supports two or more different theories. The paper has got 2 parts, the part 1 tries to depict underdetermination of theory by evidence as a case of epistemic disagreement and to describe how the evidential weightage can be given to the disagreement. Under the assumption that 'underdetermination of theories by evidence' is a case of epistemic disagreement, I would like to propose the 'Equal weight view' which gives evidential weightage for disagreement. 'Equal weight view' presupposes the 'Uniqueness Theorem' which states that for a given body of evidence and a given proposition, there is some one level of confidence that it is uniquely rational to have in that proposition given that evidence. Given the uniqueness thesis, the equal weight view can be used as a means to explicating the concept of 'objectivity' (the idea of 'objectivity' is defined in terms of the common consensus among the scientific community). In part 2 the paper examines the episode from the history of science – the Eddington's expedition of 1919 and applying the equal weight view in case of the above said experiment will result in a more objective characterisation of the confidence over the theory.

Part 1

2) Epistemic Disagreement

Consider the special case in which one forms some opinion on P, then discovers that another person has formed an opposite opinion, where one has good reason to believe that the other person is one's

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(at least approximate) equal in terms of exposure to the evidence, intelligence, freedom from bias, etc. such a person is often referred to as one's 'epistemic peer'. And this scenario mentioned is considered as the case of epistemic disagreement

In the last case there is a Lack of consensus, this could be at least in certain conditions –be taken as evidence that the parties to the dispute lack good reason for confidence in their positions (but his option is not considered for the current purpose). Rather the confidence shown by the epistemic peers in their respective opinion is given a positive consideration and is taken it to account. Given the positive status there is two ways in which we can proceed to settle the dispute. At one end are views on which the disagreement of others should typically cause one to be much less confident in one's belief than one would be otherwise –at least when those others seem just as intelligent, well informed, honest, free from bias, etc. as oneself 'Conciliatory' end of the spectrum .At the other end are views on which one may typically, or at least not infrequently, maintain one's confidence in the face of others who believe otherwise, even if those others seem one equals in terms of the sorts of qualifications listed above. Let us call this the 'Steadfast' view.

The reconciliatory view in short can be described in terms of giving consideration for the opposing opinion. One of the presuppositions that the reconciliatory view make is that of the uniqueness theorem which is termed as

Uniqueness theorem –uniqueness theorem suggests that for a given body of evidence, there is only one theorem/position that is rationally justified

Given the uniqueness theorem there is only one opinion in case of epistemic disagreement there is only one position that is justified to hold. In such a case how, the disagreement should be settled is known as the Equal weight view

Consociationalism/equal weight view -Conciliationism will result from the principle to the extent that one's dispute-independent evaluation gives one strong reason to think that the other person is equally likely to have evaluated the evidence correctly should in the case where one is quite confident that P, and the other person is equally confident that P adopt a credence close to 0.5 in P

Now the major part is to how the above view can be incorporated in to the case of epistemic disagreement

Let's introduce credence value 'C' as the entity to reflect the evidential weightage for disagreement. This value will be given on the basis of the probability or confidence that we have on the positions I am assuming that the individual probabilities for theories can be converted to the credence value. Whenever there is a disagreement happening there will be at least two credence values for respected positions In following the equal weight view the resultant credence value will reflect the evidential weight for disagreement According to the equal weight view, forexampleifthereis.2 credence is there on p and other person with credence value of .6 then the resultant credence will be .4 for the p (average of both the credence).

3) Underdetermination of theory by evidence

Under determination of theory by evidence in general occur in cases where the evidence at hand supports two different theories**.** There are in general two types of underdetermination of theory by evidence –the holistic and contrastive. The contrastive underdetermination of theory by evidence occurs when same set of evidence supports two or more different theory. And we are not able to choose one theory over the other based on evidence.

One of the main objectives of the paper is to show that underdetermination of theory by evidence as a case of epistemic disagreement

Epistemic peers in case of epistemic disagreement can be considered as different theories in case of underdetermination of theories. The disagreement is between the theories over the same body of evidence one of the conditions that needs to be followed in case of disagreement is that of 'independence'

Independence: In evaluating the epistemic credentials of another person's belief about P, to determine how (if a tall) to modify one's own belief about P, one should do so in a way that is independent of the reasoning behind one's own initial belief about P.

Given the case that underdetermination of theory by evidence can be considered as a case of epistemic disagreement the coming analysis will follow as part of the 'equal weight view'

In case of underdetermination : let theory 1 have X as credence and theory 2 had y as credence .The resultant credence for theory 1 would be(X+(1-Y))/2 .Similarly for Theory2 would be (Y+(1-X))/2 .The rationale behind the procedure would be if x is the credence value for T1 then 1-X will be the credence value for not T1 The Rival theories T2 will be considered as not T1 Similarly for more than 2 theories.

Part 2

This part will show how the application of equal weight view in case of underdetermination of theory by evidence will enable us with a more objective in terms of the confidence over the theory one can provide in the basis of evidence.

4) Eddington's expedition

This was an experiment conducted in order to check the validity of Einstein's theory of relativity over Newtonian theory of gravitation. Both Newton and Einstein predicted the bending of light near massive objects due to gravitational attraction. Till 1915, both their calculations matched and the predicted value was 0.86 seconds of arc. Later Einstein realized an error in his calculation and that his magnitude of deviation was incorrect by a factor of 2. He then proposed the new magnitude as 1.74 seconds of arc. The Eddington expedition was set to check which of these values are correct. Two teams were sent to Sobral and Principie in order to take photographs of the apparent position of the stars. But there were some practical difficulties in the experiment due to weather condition and other factors. Amidst all the technical difficulties, the Sobral and Principe plates came up with photographic plates that could be analysed. Further calculation revealed that the Principe plates were poor in quality while the 4inch Sobral plates were of better quality. The result of the calculations of the plates are:

Sobral

Poor plates 0.86(mean)sec of arc Good plates(4inch) 1.98(mean)secs of arc

Principe

Poorplates 1.62(mean)secs of arc

When calculating the deviation in the Principe plates, the method deployed was ambiguous and a clear strong influence of Einstein's calculations was visible. Particularly, Eddington's method used Einstein's derivations in calculating the initial displacement of the star.

In the meeting followed in order to access the merit of the evidence and analysis

Eddington expedition, a common consensus or intersubjective agreement was not there. It was more or less authoritative. J. Thomson's remark "it is difficult for the audience to weigh fully the meaning of the figures that has been put before us. Astronomer royal and Prof Eddington have studied the material carefully and they regard the evidence as decisive in favour of the larger value (Einstein)". Certainly, after the meeting it was considered as a successful endeavour towards the confirmation of relativity and

Newtonian theory was overlooked. And nowhere in the scientific formulas we can find about the disagreements they had on the results.

5) Objectivity

Here in this particular case the dissent or the disagreement was overlooked and didn't get the significance which it should have. So how the equal weight view can help in such as scenario to be more inclusive hence objective. Before that, there are different formulation which philosopher have used to describe the term 'objectivity'. The one used for the purpose of this paper is
"Objectivity in the metaphysical sense means that science represents the pertinent objects and processes truthfully; science captures the nature of these items. By contrast, objectivity in the methodological sense means justified intersubjective agreement. All competent observers agree on ascribing certain properties to an object; the process of assessing claims is nonarbitrary and non-subjective" (definition by Helen Longino). A theory will be more objective if there is more intersubjective agreement but in none of our quantifiers regarding a theory and its confidence which is provided by the evidence.
In applying the equal weight view in the above expedition results will give us:

Let's assume the individual credence given for Einsteinian theory was .66 and for the Newtonian value was .5 as there were total three plates and 2 supported Einsteinian value (one was contented with presupposing Einstenian value) and 1 supported Newtonian value. So according to the Equal weight view the resultant credence value would for the Einstenian theory would be .58, similarly for Newtonian value would be .415.
In this way the resultant credence value can reflect the disagreement over the set of data. This reflection of disagreement over the data will make the result more inclusive and intersubjective, hence objective

6) Conclusion

The paper has tried to see underdetermination of theory by evidence as a case of epistemic disagreement. Assuming the uniqueness theorem, equal weight view can be used to accommodate the evidential weightage for the disagreement over a theory. As it was shown in the analysis the resultant credence value can capture the dissent over the theory based on evidence and a quantified reflection of the disagreement can be presented. This resultant value has the feature of inclusivity and intersubjectivity, hence a more objective account of the confidence over the theory based on the evidence.

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Bharatiya Tatwa: A Learning from Our Epics

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Abstract

"A wise person learns from one's experiences, whereas a wiser person learns from other's experiences."

These days, we live amidst increasing chaos and anarchy, and whenever havoc hits the news, we get devastated and anxious about the state of the society in the future, comparing the present times with the past. But history reveals that adversities, miseries, vicious people, and tragedies have seemingly been an obvious part of its every era, in one way or the other. When miseries are obvious, is there a beacon of light that guides the younger generations into the path of 'Truth and Righteousness'? As an answer, in a way, Proverbs and Sayings have the treasure of wisdom, which mirror the dos and don'ts of life, and thereby, warn the young generations how to live a conscious life, illustrating what to do and what not to do, whom to follow and whom not to become, and how to heal and how not to behave. This paper aims at recalling a few significant expressions from the Ramayana and the Mahabharata, which steers the younger generations into the path of patience, righteousness, and gratitude.

1) Introduction

The Ramayana and the Mahabharata are the greatest "Itihasaas" (iti+ha+saa), which means they are based on historical events. So, the two epics stand as the quintessential sources of how similar the people and the situations had been and how adharma ruins a person to the core.

The following are a few sayings/expressions from the two great epics, which hone our attitude and unfold the essence of life:

1. Bhageeratha Prayatnam
2. Udata Bhakthi Sahayam
3. Bheeshma Pratigna
4. Andudi Bhaarya Gandhaari

2) Discussion

1. "Bhageeratha Prayatnam"

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Reference: Baala Kanda from the Ramayana

Context: When Lord Rama inquisitively asked his guru Viswamitra to narrate him the "Ganga Avtatarana Ghattam"

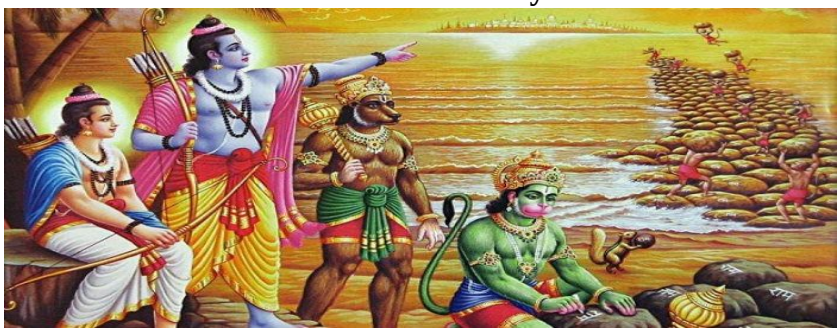
Story: King Bhageeratha, who was born into the Ikshvaku Dynasty in Ayodhya, was an ancestor of Lord Rama. Around three generations before Bhageratha, his 60,000 great grandfathers died an untimely death. The princes were put to ashes due to Sage Kapila's fire-like anger for being accused of kidnapping Sagara's holy horse. On hearing the fatal death of his uncles, Prince Anshuman, the grandson of King Sagara, pleaded Sage Kapila for mercy upon his uncles, asking for their salvation. Much appeased Sage Kapila said that the 60,000 sons of King Sagara would attain heaven only if the great River Ganga flowed on their ashes. However, neither Anshuman nor his son, King Dilipa could succeed in bringing the River Ganga down from the heaven. Their age-long penance did not bear the fruit. Finally, King Dilipa's son, Bhaegeratha shouldered the responsibility of performing an austere penance for the decent of the River Ganges to the nether world, thereby, liberating his ancestors from Sage Kapilas' curse..

Not for days, not even for months rather, for several ages, the most devoted and determined Bhageeratha performed vigorous tapasya, enduring the arduous challenges, twists and turns, to please Lord Brahman, Lord Shiva, and Sage Jahnu. Finally, he succeeded in bringing down the auspicious Ganges from the heaven to the earth, thereafter, to the nether world. Soon after the ceremonial river washed out the ash mounts, the 60,000 ancestors were liberated from their curse and attained moksha.

Lord Brahma said that the Ganga would be called as Bhaagerathi, daughter of Bhageeratha.

Bharatiya Tatwa: King Bhageratha reveals the true ethos of Bharatiya philosophy through his zenith of prance and perseverance despite facing countless odds.

2. "Udata Bhakthi Sahayam"

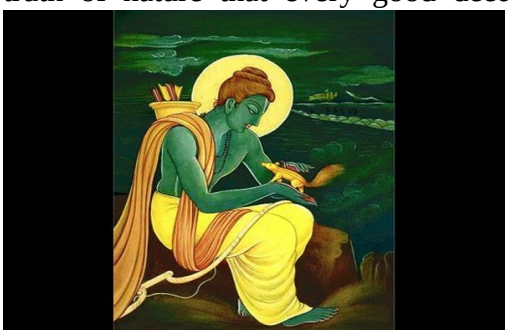


Reference: Setu Nirmanam Scene from the Ramayana

Context: While Lord Rama was building a bridge across the sea to reach and rescue Sita Mata from the clutches of the demon king Ravana in Lanka.

Story: Under the supervision of Nila, Lord Rama's vaanara sena worked relentlessly hard in building the bridge across the sea to reach Lanka, where the abducted Sita Mata was hidden**.** With a great effort, the most adventurous and enthusiastic apes pulled out rocks and heavy stones from the mountains and tossed them into the ocean**.** As they had been bustling with their work, the buoyant vaanaras made a hubbub of laughter and shouting. Meanwhile, a small squirrel, which had been watching the hustle and bustle at construction of the floating bridge**,** felt strongly determined to volunteer itself in the great construction. So, it swiftly went into the waters of the ocean to wet its body and rolled over the sands It, thereafter, wiped off the sand from its body, filling the gaps between rocks and stones. The tiny squirrel often obstructed the monkey's way, who were most worried of it being stampeded. When Hanuma caught the squirrel and asked it to leave their way, the little creature replied that its heart carried high reverence for Lord Rama, so it, too, wanted to help Rama in reaching Lanka to rescue Sita Mata. On hearing the squirrels' soulful words, Lord Rama took it into his palm and stroked his back softly in thanksgiving.

Bharatiya Tatwa: Firstly, no work or help is big or small**.** Never listen to people who demean your work neither refrain from doing your best. Secondly, the squirrel metaphorically conveys that we much acknowledge every blessing that graces us in our life. Thirdly, the scene unfolds the truth of nature that every good deed reaps its favour and fortune to generations together.



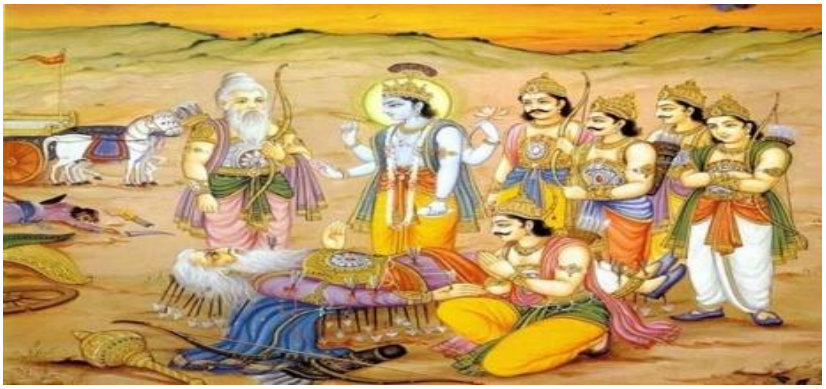
3) "Bheeshma Pratigna"

Reference: Aadi Parva of the Mahabharata

Context: When Devavratha had learnt that he was the principal objection to his father, King Shantanu's second marriage with the Matsyagandhi, he took the most terrible oath.

Story: Devavratha was the only surviving song of King Shantanu and Goddess Ganga. Everyone adored and admired him for his velour, skillful archery, omniscience, and samskara. His high esteem for his father as well as his noble persona could not let King Shantanu out-cross Devavratha and marry his second love, Satyavathi.
On the other hand, Devavratha, too, could not see his father's state of disappointment and helplessness. So, he decided to placate Satyavathi's father by saying that he would never claim the throne of Hasthinapura. Moreover, he vowed for a life-long celibacy, promising to serve whoever sat on the throne of his father.
Devaratha's greatest Pratigna is called 'Bheeshma Pratigna' which turned him into turned him into 'Bheeshma' which means "dreadful".

Pleased by his generosity, King Shantanu himself blessed Bheeshma with the ultimate power of "**Ichcha Marana**"- death by choice. Devavratha was also known as Bheeshma Pitamaha; he served five generations, bore several insults, endured agony but never broke his vow.



Bharatiya Tatwa: Bheeshma's unquivering determination of his virtues, vows, senses, and responsibilities – all are the **core essence of Bharatiyata**. The ultimate highest respect and concern of the father-son duo forms the breath of Bharatiya tatwa.

4) *"Andhudi Bhaarya Ganghari"*

Reference: The Mahabharata

Context: When the most virtuous and intellectual Gandhari agreed to marry the visually-impaired Dhrutarastra whose helpless state of be littleness eclipsed her owned noble qualities.

Story: Gandhari was a princess of Gandhara and the wife of the Kuru King Dhrutarastra. As a princess of Gandhara, Gandhari was noted for her beauty and virtuous nature. She was believed to have performed a penance on Lord Shiva, who gave her the boon of bearing hundred sons. Worried for King Dhrutarastra's marriage and progeny, Bheeshma enfeebled Gandhari to marry the blind king and to use her boon of having hindered sons for him. Bheeshma further threatened to enthrall the kingdom of Gandhara if Princess Gandhari refused to marry Dhrutarastra. Gandhari's marriage was a huge compromise to her, which was accepted only in the interest of saving her father's kingdom from captivation.

When Gandhari found that her husband-to-be Dhrutarastra was born blind, she, too, blindfolded herself in order to empathise him and emulate his experience. She became a chastised wife to King Dhrutarastra. However, Gandhari's greatest sacrifices, virtues, beauty, identity, and intellect were all neglected and eventually faded just in the shades of her husband's disability. People simply began to refer to her as "Guddivaadi Bhaarya Gandhari".

Not only did Gandhari suffer the defamation but also endured agony of her frustrated husband's helpless state of disability, and thereby bore much disrespect.

Bharatiya Tatwa: Gandhari's character conveys a great piece of wisdom that a bad company or a flaw some person's company would ruin the chastity of a good person. Her noblest qualities and sacrifices were hardly remembered by the people for the fact that she was the wife of a weak person. Bharatiya tatwa often warns to be cautious in choosing one's company and friends.

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Impact Of Indian Philosophy on W.B. Yeats's Poetry

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Abstract

Yeats's contribution to Indian tradition, Indian Vedantic philosophy. Similarities of Irish and Indian politics and cultures.- Indian spiritual groups – Upanishads and sacred Indian scriptures , Indian poems , Yeats's Indian sources , Translating Sanskrit texts , Indian conception of art, aesthetic spiritual harmony, consciousness , space and time. Relevance of Yeats in 21st century. Recent publication of B. Arkin's book *The Thought of W.B. Yeats* (2010), R.F. Fosters *Words Alone, Yeats and his Inheritance* and highly acclaimed polemical essay by K. Myer's "W.B. Yeats Steinach operation and Hinduism" (2009) have contributed to a renewed interest and reassessment of Yeats perception of Indian tradition, philosophy, art and religion in his poetry and creative writings. He was one of the few gifted English Poets to recognize the growing importance and profound impact of Indian thought on Western scholars and is considered as one of the major intellectual events at the turn of the twentieth century. He became familiar with Indian spiritualism, mysticism and vedantic tradition through his association with the Theosophical Society in 1880. Madame Helena Blavatsky and Henry Steel Olcott, the chief theoreticians of Theosophy, encouraged Yeats to read and understand *Upanishads*, *The Bhagavad Gita* and The Sacred Books of the East edited by Max Muller. These books awakened Yeats curiosity and interest to find an intellectual direction that paved the way out of the realms of conventional religious orthodoxy and mechanical materialism.

1) Introduction

One of the prime reasons for W.B. Yeats fascination with India was the close similarities in customs, music, myths, art, culture and religious beliefs between India and Ireland. India and Ireland also share many similarities in political history. Both the countries were colonized by the British and the native culture and language were forcibly suppressed and English language was imposed. The Young Ireland rebellion in 1848, much like the 1857 revolt in India was a failure. In 1907 the Irish Parliamentary Party turned down Britain's offer of limited Self Rule. Leaders like Aurobindo appealed to the Indians to follow the Irish example. Prominent Irish women like Annie Besant and Sister Nivedita's contribution to Indian nationalism and nationalistic literature is acknowledged by most Indian writers dealing with the freedom struggle. Mrs. Besant took Indian wisdom to Ireland and this influenced Yeats as well as George Russell, a most ardent follower of Theosophy, who was immensely respected in India and was also an esteemed figure in the Irish Renaissance.

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2) Analysis

To attempt an analysis, from the perspective based on new insights through close analysis of Yeats's poems in which the elements of Indian Philosophy , religion and Sanskrit literature can be traced as recurring themes, structural devices or the symbolic matrix of imageries. Such a critical approach is rewarding and the paper exhaustively deals with discussion on some of the most significant poem of Yeats on Indian tradition. Yeats scholarship to date is more informative and based on scholastic evidence. An in-depth analysis of his use of Indian material proves to be profoundly in tune with Post-modernist discourses. There is evidence to show that the teachings of three remarkable figures Rabindranath Tagore, Mohini Chatterji and Shri Purohit Swamy deeply inspired and helped Yeats to probe deep into aesthetic perpectives on Indian Philosophy.

Most celebrated Irish intellectuals looked upon "India as another victim of colonial rule, and nationalists from both the countries drew inspiration from each other. Yeats was no exception to this. It is not surprising that in reclaiming the Irish past, Yeats as well as many Irish writers and poets found the exploration of Indian culture as a useful tool. Hence, they were profoundly influenced by Indian philosophy and the sacred literature. That is why Irish writers have always enjoyed great popularity among Indian lovers of English literature. The casual attitude to plot, the use of mythology and somewhat similar attitude to literature and literary criticism among the writers of the two countries may be the result of these affinities" (Rawal 316). The extraordinary cross-cultural encounter between Yeats and Rabindranath Tagore "resulted in extraordinary repercussions. Mutually impressed with each other and joined by a similarity of their respective positions in Ireland and Bengal, the two poets embarked upon a relationship that was to carry wide-reaching implications for the bringing together of East and West. At the same time, however, their relationship was deeply implicated in the colonial, history and the limits of cultural exchange between India and Britain" (Jelniker 1007).

A major point on which most of Yeats commentators agree that he was motivated to learn more about Indian philosophy. He admired Rabindranath Tagore and considered him as his spiritual guru. Rabindranath Tagore became a part of Yeats's dream of Irish Revival and anti-colonial attitude. He seems to have sought Irishness in India where, he believed, the simplicity of the past and the love for one's people had been preserved, and found in it a common cause for anti imperial resistance. For such expression of positively conceived nationalist feelings, Edward said holds him in high regard.

Despite Yeats's obvious and, I would say, settled presence in Ireland, in British culture and literature, and in European modernism, he does present another fascinating aspect: that of the indisputably great national poet who during a period of anti-imperialist resistance articulates the experiences, the aspiration, and the restorative vision of a people suffering under the dominion of an offshore power (227).

> Said considers Yeats a non-oriental poet, notwithstanding his occasionally confused "Irish loyalties" of "Protestant Ascendancy" that instigated tension, which then "caused him to try to resolve it on a 'higher', that is, non-political level"; and his

> later abandonment of politics in preference to pursue Indian philosophy did not diminish his status of a great poet (230).

John Rickard, on the other hand, comments on Yeats's "Indo Irishness", which combined some irrational, mythical and stereotypical views of both peoples and traditions to create an ideal Ireland with the most ancient past, to oppose European modernity, which he saw as a threat to his country. John Rickard, argues that Indian philosophy and literature provided Yeats with what he liked to see a viable alternatives" to the Western way of life against the "rationalism, empiricism, materialism, and modern urban culture" that he disliked. Yeats turned to India for answers in the mistaken belief that Indian culture fully preserved its purity, unity and spirituality in the face of the merciless colonizer (139). However, Rickard does not label Yeats's discourse as Oriental or Celtic Orientalist. Embarking on the translation of the Upanishads with Purohit Swami was motivated by Yeats's idea of finding ancient Celtic roots in Indian scriptures, i.e., India and Asia, as Rickard claims. Rather, it seems reasonable to believe that, while initially looking for models in Indian philosophy, Yeats got much more than he bargained for, profound knowledge and understanding of Indian philosophy, and that his search was a genuine thirst for learning about certain truths that he felt might have eluded him. New knowledge brings new insights, change happens – as his poetic work demonstrates – and so, the mature Yeats was indeed was in search of new literary models in Indian culture, art and Vedic philosophical postulates.

After intense scrutiny and vast reading of the vedantic texts Yeats responded to Indian thought emotionally, intuitively and intellectually. He was inspired by Indian ideas of art, philosophy and religion to such an extent that a creative and vital part of his career became totally assimilated and reproduced those ideas into his major poetical works. It was at, this juncture that Yeats met three of India's most intellectual men at three different stages in his life who played a stellar role in shaping his mind to understand the nuances of Indian philosophic ideas, Vedanta, art, religion and culture. His association with Mohini Chatterji, Shri Purohit Swamy and Rabindranath Tagore made Yeats to learn more about asceticism, the power of contemplation and the search for truth which eventually leads discovering "gnanodhaya".

Both Tagore and Yeats after their first meeting strove to reconcile their spiritual search with actual existence; both believed that underneath the manifest diversity of the phenomenal world lay an underlying unity, which they sought to attain in themselves and for their respective countries.

Some of Yeats's early readings included *The Sacred Books of the East,* edited by Max Muller, *The Buddhist Sutras* (1881), the translations of the *Bhagavat Gita* (1882), the translations of the *Upanishads* (1884), and books connected with the Theosophical movement, like A.P. Sinnett's The Occult World (1891), Sinnett's *Esoteric Buddhism* (1883), and Mabel Cook's *The Light on the Path.* Yeats read Madame Blavatsky's *The Secret Doctrine* (1888) a little after his meeting with Mohini Chatterji. Yeats's turning his attention to books dealing with

Indian philosophy might be, a conscious attempt to find an intellectual direction that could lead him out of the realms of conventional religious orthodoxy and mechanical materialism.

Yeats, who made friends with Chatterji and Shri Purohit Swami and Tagore and whose ascetic inclinations did not uphold asceticism all through his career in relation to India. He saw what they "pointed out in the Indian sources, but he also saw and absorbed what they did not highlight in the Indian sources. It has been Yeats's achievement that he discovered the most vital aspect of Indian tradition: a unity among art, religion, and philosophy, and he made some of his own art embody that tradition" (Rabindran 117).

Yeats's reading Indian books, probably on a large scale, helped him to understand the features of Indian artistic tradition which holds religion, philosophy, and art as a unity and which ultimately harmonize aesthetic pleasure and spiritual pleasure. "The Indian to His Love", another Indian poem, has very little that can be called Indian in terms of philosophy or atmosphere. The first title of the poem was "An Indian Song", which appeared in *The Dublin University Review* of December 1886. It was reprinted in *The Wanderings of Oisin and Other Poems,* 1889, under the same title. In Poems, 1895, the title was changed to the present form. About the theme and philosophy of the poem Flannery has argued: "'An Indian Song' and 'Kanva on Himself' are Yeats's first poems explicitly Indian in both matter and philosophy; in them he first indicates his acceptance of Chatterji's Vedantic idealism". (29) This observation may be true about "Kanva on Himself". But there is very little Vedantic idealism in "The Indian to His Love". The narrator, who is an Indian, desires to escape from the "unquiet land" along with his sweetheart, and to be in a dreamy island.

It is quite interesting to note that the Indian poems by Yeats do not uniformly demonstrate a particular trend or quality. "Anasuya and Vijaya" is dramatic in form and artistically very much in harmony with Indian artistic tradition. The atmosphere, images and technique of the poem make it Indian. In "The Indian upon God", Yeats dramatizes, with great skill, an Indian philosophical idea. He detaches himself from the ideas in the poem by creating an Indian narrator, who hears what a few creatures say about God. Here is a typical poem in which Yeats transmutes into art what is a religious and philosophical idea in the Upanishads. These two poems, "Anasuya and Vijaya" and "The Indian upon God" demonstrate the great technical success of early Yeats because he has shown how to recreate an Indian story or an Indian concept in art, so that the tradition of Indian art is recaptured and his own ideas of art as beauty, dream, and wisdom are integrated with it. Yeats's talent in dramatizing conflicting attitudes and view points can be seen in these poems though not in a full-fledged way. "The Indian to His Love" does not have anything specifically Indian; but it also fits into Yeats's ideas of art as dream and beauty. "Kanva on Himself" alone remains a prime example of Yeats's neglecting his own ideas of poetry while writing a poem. He becomes rhetorical here. The poem is an overt verification of Indian philosophical ideas like reincarnation, the immortality of the soul, and fatalism (Rabindran 38). "Anasuya and Vijaya" though not in a major way, prove that Yeats has understood the idea of aesthetic-spiritual harmony principle.

"The Indian upon God" proves that Yeats could meaningfully respond to the idea of the Supreme Self manifesting itself as forms of life.

A study of Yeats's art in relation to Indian ideas of art is rewarding because it clarifies where his personal relationships with Indians begin and end and how his art maintains a high level of individuality and autonomy. Yeats's commentaries on Indian philosophical and religious ideas were intended to promote them in India itself as well as to introduce them to the West. He was a lover of tradition and he hoped to keep Indian tradition alive. He shared some of the Indian ideas, like reincarnation and the immortality of the soul, and his Irish background enabled him to share those beliefs.

In Yeats's writings, at least in his major works, he is successful in bringing together two kinds of consciousness: the one shaped by time and space and the other which transcends time and space. Yeats, the artist, can be seen trying to equate, relate, and transmute experiences that shape the two kinds of consciousness. Yeats's relation with India enabled him understand that the two kinds of consciousness were not altogether different. In human life these two kinds of consciousness can be brought together and harmonized. The Self, in this respect, became a word with magical powers which could, without negating life in this world and worldly experiences, enable mankind experience the supreme reality or God.

3) **Conclusion**

Although Yeats was not the only British poet who critically examined Indian thought, he is undoubtedly singular in many respects. He maintained his abiding interest by elucidating Indian Philosophy to European readers through his poems. He artistically-recreated Vedantic precepts through his works by revealing a commitment and deep involvement with Indian Philosophical discourse with admiration and respect.

Apart from T.S. Eliot, Aldous Huxley, Christopher Isherwood, R.W Emerson and Walt Whitman, Yeats responded to Indian thought revealing how aesthetic experience and Spiritual experience could be harmonized in Indian Vedantic and artistic tradition. No One other than Yeats could have retained such an abiding interest in alien philosophy or culture for more than half a century unless he has genuine desire to pursue the complex and obscure Philosophical concepts and spiritual tradition of India. In the twenty-first century several American, British, and European philosophers and linguists have written several books and research papers applauding Yeats's revival of interest in Indian in the Indian tradition of Vedantic scholarship to the Western readers by artistically recreating those ideas through his Poetry, and Prose writings thereby revealing the splendors and wonder of ancient India's contemplative and aesthetic wisdom. This paper is a step in that direction for Research scholars to pursue more deeply the hidden treasures embedded in Upanishads, Vedas, and Dharma Sutras and shed new light on Yeats's contribution to Indian Philosophic tradition.

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Eco-Feminism

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Abstract

The discourse on nature and women makes an attempt in understanding the relationship between the problems with regard to gender and ecological crisis through various texts under the light of eco-feminist theory. This article makes an attempt to study the Indian view of Eco-feminism, religious view of Eco-feminism, patriarchal attitude in exploiting women and nature, and also to show and prove women as savior of nature with the life experiences and finally to study the fury of nature.
This discourse help us to unravel man's contentment with nature and mother earth and it engages with the life experiences that result from the impact of the exploitation of nature in the name of development in Indian peasants, tribal, and indigenous people.

Keywords: Eco-feminism, Ecology, women, nature, development, and agrarian culture

1) Introduction

The article intends to explore the relationship between Man, Nature and mother earth. The paper helps to understand the elements of Eco-feminism, through the connection between women and nature, and also to examine the patriarchal attitude towards the nature and women, and makes an attempt to highlight various movements led by the women to protect the nature by various parts of the world.

We proceed to explore the Indian views on eco-feminism on throwing the light upon various movements took place in different parts of the world on the basis of fundamental premise of eco-feminism, and analysing the religious views since the beginning of the creation, and how it ramified to eco-feminism, on the other hand the idea that a patriarchal conception of modern development is the root cause of the exploitation of women and nature and subsequently, to depict the women as Savior of nature and to establish a nexus to cement the bondage between Nature Man and Women.

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2) Analysis

a) A Panoramic view on Nature and women

Nature is akin to a women who enjoys disguising herself, and whose different roles, revealing now one part of her and then on another. It is an established fact according to pantheism that we are all part of nature which includes mortals and inanimate things. Nature is feminized because it is seen as possessing the qualities of women by virtue of patience bestowed by the cretator. Women are seen as being projected as dull and drab, domestic, pious, moral, caring, loving, simple, beautiful, patient and kind. They are inherent with these qualities. God made them kind and beautiful. Therefore, nature is seen as the sum total of all the characteristics that t women possess and there are frequent references to this in literature, especially in Coware's Task poetry

eg. "Constant rotation of th "unwearied wheel

That nature rides upon maintains her health,

Her beauty, her fertility"

(Coware , e Task, Book 1: The Sofa, 359-61

Early classic mythological connections between goddesses and nature, association of mother earth as the womb of women because many aspects of nature were produce from the womb of the earth. There are several literary references to reproductive terms such as womb and bosom e.g. "Paradise Lost"

eg. Dear nature is the kindest mother still

Though always changing, in her aspect mild

From her bare bosom let me ……

William Golding says, "Women are the architect of the society, whatever we give to women she will make greater as a sown seed begins a forest in nature". Nature is attributed with motherly qualities of women being repressive, aggressive, repulsive, enduring, loving, producing, caring, nurturing persona these qualities give rise to the thought of eco-feministic philosophy.

The connection of women and nature is generally based on three claims of an empirical, conceptual, and epistemological character (Eaton & Lorentzen, 2003; Warren, 1996). First, the empirical claim shows that the firsthand victim of the impact of environmental deterioration is woman in the name of the development of science and technology because of her close association and dependency on nature. In short, the eco-feminist empirical claim examines the sociopolitical and economic structures that reduce many women's lives to poverty, ecological deprivation, and economic powerlessness (Eaton & Lorentzen, 2003, p. 2). The second conceptual claim focuses on the construction of society on the basis of a "hierarchy and dualism" (Eaton & Lorentzen, 2003,

p. 2), which reveals patriarchal ideologies as the root causes of domination of women and the exploitation of nature. The third claim is epistemological, centering on knowledge of nature. In this perspective, women have historically been agrarian cultivators and thus favor sustainable and renewable agriculture. Moreover, they are heralded as saviors of nature, invested with the mission to protect, preserve, and nurture the environment (Daly, 1978; Eaubonne, 1974; Merchant, 1980; Mies & Shiva, 1993; Ruther, 1975). These are the three connections between women and nature which have paved the path for eco-feminism to frame debates on the exploitation of women and nature

b) The Indian Views on Eco-feminism

Vandana Shiva, a prominent Indian Scholar and activist, has made major contributions to the field through her works such as *Eco-feminism* (Maria Mies &Vandana Shiva), *Staying Alive, etc.* According to Shiva, women and nature have an intimate relationship and a shared history on the grounds of a common experience of exploitation, degradation, and domination by an andro-centric attitude. She further argues that the degradation of women and nature is due to the emergence of a new world order that is based upon development, modernization, advancements in science and technology.

Vandana Shiva gives the example of Chipko movement, in which the rural women of the Garhwal district in the Himalayas protested against the commercial felling of trees by hugging the trees; this movement has gained much popularity and recognition worldwide.

Ecological movement and the Chipko movement are the two major ecological movements participated by the village women for the protection of trees against felling. In Andhra Pradesh, village women led Anti-arrack movement because an increased consumption of arrack by men resulted in poverty.

Women took leading role for the protection of nature; all the movements show that women are concerned about their children and their families. For the enhancement of all forms of life on earth, we find that women protested in a non-violent way. A kind of identification with nature and life led them to protest against all forms of violence that are disturbing the ecological balance of all life on earth. In India, we find that women as mothers are respected; similarly nature is also viewed as pious and holy.

c) Overall view on the religious perspective

According to holy book (Gen:2:21-22) God made women from the rib of a man and he brought her to the man. Here if the analysis were made, she is created from the rib of man not was she created by taking the rib of his head so that she dominates and rules over him. In literal terms women is subjugated by man\ She was not created by taking the rib of his feet. so that she would be crushed under his feet. God created her from the rib of a man so that she has be treated equally.

This proves that Eve(woman) was created synonymus to Adam(man). But man misinterpreted and disobeyed the commandment and started suppressing and oppressing women and nature.

d) Patriarchal Supremacy

It's an exponential study with regard to patriarchal supremacy exploiting women and nature to show and construe women as savior of nature. Men and women are fundamentally different in their terms of characteristic as men were seen as hard-working, rational, proud, demanding dominating none of which are connected to nature.

In totality, women take a lead role in farm work and related domestic food production. They take more interest in agrarian tasks, and myriad of women are taking over and expanding their involvement in agricultural tasks, but this has not changed the gender dichotomy of labor with regard to progeny, farming activities of men and women in African countries it was majority of the task connected to food production rests on women. All over the world women are solely responsible for agricultural work, man generally owns the land, therefore controlling women's labor man feels is his birth right. Research shows that women are seen to be oppressed in three ways which is class, race, and gender.

e) Nature's fury

When nature becomes furious it leads to tremendous catastrophe, No earthly power can impede her. Women were blamed for every disaster, hurricanes were named on women. Exploitation of nature leads to aggressive effects like Earthquakes, Volcanoes, Tornadoes, Huricanes. They are awesome in their destructive power, these natural events remind us that we are small and vulnerable — and by destroying the dynamic planet will always entail risk. Example: Australian bushfires

Also known as Black Summer, the Australian bushfires were deemed as one of the biggest natural disasters. The extent of damage ranged from an estimated 18 million hectares burned over 9000 buildings and homes destroyed, and 400 deaths (directly or indirectly) (source: holidify)

3) Conclusion

The only path to overcome from this brute supremacy, when the mental blockades are dissipiated and stand for the protection of oneself and the nature. This study gains importance for two reasons firstly, the present ecological condition compels to pay attention on these issues and leads to find solution for this. Secondly, to stand up against the systemic structure framed against women . It is very much vital to find a solution bereft for the protection of nature and women. Alternatively, the change of the system should be created in such a way that nature is preserved and not exploited and should be nurtured.

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Spirituality And Family Ethics

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Abstract

In recent times the relationship with the members of the family is at an abysmal point. The need of the hour is not to have contact but also consolidate relationships failing which the very fabric of human existence is at a peril. After many births God has given birth to us as human beings and the power to discriminate between good and evil.

Keywords: Ethics, Moral values, Spirituality

1) Introduction

The present paper delineates the utilization of powers vested in man. It is an established fact that anger develops more frequently in the family, in marriage and with children. Unless we harness it, we are at its mercy. It is vital to identify one of your strengths namely honesty, and compassion, and make a sincere effort to grow in this area.

There is Lord Shiva in every Jeeva, therefore serving every human beyond the genetic link is akin of worshiping Lord Shiva as quoted by Sri Ramakrishna Paramahamsa.

This is a perfect way to understand God who is always omnipotent. The following parable would illustrate. One day in a king's court scholars, scientists and invited intellectuals gathered. The king asked three questions i) Which way is God looking? ii) Where is God? iii) What does God do? Before the king could answer the question, the shepherd said, the listener is the disciple and the teacher should be seated on the top and the king below, the king agreed.
The Shepherd asked the king to light a lamp and asked the maharaja where does the lamp look? The answer of the shepherd was the lamp looks in all directions. We can concur that God in the form of Param Jyothi can be seen everywhere.
What does God do? I am the Shepherd, you are the Maharaja, the one above is lowered down. The lila is that God's work is to divide the perpetrators into Inferior beings in the rebirth.
Cooking and Serving according to our ancient dharma is a blessing. The kitchen is a temple. Our elders say that the things I do with God in mind by chanting holy slokas, sanctifies the food that is cooked. Those who cook need to know how much of an impact it has on the others who partake food. Athithi Devo Bhava is the maxim.

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2) Conclusions

We observe that most people do not give preference to cleanliness and sanity at home that's why it is better to use one's own home-cooked food. These days it has become a fashion of eating whatever is cooked by the roadside. This explains the reason why even the mother a 'sattvic', the children do not have even temper but are violent. While raising children we need to notice this aspect and give due importance to it to avoid complications in the future.

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Aryabhata -A Review

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Abstract

Our Ancient India is something we should be proud of, and learn how things begin with the discoveries and inventions of our great personalities. It was during this time that India made unprecedented progress in the fields of astrology, science and mathematics. One of the most significant persons we should be proud of is, Acharya Aryabhata. His works, treatises, and astronomy all of these is something a students should know and apply in their life.

Keywords: Aryabhata, Astrology, Science

1) Introduction

Aryabhata was born in 476 A.D(Anna Domini) in the place called Pataliputra, the Gupta Empire which is Patna present. It is called 'The Golden Period' because of the writings of many different kinds of theories. Aryabhata contributed his works to mathematics and astronomy. He calculated the value of pi to the fourth decimal digit. We all know that he is the creator of the number 'Zero'. To this day the number system owes its recognition to him. 'Aryabhatia' and 'Aryabhatta Siddanta' are some of the well-recognized books written by him that encapsulate the information about his prodigal works. Aryabhatia has many theories and innovations in mathematics that we use till date. One such great work is the approximation of pi calculation.

'Add four to 100, multiply by eight, and then add 62,000. By this rule, the circumference of a circle with a diameter of 20,000 can be approached'.

caturadhikaṃ śatamaṣṭaguṇaṃ dvāṣaṣṭistathā sahasrāṇām
ayutadvayaviṣkambhasyāsanno vṛttapariṇāhaḥ. (Aryabhatiyam, ganitapada 10)

Some of his achievements were exponential even by today's standards. He is believed to be the first to use zero in calculations. He developed the concept of zero in mathematics. Also he described the concept of the Earth's ellipsoid shape, which was later described by other scholars such as Ptolemy.

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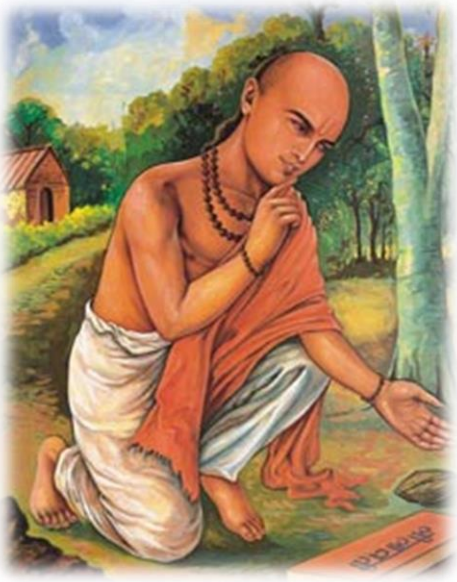


Aryabhata Illustrative art

Aryabhata was a scholar and a philosopher, who proposed that the Earth rotates on its axis and orbits the Sun. He was the first person to describe the concept of the Earth's ellipsoid shape, which was later described by other scholars such as Ptolemy. He was a skilled astronomer who accurately measured the distance between Earth and the moon, which at the time was considered the farthest object in the universe. He also calculated the circumference of a circle using a series of right triangles, which was later discovered by Arab mathematicians.

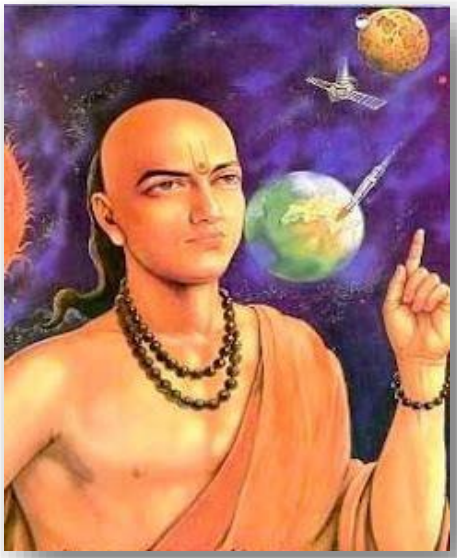
Aryabhata also made important contributions to geometry including developing the first algebra notations as well as introducing the idea of a spherical coordinate system. The coordinate system that he developed uses imaginary numbers and complex numbers for calculations and is therefore a more accurate way of representing the universe than systems based on straight lines as previously employed. Aryabhata also developed the positional decimal system which uses the same method of counting up and down as is used in present day. This is much more efficient than the tally system used by the Babylonians which was often inaccurate because physical objects were often not kept in the exact same place every time they were counted.

2) Analysis

Being a student, knowing and learning about Aryabhata is a good feeling. With just a low laying ancient technology, he did invent these theories and astronomy. We with extraordinary technology what we could not do.

When there is no value to zero, then when we append 0 to 1 it becomes a two-digit number greater than 9 the highest in one-digit. Then appending that zero to 100 and so on to Billion and trillion. We can apply them in our works because they provide an example of how scientific discoveries have been made in the past and provide us with a useful model of how this process could take place

in the future. One of the main benefits of this approach is that it can be completed relatively quickly and would therefore be an efficient and economical way to conduct research into new areas of science and technology that could be relevant to developing sustainable and prosperous future for humanity.



Aryabhata art illustrating his astrology

How did Aryabhata measure the Earth? He used the gnomon – an instrument used to measure the position of the sun, which enabled him to estimate the distance of the Earth from the sun. By measuring the length of the shadow cast by the gnomon at noon on three consecutive days he was able to work out how many days it would take for the Sun to travel between the Earth and the Moon.

The treatise initiated an era in India in which mathematics was developed from being just a tool of astronomy to a fully discipline in its own right, culminating in the algebraic creatise of Bhaskara II and Nilakantha Somyajin.

Our Indian History of Sciences has its recognition around the world. All the students should know the value of it and should know how they achieved it. This develops the enthusiasm in the people and make themselves to think in a unique way which would lead to new creations every day. Using Aryabhata's approach of knowing the space, we can think of approaching greater than that about what if the planets rotate in the same sync of axis of rotation? There will be infinite questions raised in the students which will be both possible and impossible to know but it makes them to understand the power of imagination. The first step we can learn from Aryabhata is that to imagine. Imagination leads to questions, questions leads to creations.

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Imbalance Of Ecological Ethics in Present Scenario: On Philosophical View

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Abstract

The study focuses its attention Imbalance of Ecological ethics Indian philosophical concerns on environment. It will inquire into the Vedic theory, on various ecological issues challenges and Solutions. Environmental ethics is the discipline in philosophy that studies the moral relationship of human beings to, and also the value and moral status of the environment and its non human contents. Environment is the sum total of all surroundings of a living organism, including natural forces and other living things, which provide conditions for development and growth as well as of danger and damage. Living things do not simply exist in their environment. They constantly interact with it. Organisms change in response to conditions in their environment. The environment consists of the interactions among plants, animals, soil, water, temperature, light, and other living and non-living things. In this paper I am going to give you a brief account of the Environmental concerns which are global issues. We need to understand each other

Keywords*:* Living things, Non-Living Things, Environmental Degradation, Ecological imbalance, Globalization.

1) Introduction

Environmental challenges affect the entire world. Even for the sake of enlightened self-interest, we must comprehend one another. But a higher goal is the search for a global environmental morality that takes into account the view points and insights of diverse civilizations and worldviews. In our efforts to behave responsibly and respectfully toward other people and Nature, maybe we can learn from one another. To that purpose, this book should include a multicultural component. Religion has had a significant impact on people's attitudes and behaviors toward Nature throughout history. Distinct religions have different perspectives on Nature, animals, and the Earth.

World religions each provide a distinct set of moral principles and laws to direct people in their interactions with the environment. These universal issues are addressed by environmental ethics: humanity's relationship to the environment, its awareness of and duty toward nature, and its duties to preserve some of nature's resources for future generations.

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Its mandate includes the prevention of pollution, population management, resource usage, food production and distribution, energy generation and consumption, the preservation of the wilderness, and the preservation of biological variety. It creates philosophical ideas, poses comprehensive, universal issues, and then applies its tenets to men and women's daily lives all around the world.

The academic approach to ethics is frequently divided into two categories by philosophers: theoretical ethics and practical/applied ethics. Environmental ethics is a framework for deciding the right course of conduct with respect to the natural world, either in terms of a particular circumstance or in terms of a general attitude to the environment. Environmental ethics is a practical/applied ethic. An emerging area of applied ethics is environmental ethics. The phrase "applied ethics" is used in a practical sense to identify moral answers to societal issues and is an effort to address our issues with professional ethics.

The area of environmental philosophy known as environmental ethics involves beyond the standard definition of ethics beyond just considering people to include the non-human world. Environmental law, environmental sociology, ecotheology, ecological economics, ecology, and environmental geography are just a few of the fields that it has an impact on. Humans make a variety of ethical choices in relation to the environment.

One's perspective might be said to be "ecocentrist" if she views the entire natural world as valuable on its own, without consideration of human interests. Aldo Leopold was most likely the most well-known ecocentrist. A Sand County Almanac is the book in which Leopold develops the "Land Ethic." He uses the word "land" to refer to the entire ecosystem as a whole. The specific components of the natural community are not inalienable according to the land ethic (the loss of one tree or one bird is not a problem). The maintenance of a healthy representation of each component of the natural system as well as the preservation of the complete system in its natural state are valued. All ethics we have developed to date hinge on the notion that a person's membership in a group of interconnected pieces... The land ethic just broadens the community's bounds to encompass soils, waterways, plants, and animals, together known as the land. In other words, a land ethic shifts Homo sapiens' position from conqueror of the land-community to simple member and citizen of it.

2) Significance Of the Study

The whole of a living organism's surrounds, including natural forces and other living entities, which create circumstances for development and growth as well as for danger and injury, is its environment. Living creatures do more than merely coexist with their surroundings. They communicate with it continuously. Changes in the environment cause organisms to adapt. The interactions between plants, animals, soil, water, temperature, light, and other living and non-living objects make up the environment.

Definition

As per the OECD Glossary of Statistical Terms is stated that Ecological ethics are moral principles governing the human attitude towards the environment, and rules of conduct for

environmental care and preservation. The field of philosophy known as environmental ethics examines the moral standing of the environment, nonhuman inhabitants of it, and the moral connection between humans and those things.

Methodology:

The Present study follows a philosophical approach with deductive analysis, inductive analysis, synthetic and descriptive analysis. The researcher uses primary and secondary source materials. To draw the conceptual analysis of environmental ethics. To philosophize the need of ethics and environmental concerns an Indian perspective. To philosophize the need of humanities relationship to the environment. To adopt descriptive, analytical methods to justify the study.

Challenge Of Environmental Ethics:

Assume that eliminating certain individuals of overpopulated indigenous species or putting out natural remedies is required to preserve the integrity of a specific environment.

Will these actions be morally permissible or even required?

Is it morally acceptable for farmers in non-industrial countries to practice slash and burn techniques to clear areas for agriculture?

Think about a mining business that engaged in open pit mining in a previously pristine location. Does the surface ecology and landform? And how does a human-restored ecosystem stack up against a naturally occurring one in terms of value?

It is frequently said that it is ethically wrong for humans to pollute, damage, and use a significant share of the planet's natural resources. However, is this morally wrong just because a sustainable environment is necessary for (present and future) human well-being? Is this behavior also unethical since the natural environment and/or its varied components have values that they should be maintained and respected for regardless? These are some of the issues that environmental ethics looks into. Others are more general issues that affect organisations and communities as a whole. Some of them are unique issues that people encounter in particular situations. Others are more speculative inquiries about concerning the value and moral standing of the natural environment and it’s non human components.

Environmental ethics and Ecology's unique interaction plays a privileged role in environmental ethics. Aldo Leopold and Rachel Carson were two pioneering environmental ethicists with advanced training in ecology, and this significant impact how they saw the natural world morally. Leopold was an ecologist, farmer, forester and conservationist who wrote explicitly about human moral duties to nature. He was the first to articulate a land ethic, or to describe moral responsibilities for land. His most important book was "A Sand County Almanac" (Leopold, 1949). In his chapter on a land ethic, he claimed: "a thing is right when it tends to preserve the integrity, stability, and beauty of protect the biotic community. It is wrong when it tends otherwise." This appears to be the first explicit ethical statement about the importance of an ecosystem. Leopold expanded the boundaries of what was morally considerable from

human society to include biological community integrity.

Leopold's land ethic and the science of ecology are the foundations of Arne Naess' philosophy of deep ecology, which develops a vision for how people should live in connection to the planet. The premise of deep ecology is that humans are an integral component of the environment. Many Deep Ecologists contend that humans are no more entitled to rights than other kinds of life and that dramatic social change is required for people to live within the capacity of the Earth's ecosystems. They reject the term "natural resources" in its entirety since it implies that elements and living things are valuable primarily as commodities for people. According to Deep Ecology, the existence of nature, the environment, and ecosystems makes them morally valuable and deserving of moral respect and protection. They are valuable because they are a part of the Earth, not because they satisfy human wants.

3) Relationship between the humanities and ecological issues

Understanding how technology, population growth, cultural mores, the environment, sickness, and conflict have changed human attitudes and responses across time is essential to comprehending the difficulties mankind faces. This is particularly true if the past is to be used in ways other than as a crude analogy of anticipated future situations. We also know that understanding past trends in key processes like land cover, soil erosion, and flooding, observing how thresholds have been crossed, and extrapolating natural or pre-impact patterns of environmental variability can greatly improve assessments of how sensitive or vulnerable modern landscapes and ecosystems are to future human activities and climate. Such information is already leading to the improved formulation of resource management strategies.

The nature and complexity of socio-ecological systems now largely depend on the past; without looking back decades, centuries, or even millennia, we cannot completely comprehend the situation today. Current social behaviours may have long-term effects on the climate and many other factors, as we are seeing with global warming now. Since information regarding previous human-environment interactions has not been efficiently arranged for this purpose or effectively used, there is a genuine risk that our views of the future may become unrestrained by our understanding of what has already happened. We run the very real risk of following in the footsteps of those who have gone before us if we continue to act in ignorance of or rejection of this comprehensive historical understanding.

Human civilizations can react to environmental signals (including those related to the climate) in a variety of ways, including failure or collapse, migration, and inventive creativity via discovery. For instance, severe drought has resulted in both social breakdown and creative water management through irrigation. Human responses to change may modify the way that social, ecological, and climatic systems feedback on each other, creating a complex web of relationships that span both time and geography. Our knowledge of this historical network and our ability to adjust to unforeseen future events will be necessary to ensure proper future reactions and feedbacks within the human-environment system. We must consider several time and spatial scales in order to gain that knowledge.

Why The Study was Done

Environmental ethics alerts us to the evil and indiscriminate behaviors of humans.

Environmental ethics deals with the issue of responsible personal conduct with respect to natural landscapes, resources, species, and non-human organisms.

It teaches us moral values toward nature and teaches us to respect various life forms. Of course, moral philosophy as a whole is directly concerned with how people behave.

Our scientific grasp of the environment will, finally, influence environmental ethics. Changes in our knowledge of how ecosystems function or in the data pertaining to the environmental problem will undoubtedly inform and have an impact on people who write about our environmental responsibilities.

Views on Indian philosophers: Imbalance of ecological issues

India, a country with a rich cultural heritage, a long history of civilization, and a culture of experimentation at all levels of life, is now experiencing environmental issues, which indicates that we made some mistakes. What kind of errors are they? Is it a lack of correct application of science and technology, or is it a lack of cultural preparedness for today's issues? A thorough examination of India's ecological legacy must be conducted in order to provide answers to these problems. Indian cultural heritage is distinctive in that it has made significant contributions to all fields of knowledge. Whether it be politics, economics, art, religion, or anything else, philosophy and religion have received special attention since these fields place more emphasis on the mind than the body. According to Swamy Raganathananda, "Trade with India and communion with her intellect and ideas were both much desired; India has been recognised to other nations as a country of wealth and philosophic insight. These findings demonstrate that ancient Indians were very interested in the human condition, including his struggle to adapt to his social environment and his quest for fulfilment in both his social and personal life. This is a cultural element that is quite prevalent in India.

Indian cultural legacy has so historically been well-known. India took satisfaction in having an aranya sankriti culture, which passed down to succeeding generations the lesson that those who grow among trees and flowers are blessed. The current economic and technical growth, however, changed everything and forced us to adopt an exploitative tactic. Man wanted to have an ever-increasing amount of control over the natural world. Because of human intervention in natural processes, the natural world is no longer balanced as it once was. Such a disruption of the natural equilibrium began to cause issues for the ecosystem.

Therefore, in order to restore the natural environment to its original state of balance, it is necessary to examine Indian ecological traditions against the backdrop of the modern world. Analyzing our ecological heritage does not indicate a regress in ecological practises. In order to revitalise our historic values and lessen the conflict between man and the environment, we are evaluating these traditions with the current situation in mind.

Environmentalism and environmental movements have always benefited from the

philosophical underpinnings of Indian cultural traditions. Indian literature and faiths are full with extensive traditions that the Indian population has continued to uphold throughout the millennia. Indian culture made extensive and consistent use of symbols and idioms, mostly to train the human mind to view nature as his ancestor and to treat it with reverence.

The way Indian culture treats everything as holy is what distinguishes it from other cultures. No difference was made between the holy and the secular. The Indian intellect was open to tolerance of various faiths and beliefs as long as it helped create a stable community that was in harmony with nature. "The heart of Indian tradition is to live in collaboration rather than exploitation of environment," says Marta Vannucci, who studies the biological and ecological aspects of the Vedas. "The worship of the earth mother can be traced to prehistoric beginnings in India, as in most societies. The planet, like a good mother, may withstand so much abuse that occasionally she is irreparably injured, even before man realises the harm he has done. The persona of Sita recreates one of the most well-known representations of this maternal state as the source of everything that is kind and protecting, selfless and constantly present. Sita, the kind, survives the test of fire unscathed, and at the end she returns to the mother earth, cleansed by water and purified by air. Her name means "the furrow," which alludes to both the female genital organ as well as the furrow of a ploughed field that will receive the seeds of the following season's harvest.

The lack of alternative regulatory mechanisms in science and technology for decreasing and eliminating the social and environmental costs of deterioration was a major factor in the emergence of problems connected to environmental degradation. There was no legislation in place when science and technology systems made a significant advancement in modernizing industries, thus business leaders were free to choose how to limit environmental deterioration. On their side, industrialists were more focused on profit than regulation.

The Bhopal tragedy serves as a sobering warning to us. There is evidence that Union Carbide has neglected plant maintenance, claims M.N. Buch, a pioneer in developing an ecological approach to urban planning and management. A product becomes negligent when it has the potential to kill and actually has. Only in cases of industry irresponsibility and a lack of discipline instilled by efficient law enforcement is it conceivable. 30 As a result, a closer examination of Indian traditions demonstrates that the western model of growth had a negative impact on Indian culture. It is only natural that Western communities would demand for the preservation of nature, and the steady development of environmental ethics is a way to reduce environmental damage.

But India's situation was very apart from that of the west. The fact that we have been practicing environmental ethics for millennia, long before the so-called western civilization even existed, is shown by a thorough examination of our cultural past. Indian society has been teaching the next generation about nature for millennia. We followed the laws governing the efficient use of natural resources, which allowed Indian civilization remain monetarily prosperous.

4) Conclusion

To comprehend the key components of moral or ethical thought. to gain knowledge of the crucial and distinctive aspects of environmental ethics. Language skills have a significant role in understanding and applying ethics. Though it cannot replace it, moral reasoning is a potent addition to scientific understanding of the world. We do not learn to care through science. Science does not suffice on its own. Give justifications for environmental conservation.

By integrating human values, moral principles, and enhanced decision-making into dialogue with science, environmental ethics advances scientific understanding. Because environmental ethics must be multidisciplinary, it draws on several academic disciplines. It is unable to stand alone. What is the correct thing for us to do? is a straightforward inquiry that frequently leads to new insights on environmental issues. The world and all of its inhabitants are morally significant, or deserving of our ethical consideration. The world and all living things on it are valuable in and of itself, regardless of whether or not they serve human needs. Humans should think about "wholes" that incorporate other forms of life and the environment, drawing on the concept of an ecosystem. must create our own moral philosophy regarding how we should interact with the environment.

Environmental ethics alerts us to the evil and indiscriminate behaviours of humans. Through environmental ethics, we learn to appreciate different living forms and instill moral ideals toward nature. The topic of ethical behaviour with regard to non-human animals, plants, and other natural resources is addressed by environmental ethics. Of course, moral philosophy as a whole is directly concerned with behaviour with regard to individuals.

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విశ్వమంతా కృష్ణుడు
(Vishwamantha krishnudu)

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Abstract

The Supreme Lord, Sri Krishna is omnipotent and omnipresent. The poem written Telegu, language deals with His childhood leelas and the essence of Bhagavad-Gita.

Poem

నీలో కృష్ణుడు, నాలో కృష్ణుడు |
అందరిలో కృష్ణుడు, విశ్వమంతా కృష్ణుడు ||

దేవకికి చెరసాల్లో పుట్టినాడమ్మా,
తల్లి తండ్రులను విడిపించినాడమ్మా!
మేన మామను చంపినాడమ్మా,
నోటిలో సృష్టిని చూపించినాడమ్మా!! నీలో కృష్ణుడు...

పూతనకు మోక్ష మిచ్చినాడమ్మా,
కాళియ మర్దనము చేసినాడమ్మా!
గోవర్ధన గిరిని ఎత్తినాడమ్మా,
భక్తుల ఆశలను నిలపెట్టినాడమ్మా!! నీలో కృష్ణుడు...

నల్లని వాడయ్యా ఆ చిన్ని కృష్ణుడు,
అల్లరి వాడయ్యా అందాల కృష్ణుడు!
నేర్పించే వాడయ్యా నేర్పరి కృష్ణుడు,
చేయించే వాడయ్యా ఆ చమత్కార కృష్ణుడు! నీలో కృష్ణుడు...

వేణునాదం నేర్పించినాడమ్మా,
గోవులను రక్షించమన్నాడమ్మా!

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స్త్రీలను గౌరవించమన్నాడమ్మా,
సాత్వికంగా వుండమన్నాడమ్మా!! నీలో కృష్ణుడు...
ఐదు ఊళ్లు ఇవ్వమన్నాడమ్మా,
కౌరవులకు బుద్ధి చెప్పినాడమ్మా!
పాండవులకు రాజ్యము ఇప్పించినాడమ్మా,
కాని రాజ్యము చేయనేలేదమ్మా!! నీలో కృష్ణుడు...

భగవద్గీతను మలచి ఇచ్చినాడమ్మా,
ఫలం పుష్పం పత్రం తోయం అడిగినాడమ్మా!
ఇవ్వక పోతే దొంగ అన్నాడమ్మా,
జీవుల అందరిలో వున్నాడటమ్మా,
విశ్వమంతా నాది అన్నాడమ్మా!! నీలో కృష్ణుడు...

పని చేస్తూ పోమన్నాడమ్మా,
ఫలితము కోరవద్దన్నాడమ్మా!
పుట్టినవాడు చస్తాడటమ్మా,
కాని చచ్చినవాడు పుడతాడటమ్మా!!
శరీరం పోతుందన్నాడమ్మా,
కాని ఆత్మ చావదన్నాడమ్మా!!! నీలో కృష్ణుడు...

భక్తుడిగా కావ మన్నాడమ్మా,
శరణుగా రమ్మన్నాడమ్మా!
ముక్తిని ఇస్తానన్నాడమ్మా,
వినక పోతే బుద్ధి చెపుతాననాడమ్మా!!
మళ్ళీ వస్తాను అన్నాడమ్మా,
మళ్ళీ వస్తాను అన్నాడమ్మా...

నీలో కృష్ణుడు, నాలో కృష్ణుడు |
అందరిలో కృష్ణుడు, విశ్వమంతా కృష్ణుడు ||
విశ్వమంతా కృష్ణుడు || విశ్వమంతా కృష్ణుడు ||

అమ్మ
(Amma)

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Abstract

It deals with the mother in the Telugu language about her inner feelings as on when she conceives till her end of the day how she compares with the effectiveness of the person's situation he faced in his real life.

Kavitha

ఒక శిశువుకు జన్మనిస్తున్న సంగతి తెలిస్తే (తన జీవితంలో) అంతులేని ఆనందాన్ని పొందుతుంది ఆడది.

నవ మాసాలు తన శిశువులో కలిగే పెరుగుదల చూసిన ఆనందంలో, తను మోసే బరువును మరిచిపోతుంది.

తనకు ఈ కాలంలో లభించే అలసట ఆటంకాలను ఆలోచనతో అర్థం చేసుకుంటుంది.

తన బిడ్డను లోకానికి పరిచయం చేసే మధుర క్షణాలలో ప్రసవ వేదనను ఆవేదనానందంతో స్వీకరిస్తుంది.

తన బిడ్డ మోము తొలిసారి వీక్షించి తను ఊహించిన రూపంతో పలుమార్లు పోల్చుకుంటుంది ముచ్చటగా ముద్దాడుతుంది.

తనివి తీరని ఆ రూపాన్ని తిలకిస్తూ తన ఆలోచనలను నెమరు వేసుకుంటుంది.

తన భవిష్యత్తంతా ఆ బుడతతో ముడి వేసుకుంటుంది, కావున తన శిశివుపై ఈగ కూడా వాలకుండా చూస్తుంది.

ఆ బిడ్డ భవిష్యత్తులో ప్రతి చిన్న సంఘటనకు కలత చెందుతుంది బాధలో తల్లడిల్లుతుంది.

అంతుచిక్కని ఈ ప్రపంచంలో నవమాసాలూ పెంచే భారం నుండి కళ్ళెలో కాలిపోయేదాకా తన బిడ్డ సుఖాన్ని కోరుకుంటుంది.

క్రొవ్వొత్తిలా తను కరుగుతూ తన కూనకు వెలుగును ప్రసాదిస్తుంది.

తనకు ఆ బిడ్డ అందించే నిజమైన ఆనందం అందుతుందో లేదో...

నిర్ణయం! కాలానిది!! శిశువుది!!!

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బండ
(Banda)

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Abstract

It deals with stone in the Telugu language its properties in the poetic format with inner feelings compared with the effectiveness of the person's situation he faced in his real life.

Poem

ఇది ఒక విచిత్రమైన పదార్థము!
వర్షంలో తడవదు, నీటిలో నానదు,
ఎండకు పాలిపోదు, చలికి చల్లబడదు,
సంతోషాన్ని నవ్వుతో బయటపెట్టదు,
బాధను ధుఃఖంతో సాగనంపదు!
తనతో మాట్లాడినా పట్టించుకోదు,
మాట్లాడకున్నా పలకరించదు.
తనలో దైవరూపాన్ని చూపుతుంది,
ప్రశ్నలకు మౌనంగా సమాదానమిస్తుంది.

ఏ రోగాన్ని తన దరికి రానివ్వదు, వ్యాధిలా వేదించదు.

సంతోషం, ధుఃఖం, బాద, స్పర్శ, వ్యాది, ఎండ, వాన, చలి, వేడి ఇవేవి దీనిపై ప్రభావిం చూపవు,

కానీ...

మనం ఏది చెప్పినా వింటుంది, ఎంత చెప్పినా వింటుంది. తన్నినా సహిస్తుంది,
కొట్టినా ఒర్చుకుంటుంది,
ఎంత తిట్టినా మారు మాట్లాడకుంటుంది.
సంతోషాన్నైనా, ధుఃఖాన్నైనా తనతో పంచుకోనిస్తుంది, మౌనంగా ఓదారుస్తుంది.
అందుకే అదంటే నాకిష్టం, సంతోషం.

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We keep Running Without any Reason

Satinder S. Malik
Former Director of Airforce Adventures and
Pilot with Go First Airlines,
New Dehli, India.

As long as Sun shines in the sky,
and for many even when it is away.
Life seems like a change of season,
we keep running without any reason.

There were times when life was idyllic,
Survival was not a tough proposition.
leaving what was pastoral and pleasant,
we keep running without any reason.

We could roam around far and free
in search of knowledge and desire.
Pursued slowly philosophy and vision,
we keep running without any reason.

The long-awaited end of summer
brought some clouds and rain.
ran through the storm of the season,
we keep running without any reason.

Blushing cheeks and furtive glances
may have betrayed thy intentions.
Not thy fault for this is the season,
we keep running without any reason.

I was an unimaginably trivial person
without any dreams or aspirations,
For love now, I have finally risen,
we keep running without any reason.

My smiles may reveal some mystery
and my poetry may hint at sarcasm.
Prosecute me yet it's not treason,
we keep running without any reason.

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Fast travel keeps polluting the Globe,
we've lost peace beyond comparison.
Capitalistic thoughts bind us to prison,
we keep running without any reason.

Whatever I do O Theos!

The infinite cosmos is your O Theos,
and I too belong to the sublime,
As guardian and preserver of creation,
you dwell in the dimension of time.
In this overwhelming infinite setup,
I wonder what existence is mine?

Whatever I said, whatever I thought,
whatever I learned, whatever I taught,
Whatever I felt, whatever I tasted,
whatever I saught, whatever I wasted,
Whatever I explored, whatever I travelled,
whatever I thought, whatever I unravelled,

Whatever I'll do, whatever I did,
whatever I revealed, whatever I hid,
Whatever I envision, whatever I admire,
whatever I plan, whatever I aspire,
was either inspired by you alone,
or was this human mind and body's play.

I am blameless, as it is all your sway,
how do I express my heart to you today?
speaking to you is so joyous and gay,
my fears about the future you must allay,
I want to climb the rock of life with your belay,
my fears about the future you must allay.

Apart from my ego which I call mine,
whatever is the will of this ego,
that also gets influenced by thine.
Those options I get, do make me feel happy,
also, get regulated, and sometimes so snappy.

Alleviate my burdens of past Karma,
and bless me to know true Dharma,
Grant me might, intellect and cognition
with togetherness and devotion,
I want to get completely engulfed
in truly gnostic celestial emotion.

జీవిత పరమార్థం

(Jeevitha Paramartham)

Prathyoosha Kolar

Admissions coordinator,
Malla Reddy University, Hyderabad, Telangana, India.

Abstract

This is about life: about answers I am searching for, a question like how to live life, what is the meaning of life, our experiences, what is good and what is bad, which is a necessity and not to find answers for all these before I leave this world.

Poem

ఈ లోకంలోకి ఎప్పుడు వచ్చానో తెలుసు

ఎప్పుడు పోతానో తెలీదు.

వచ్చిపోయేలోపు ఎలా జీవించాలో తెలుసుకోవాలి!

వచ్చిన జీవితాన్ని సార్థకం చేసుకోవాలి.

జీవిత పరమార్థం తెలుసుకోవాలి.

వచ్చిపోయేలోపు...

చచ్చిపోయేలోపు...

ఈ వచ్చి పోయే మధ్యలో.

ఎన్ని కథలు...

ఎన్ని కలలు...

ఎన్ని కలహాలు...

ఎన్ని కష్టాలు...

తెలుసుకోవాలి!

ఏది మంచి?

ఏది చెడు?

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ఏది నిజం?

ఏది అబద్ధం?

తెలుసుకోవాలి!

స్వర్గానికి ఎలా వెళ్ళాలో...

నరకానికి ఎందుకు వెళ్తామో...

మంచిపేరు ఎలా వస్తుందో...

చెడ్డ పేరు ఎందుకు వస్తుందో...

తెలుసుకోవాలి!

ఆశ ఏదో...

అత్యాశ ఏమిటో...

దురాశ ఏదో...

నిరాశ ఎందుకో...

తెలుసుకోవాలి!

వచ్చిపోయేలోపు ఎలా జీవించాలో తెలుసుకోవాలి!

వచ్చిన జీవితాన్ని సార్థకం చేసుకోవాలి.

జీవిత పరమార్థం తెలుసుకోవాలి.

వచ్చిపోయేలోపు...

చచ్చిపోయేలోపు...

గురువు
(GURU)

శ్రీనాథ్ ఇటికేల
Head, Department of Mathematics, Malla Reddy University, Hyderabad

Abstract:
This poem depicts the Guru and his/her role in one's life and his position, and importance in the development and formation of character building.

గురు బ్రహ్మ గురు విష్ణు, గురు దేవో మహేశ్వరః |
గురు సాక్షాత్ పరబ్రహ్మ, తస్మై శ్రీ గురవే నమః ||

Poem

జ్ఞాన వెలుగులతో వ్యక్తిత్వ సృష్టి చేయడం ద్వారా గురువు **బ్రహ్మ** గా
సమాజంలో స్థితి గుర్తింపును అందించడము ద్వారా గురువు **విష్ణువు** గా
మనలోని అంధకారాన్ని అంతం చేయడం ద్వారా **మహేశ్వరుడి** గా
మహోన్నతుడు అవుతున్నాడు గురువు. ||

జీవం ఇచ్చేది తల్లి అయినా
జీవనం ఇచ్చేది తండ్రి అయినా
జీవితం ఇచ్చేది గురువే కదా

మహోన్నత విలువలు ఆపాదించి
జీవితానికి మరో జీవం పోసే మరో బ్రహ్మ గురువే కదా! ||

మా జీవన అధ్యయనాలయాన అమూల్య విలువల గ్రంథమా
విజ్ఞాన వికాస అమృతత్వాన్ని గ్రోలిన జ్ఞానతృష్ణ భ్రమరమా
నిత్య పఠనాభిలాషతో అద్భుత ఆనందాన్ని ఆస్వాదిస్తూ,
పంచుతూ వచ్చిన జ్ఞాన యోగి ||

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అనునిత్యం అధ్యయనంతో పరిశ్రమిస్తూ
అను క్షణం అకుంఠిత దీక్షతో పయనిస్తూ
సూర్య తేజోమయ జ్ఞానాన్ని గ్రహించి
వెన్నెల పాఠాలుగా మార్చి ఇచ్చెడి వెన్నెల రారాజు గురువు
సంద్రపు ఉప్పు నీటిని సంగ్రహించి
మంచి నీటిగా మార్చి వర్షించే మేఘం గురువు ||

చూడటానికి చూపు ఒక్కటే సరిపోదు
వెలుగు తోడు కావాలి
జ్ఞాన వెలుగు చూడాలంటే అధ్యయనకాంక్ష సరిపోదు
అధ్యాపకుడు అనే తోడు కావాలి ||

జ్ఞాన సింధువును దోసిట పట్టి
సౌశీల్యం మీ శిల్పంగా
సహకారత మీ చిరునామాగా
స్నేహశీలిగా, స్ఫూర్తి ప్రదాతగా విద్యార్థి లోకానికి
వినయం, వివేకం, విజ్ఞానం,
వినోదం, వికాసం, విజయం
అను ఫలాలను అందిస్తూ వచ్చిన గురువులకు |

మీకై ప్రతి ఉదయం సంతోషపు తోరణాలు కట్టాలని
ప్రతి పూట ప్రశాంత పూతోటలను పూయించాలని
మీకై ప్రతి కుసుమం ప్రమోద భరిత సౌరభాల్ని వెదజల్లాలని
నాలోని గరిష్ఠ కాంక్ష గా ఆ దేవదేవునికి నివేదిస్తూ ||

UNIVERSITY CAMPUS LAYOUT PLAN

1. SCHOOL OF ENGINEERING
2. GIRLS HOSTEL
3. CAFETERIA
4. SENIOR STUDENTS BLOCK
5. SCHOOL OF AGRICULTURAL SCIENCES
6. SCHOOL OF MANAGEMENT & SCIENCES
7. INDOOR STADIUM
8. AUDITORIUM BUILDING
9. STAFF QUARTERS
10. BOYS HOSTEL
11. CRICKET GROUND
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