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WHERE SADHANA BEGINS

SRI ADIYOG INTERNATIONAL INSTITUTE
FOR LEARNING & RESEARCH



Prof. Etakula Vayunandan

MESSAGE

I am happy to hear about Conference in the field of Yoga. Dr Sanjay Gawali and his better half Mrs.Sulabha Gawali are giving their contribution in Yoga Sector. I have come to know that they have special arrangements to encourage their yoga and Sanskrit students as well as faculty. Yoga Conference is one of them. All the activities are really very appreciable. The progress of college shows the increasing graph in such short period.

I extend my warm and best wishes to Shri. Adiyog Mahavidyalay and Research Institute. We, the YCMOU are ready to support you.

Due to some unavoidable circumstances, I could not attend the said Conference. Therefore I missed the opportunity to interact with you. I wish Conference and college grand success.

With warm regards

Prof. E. Vayunandan

Vice - Chancellor

Yashwantrao Chavan Maharashtra Open University

27/02/2019



आशीर्वाचन

आजच्या धावपळीच्या व ताणतणावातील जीवनात आपण योगाच्या माध्यमातून तणावमुक्त होऊन आनंदी जीवना जगू शकतो. फक्त भौतिक प्रगतीने विश्वामध्ये अशांती, प्रतिस्पर्धा व अनेक मानसिक आजार निर्माण झाले आहेत. वैयक्तिक व वैश्विक पातळीवर विनाश थांबवून विकास करावयाचा असेल तर अध्यात्म व योगाच्या सहाय्यानेच हे होऊ शकते. आज लोकांना हळूहळू का होईना योगाचे व अध्यात्माचे महत्व पटत आहे. म्हणून या क्षेत्रामध्ये जागरूकता येत आहे.

“आध्यात्मिकता व योग संशोधन” या परिसंवादाच्या माध्यमातून लोकांना अधिकाधिक प्रोत्साहन मिळेल अशी आशा व्यक्त करतो. मी “श्री आदियोग आंतरराष्ट्रीय शिक्षण व संशोधन” संस्थेचे या परिसंवादाचे आयोजन केल्याबद्दल अभिनंदन करतो व हा उपक्रम यशस्वी होणेसाठी परमेश्वराचे चरणी प्रार्थना करतो तसेच शुभेच्छा व्यक्त करतो.

सर्वाना प्रेम, क्षेम व हरि ओम।

- स्वामी अद्वैतानंद
Chinmay Mission - Nashik
25/02/2019

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ON THE COVER

Message from
-Dr.E Vayunandan
Hon. Vice Chancellor (YCMOU)

Rev.Swami Advaitananda-Head
Nashik Chinmay Mission Center

Spiritual Studies in Yoga Philosophy



Dr. Penna Madhusudan

Sr. Professor & Dean
Kavi Kulguru Kalidas Sanskrit University, Ramtek

Abstract

In the Nineteenth and twentieth century there were great Yogins and Saints like Ramakrishna Paramhansa, Ramanmaharshi, Aurobindo Yogin and others. But, there were also some less known great Yogins and scholars like Gulabrao Maharaj whose original contribution in the Yoga Philosophy is yet to be fully studied and appreciated. Sri Gulabrao Maharaj (GM) is undoubtedly a scholarly saint par excellence in whom do we find a rare combination of a scholar, a yogin, a devotee and an Advaitin in perfect harmony. In his **short life of 34 years**, he has written **about 134 works**. All this he achieved without eyes, **he was blind**.

Sri Gulabrao Maharaj

Sri Gulabrao Maharaj was born on 6th July 1881 A.D. in a village called Lonitakli in Amaravati district of Vidarbha, Maharashtra. His parents were Gonduji Mohod and Alokabai. He lost his sight when he was just nine months old. He had very sharp memory. He studied many major texts on subjects like Veda, Vedanga, Music, Ayurveda, Literature, theosophy, Western philosophy, electron theory etc. He had great liking for books, but due to poverty he had to beg others to read out the books for him and pay for the books he purchased.

He considered himself as child of Shiva and Parvati, as wife of Shri Krishna, as friend of Gopika and as disciple of Sant Jnanadev Maharaj. He regarded himself as Panchalatika, one of the Gopika, and performed the Katyayani vrata as described in the Bhagavatam.

It is said that he had visualized (remember, he was blind) the form of Jnanadev and described it to an artist who had then drawn it and it became the first ever available beautiful painting of Sant Jnanadev.

At the age of 34, Gulabrao Maharaj left this world on 20th September, 1915 A.D., leaving for the world about 134 analytical works in different languages like Sanskrit, Marathi, Hindi, Bhojpuri etc. Thus in all there are 20 yashti or collection of books of Maharaj comprising of 2500 abhang (Marathi verses), 1250 Gita, 23,000 ovee (Marathi verses), 2500 pada and 1000 shloka.

GM had great respect for the ancient Shastra more particularly for Advaita and Yoga. All his great intellect was fully focused on synthesizing the theories of these shastra, paving way for new thoughts in philosophy.

GM- on Yoga

GM had written eight books on Yoga viz.

- | | |
|-----------------------------|-------------------------|
| 1. Yogaprabhav | 2. Nididhyasana Prakash |
| 3. Dhyanyoga divakara | 4. Hiranyayoga |
| 5. Yoganga yamalakashana | 6. Sopanasiddhi |
| 7. Yogaprabhav in prose and | 8. Kundalini Jagadamba |

Apart from these, he had discussed many interesting topics of yoga in his letters also. Let us now see some of his views regarding matters related to Yoga so that there can be a clear understanding of his magnanimity as a thinker.

Patanjali and his Rajayoga

GM considers Patanjali as an incarnation of Adishesha and explains that Patanjali had achieved excellence in five fields viz. in Ayurveda as Charaka, in Vyakarana as Mahabhashyakara, in service as Lakshmana, in polity as Balarama and in Yoga as Patanjali.

In the Yogasutra of Patanjali, the Samadhi, the fruit of Yoga is explained first and sadhana or the means, next. But, generally the means are explained first and the result next. GM explains this in his text Yogaprabhava, that the Yoga practitioners who have achieved detachment should study the Samadhipada because the state of Samadhi is easily attainable to them. But, those who have an unstable mind should study the Sadhanapada onwards and practice strictly all the yama and niyama.

The Vyasabhashya on the Yogasutra states that this science is for the qualified ones only.³ GM explains that this science is for everybody and therefore everyone should try to practice it continuously at his level. In his opinion, a person who has no fear of death and of this transmigratory life, alone is true Adhikarin in Yoga. In order to enjoy the full benefit of Yoga, the aspirant should develop some good qualities in him. They are:

- i) Having deep interest in Yoga,

- ii) Having full faith in the teacher and making a synthesis of the experience expounded in the Yoga texts, explained by his teacher and experienced by him.
- iii) Keeping away from the worldly attractions,
- iv) Getting over the psychological level,
- v) Living a moderate Life (as per Gita) and
- vi) Turning towards the reality after knowing fully all the blemishes of worldly affairs.

While explaining the result of auxiliaries of Yoga, GM says that each of the eight auxiliaries aims at bringing about a certain result in the Yoga practitioner.

- a) Constant practice of Yama and niyama controls the senses,
- b) Constant hearing of Vedanta sentences in the Niyama helps in controlling the negative tendencies within.
- c) Regular practice of asana makes the body steady,
- d) Careful practice of pranayama ends the mudha (मूढ) state of mind
- e) Practice the pratyahara ends the Kshpita state of mind,
- f) Practice of dharana and dhya ends the Vikshpita state of mind,
- g) Samprajnata samadhi makes mind one-pointed (ekagra) and
- h) Asamprajnata samadhi makes mind fully controlled (niruddha).

The Yogabhashya enumerated the various states of mind and the commentators like Vachaspati and others explained these states on the base of the guna theory, but the credit of connecting the Ashtanga yoga with the states of mind and explaining the efficacy of ashtanga in mind control in yoga practice should go to GM.

Dhyanayoga : An independent type of Yoga "Vaa" ('वा')

Considering the use of the indeclinable va (or) in the Yogasutra (1-39), GM explains that dhyana (meditation) is an independent yoga not to be combined with other means of samadhi. This dhyana is of two types viz.

1. Avastubhavana (not contemplating on any object) and (अवस्तुभावना)
2. Tadakara-karana. (becoming one with the object of meditation). (तदाकारा-कारना)

The Hiranyayoga (Dream Analysis in Yoga)

One of the important contributions of GM in Yoga is the exposition of Hiranyayoga. In his opinion, dreams too can corroborate to Yoga. His exposition was planned in the beginning in seven chapters called Hiranyamudrika. But, to the disappointment of all yoga aspirants, only four such chapters are available with his commentary now.

GM regards dream as one of the types of Yoga. He explains that dream is due to the Madhya samvega (moderate inclination of mind) and it can lead to the experience of yoga which is substantiated by the Yogasutra. He classifies dreams into three categories as –

Type of Dream	Meaning
Apartha	The dreams which do not become true and are caused by sattva guna influenced or dominated by impurities.
Yathartha	The dreams which become true and are caused by sattva guna.
Anyartha or Suchaka (Mithya suchaka)	Dreams that are indicative.

GM explains that the dreams which do not become true are apartha or illusion. He further explains that the world is an apartha dream in that sense.

At the end of the discussion on this topic, GM explains that the dreams in childhood are outcome of previous birth, those in old age are indicative of next birth and those in between, belong to this life.

But he restrains himself from further elaboration of the esoteric matter and states that by the order of experienced teachers of that science he is not supposed to proceed on that topic.

Interpretation of Samvega

The Yogasutra of Patanjali (1-21) records the importance of samvega in the process of realizing the state of Samadhi. Among the ancient commentators of the Yogasutra, Vachaspatimishra, Ramananda and Sadasivendrasaraswati explain this as 'detachment'.

But not accepting this, Vijananbhikshu states that such interpretation is wrong as it goes against the bhashya which mentions nine types of Yogin on the basis of this samvega only, hence it should be understood as quick practice of the means of Yoga.

Bhojaraja explains it as a kind of deep impression on the mind. Anatadeva follows him.

Narayanatirtha, a commentator of the 18th Century, has absolutely no problem with any meaning of the word samvega. He finds all the meanings possible in the present context.¹⁴

Yoga Commentator	Meaning of Samvega
Vachaspatimishra, Ramananda and Sadasivendrasaraswati	Detachment

Vijananbhikshu	Quick practice of means of Yoga
Narayanatirtha	All the meanings possible
Gulabrao Maharaj	Firm determination of mind

Grades of Samvega

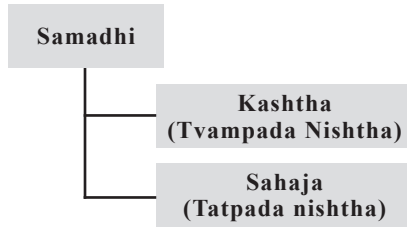
Compared with the available commentaries on Yogasutra or Yogabhasya, especially in the context of the word samvega, it is quite evident that GM has novel explanation of the grades of samvega.¹⁵ According to him:

1. the people with low samvega should practice dhyana and deliberately try to imagine the form of favorite deity,
2. those with moderate samvega will see the form in dreams and
3. those with intense samvega do always realize the Lord in their heart.

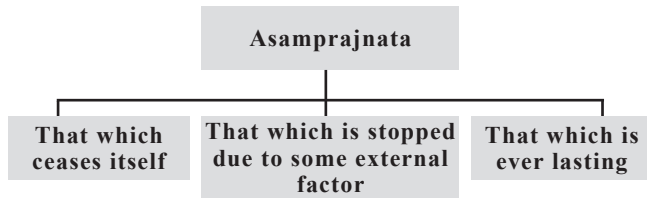
He explains samvega as firm determination of mind.¹⁶ It may be noted that both detachment and firm determination go together. Without the one, the other is not possible to get. That is the reason why the ancient commentators explained the word in the sense of detachment.

4. The exposition of samadhi

Yoga can lead to liberation but detachment is compulsory for it, he says. Samadhi basically means the union of the subject and object of contemplation. It is of two types viz. 1. Rooted on the soul and 2. Rooted on the Lord.¹⁷



Both the varieties of Samadhi propounded by Patanjali in Yogasutra as Samprajnata and asamprajnata belong to the first category only. If intense love to Lord is attached, then alone the asamprajnata can become sahaja. This Asamprajnata is again of three types.¹⁸



This kind of subtle analysis of very important concepts of Yoga is a special feature of the yoga works of GM.

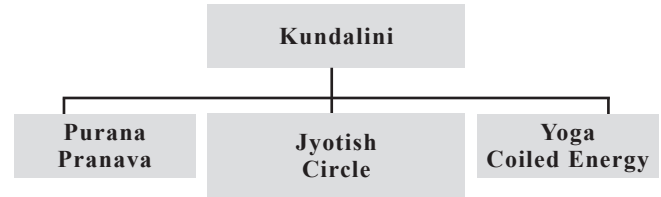
5. Isvarapranidhana

The Yogasutra mentions Isvarapranidhana in the samadhi pada (1-24) and in sadhana pada (2-1). Though there is not much difference in the wording of the sutra, the indeclinable "va" ("वा") present in the sutra in samadhipada raises a question whether bhakti is optional and secondary. GM explains that the particle doesn't mean 'option' here. It means 'certainly' in the present context.¹⁹ The pranidhana mentioned in the samadhipada brings about asamprajnata samadhi and the same in sadhanapada brings about samprajnata samadhi.²⁰

6. Kundalini and Chakra

The Hathayoga texts give lot of importance to the chakra and Kundalini. GM's exposition of these is unique and thought provoking.

GM made a perfect synthesis of the views of Purana, Jyotisha and Yogashastra regarding Kundalini.²¹ He says that the word Kundala meaning 'a circle' refers to the Omkara or pranava. He explains further that the shape of a nadi is kundalini. Now, coming to the Jyotish system, GM explains that the jyotish shastra does not accept the view of purana that the earth is positioned on the thousand hoods of Adishesha.



But, reconciling the Yoga theory with the Purana view, GM explains that the individual energy is Kundalini and the collective energy is the Adishesha. He provides another novel explanation that the energy in individual body is Kundalini and the same at cosmic level is Adishesha.²² Thus, he has undoubtedly paved a new path in interpreting the sacred texts in a synthetic manner.

He says that the chakras are psychological and not plexus as some people explain and they are created by intense imagination. Once created, they begin functioning at physical level too.

The saint of synthesis

GM has achieved great success in interpreting many ancient texts, systems, in explaining many age old beliefs and synthesizing many theories which otherwise appear contradictory. This kind of attempt in lucid terms with ample examples is definitely unique.

While making an evaluation of Samkhya, Yoga, Jnana and Bhakti, GM states that the realization propounded in the

samkhya system reaches one near detachment, the yoga makes the senses ineffective and the contemplation on the meaning of mahavakya brings about Brahman-realization.

Basically, the samkhya aims at the enquiry into the nature of 'self', the yoga at that of the 'Lord' and the Vedanta at both.²⁵ One can notice the obvious influence of Vedanta on GM, especially in the interpretation and synthesis of matters of Yoga.

He explains, if the mind is turned into the Brahman by way of contemplation, the process is yoga and if it is done by the way of enquiry, it is Vedanta.

One should understand the reality with the help of Samkhya, control the mind with the help of Yoga and realize it through the Vedanta, he explains.

Conclusion

The contribution of modern thinkers in understanding the Yoga philosophy in a synthetic manner is also unique helping the Yoga aspirants achieve a finer understanding of the system and progress in their practice. GM is one of such great thinkers whose original ideas throw light on many unexplored topics of Yoga Philosophy.





किशोर खैरनार

आध्यात्मिक क्षेत्रातील व्यासंगी अभ्यासक व
कृष्णमूर्ती एज्युकेशन ट्रस्टचे संचालक

जे. कृष्णमूर्ती आणि त्यांची शिकवण

फे ब्रुवारी १९८६ मध्ये जे. कृष्णमूर्तींच्या मृत्यूपूर्वी दहा दिवस, त्यांना एक प्रश्न विचारण्यात आला. 'कृष्णमूर्ती या व्यक्तीच्या मृत्यूनंतर त्यांच्यातून कार्यरत असलेल्या त्या विलक्षण प्रज्ञेचे, त्या ऊर्जेचे काय होईल?' कृष्णमूर्तींच्या रूपाने मानवतेचा त्या परमोच्च प्रज्ञेशी, त्या विलक्षण ऊर्जेशी संपर्क होता. परंतु जेव्हा कृष्णमूर्तींनीच देहरूपाने सविस्तर उत्तर 'जे कृष्णमूर्ती : जीवन आणि मृत्यू' या चरित्रग्रंथात दिलेले आहे. त्या उत्तराचा आशय असा आहे, की कृष्णमूर्ती हे देहरूपाने जरी नसले तरी त्यांच्या शिकवणुकीच्या रूपाने ते सदैव मानवतेला उपलब्ध असतील. जे कोणी आत्मीयतेने त्यांची शिकवण जगण्याचा प्रयत्न करतील ते कदाचित काहीसे त्या प्रज्ञेच्या संपर्कात असू शकतील. कृष्णमूर्तींची शिकवण अमूल्य आहे, कारण त्या परमोच्च प्रज्ञेशी संपर्काचा तो एकमेव मार्ग आहे.

कृष्णमूर्तींची शिकवण त्यांच्या अनेक पुस्तकांमधून वे ध्वनिचित्रफीतींमधून उपलब्ध आहे. 'द्रष्टा हाच दृश्य असतो' हे तिचे सूत्र आहे व मानसशास्त्रीय मुक्तता हे तिचे उद्दिष्ट आहे. कोणतीही शिकवण ही सूत्रात्मक असते, तिची आपल्या दैनंदिन जीवनाशी सांगड घातल्याशिवाय, ती आचरणात आणल्याशिवाय त्या सूत्राचा उलगाडा होत नाही. कोणत्याही गोष्टीचे आचरण व पडताळणी हे कष्टाचे काम असते आणि सामान्यपणे माणसाची कष्ट करण्याची तयारी नसते. याच कारणामुळे कृष्णमूर्तींची शिकवण बऱ्याच लोकांना अवघड व सर्वासाठी नाही असे वाटते.

तंत्रविज्ञानात (टेकनॉलॉजी) विलक्षण प्रगती करणारा मानव मानसशास्त्रीयदृष्ट्या मात्र अजूनही मागासलेलाच आहे. त्याची मानसिकता अजूनही भय, क्रोध, हिंसा, असुरक्षितता, दुःख, चिंता, महत्वाकांक्षा, आसक्ती इत्यादींनी ग्रस्त आहे. त्यामुळे मानवाचे अस्तित्व हे अत्यंत असंतुलित व धोकादायक बनले आहे. कृष्णमूर्ती त्याला मानवी चेतनेतील संकट असे संबोधतात. यातून बाहेर पडायचे असेल तर मानवाला त्याची मानसिकता बदलली पाहिजे. कृष्णमूर्तींची शिकवण ही मानवामध्ये आमूलाग्र मानसशास्त्रीय परिवर्तन कसे घडून येऊ शकेल यासंबंधी आहे. कोणत्याही गोष्टीत बदल घडवून आणण्यासाठी ती आधी समजावून घेणे आवश्यक असते व त्यासाठी त्या गोष्टीचे अवलोकन करावे लागते. मानवाला स्वतःत बदल घडवून आणायचा असेल तर त्याला स्वतःकडे बघावे लागेल व असे बघणे हे नातेसंबंधांच्या आरशातूनच शक्य आहे.

कृष्णमूर्तींची शिकवण ही अत्यंत परखड व वस्तुस्थितीशी एकनिष्ठ आहे. तेथे कोणत्याही अंधश्रद्धेला, आध्यात्मिक अधिकारशाहीला वाव नाही. स्वतःमध्ये मूलभूत परिवर्तन घडवून आणायचे असेल तर स्वतःलाच स्वतःचा प्रकाश व्हावे लागेल, दुसऱ्याच्या प्रकाशाचा तेथे काहीही उपयोग नाही. कोणताही गुरु, कोणतेही पुस्तक, कोणतेही तत्त्वज्ञान, कोणतीही पद्धत, कोणतीही प्रणाली या बाबतीत उपयुक्त ठरू शकत नाही. कृष्णमूर्तींची शिकवण ही माणसातील जिज्ञासा वाढवणारी व त्याच्यात विचार निर्माण करणारी असली तरी ती माणसातील रूढ विचारांना व परंपरागत समजुतींना धक्का देणारीपण आहे. ईश्वराने मानवाला निर्माण केले नसून, मानवानेच ईश्वराला आपल्या समजुतीनुसार बनवले आहे. सामाजिक नैतिकता ही अत्यंत अनैतिक आहे. जगाला वेगवेगळ्या देशात विभागणे हा एक टोळीवादच आहे, ज्ञान

हे मानवी मनाला प्रदूषित करते, माणसाने माणसाची हत्या करणे यासारखे दुसरे निघण कृत्य नाही व अशा सर्वाधिक हत्या धार्मिक कारणांवरून झाल्या आहेत. मनुष्य हा स्वतःला कितीही स्वतंत्र समजत असला तरी तो एक आज्ञाबद्ध (प्रोग्रॅम्ड) जीव आहे, अशी कितीतरी विधाने त्यांच्या शिकवणीत पहावयास मिळतात.

कृष्णमूर्तींनी मानवनिर्मित देवाचे अस्तित्व नाकारले, परंतु मानवी जीवनात अत्यंत पवित्र, विचाराने अस्पृशित, कशानेही कलुषित न झालेले असे काही आहे का, असा प्रश्नही उपस्थित केला, आणि त्या परम पावित्र्याचा शोध घेण्यासाठी मनही पवित्र असले पाहिजे, असे म्हटले. जगातील वर्तमान धर्म हे धर्मच नव्हेत. कारण ते रूढी, परंपरा, अंधविश्वास, अधिकारशाही (ऑथॉरिटी), ग्रंथ, कर्मकांड, इत्यादींवर आधारित आहेत. धर्म म्हणजे जीवनासंबंधीचे सत्य उलगडण्यासाठी स्वतःमधील सर्व ऊर्जा एकवटणे असा धर्माचा नवा अर्थ त्यांनी दिला.

कृष्णमूर्तींचे शिक्षणविषयक विचारही तितकेच मौलिक व क्रांतिकारक आहेत. शिक्षण हे जीवनाभिमुख असले पाहिजे. त्यातून एक स्वकेंद्रीत मानव निर्माण न होता एक जागतिक मन निर्माण झाले पाहिजे, असे मन, की जे समग्रतेने व सर्वांपांगी विचार करू शकेल. सध्याचे शिक्षण हे विद्यार्थ्यांना सर्व प्रकारच्या बंधनातून मुक्त होण्यास मदत करण्याऐवजी त्यांना अधिकाधिक संस्कारबद्ध व स्वकेंद्रीत करत आहे. शिक्षणात भयाचा वापर हा एक प्रकारचा आतंकवाद आहे. बक्षीस व शिक्षा ही प्राण्यांना शिकवण्याची पद्धत झाली, माणसांना नव्हे, मानसशास्त्रीयदृष्ट्या शिक्षक हा विद्यार्थ्यांइतकाच अज्ञानी व अशिक्षित आहे. शिकणे व शिकवणे या दोन वेगवेगळ्या प्रक्रिया नसून विद्यार्थी व शिक्षक अशा दोघांनी मिळून एकत्रितपणे शिकणे ही एकच प्रक्रिया आहे. म्हणून विद्यार्थी हा शिक्षक व शिक्षक हा विद्यार्थी आहे. परीक्षेतील गुण हे विद्यार्थ्यांची गुणवत्ता ठरवू शकत नाहीत. एका विद्यार्थ्यांची दुसऱ्याबरोबर तुलना करणे म्हणजे दोन्ही विद्यार्थ्यांना इजा पोहोचवणे होय, शिक्षणाविषयी अशी कितीतरी आगळीवेगळी विधाने कृष्णमूर्तींच्या शिकवणुकीत पहावयास

मिळतात. कृष्णमूर्तींची शिकवण ही वस्तुनिष्ठ व विज्ञानाधिष्ठित असली तरी प्रेम हा तिचा गाभा आहे. माणसाने विज्ञानात कितीही प्रगती केली, तो अगदी चंद्रावर मंगळावर अथवा कोणत्याही ग्रहावर पोहोचला तरी त्याच्या जीवनात जर प्रेम नसेल तर त्याचे हे सर्व यश व्यर्थ होय असे ते म्हणतात. प्रेम ही एकमेव अशी गोष्ट आहे, की जी असेल तर सर्व काही आहे व जी नसेल तर काहीही नाही. मानवी जीवनात प्रेम नाही किंबहुना ते कधीही नव्हते, म्हणूनच त्याचे जीवन समस्यारग्रस्त झाले. प्रेमाविषयी बोलताना ते आपल्या प्रेमाविषयीच्या सर्व संकल्पना, सर्व अनुभव नाकारतात. प्रेम म्हणजे । आसक्ती नव्हे, भावना नव्हे, वासना नव्हे, विचार नव्हे, स्मृती नव्हे, ईर्ष्या वा मत्सर नव्हे. लैंगिक संबंधही नव्हे. जेथे दुःख असते तेथे प्रेम नसते. प्रेम हे स्थलकालनिरपेक्ष असते. ते आंधळे नसते तर प्रज्ञायुक्त असते. प्रेम ही अशी गुणवत्ता आहे, की जी मानवी जीवनाला सर्व बंधनातून मुक्त करून ते सर्जनशील बनवते, त्याला एक नवा आयाम देते.



Yogic Concepts on Hanuman Chalisa

Veda, Upanishad and Bhagwad Gita all deals with involution and evolution. AIW (Ancient Indian Wisdom) clarifies that human being are coming from Bindu (Nuclei) containing all the characteristics (Swaroopa) of supreme reality (Permatma). After inception, human body starts developing from a Bindu in the form of causal body, subtle body and gross body till youth hood is achieved. After this (achieving youth hood) the evolution process should be started to reach the supreme reality (Permatma or Ram). The same is explored in Hanuman Chalisa. How?

The first Choupai (Sloka) of Hanuman Chalisa states “Jai Hanuman Gyan Gun Sagar, Jai Kapish Tihu Lok Ujager” provides the hidden meaning of three words (Gyan, Gun and Sagar) in Hanuman Chalisa. The first stanza of this Choupai clearly explains how the wholesome or holistic effect of body, mind and soul could be achieved as Shri Hanuman Ji has obtained. The purpose of Human birth can be understood with the help of an analogy of a tree. A tree achieves the purpose of life by obtaining wholesome (completeness). It shows the journey from seed to stem and further from flowering stage to spreading fragrance in the Universe (Jagat) and finally reaching to its aim in the form of seed from where it has come. This shows that human being should also follow the pattern of tree journey to achieve the goal (reaching the root of inception or birth). This will be clearly understood by comparing tree and human being model with the help of analysis.

Inception of human being

Human being starts from a Bubble or Bindu or nucleus containing all characteristics of creator or Permatma along with individual's collective action (Sanchit Samskara or Karma). This nucleus is also known as seed of the Jiva (existence). This seed becomes seedling and small plant

“

The analysis of Gyan (knowledge) and Gun (Shakti or energy) of Hanuman Chalisa

”



Prof. A. N. Pandey
Yoga Expert &
Retd. Scientist
(BARC)

(form of child) in mother's womb and finally comes out to have further growth of plant (till youth hood) under the care of parents and society. Till then, an individual is a receiver of everything from parents and society. After youth hood, the cycle should become reverse. The youth is supposed to give back to the parents and society at least whatever individual got from them. The aim of individual should be return more to the society by exploring their best hidden capability as like great people have contributed. The holistic approach of human life can be understood with an analogy of a tree.

Gyan (knowledge) and Gun (Energy or Shakti) are the basis for wholesome effect

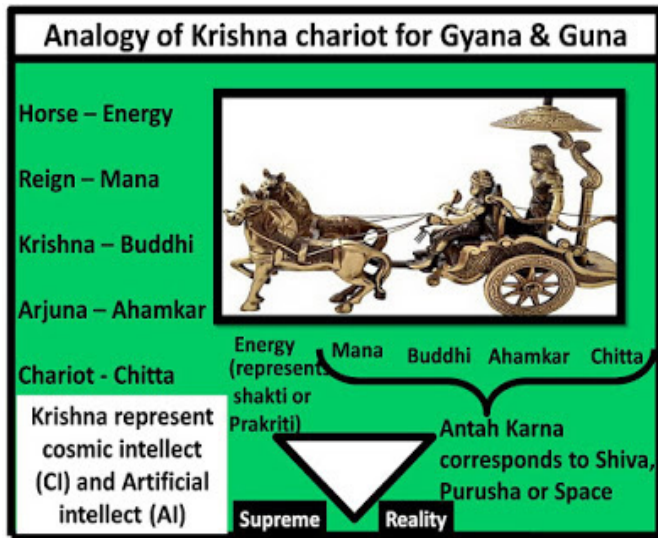
Now the question arises that what way the first stanza of Hanuman Chalisa provides a formulation to achieve the wholesome effect of human life by utilizing body, mind and spirit. The Choupai “Jai Hanuman Gyan Lok Ujager” provides the concept by unveiling the inter dependency of all the three - Gyan (Knowledge), Gun (Shakti or energy) and Sagar (controller or ruler of the two as consciousness or spirit).

In case of human being, the Gyan (knowledge) and Gun (Shakti or energy), if properly developed, then the human personality and self esteem will be developed. The image briefly describes the advantage of developing Gun and Gyan.

Gyan and Gun provide controlled zones to achieve self esteem (Purushartha) and personality (Vyaktitva) for everyone. One can have progressive life by achieving wholesome effect of Gyan and Gun. The completeness or Purnta (Sagar) of Gyan and Gun will yield the consciousness (awareness or Hosh) for having the vertical lift in worldly as well as spiritual life. Further, Gun & Gyan represents Shakti & Shiva respectively in Yoga. The same (Gun and Gyan) also represent energy and space in the scientific term.

Clarity related to Gun and Gyan with the help of Krishna Chariot

The image describes Krishna chariot (known to the reader) where Horse represent Energy (Gun) and rest of the chariot signifies Space (Gyan). Inside human space (Gyan) depends on Antahkarna (inner instrument) having Mana, Buddhi, Ahamkara and Chitta. The Reign corresponds to Mana (Mind), Lord Krishna corresponds to intellect (Buddhi), Arjuna resembles with Ahamkara (ego) and chariot signifies Chitta (stuff of mind, intellect and ego). When Gun (energy) and Gyan (space) become balanced then consciousness of Jiva which is also called Atma becomes effective. Before balancing of Gun and Gyan the intellect (Buddhi) is under the grip of mind and same is known as Artificial Intelligence (AI).



Reader may recall the action of lord Krishna in two ways. When Arjuna was in Vishad (heavy grief), lord was functioning as a friend of Arjuna and gave the teaching under purest influence of Artificial Intelligence. Later on, when Arjuna has equalized his Gun (energy) and Gyan (space) then lord Krishna gave the sermon by utilizing His Cosmic Intelligence (CI).

This clearly indicates that when a person is fully balanced by equalizing his Gun (energy) and Gyan (space), he or she may reach the perfection (Sagar or consciousness) and ready to receive the unknown from Cosmic Intelligence.

The image also indicates that balancing of energy and space, by which human being can reach the domain of transcendental body (supreme reality).

Krishna Chariot and Hanuman Chalisa

The image describes the importance of Gun and Gyan of Krishna chariot related to Hanuman Ji and Human Being. In this context it is worthwhile to know that many terms have been used for Gun (energy) and Gyan (space). For example, equivalent terms used by the common mass, philosophy, yoga and science in respect of Gyan and Gun have been shown.

The image shows the equivalent term of Gyan & Gun and the same is given below:

- i) Gyan (common term), Shiva (Yogic term), Purusha (Sankhya term), Space (Scientific term) is for manifestation and evolution. In Human body, it corresponds to different mental states (Conscious, subconscious and unconsciousness state).
- ii) Gun (common term), Shakti (yogic term), Prakriti (Sankhya term), Energy (Scientific term) is for manifestation and evolution. In Human body, its corresponds different physical state (Jagrat, Swapna, Sushupti)

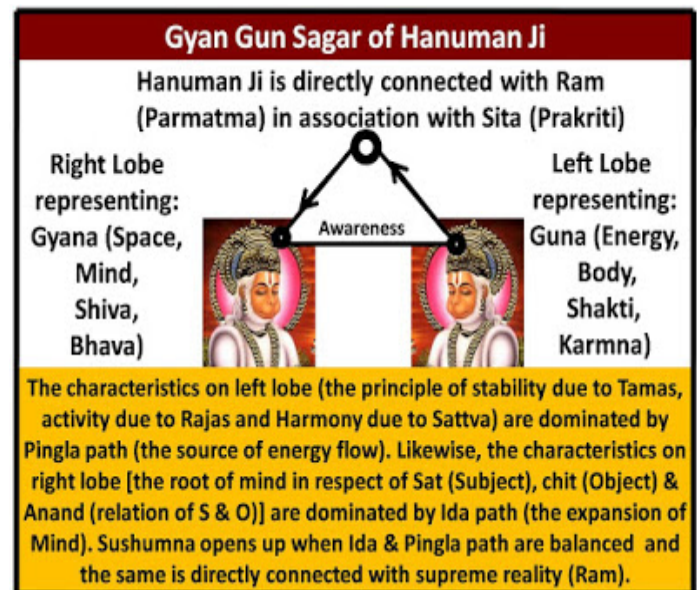
How to reach Parmatma (Ram) by equalizing Gyan and Gun?

Hanuman Ji is a great yogi and he has equalized Gun and Gyan with the help of Ida and Pingla path. We know that in yoga, the left lobe of the hemisphere represents Gun (energy) and functioning at the right side of the body with the help of Vital force (Prana). Similarly, right hemisphere is concerned with Gyan (knowledge) and functions in the left side of the body with the help of mental force. When both are balanced (Ida and Pingla path), Sushumna (the path of consciousness or psychic force) opens up. Shri Hanuman Ji as yogi has sublimated all the three forces (Vital, Mental and Psychic) and reached to Shri Ram (supreme reality).

The image describes in brief that how Hanuman Ji has utilized his left and right hemisphere to get his Sushumna (the path of psychic force) opened up. It explains that Right Lobe representing Gyan (Space, Mind, Shiva, and Bhava) and Left Lobe representing Gun (Energy, Body, Shakti, and Karmna).

The characteristics on left lobe (the principle of stability due to Tamas, activity due to Rajas and Harmony due to Sattva) are dominated by Pingla path (the source of energy flow). Likewise, the characteristics on right lobe [the root of mind in respect of Sat (Subject), chit (Object) & Anand (relation of Subject & Object (S & O))] are dominated by Ida path (the expansion of Mind). Sushumna opens up when Ida & Pingla path are balanced and the same is directly connected with supreme reality (Ram) through top back of the head (Bindu Visarga).

The reader may like to provide the comments for improving the concept posted above.



Tryst with Transformation



Kanchan Gogate
Writer & Yoga Expert

This article throws light on how Swami Vivekananda and J Krishnamurti unfold the process of self-transformation in different words, languages and contexts

Introduction

Mystics have always been the beacons of change in the history of humanity. They have been guiding lights helping men and women turning inward which can be called self-transformation. Written words of the masters have been catalytic agents in this process of self-transformation. Literature by the mystics like Swami Vivekananda and J Krishnamurti are the sources of inspiration to many. This article tries to analyse the power of self-transformation in mystics Swami Vivekananda and J Krishnamurti. However, naming the two mystics inevitably brings comparison in its own trail. While each mystic is great and unmatched in one's own right, any comparative study may make us lose the essence their works of art. After all, it's not about of highlighting greatness of mystics but it's to do with the intensity with which their razor sharp words touch that the individual, who is at the other end of self-transformation. These words can touch more perhaps, when someone is standing at a crossroads. In turn, this article throws light on how Swami Vivekananda and J Krishnamurti unfold the process of self-transformation in different words, languages and contexts. Their approaches are distinct and that could be very beauty as this process transcends words and time.

At a crossroads

Not each person is prepared to face life in totality with all its positives and perils. Not many of us could be equipped to face uncertainties. Reeling under stress, pressure, anxiety and negativity, a majority of human beings lead a compulsive life. Inability to deal with unfortunate events may weaken further. Everything in existence happens as per its laws. Do catastrophes strike us unheralded? When many are at a crossroads, words of mystics that come as saviours help strengthening us. They make us to look inwards. That could be the beginning of self-transformation, where we start controlling our inner being where outside circumstances may not affect us always.

Swami Vivekananda and J Krishnamurti met people when they were at a crossroads or wanted to understand the very enigma of life. Emma Calve, a famous French opera singer, in her reminiscences, says that when she met Swamiji for the first time, he didn't raise his head and said,

*My child," he said, "What a troubled atmosphere you have: about you! Be calm! It is essential!" Then in quiet voice, untroubled and aloof, this man, who did not even know my name, talked to me of my secret problems and anxieties. He spoke of things that I thought were unknown even to my nearest friends. It seemed miraculous, supernatural!*¹

When Swamiji told her that he could read her mind like an open book, which was a beginning transformation in her. A renowned poet Ella Wilcox, attended Swamiji's lecture with her husband and her husband remarked that this man (Swamiji) knows more about God.... In her book, *The World and I*, she writes what her husband said about Swamiji,

*'This man makes me rise above every business worry; he makes me feel how trivial is the whole material view of life and how limitless is the life beyond. I can go back to my troubles at the office now with new strength.'*²

Swami Vivekananda is known to give people their much needed

strength in all walks of life. He helped many find right path when they were at a crossroads and also helped many evolve spiritually. With J Krishnamurti, this process worked differently. Vimala Thakar, social activist and a spiritual teacher talks about the effect of Krishnamurti's speech when she heard him talk for the first time,

*Krishnamurti's talk had stirred me to the very depths of my being. It became clear to me that the 'Ego' was at the root of the whole trouble.*³

Krishnamurti's long-time assistant Mary Zimbalist, in her memoirs, *In Presence of Krishnamurti*, narrates the words of her friend with whom she often discussed topics related to psychiatry and psychoanalysis, on his first meeting with Krishnamurti,

*"He is the most extraordinary man and knows more about human mind than anyone living or dead",*⁴

Thus, abovementioned examples underline the fact that the process of self-transformation starts unknowingly when we are at a threshold and words of the mystics touch us in the deep recesses of mind penetrating the layers ignorance. The mystic who transforms us shakes us to very being and it depends on us how we allow our consciousness to be stirred to the core.

Eclectic elegance of the two

Swami Vivekananda and J Krishnamurti unfolded the process of self-transformation albeit in different words. To some, their approaches may appear different yet both emphasised on turning inwards. Swamiji focused on potential divinity of each man and he wanted each of us to manifest it. J Krishnamurti called the transformation very being and not becoming.

*.....can that human entity undergo a deep, radical transformation; not superficial changes... but deep transformation which implies freedom totally from all belief, from all ideals, from all contradictions in our actions in our daily life. And can this be done without any effort, without the battle of the opposites?*⁵

Swami Vivekananda, in his lecture series in Practical Vedanta, emphasised on how rising above all dichotomies makes Advaita

Vedanta applicable in life

.... one central ideal of Vedanta is this oneness. There are no two in anything, no two lives, nor even two different kinds of life for the two worlds. There is but one life, one world, one existence. Everything is that One, the difference is in degree and not in kind. The difference between our lives is not in kind ⁶

Swami Vivekananda felt the need to revive Vedantic teachings in India and also in the West. Swamiji was sure ancient Indian wisdom had a message to the mankind. J Krishnamurti, on the other hand stressed on unconditioning mind. He didn't allow any scriptures, beliefs or gurus to be a reference point. In Jnan Yoga, Swamiji emphasized on the wisdom of unlearning and having true knowledge of self. While Krishnamurti denied the accumulation of any sort of knowledge and advised living moment to moment.

Swamiji exclusively elucidated upon the Rajayoga and also guided people on meditation, psychic control and hints on practical spirituality. On the contrary, Krishnaji didn't offer any particular method of meditation, instead, he said, "To me personally meditation is something that cannot be cultivated, practised, follow a system. It must come naturally, like a flower that blooms, you can't force it." When Swamiji spoke potential divinity of each soul or education as manifestation of perfection already within man, was it any different from what Krishnaji spoke of meditation as a naturally flowering within?

Swamiji's Advaita Vedanta, the doctrine of oneness teaches the unity of things while Krishnaji, through Choiceless Awareness asks us to go beyond the 'battle of opposite.' Thus, two mystics, which may come across as opposites could rather be unifying forces. As we walk a thin line between sadness and happiness, light and shadow, good and bad, we should never reach any extreme. Elevating ourselves above dualities will help us see both mystics in more balanced manner.

Why no comparison?

What we typically call comparative analysis is comparative literature is literary works in different cultures, ethos, social and religious backgrounds. Nevertheless, comparative study looks at the diversity and contexts in which those works are born and thus, by no means it aims to judge writers on their greatness. Very comparison may mar the very spirit of the mysticism.

Swami Vivekananda was essentially dealing with pre-independence India which was reeling under illiteracy, poverty and slavery. Krishnamurti has almost been talking over six decades, the span which saw global calamities like two world wars, international insecurities over borders, cold war and even in India, situations like emergency and wars with neighbouring countries. Though teachings of both mystics are timeless, judging them today's parameters on contemporary works is unfair.

Depths of inner spirituality, innate purity and indomitable spirit that helped others realise their power within made Swamiji of a sterner stuff he was made up of. He had a perfect grasp of situations. In India, he always spoke helping the living God while in the West, Swamiji helped people awaken their intelligence beyond intellect. Swamiji considered cowardice to be the only sin. He made people aware the power within and he wanted each man to be strong. Power is all swamiji's teaching in a nutshell.

Arise, awake, sleep no more; within each of you there is the power to remove all wants and all miseries. Believe this, and that power will

be manifested. ⁷

What appealed people in J Krishnamurti was his understanding of human consciousness and conditioning of human brain. He could comprehend the nuances of human problems in their lengths and breadths. He extensively worked on education that didn't condition human mind.

Swamiji's appeal could be wider and penetrative, Krishnaji's reach is more in intellectual circles. The former may have touched human heart and while latter, little more to human brain. How does it matter when the world is full of people who are either heart or only head driven? Understanding subtleties of both can make prosaic life little poetic and consciousness more aware.

The common link

The common link is not in their words and works, here was a man to whom both appealed in their own capacities. A prominent English writer and philosopher Aldous Huxley has written foreword to Krishnamurti's famous book the First and the Last Freedom and also to the Gospel of Sri Ramakrishna by Swami Nikhilanada. In Krishnamurti's preface, he says

What it is precisely that Krishnaji offers us?... Judgement and comparison commit us irrevocably to duality. Only choiceless awareness can lead to non-duality, to the reconciliation of opposites in a total understanding and a total love. ⁸

In the foreword of the gospel, he says,

To read through these conversations in which mystical doctrine alternates with an unfamiliar kind of humour, and where discussions of the oddest aspects of Hindu mythology give place to the most profound and subtle utterances about the nature of Ultimate Reality is in itself a liberal education in humility, tolerance and suspense of judgment. ⁹

While J Krishnamurti didn't allow himself to get conditioned even with theosophical teachings and upbringing, Vivekananda owed it all to Sri Ramakrishna, formally uneducated man who spoke in colloquial language and offered the highest wisdom from his experience.

Huxley's words, perhaps, fill the gaps between the two not in finding a common link but in underlining the fundamental thread in their teachings that connects the dots, if any.

Mystics: Stimulus in transformation

Mystics can ignite the spark within but it's up to us to keep the fire burning. Transformation depends on as much on the person who wishes to get transformed as much on the mystic helping one get transformed. True transformation will unleash the genuine intelligence within, trigger could be from Swamiji or Krishnaji. The process of transformation is continuous but that will equip us embrace life as it unfolds.

Swamiji made people aware of the infinite powers within while many wanderers found path in Krishnamurti's famous sentence, which he calls the core of his teachings, "truth is a pathless land." Perhaps, their greatness lies in their own accord to help people transform and pull us back literally before they cross the Rubicon.

Kahlil Gibran puts it perfectly how mystics help us transform in his magnum opus the Prophet. "If he is indeed wise he does not bid you enter the house of his wisdom, but rather leads you to the threshold of your own mind."

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The Quantum Field Model of Experiences, Responses and Thoughts

Rajesh Gajanan Bhutkar

ABSTRACT

Life is a series of experiences and responses woven in the chain of causality that builds the knowledge system in the universe, a complex system altogether. When we observe the subatomic system or the quantum field, the very act of measurement perturbs the quantum field within. The interaction produces change in the ground state of the quantum field. The mind field is treated as the quantum field as envisaged by various eminent scientists. The theory of perturbation helps us to compute the amount of energy change in the form of unitary time evolution operator followed by the Hamiltonian of the system. The Linear Response Theory helps us to compute not only the amount of energy responsible for the perturbation but to estimate the probable responses from such quantum field of the mind subjected to the perturbation. Thus the continuous series of measurements, perturbations and responses build the chain of causality within the mind field itself to perceive the continuity of the life. We will see in this attempt; the formulation of functionality of mind field part, identity of the observer, kind of observable, the process of realization of being experienced and null state of the mind.

Key Words: quantum field of mind, consciousness, sensations, perturbation, response, experiences, thoughts

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Introduction

As far as the mind field is considered, we need to analyze its mode of measurement causing perturbations and responses within it. We know that the five organs of the body are the measuring tools that the Mother Nature has created to survive. Thus these five organs or say body continuously measures the environment and keeps us alert about changes therein and self-educate by building a specific knowledge system within the mind-brain functionality. Mind field

along with the universal field of consciousness; possesses the weirdest qualities and potential in it to bring the sensations into its own ambit of awareness. Not only the amount of perturbation would be measured by the mind but also it would undergo its effects. Mind as an observer measures them as its own experiences. Such a series of experiences would further build knowledge system and chain of causality through the act of responsiveness to stimuli. Thus the act of measurement, the act of being perturbed and the act of responses are the fundamental functionality of the quantum field of the mind which makes it the vehicle of perception and cognition.

If we describe awareness as a creation operator/consciousness operator, then the absence of awareness would be the task of

Corresponding author: Rajesh Bhutkar

Address: Independent Researcher, University of Pune, Pune, 411058, India. **e-mail:** rbhutkar12@gmail.com

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annihilation operator/unconsciousness in the quantum field of the mind. What does consciousness operator do in the awakened state of the mind? It plays the vital role of creating perturbations according to the superposition states of the mind in the form of desires, responses and feelings and bringing the causality of each of them in the ambit of awareness of the mind. Thus, what we inherit or sense with the help of our body is an act of measurement, which perturbs the quantum field of the mind.

The causality goes down to generate responses within the mind-field and we observe the displacement of objects in the Newtonian field of the universe that is influenced by the mind-brain functionality. Thus, when we perceive any object then our mind absorbs all the classical as well as quantum mechanical properties and attributes of such object and the central sense of "Self" or "I" observes the perturbations within its own field. This internal observation travels with the information through brain to analyze to create responses. The object does not enter in the brain with all its qualities but the conscious mind inherits all the qualities of the object and interacts with the brain to trigger further functionality. The mind would assume all the physical characteristics of the object being observed or would sense it along with its characteristics and would carry all such senses in its own field of awareness with the help of brain.

Therefore, I say here that the very act of observation or the measurement would make the mind inherit all the qualities and quantities of the object being observed letting it to bring them within its own field to create the quantum effects. The said quantum of action in its own field would create perturbations to describe it as sensations. I have conceptualized that the difference in perturbations would be observed/ measured within the mind field to undergo intermediate collapse to term it as an experience. The further analysis and decision making by mind-brain functionality would cause responses to maintain the chain of causality. And we can say that such a series of act of measurements, perturbations and responses would keep the Ground State changing till the end of life of sentient beings.

Based on the principles of Relativistic Quantum Field Theory (QFT), we will formulate the various actions and states of quantum field of the mind. This will help us to understand the quantum mechanical behavior of the mind field.

Super-field of Mind and Consciousness

As mentioned in the research paper published (Baaquie and Martin, 2005), we say that the fermions field $\varphi(t, x)$ represents the individualized state of the mind and the Boson field $\emptyset(t, x)$ represents the universal character of the consciousness. Therefore, we can say that these two fields will represent the super-field of consciousness of the universal mind as,

$$\Psi(t, x) = \emptyset(t, x) + \varphi(t, x)$$

Let $\psi_a(t, x)$ represent the individual mind field linked with the individual brain to establish the mind-brain functionality within that will follow the principles of QFT.

Referring to the research papers (Hu and Wu, 2004; Bhutkar, 2015), the central sense of "Being Conscious" or "I" is maintained in the mind-brain functionality to play the role of an observer that not only observes or measures every physical sensation being received by the body but interacts with the memory unit to carry out various functionality with the help of mind and brain. I would like to describe this as a consciousness field of "I" or "Self" with full of awareness that works within the layer of mind-brain functionality. And every perturbation in the mind either due to external environment (world of physical objects) or the internal environment (memory unit) triggers this field to act as an observer/ doer/ survivor as such.

The spin of mind particles does not create consciousness, whereas the spin mediates the sense of "Being conscious" through the awareness of "Self/I". When the mind is subjected to the external or the internal perturbation, the centralized sense of "Self/I" gets spread over the perturbed state of the mind itself. Mind engages itself in the process of measurement, perturbation, understanding and response etc. The outside person as an observer observes the acts of such person and confirms its status of "Conscious Being". Or the same person when comes out of any experience then it realizes that all its acts were possible due to the consciousness present in it. But this realization of "Being Conscious" itself becomes the perturbation in the mind to which we generally call as ego or the pride as such. When we say "I am conscious", the mind itself uses its own sense of "I" and with the role of an observer confirms its own consciousness. As soon as the internal observation takes place, the measurement of the



centralized sense of “Being Conscious” is taken and the response is generated through the above expression.

Now in order to apply the principles of QFT, we have an authentic equation of the wave function of the universal consciousness and we have authenticated the role of an observer who will spontaneously carry out the measurement to make all the relevant quantum effects to occur. Thus the role of the sentient being is now fixed on the ground of quantum mechanics and we are ready to analyze the functionality of the mind with the help of mathematical model based on QFT, leading towards the chain of thoughts and causality through sensations, experiences and the responses thereof.

Measurement in Mind Field

As the body of the sentient being is completely submerged in the bath of the external as well as internal environment, the body organs continuously transmit the sensations being received by them up to the brain. The stimulations generate fluctuations or the perturbations in the electromagnetic field of the brain which get sensed by the consciousness field of “I” as described by the Orch. OR theory (Orchestrated Objective Reduction Theory) established by Dr. Penrose and Dr. Stuart Hammeroff. The Orch. OR process helps mind to observe and bring all the perturbations in the ambit of its awareness to call them as the sensations and experiences.

As the mind field assumes or inherits the characteristics of the observable, the perturbations in the mind field are said to be the ensembles of all the characteristic information of the object which is responsible to stimulate the brain. The mind through its Self observes/measures and inherits all the characteristics of the physical object through all the 5 sensory organs of the body. Thus all the quantum actions take place in the field of consciousness which is inherited by the mind-brain functionality.

For example, the transmission of photons up to the brain is a prime function of the eyes but the vision is a function of subtle eyes made up of mind. Such subtle eyes actually see the object, and the very act of observation is attracted by the conscious “Self/I” generated out of the super-field of the mind. The similar phenomenon occurs in

case of the other body organs which cannot experience the sensations but just act as media to transmit them up to the brain.

Therefore, with respect to the physical phenomenon of being sensed and experienced, we say that all the physical characteristics of the physical object are in the form of quantum of energy exists in its own quantum field that is responsible to perturb the mind field of the observer. Therefore, we can say that the quantum state of the mind gets broken up into the superposition of Eigen-states of the peculiar qualities that would cause perturbation in the mind field. Let the observable possess the energy E_n with its probability amplitude as a_n (Beisert, 2013). Thus we can write the state of mind field at time “t” in space defined by “x” as,

$$\psi_a(t, x) = \sum a_n |E_n \rangle$$

Further, we can say that the mind would assume the energy E_n equal to the energy hold by the quantons coming from the observable with the probability of $|a_n|^2$. This quantum of energy will contain all the characteristics and attribute information of the observable that the mind will subsequently inherit (Fradkin, 2011).

Quantum States of Knowledge: Probability Density

When such ensembles of quantons transmit through the quantum field of mind, they carry with themselves the probabilities to manifest and undergo meaning mechanism through mind-brain functionality. The density of such ensembles is represented in the form of their probabilities. Therefore, before going to write the equation for the density matrix, we shall have to note that the quantum states already contain within them some probabilities. Once we express a quantum state on some basis, the coefficients for that basis determine the probabilities for finding the system in those basis states. However, these probabilities are not enough to describe all the possible states-of-knowledge. In general, then, our state-of-knowledge about a quantum system can be described by a probability density over all the possible states of wave function of the mind, $|\psi_a(t, x) \rangle$. We might refer to this probability density as describing our classical uncertainty about the system, and the coefficients c_n as describing the quantum uncertainty inherent in a given quantum state-vector. Therefore, in life we experience uncertainty and



we device number of options and alternatives for the problem to tackle with.

According to the Quantum Measurement Theory we can write,

$$|\psi_a(t, x)\rangle = \sum c_n |n\rangle$$

Where c_n are the complex numbers, and n is a set of vectors.

We say here that the complete state-of-knowledge of a quantum system of mind is a probability density over all the possible states for most purposes that could be used for more compact representation of this state-of-knowledge. This compact representation is said to the density matrix. It was devised independently by von Neumann and Landau in 1927 (Atmanspacher, 2004).

$$\rho = \sum p_m |\phi_m\rangle\langle\phi_m|$$

Where p_m is probability of system in its state "m" and $|\phi_m\rangle$ represents the state of m^{th} observable.

Now considering the von Neumann's projection postulate as a mathematical tool for describing measurement,

$$\rho \rightarrow \rho' = \sum_{j=1}^{\infty} \langle o_j | \rho | o_j \rangle . P_{o_j}$$

Where, ρ is the state of the quantum field of the mind before measurement and o_j are the Eigen-states of the measured observable. We say here that an observable "o" with Eigen-states o_j and the state ρ of the quantum field of the mind will be projected with P_{o_j} onto one of the basis vectors of a specific configuration of such observable that appears in the mind field. The transition to a particular Eigen-state o_j through ρ' is called as collapse of the wave function, which leads to the meaning mechanism as such.

Transition Amplitude: The Period of Being Sensed

For every change in the quantum field, we observe the change in the Hamiltonian of the system through a specific mode of transition. Similarly, let the mind field possesses its own Hamiltonian H and upon observation and interacting with its own field, let it represents its interacting part of the Hamiltonian as H_{int} .

This interacting part of the Hamiltonian H_{int} creates the transition in the state that alters

the properties of the mind field. Let the Hamiltonian H_0 represents the initial state of the mind field at time $t = t_0$. Referring Schrödinger's equation [7], we can write,

$$|\psi_a(t, x)\rangle = e^{-iH_0 t} |\psi_a(t_0, x)\rangle$$

The transition amplitude of the system at time t would represent the probability of the mind state to transit upon any perturbation caused due to the transmission of quantum of information through its own quantum field. Thus the transition amplitude of the system at time t is given by,

$$\langle \psi_a(t, x) | e^{-iH_0(t-t_0)} | \psi_a(t_0, x) \rangle$$

Using unitary time evolution operator, the transition amplitude is represented as,

$$\langle \psi_a(t, x) | U(t, t_0) | \psi_a(t_0, x) \rangle$$

Perturbation: The State of Being Sensed

Here, we have been modeling the quantum mechanical process of being sensed and being experienced based on the QFT formulation. We saw that the quantum field of mind with its own internal observer as "Self/I", observes every quantum mechanical process that is happening within itself. The quantum field of mind possesses its own potential to undergo the quantum effects due to the transmission of quanta of the observable through the 5 sensory organs of the sentient beings and a peculiar behavior that the quantum field is subjected to.

Referring to the above equations of transition amplitude, we can write the interacting part of the Hamiltonian at time t ,

$$H_{int} = e^{-iH_0(t)} H_{int} e^{iH_0(t)}$$

This interacting part of Hamiltonian will lead mind field to cause perturbation therein. Thus we can also write the above equation in terms of the changed potential of the state of the wave function as,

$$V_{int}(t) = e^{-iH_0(t)/\hbar} V e^{iH_0(t)/\hbar}$$

Such perturbation that spontaneously occurs within the quantum field of the mind is sensed by the mind-brain functionality. The entire process of being observed/ measured and perturbed is witnessed by the centralized consciousness character of the mind-field "I". By virtue of the supreme sense of consciousness, it



brings the perturbations in its own ambit of awareness. The centralized consciousness character of the mind-field "I" measures the sensations being received. As this quantum of energy change holds all the characteristic information of the observable, and as the mind field possesses the potential to inherit those characteristics, the sensations are brought in the ambit of awareness and acknowledged by the mind-brain functionality.

The spin-mediated mechanism spreads sensation of "Being Conscious" through the mind-field (Hu and Wu, 2004). Now, as we have seen that all the material sensations create perturbations in the quantum field of the mind, the question arises about the effect of the perturbations due to the supreme sense of consciousness. Here, I would like to illustrate that the quantum field of mind inherits such a supreme sense of consciousness through the spin-mediated mechanism upon attaining the perturbations to let the unique sense of "I" appear within the quantum field of mind. Such a peculiar state of "Being Conscious" is said to be its field of consciousness as such. To support this illustration, I say that the supreme source of consciousness is responsible for the transmission of its sensations through quantum field of the mind that generates the permanent state of perturbation of consciousness within. Such a permanent perturbed state of the quantum field of mind is said to be the field of consciousness. There upon the centralized virgin sense of "I" witnesses every event of perturbation due to the material sensations to acknowledge the event of awareness as such. Therefore, the awareness is said to be an event that is being perceived on the background of the field of consciousness as such.

Thus, such a perturbed state of mind due to the spin mediated mechanism of consciousness creates a centralized, purest and supreme sense of "Being Conscious/I" that is common for all the living things. Such a supreme sense of "I" does not carry any role of Self/I-ness/Ego/Pride/Esteem etc. with it, unless it involves or indulges in the act of giving responses to the material senses.

The sensations emerged from the matter/objects/subjects are inferior to that of sensations emerged out of consciousness. In the perturbed state of the mind due to sensations from matter/objects/subjects, its field holds numerous of attributes and characteristics of the five senses that are measurable. Mind with its

"Self/I" can measure any one of the sensations at a given instance in the light of consciousness. The mind particles acquire certain momentum and thus such a perturbation creates a feel of being experienced. The mind perceives the virtual reality within its own field as an event of experience. The apparent reality of classical world is converted into the form of its virtual reality of quantum effects during the perturbed state of the mind. Thus, it is a sheer delusive act on the physical plane that we perceive the object or the subject in our life. The mind cannot get the complete experience of the object and subject at a given instance and hence it undergoes thirst and keeps generating instincts within to satisfy it. Therefore, the state of perturbation is said to be the source of instincts, thirst and the regime of virtual reality.

The observer or the "Self" reserves its choice whether to observe the perturbation due an external event happening in front of it on the physical plane or to observe the perturbation due to the internal event generated with the help of superposition state of an earlier event retrieved from the memory unit. Thus, the quantum effects have given us tremendous potential to overcome the limitations of physical reality.

Response: The cause of emergence of "Self"/"I-ness"

Now as we know that the quantum field has its own characteristics to undergo the effect of perturbation upon measurement, it also generates responses from within. Similarly, due to the transmission of quanta of information of the objects and subjects through the quantum field of the mind, it also generates responses from within spontaneously. I am emphasizing here that the mind is a quantum field and is witnessed by its self-generated supreme sense of "I" as an effect of spin of its quanta within its own super field. Moreover, I represent here that it is possible to portray the mind-brain functionality using the mathematical model based on QFT.

Now I say here that the perturbation is nothing but a meaningful profile of the quantum field that appears within itself. Such appearance with all its characteristics and attributes forms a picture of apparent reality being perceived by the sentient being. By applying the concept of picture operator, we say that all the physical information of interest is contained in matrix elements of Schrödinger picture operators $\hat{O}(t, x)$ that are



dependent on time. We can say that these operators represent the consciousness operators to operate on the mind field. This can be expressed as,

$$\langle \hat{O}(t, x) \rangle_{int} = \langle \psi_a(t, x) | \hat{O}_s(t, x) | \psi_a(t_0, x) \rangle$$

Where, $|\hat{O}_s(t, x)|$ represents the picture operator and that appears before undergoing interaction upon perturbation. The first order change in the matrix element arising from an external perturbation can be expressed in terms of the Heisenberg operators of the interacting but unperturbed system. In particular, if $\psi_a(t, x)$ and $\psi_a(t_0, x)$ both denote the normalized ground state $|\psi_a(0)\rangle$, the linear response of the ground state expectation value of the operator is given by,

$$\delta \langle \hat{O}(t, x) \rangle = \langle \hat{O}(t, x) \rangle_{int} - \langle \hat{O}(t, x) \rangle$$

OR

$$\delta \langle \hat{O}(t, x) \rangle = -\frac{i}{\hbar} \int_{t_0}^t dt' \langle \psi_a(0) | [H_{int}(t', x') \hat{O}_s(t, x)] | \psi_a(0) \rangle$$

Thus the magnitude of the response from the perturbed mind field would indicate that the quantum of energy is utilized to create the internal response from the mind field. Such an internal response would then trigger the chain of thoughts leading to the physical movements to describe them as responsiveness to stimuli.

The mind in the background of the supreme sense of consciousness perceives all other material senses. The observer in the mind is nothing but the Self that maintains the personality of the sentient beings through its "I-ness". The "Self" or the feeling of "I-ness" is the permanent response towards the supreme sense of "I" maintained in the perturbed state of supreme sense of consciousness within the mind field. Such a supreme-most response in the form of Self/I-ness, plays its permanent role of observer of all the other perturbations caused by the material sensations that are of lower intensities. Such responses based on five senses are general and common in all the living things. Thus, the observer/doer/survivor/consumer that plays the role of conscious living thing is nothing but the outcome of the quantum mechanical process of responding to the material senses on the background of supreme sense of consciousness "I". It experiences its own

consciousness through the quantum mechanical process of measurement, perturbations and responses through the body as a medium in between. Such an indirect experience of consciousness (I-ness) is not said to be the virgin experience of being conscious, because the quantum mechanical cycle is applicable to only material sensations that are conveyed through the bodies of living things as such. Therefore, such an indirect sense of being conscious creates Ego/Pride/Self/I-ness/Esteem to role as an observer either on its quantum plane of reality or as an experiencing agent of the material universe on the physical plane of reality.

The supreme sense of consciousness is beyond all known sets of senses and incomparable. The spin mediated event of consciousness not only spreads its divine and supreme sense but enlightens the mind field to perceive other material senses. Therefore, the supreme state of perturbation due to such a supreme sense of consciousness cannot be measured by the Self/I as such. The quantum effects of supreme sense of consciousness that appears spontaneously in the form of its two byproducts. They are the "Perturbed State (Field of Consciousness with centralized supreme sense of "I")" and the "Response State (sense of Self/I-ness)". Moreover, if Self/I would try to measure it, then it will get immediately dissolved in its own source of consciousness (Figure 1).

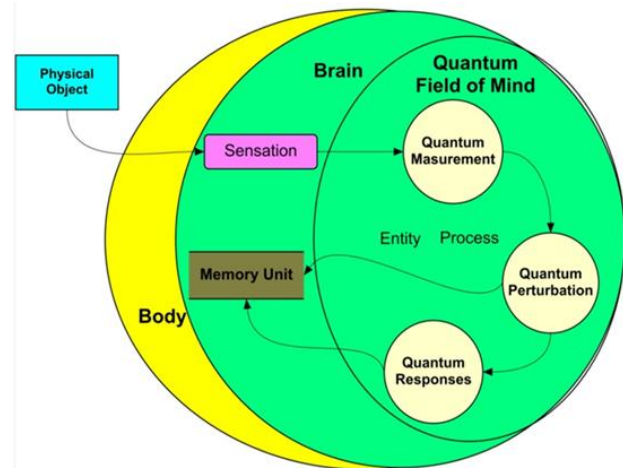


Figure 1. Process of sensation.

MPRM Cycle: The Virtual Thought Machine of the Mind.

The Measurement- Perturbation- Response - Measurement (MPRM) is an unending spontaneous cycle of actions in the mind field.



The energy of fluctuation or the perturbation gets utilized to maintain the proactive status of the mind to spontaneously create the chain of thoughts. This perturbed state of the mind differentiates the mind into number of pieces of superposition states woven into the chain of thoughts. The centralized sense of "Self" roves in these superpositions of various thoughts creating further perturbations and thus maintains its own identity through the differentiated status of the mind field. The act of getting submerged into the experience to cause perturbation and then coming out of it to measure it and give responses, create a kind of potential that maintains the ego or the pride of the sentient beings through its very act of an observer. Thus, the mind field itself tries to maintain its own state of awareness creating numerous potential probabilities, which are sheer delusions of themselves, because none of the objects or subjects actually enters into the mind but their mere sensations create numerous of superposition states within its own wave function as a virtual reality. This is the source mechanism of the chain of thoughts that is spontaneous in nature.

The Self-oriented exhibition by the sentient being is a consequence and combined effect of desires, tendencies, knowledge and intelligence due to the sensations being received from the universe through the interactions between the mind and the brain are called as responses. The potential difference in quantum of energies due to the event of experience or the knowledge creates a subtle electromagnetic field along with biochemical reactions in the brain. This creates triggering mechanism to occur decohesion state followed by the collapse effect in the form of physical responses. By the very act of responses, we see changes in the universe from its subtlest form of quantum world to the gigantic form of the classical world. The response gives momentum to the chain of causality and compels sentient beings to act to displace the objects in the universe. Classical physics is a science of displacement of the objects, but it cannot be described as a science of causality. Thus, we see here how the seed of chain of causality is hidden in each of the thoughts that have been woven in every event of the MPRM cycle.

The changes we see on the material plane; are not due to the changes in the position of particles therein, but they are due to the reasons behind their displacement by virtue of all potential probabilities that the wave function

holds. Such potential probabilities are the outcome of the various quantum effects that have been taking place in their own quantum field again due to the act of measurement of responses. Thus, every such event of experience is the difference in the sensations that are being sensed by any one of the five sensory organs at a given moment. Therefore, we say here that the potential difference between the perturbations hold potential to create and maintain the chain of causality in the universe woven into the fabric of thoughts. Such a chain of causality contains tremendous potentialities to manifest by the sentient being upon its observation. Therefore every bunch of cycles of Measurement-Perturbation-Response-Measurement (MPRM) becomes an element of thought and the source of causality. Such bunches of MPRM cycles or thoughts possess potential to act as a "Cause" of some other chain of causality and at the same time they possess potential to act to carry out consequential "Effects" in the form of a chain of causality. However, we shall firmly anchor our self-awareness in the understanding that we are the source of consciousness and thus we are all always aloof from all such a virtual quantum regime of the mind.

The MPRM cyclical process in the quantum field of the mind helps to underline the apparent reality of the surrounding world through the virtual nature of quantum effects. Such a transformation and transmission of the quantum of energy through the quantum field of the mind creates trajectories by virtue of this cyclical process. Such trajectories of the quantum of energy are the ensemble of the quantons of varied characteristic and attributes that achieves momentum due to each of the events of the observation/measurement within MRPM cycle. Such trajectories of various characteristics and attributes are the building blocks of the desires, intentions, aspirations, tendencies, emotions and feelings in the form of a continuous flow of the thoughts. This core mechanism exists in the "Virtual Thought Machine (VTM)" of Quantum phenomena. Therefore, I say that the awakened state of the mind is said to be a "Virtual Thought Machine". As conscious-observer, our mere observation is responsible to let such MPRM cycles and functionality of the VTM occur spontaneously in our mind-fields. Therefore, we can neither claim the ownership of such mechanisms nor claim the ownership of desires, tendencies, feelings or emotions. We are the



bystander of the flow of thoughts that we have allowed to let flow through the mind-brain functionality.

Quantum field of mind is very vibrant, unstable and sensitive and therefore it is complex in nature. The waves of potential probabilities create thought-chains in the mind. Those thought-chains themselves become the cause of decohesion followed by the collapse effects in the form of responses.

While practicing anything, the lot of changes takes place in the mind- brain functionality. The well-controlled responses out of the specific energy hold by the mind- brain functionality, fix the probability of giving the same type of responses in future. Till the time the living things do not achieve control on their responses, the conscious mind selects the responses out of the pool of potential probability from the universe, that is independent of space-time and common to all living things.

Ground State

The quantum field theory helps us to define the state of the quantum field that possesses specific potential probabilities to exhibit its effects. It is proven by the scientists that there exists a quantum super-field of the universe, which possesses the Null State or void as such. All sentient beings at a given era or the time of the universe live in a specific Ground State that proves to be greater than the Null State of the universe as such. Such a Ground State is a function of the mind field, which has tremendous potential to exhibit its potential probabilities through the cycle of "Measurement-Perturbation-Response-Measurement" as such. Now we will see its mathematical formulation as given below.

Referring to the research paper (Baaquie and Martin, 2005), let the human mind be denoted by a state as $|m\rangle$. Mind is said to be a bunch of numerous of superpositions, which cause perturbations therein. Let's categorize these superpositions into desires, tendencies and feelings. I have considered these three fundamental functions of the mind because they form a continuous cycle of creating desires then tendencies to follow them, act on them and after either success or failure mind expresses its feelings. Such feelings or opinions again become instinct to create new desires and so on.

Now let the state vector of the mind; $|m\rangle$ represent these fundamental superposition states of the mind as,

$$|m\rangle = \sum_{i=1}^n c(i) |Desires\rangle + \sum_{j=1}^n c(j) |Tendencies\rangle + \sum_{k=1}^n c(k) |Feelings\rangle$$

Where the coefficients $c(i), c(j)$ and $c(k)$ represent the

Then the mind state at time "t" in the space position "x" after several generations of the same species would be defined as,

$$|m(x, t)\rangle = a^\dagger(x, t) |G(t)\rangle$$

As energy comes in discrete packets, we can say that the thoughts also resembles with such bunch of numerous of small energy packets " $n\epsilon$." We can represent this energy packet $n\epsilon$ in terms of ground state as given below.

$$|Desire(n)\rangle = [a^{\dagger D}]^n |G(t)\rangle$$

In this $a^{\dagger D}$ is consciousness operator for desire. Similarly, $a^{\dagger T}$ and $a^{\dagger F}$ are the operators for tendencies and feelings respectively. Thus, the mind state would be rewritten as,

$$|m\rangle = c1 * [a^{\dagger D}]^n |Desire(n)\rangle + c2 * [a^{\dagger T}]^n |Tendency(n)\rangle + c3 * [a^{\dagger F}]^n |Feeling(n)\rangle$$

Where, $c1, c2$ and $c3$ are the complex numbers associated with the state of desires, tendencies and feelings respectively to specify their importance/priorities.

As $|m\rangle$ is normalizable, let us assume its Hilbert space as M for the individual sentient being. Let this $|m\rangle$ be called as a virtual state or the superposed state of all possible states of the mind. The state of mind $|m\rangle$ represents its potential state as well as virtual state. The free will with due decoherent state would change the state of the mind from its virtual to the physical as such. Such decoherent state will take place either due to the measurement by the environment or by the conscious self.

Now let's consider the conscious mind field ψ_a comprised of creation operator as a^\dagger covering all the conscious acts of the person and



annihilation or destruction operator as a responsible for the unconscious state of the person. Thus before the existence of the sentient beings the associated vacuum state must be $(x, t)|\Omega\rangle = 0$, where $|\Omega\rangle$ is the vacuum state of the conscious mind field.

Now as the conscious acts would have been started after the first incarnation of sentient beings on the planet, such a ground state would have been modifying constantly throughout the evolution of the species. Let's assume ground state of an individual sentient being $|G(t)\rangle$ at time "t" elapsed after the first incarnation. To define the Ground State $|G(t)\rangle$, we will consider an evolution operator as $U(t, \delta t)$, where δt is a smallest interval of time. Thus the ground state at time "t" would be,

$$|G(t)\rangle = \prod_{t=0}^t U(t, \delta t) |\Omega\rangle$$

Thus we can say that the ground state of mind after time "t", $|G(t)\rangle$ must be greater than that of the vacuum state of the mind field $|\Omega\rangle$.

Experience: Intermediate Quantum Collapse State within the Mind field

Here, I would like to introduce this new concept of quantum collapse within the mind-field itself. Up till now we have seen how the sensations are brought into the ambit of awareness and sensed by the centralized conscious character of the mind-field "Self/I" in the light of consciousness. Now we will see the mechanism of the "Experience" or "Realization" by virtue of "Intermediate Quantum Collapse State" within the mind field. The collapse state of the wave function is a manifestation of one of the potential probabilities that is being held by it. But in the case of quantum field of mind wherein the "Meaning Mechanism" takes place, it shall have to undergo the "Intermediate Quantum Collapse Effect" to describe it as "Understanding" OR "the realization of the situation" OR "bringing the sensations in the field of its awareness" OR "the process of awareness" in the usual sense. The perturbed state of a quantum field of mind is said to be the field of consciousness that witnesses every event of perturbation due to material sensations to call it as awareness as such. Therefore, the awareness is an event that is perceived on the background of the field of consciousness as such. Thus the process of "Being

conscious about" OR "The Process of Understanding" OR "The Process of Realization" OR "The Process of Being Experienced" is described here as a "Intermediate Quantum Collapse Effect" in the perturbed state of the conscious mind (Field of Consciousness).

Generally, an "experience" is said to be a qualitative term. When we say, "Today is cooler than yesterday." We mean that the sensation from the climatic condition received on yesterday was warmer than that of today. Here the consciousness character of the mind field-"Self" interacts with the memory to retrieve the latest relevant sensation as such. Thus, we can say here that every perturbed state of the mind field is a snapshot of the event of sensation and is stored along with its all characteristics in the memory unit of the brain.

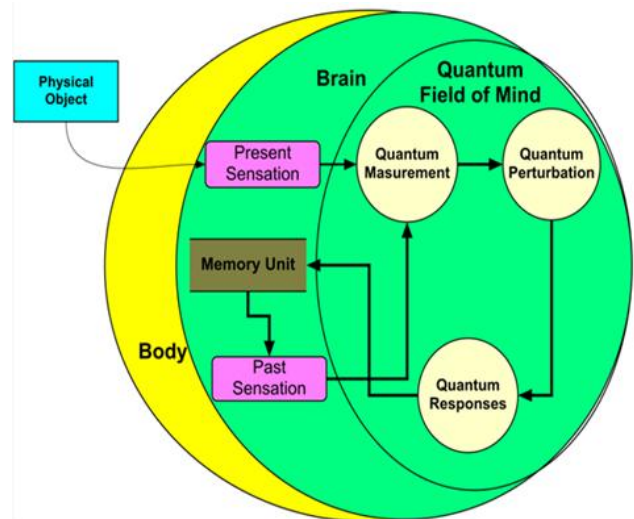


Figure 2. Intermediate quantum collapse effect.

The centralized consciousness character of the mind-field "Sel/I" compares the difference in the successive similar and comparable sensations that were the perturbations in the mind field and assumes it as an experience. I describe this process of understanding of the difference in two different perturbations as an "Intermediate Quantum Collapse State of Realization" within the mind field. This meaning mechanism is then followed by the response in terms of the sense of being acknowledged of that particular experience in the ambit of its own awareness. Let's write the difference in two different perturbations as,

$$\delta V(x, t) = |V_{int}(x, t') - V_{int}(x, t)|$$



Where, t' is a time at which another similar kind of perturbation occurred in the mind field. The difference in these two perturbations then itself - becomes the observable. Now if the ground state would be, $|G(t)\rangle$ as mentioned above, then the action of the weak perturbation would be given as,

$$\langle G(t)|\delta V(x,t)|G(t)\rangle \rightarrow \langle G(t)|U(t)^{-1}\delta V(x,t)U(t)|G(t)\rangle$$

The linear response of the system to the internal perturbation would be represented as the lowest order change in the expectation value,

$$\delta \langle G(t)|\delta V(x,t)|G(t)\rangle = i/\hbar \int_{-\infty}^t dt' \langle G(t)|\delta H_{int}(t')\delta V(x,t)|G(t)\rangle$$

It is given in the terms of the ground state expectation value of the commutator of the perturbation and observable. As $t > t'$ the above equation obeys the causality. In this analysis the loss in the action of retrieval and interactions in the mind-brain functionality is neglected. Thus on the intermediate collapse at time t' , we get the state of wave function of the mind at the n^{th} state of observable,

$$|\psi_a(t',x)\rangle = c_n|n\rangle = \delta V(x,t)$$

Thus, as a usual phenomenon, the entire mind gets flooded with the specific kind of experience $\delta V(x,t)$ as such.

Therefore, we can say that every act of internal observation of the stages such as measurement, perturbation, response and measurement (MPRM-cycle) creates a cyclic process in the mind field. Every measurement is measured in a cyclic manner to create numerous of perturbations, every perturbation is measured to create further responses and every response is measured by the mind field to create further measurements in a cyclic manner number of times till the mind reaches to its satisfaction level. The beauty and strength of this MPRM cycle is that this happens in a millionth of a second that is not distinguishable for the mind and hence we feel continuity in life. The mind can further underpin with such a powerful tool of the cycle of MPRM to that level of its perception till it has the ability to measure the differences between "What was expected" and "What have been achieved?" Therefore, when we conclude that we got the pleasure of being satisfied, then it is a sheer delusion because it has been created due to our

inability to further go down beyond at the quantum level to measure the perturbations and responses thereof. We can describe this as a kind of "Quantum Mechanical Reduction Process" of acquiring of knowledge of satisfaction and pleasure as such. If we go further down the line; we will realize that the difference between the numerous and varied experiences and the causality cropping out of this cyclical process builds the entire knowledge system within; which is the complex phenomenon to formulate.

Generally speaking, the consciousness in the domain of the universe (comprised of all the classical as well as quantum regimes therein) is a fundamental cause of a collapse effect, which brings the material manifestations in the ambit of awareness. However, within the domain of the mind, all the superpositions those are created in the quantum field of the mind, they undergo decohesion effect due to the inner observation by the Self/I. The further effect of such decohesion due to consistency in the observation and physical efforts leads towards the collapse of a wave function either in the form of experience or the in the form of knowledge that can be described as an "Intermediate Quantum Collapse-IQC". The effect of IQC is nothing but bringing the meaning of sensations, experiences, knowledge in the realm of awareness and its understanding. Therefore, this IQC effect can be described as the effect of intelligence as such.

The observer undergoes the change in its mind energy due to every new experience being received by it. The consistent observation, not only changes the energy level of the perturbed state of the experience, but that of the observer also. When this energy wave of experience assumes its decohesion state, it starts manifesting as a meaning and also creates a potential to substantiate it. This can be described as the waveform of meaning. The collapse effect of this "Meaning-Wave" brings the meaning in the ambit of awareness and this is said to be the "Knowledge." Thus, the conscious mind is responsible to create a meaning wave to understand the universal phenomena that establishes the several knowledge systems.

This intermediate quantum collapse effect is similar to the Orchestrated Objective Reduction as described by Dr. Roger Penrose and Dr. Hammeroff. The feeling of sensations is a continuous process that keeps us in the paradise of being aware of in the field of consciousness.



The number of options is nothing but a number of superpositions in the mind. The matured and wisdom based approach brings any one of those superpositions in their decohesion states. The sudden action will never create superpositions and in such case, one has to face the unwarranted situation in its life. Creating as many superpositions in the mind as probable options for the responses, studying them carefully with intelligence and wisdom within the least time and choosing the right one with precision and accuracy indicates the smartness and higher intelligence quotient of that person.

Another important observation that I want to mention here is about missing the awareness of paper, printing styles and the printed words while in understanding the meaning of the matter that has been printed on paper. Thus, when we lost ourselves in the understanding of the meaning through Intermediate Quantum Collapse (IQC), we never notice the material appearance of the page, printing styles and the structural form of the book, which was a material source of meaning. This process of understanding of the meaning is nothing but the Intermediate Quantum Collapse effect that takes place in the material world. Thus, the only conscious mind establishes the interrelationship between these two phenomena of classical appearance and its quantum mechanical process of understanding. Now, when we come across misprinted words or missing words, we leave aside the flow of meaning and look at the material form of the book.

In the above example the person was taking the indirect or the witnessing experience of the consciousness momentarily forgetting its body. However, in Samadhi or the deep meditation one can directly experience the Virgin Consciousness leaving aside permanently the material awareness of its body.

The quantum energy level of the mind field before getting oscillated due to the external sensations and that of after getting oscillated due to the sensations; differ. This potential difference is measured by the mind to call it as an experience. Thus, the measurements of the superposition state of the sensations being received undergo decohesion and collapse effects within the brain by merely an inner observation by the Self i.e. the conscious state of the mind.

It is next to impossible to exist any of the experiencing process without measurement

carried out by the sentient beings. Every sensation is sensed by the mind-brain functionality in the field of awareness. Thereafter, on every step of such rotating cycle of sensations, experiences, thoughts, analysis, decision, orders, implementation and conclusion, etc., the measurement of their effects is expected. Thus, every thought is brought into the realm of awareness during the process of understanding as consequence of MPRM cycle. Therefore, we can say that the conscious observer as a form of the universe measures the transformation and transmission of the universal energy and assumes the reality of life through the various quantum effects of experiences and knowledge with varied functionality.

The numerous of types of objects and their numerous of mixtures/combinations create a kind of diversified physical reality in the world. The sentient being by virtue of the potential of its brain and the mind measures this diversity and categorize its information at its every stage of cycle of transformation such as from sensations to the conclusions. Thus, at the subtlest level, the quantons are responsible for transmission and transformation of energy, which create the further effects of moral values, culture, tendencies, potential, desires, passions etc. within the mind.

Null State

Mind field cannot easily get escaped from this cycle of "Measurement-Perturbation-Response-Measurement" unless it stops giving responses in the form of the measurement or the observation. During meditation, the concentration of the mind on the sense of "Being conscious-I" starts with the creator operator a^\dagger and consequently the concentration of annihilation operator a also start to balance the state of the mind. During deep meditation, the "No-Perturbation" state is preserved by both these operators. At one moment, the potential of creator operator and the annihilation operator balances the mind field and makes it neutral to reach up to the ground zero state during practice of Yoga. Therefore, I take liberty to say that the mutually opposite spins of the mind particles would balance their neutral state. At this very moment; the sense of "Being Conscious" or "I", dissolves into the source of consciousness. Thus if someone goes in search of virgin "I", he/she never get hold of it, but on the other hand he/she dissolves its material



awareness into the source of consciousness. Thus, our fundamental identity is "Consciousness" and not the mind or body per se. The null state of the mind field can be expressed as below,

$$\langle \psi_a | \psi_a \rangle = \langle \Omega | a \cdot a^\dagger | \Omega \rangle = 0$$

Null state is not normalisable and therefore on the background of principle of non-zero probability of Quantum Mechanics, it has to be interpreted appropriately. During the practice of Yoga, such a null state of the mind is described as the "Experience of Zero". As far as the ground state is considered the "no-excitation" state would be represented as,

$$c|G(t)\rangle = 0$$

It is said that during the practice of Yoga, the self-awareness of the disciple travels to and fro from the classical state to the quantum state of the mind. He/she can acquire such command on the entire quantum mechanism of the mind that he/she can easily toggle between these two states. He/she at his/her own will either dissolve his/her "Self/I" into the consciousness or to retrieve back to rove with the mind field.

Conclusions

With this we can conclude;

- i) The Quantum Field Theory establishes the model of functionality of the mind through its various concepts of measurement, perturbation and response that works out the process of experiences and responses along with the chain of thoughts to justify the causality in the universe.
- ii) The observer consciously retrieves the information stored in the memory and undergoes

quantum behavior to create experiences. Such Quantum Reduction Process of information create an event of experience within fraction of a second, otherwise an event of experience does not exist independently. This entire process of realization is being carried out by the mind-brain functionality within its own regime and therefore it can be described as an "Intermediate Quantum Collapse Effect" of the wave function related to the interaction of the information stored in the memory unit and that of recently perceived by the mind-brain functionality.

iii) All the sentient beings possess their sense of "Being Conscious-I" through a perturbed state of mind-field due to the spin mediated mechanism that create supreme sense of consciousness. The spontaneous response generated within the mind-field to such supreme state of perturbation gives birth to the character of I-ness / Self / Ego / Pride / Esteem that plays the role of an observer/Doer/Consumer/Survivor.

iv) There are two types of observable, one the physical objects in the external environment of material world and another is the information stored in the memory unit of the brain as an internal environment of quantum regime.

v) The Null State of the mind field can be achieved with the practice of Yoga and deep meditation even though it cannot be easily interpreted on the background of principles of quantum mechanics.

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Abstract:

Introduction:

There are two self's within us. The Lower Self is the ego which says, "I am this body. I am this personality. I am the natural being doing all these things." The Higher Self is the Soul, the immutable portion of the Divine within us. Lower self creates affects our intellect and creates stress due to inappropriate reaction over a particular situation. Two fold effect of such situation creates stress because our ego doesn't allow us to forget the incidence and that's why memory reiterates.

Purpose:

The purpose of the paper is to establish a relationship between selected yoga sutra and its subtle impact on stress management. Different types of yoga practice have different impact on physiological, psychological and emotional aspect of human life. There are techniques given in yoga sutras which can be understood in a short span of a time but the impact of these techniques are very subtle on psychological and emotional aspect of human life. Readers of this paper will be able to know about t these techniques and its usefulness in the management of stress related problems.

Research Design / Methodology /Approach / Materials & methods:

1. Finding out of different reasons of stress and then understanding the origins of various mental problems described by Patanjali as fundamental problems. (Table-1)
2. Contribution of Yoga towards the exclusion of small causes of stress and attainment of metal peace. (Table-2)

Results & discussion/Findings & Interpretation:

There are subtle techniques in yoga to reduce stress and its related problems.

Research Implications:

Psychologist can further study these techniques and implement it into counselling. The study provide the base for further study on the subject of stress management through yoga chitta-prasadan techniques.

Novelty/Originality: Author has tried to correlate various sutras of sage Patanjali with different emotional/behavioral patterns/situation and tried to suggest simple techniques that can be followed in stress situation by anyone without much training. This can be termed as contribution of the Author.

Keywords:

Stress, Yoga sutras, chitta-prasadan, stress management, reasons of stress, five kleshas and its impact on stress.

Subtle impact of Patanjali Yoga techniques on Stress Management

INTRODUCTION:

There are two self's within us:

1. The Lower Self is an apparition created by our consciousness due to our false identification with the physical body. It is the ego which says, "I am this body. I am this personality. I am the natural being doing all these things."
2. The Higher Self is the Soul, the immutable portion of the Divine within us, which, after being freed from the egoistic identification, stands back from our actions and effectively governs over our nature, admitting and rejecting actions as necessary.

The lower self creates most of the problems and affects our intellect and creates stress due to inappropriate reaction over a particular situation. If we silently observe after any wicked or unforeseen event related to us or happened around us, we could analyze that such event would not have happened if we had been able to control our emotions that time. Most of the time we forget the incidence but we cannot forget its repercussions means bad effects. Because we accept the incidence but could not accept its repercussions and we could not forget it. The effect of such situation is twofold-

1. Repercussions fits in our so called mind; and
2. Our memory reiterates if the person or similar incidence comes before us.

This happens because of our ego. Egoism has been found to be root cause of many physiological and psychological problems. Forerunners of the school of psychoanalysis Alfred Adler, Carl Rogers and Eric Brown have elaborated the significance of ego or I-ness in the formation of individual personality. Two fold effect of above cited situation creates stress because our ego doesn't allow us to forget the incidence and that's why memory reiterates.

This all happens because of our mind and the waves that are coming from it. Bhagwadgita and other Indian philosophical work have well guided us in this regard. We will see in next paragraphs how this work helps us.

While discussing about *dhyan-yoga*, Shrikrishna said to Arjuna that our own mind may become our friend or foe. It all depends upon how we control our emotions coming through mind. He also said that one should not allow once worsening by his own mind. In his further explanation Lord Shrikrishna has suggested some remedies to control reactions on the events that happened in our daily life.

Apart from other techniques; it includes some techniques of yoga such as control over physical body, mind and its activities and meditational activities. These techniques may be useful for those who are practicing it regularly and who's spiritual exercise (*adhyatmik sadhana*) is at a respectable level.

LITERATURE REVIEW:

Kulkarni, in an article "Burnout" published in *Indian Journal of Occupational and Environmental Medicine*, has said that the rapid change of the modern working life is associated with increasing demands of learning new skills, the need to adapt to new types of work, pressure of higher productivity and quality of work, time pressure, and hectic jobs. These factors are increasing stress among the workforce.

Keeley and Harcourt in their study, "Occupational Stress: A Study of the New Zealand and Reserve Bank," revealed that stress is caused by heavy work demands in the job itself, which the unskilled employee with little control over how the work is done, cannot adapt to or modify.

Although yoga has been practiced for over 5000 years, it has only recently gained popularity in the United States and Europe. In America, the yoga market emerged as a 5.7 billion dollar industry in 2008, an increase of 87% from 2004. The practice originated in India and has been implemented to alleviate both mental and physical ailments including bronchitis, chronic pain, and symptoms of menopause.

In a national, population-based telephone survey (n=2055), 3.8% of respondents reported using yoga in the previous year and cited wellness (64%) and specific health conditions (48%) as the motivation for doing yoga.

Another study has shown improvement of mental health of both the young and seniors by reducing stress through yoga. Yoga can be wisely applied in welfare programs to improve the quality of life in all age groups. In this study, SAA levels decreased after yoga practice in both groups, and there was no difference in effect between groups. In seniors, SAA levels were higher; this may be due to stress or increased sympathetic activity, or increased epinephrine levels compared to the young. In two senior subjects in the initial two to three classes, SAA levels increased after yoga, possibly be due to pain after practicing asana, failure to relax during meditation, or anxiety about yoga. However, after a few classes, once they became accustomed to yoga, SAA levels came down. Decreased sympathetic activity signifies a decrease in stress level. In young individuals, the SAA level was low compared to seniors, and it reduced after yoga practice. This signifies that yoga helps to improve mental health and to overcome routine stress. Both state anxiety and trait anxiety scores decreased after yoga practice in both groups. There was no difference in response between the groups. Both

the young and seniors showed a decrease in their anxiety scores. Participants felt better and relaxed after practicing yoga. Response was more for state anxiety compared to trait anxiety. Thus yoga has both an immediate as well as long-term effect on anxiety reduction and helps to bring even behavior changes or controlled response to any type of stress, if practiced regularly. It has been observed that a yoga-based relaxation technique decreases state anxiety more, in comparison to supine rest.

A review of the literature identified two trials evaluating the effects of yoga on reducing anxiety and stress. In a trial of 114 subjects by Khasky and Smith, yoga and imagery were found to be more effective at increasing a relaxed state, compared to the control group ($p < 0.003$) and guided imagery was more effective than yoga in reducing negative thoughts ($p < 0.03$). Malathi and Damodaran randomly assigned 50 stressed medical students to yoga or to a nonintervention control group. A reduction in stress, improved sense of well-being, and confidence was found in the yoga group ($p < 0.001$).

The psychotherapeutic efficacy of meditation has also been reported (Shafii, 1973; Kartikeya, 1973; Daniel, 1975; Ross, 1976; Miskiman, 1976). Transcendental meditation has been found to bring about reduction in muscle tone, blood lactate level caused by stress, slow down respiration, decrease in metabolism, and changes on electroencephalogram (Wallace 1970). Meditation stabilizes the autonomic nervous system and reduces anxiety and hypertension. Meditation is being recommended by the medical doctors for the management of anxiety, insomnia and drug addiction. Shafii (1973) believes that clam introspection during meditation can be used as a technique of dynamic psychotherapy. Meditation has been found to play a promotive role in emotional stability and it increases ability to resolve conflicts.

MEANING OF YOGA & STRESS:

Meaning of Yoga: Yoga means to attain equilibrium. Yoga also means to keep tranquility in each situation. The situation may be of joy or sorrow. As per Patanjali; it also means suppression of five particular behavioral pattern of mind which disturbs us in attaining concentration. Yoga also means to conquer upon five basic burdens i.e. Klesha.

Yoga is now recognized as a metaphysical and spiritual science leading to the union of individual consciousness with cosmic consciousness (energy) with the integration of body, mind and spirit.

Meaning of Stress: As per Merriam-Webster Dictionary; meaning of stress is “a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation”

Another meaning of stress as per Oxford English Dictionary is "Something that causes a state of strain or tension".

Definition of Stress:

Eminent behavioral scientist Stephen Robbins defines stress as that which arises from an opportunity, demand, constraint, threat, or challenge, when the outcomes of the event are important and uncertain.

Hans Selye first introduced the term stress into life science. The term *stress* is derived from the Latin word "*Stringere*", which means "to be drawn tight."

Stress also means difficult situation and reaction on this difficult situation.

REASONS OF STRESS:

Reasons of stress may be internal or external factors. If the stress is caused by physical or emotional reasons then it is internal and something is causing tension then it will be called as external factors.

The foremost reason behind any stress is gap between demand from mind & supply. These demands may from others; from outside situation or at times it may from own mind also.

A particular physical, mental or emotional situation may be difficult to handle for someone but it may be normal for another and for some another person the same situation may become an acceptable challenge to him. An excessive stress will be generated in case of first person and comparatively stress will be at an acceptable level for second category of persons but stress will be more than an acceptable level in case of third category of persons. Effect of stress in case of first and third category of persons will depend upon how they react upon the situation

Reaction; without knowing true facts; upon a particular situation will also create stress. Suppose someone is walking in a dark night and while walking he step up on a rope and feel like there is a big snake below his foot. This situation will create stress on the person & how he face the situation will decide how stress will affect the person.

Other reasons of stress are depressed feeling; quarrels between two objectives and pressure to perform or required to behave particularly in a given situation or not getting the things as per one's own wishes.

If we critically analyze reasons behind stress; we will find five subtle reasons behind it. These reasons have already been given by Patanjali as Klesha. We can call it as fundamental causes of mental problems. Five Kleshas (burdens) as described in Second Chapter (Yog-Sutra/II/3) are:

1. Avidya: Means complete ignorance
2. Asmita: Self Ego-Higher or Lower
3. Raag: Temptation towards things we love
4. Dwesha: Dislike towards things that causes trouble
5. Abhinivesha: Will to Live or survive converted into importance to self-Excessive or undergone

EFFECT OF SEVERE/CHRONIC (UNWARRANTED) STRESS:

Normal stress is useful for the development of human being. But if the stress is increased to the extent of normal level then the stress will be harmful.

Effect of severe stress can be broadly classified into four categories.

1. Psychological Imbalance-such as anxiety, irritability and insomnia.
2. Psycho-Physic Imbalance-such as high blood pressure or increased heart rate
3. Biochemical Imbalance-such as instant reactions such as anger, sensitivity, getting emotional and
4. Psycho Neurotic Imbalance-such as depression, substance abuse, sharp behavioral changes.

The fourth stage of stress will surely require the help of stress management professionals to cure the problem.

Other effect of severe stress will be result in inefficiency, reduction of physical power, changed intellect and emotional thought process, reduction in will power, reduction of power to face diseases, mental disorders and incurrance of various psycho-somatic diseases.

To reap appropriate gains from the normal stress and to avoid increase in stress so as not to become severe one will require proper management of stress.

STRESS MANAGEMENT:

Meaning of Stress Management: As per Wikipedia meaning is “**Stress management** refers to the wide spectrum of techniques and psychotherapies aimed at controlling a person's levels of stress, especially chronic stress, usually for the purpose of improving everyday functioning”.

The meaning of stress management refers the use of psychotherapy and the original meaning of the word 'psychotherapy' comes from Greek, meaning 'healing of the soul' [psyche (soul) and therapeia (healing)]. Stress management is also the technique to be used for the purpose of improving

everyday functioning of a person. Therefore here Yoga techniques can play vital role because Yoga is science of Mind (soul) and stress management requires healing of the soul.

HOW YOGA IN GENERAL HELPS IN STRESS MANAGEMENT:

Daily Yoga exercise such as Asanas, Pranayam, Shudhikriyas, Dharana, Dhyan, Om Chanting (Mantra Meditation) and Yoga-Nidra can help in keeping stress at normal level and can also help in reduction of increased stress. Following are the general techniques which can reduce stress:

Technique	Effect as given Yoga Texts
Asana- Different body postures	Regular practice of Asanas will reduce duality of Mind
Pranayam-study of breathing	Regular practice of Pranayam will reduce anxiety and will increase calmness.
Shudhikriyas-Cleansing techniques	It will increase self-confidence.
Dharana, Dhyan, Om Chanting (Mantra Meditation) and Yoga-Nidra-Meditational techniques	Regular practice will reduce anxiety and will increase awareness and concentration.

PARTICULAR YOGA TECHNIQUES OF PATANJALI ON STRESS & ITS BENEFITS:

Although these techniques are meant to remove distractions (Chitta-Vikshepa & Antaray) coming to attain ultimate bliss (Samadhi/Moksha); these techniques can give us the insights into psychotherapeutic process and devices for psychic management.

Sage Patanjali in his *Yoga Darshana* (Yoga Sutra) has elaborated these subtle techniques (Chitta-Prasandan & Chitta-Parikarma) in simple & small words and that too are easy to adapt for the common man. Now let us see what are that techniques.

I) CHITTA PRASADAN TECHNIQUES:

MAITRI:

The first & most important part of the first technique that can be followed by a common man is to have feeling of friendship with the successful/happy persons to whom you meet regularly or to whom you know. The logic behind this is very simple. The person who is going to be happy by having friendship feeling will be "you" and not that successful person. If you envy/hate those persons then it will be your own mind that will be disturbed; because our own thoughts affects us in the direction we think. If we think positively then the emotions like jealousy/envy will not come in our mind and its effect on our mind and emotion will be positive & it will help to remain free from unwanted stress. In a way patanjali taught us a good & simple step towards emotional intelligence also. If we involves ourselves in the happiness of others then indirectly we also become happy.

KARUNA:

The second part of the first technique is the exactly opposite to the first part. It means that we should have feeling of soreness with the people who are in a painful situation. We should have genuine feelings about his/her situation. If we can help him/her out from such situation then it will be nothing like better. But if we are unable to help; then our genuine feeling will work for them. The effect of that genuine emotion on our mind will be such that we will try to escape ourselves from doing anything bad for others. If such emotions come in our mind then other emotions will automatically become calm and cool. We will be able to feel inner peace by following this technique.

MUDITA:

The first & important part of the second technique is to have expression of gladness or cheerfulness in the mind if we see a person doing good deeds. The important effect of this mudita feeling will be such that one will start thinking of doing good deeds and second effect that one will not be jealous on the person doing good deeds. The cumulative effect of this feeling is that one will be able to detach himself from the feeling of unhappiness.

UPEKSHA:

The second important part of the second technique is to be remain indifferent in relation with the persons whose deeds are not good. The technique also emphasis that one should not dislike or dishonor the person whose deeds are not good. The effect of this upeksha feeling will be such that mind will remain free from thinking to do the deeds that are not good.

II) CHITTA PARIKARMA TECHNIQUES:

1. VEET-RAAG-VISHAYAM VA CHITTAM & VISHOKA VA JYOTISHMATI

Positive Thinking in disturbing situations

The third important technique which can be followed by anyone at the time of event that disturbs our mind is to thinking of the good object, place or person. If someone like mango; he can recollect mango, its taste, fragrance etc. and by this he will be able to get out of the disturbing situation. For example if a person comes before you with whom you do not have good relations because of some dispute with him the first thing you should do that try to forget the incidence that was cause behind the dispute and if this do not work for you then try to think about the object you like most. This thinking about liked thing will overpower the thoughts about that incidence or person and stress associated with it will be taken care automatically.

2. YATHABHIMAT DHYANAD VA:

This is the fourth technique which is about meditation. But the meditation may be anything as per the liking of the person. This technique will work for the persons who are not willing to meditate on GOD. This technique works because of the wavering nature of our mind is get controlled by the most liked object chosen for meditation. It could work as psychic management.

3. TAT-PRATISHEDHARTHAM EKA-TATTAV-ABHYASAH:

This is the fifth technique. Instead of studying or concentrating on too much things Sage Patanjali suggests to make concentration on any one thing at a time. In regular term it may be called as one pointed concentration. Such once pointed concentration may be on one's own breathing or concentration on external things such as Trataka-Kriya and Nasagra-Drishti. Concentration on one's own breathing will be useful for reduction in anxiety and multi-processing/multi-programming nature of mind. Because excessive multi-processing/multi-programming of mind also results in mental fatigue. The use of Trataka-Kriya (gazing steadily at one point) and Nasagra-Drishti (concentration on tip of nose) will be useful for improving concentration and will power. Physiologically, Trataka-Kriya and Nasagra-Drishti relieves eye ailments, and its most important effect is on the Ajna chakra and the brain. Trataka-Kriya and Nasagra-Drishti unlocks the inherent energy of the mind and channelizes it in the dormant areas of Consciousness. Further results of one-pointedness of mind are strong will power, improves memory and concentration. Actually Tat-Pratishedhartham Eka-Tattav-Abhyasah is the technique of determination however it may appear resembling with the technique of hypnotism which is being used for psychic management. The above technique may be called as self-hypnotization.

4. PRACHCHARDANA VIDHARANABHYAM VA PRANASYA (BREATHING TECHNIQUE):

The sixth important technique that can be followed by everyone at any place, time and situation. This technique is doing long breathing. We all know that at the time of listening to a bad or shocking news we use to hold our breathing and after listening that news completely we allow breath to go out. After pause for some time we outbreath and feels relax ourselves. This technique is called as long breathing. Sage Patanjali has given this technique for making our mind stress free. While doing long breathing our mind concentrates on the process of breathing and out breathing. And for some fraction of time we forget various thoughts/memories/events that use to evolve in our mind. For this fraction of time we live in "present" rather in past or future. The benefit of this technique is that our mind becomes thoughtless and the repercussions associated with the thoughts/memories/events go away.

5. VISHAYAVATI VA PRAVRITTIRUTPANNA MANASAH STHITI NIBANDHINI:

In this seventh technique sage Patanjali have used very fundamental principle of human mind. Generally human mind gets attracted towards the things it likes most & it keeps the memories of the same into his mind for long time. Using of these imprints that are printed on our subconscious mind is the subject matter of this technique. These imprints has power to create the subject without actually subject being available at present. For example fragrance of your most liked perfume. This creation of subject without actually subject being available at present has ability to control over mental functions. In Yog-Nidra; the above mentioned technique is used to imprint the results one want from his life or used to remove the imprints that are not required and are creating hindrance in the development of one's life. This technique can be compared with hypnotism of modern psychology.

6. SWAPNA NIDRA DNYANALAMBAN VA:

This is the eighth technique of achieving mind stability through attaining awareness on insight associated with one's beautiful dream and dream-less-sleep state of mind. In dream state of mind one becomes fully concentrated on the imageries of dream. And in calm sleep (Satvik-Nidra) & not being dormancy situation or unconscious state of mind) one is able to reproduce memories of calm sleep which are pleasant & delightful once he awake. The technique require either the recollection & continuous retention in mind of imageries of dream or recollection & continuous retention in mind of pleasant & delightful memories of calm sleep (Satvik-Nidra) and thereby achieving stability of mind.

7. HEYAM DUKHAM-ANAGATAM:

Increase acceptance level and by that avoid stress

The ninth important technique is for the persons who are under stress due to something that may happen in the future. Some people have habit to think only crooked about something that may happen in future and are always in worry. This technique suggests increasing our acceptance level. The sorrow that may come to us because of a person, event should be whitewashed by us before coming to us by increasing our acceptance level about happening of such event. For example; we should accept the fact based on the others' experience that our own son will also not listen to us after attaining his teenage. By accepting this fact we will be able to manage our stress at the time he actually does not listen to us.

CONCLUSION:

So far, we have seen the meaning of yoga and stress, its reasons, effects as well as the need of stress management. We also have seen general and special yogic ways to tackle the stress. We also understood that yoga has not only identified the root causes of stress but it also suggested the ways to manage stress and establishment of contentment in one's life.

To sum up, small things gives more stress than big and there are small but effective solutions to bring oneself out of the situation. One should work on oneself for oneself by oneself. Therefore in daily schedule one should understand & follow the subtle techniques to manage stress. Our forefathers have well understood that diseases follow thought lines and not blood lines therefore they have given more weightage to mind & emotion.

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Table-1		Table-2
Reasons of Stress	Five Kleshas (Yog-Sutra/II/3)	Chitta-Prasadan techniques that can be used in general for each of five kleshas (Yog-Sutra/I/33-39)
Reaction as well as ignorance of root cause behind something	Avidya	TAT- PRATISHEDHARTHAM EKA-TATTAV-ABHYASAH
Required to behave particularly in a given situation or not getting the things as per one's own wishes	Asmita	Heyam Dukham- Anagatam
Gap between demand from mind & supply	Rag	Maitri, Karuna, Mudita & Upeksha YATHABHIMAT DHYANAD VA SWAPNA NIDRA DNYANALAMBAN VA
	Dwesh	
Instant reaction	Abhinivesh	VISHAYAVATI VA PRAVITTIRUTPANNA MANASAH STHITI NIBANDHINI PRACHCHHARDANA VIDHARANABHYAM VA PRANASYA (BREATHING TECHNIQUE) VEET-RAAG-VISHAYAM VA CHITTAM & VISHOKA VA JYOTISHMATI

A Comparative Study of Spiritual Intelligence among Yoga and Non-Yoga practitioners



Sulabha Gawali
Acting Principal
Sri Aadiyoga Mahavidyalaya

ABSTRACT

The present was aimed to know the spiritual intelligence among Yoga Practitioners and No Yoga practitioners. It was also aimed to check spiritual intelligence with reference to types of practitioners and age level. The Roqan Spiritual Intelligence Test (RSIT) prepared by Prof. Roquiya Zainuddin and Ms. Anjum Ahmed (2010) was used. The sample constituted total 97 practitioners out of which 55 were Yoga Practitioners and 42 Non-Yoga practitioners. The age group was divided into two categories. First category included participants below 30 years and second category included 30 years and above participants. The data was collected from Non Government Organisations running the educational and service activities in the Nashik city in Maharashtra state. The data was scored, analyzed as per the manual. 'Two sample Z' test was being calculated. The result showed that (1) There is a significant difference between the mean score of spiritual intelligence among Yoga and Non-Yoga practitioners.(2) There is no significant difference between the mean score of spiritual intelligence among level of age (Age group below 30 years and second group above 30 years).

INTRODUCTION

Intelligence is one of the interesting areas for the researchers in the area of human psychology. Researches differentiate four types of basic intelligence. They are viz. physical intelligence, rational intelligence, emotional intelligence and spiritual intelligence. Physical intelligence develops in early stages. It is the ability to control one's physique. Then rational intelligence develops. It is the linguistic and conceptual skills. The next intelligence to develop is emotional intelligence. Spiritual intelligence finally develops as one begins to search for deeper meaning. It can be said that spiritual intelligence is one of the human abilities that differentiate human race from other beings. It allows human beings to be creative, to change the rules and alter situations. It is called the ultimate intelligence because of this transformative nature. Spiritual intelligence is the awareness, management and regulation of human energy. It is the key to personal fulfilment and good work performance. Spiritual intelligence practices can lead to a more satisfying, effective and productive workplace. Hence organizations that have long been rational systems may consider making room for spiritual intelligence, a dimension that has less to do with rules and order, and more to do with meaning, purpose, values and a sense of community. There is an on going debate about whether the construct spiritual intelligence can be assessed; there are a number of indicators and measures of spiritual intelligence. Further it can be observed that like every other construct spiritual intelligence can be nurtured and developed. Further among the various perspectives of spiritual intelligence, King's (2008) approach is found to be a theoretical framework that covers all the major understandings of the idea of spiritual intelligence in the literature. Hence, it was decided to analyse SISRI's suitability in the Indian scenario.

Keywords: Spiritual Intelligence, Yoga and Non-Yoga Practitioners, NGO, Spirituality

REVIEW OF LITERATURE

Susan tee Susan chin, R.N. Anantharaman and David yoon keen tong (2011) revealed that with both these intelligence i.e. Emotional intelligence and spiritual intelligence happening in the workplace, the environment will be more conducive. A better working environment relates to a higher level of productivity. Globalization has made the world boundary less and people are now more mobile. Organization required its employees to be more committed as well as to have a better cohesive working interrelationship.

Mandeep kaur (2013) revealed a significant positive relationship between teachers' spiritual intelligence and their job satisfaction. A significant difference is found between spiritual intelligence of government and private secondary school teachers. But insignificant difference is found between job satisfaction of government and private secondary school teachers. The study also indicated that spiritual intelligence and job satisfaction are not influenced by gender.

Peter McGhee and Patricia Grant (2008) found that these values, particular to spiritual persons, contribute to the flourishing of individuals and therefore lead to the acquisition of virtue. Spiritual persons are likely to be ethical persons. Such individuals are likely to be of significant benefit to their organisations.

3. RESEARCH METHODOLOGY

3.1 Significance of the Study

The modern society is characterized by a lack of emotional and spiritual intelligence as most of us worship materialism, and instant emotional and physical gratification. Consequently we turn to food, drink, drugs, gambling or sex to try to fill ourselves up and to get rid of the emptiness that we feel. There tends to be a lack of morals, a lack of family, a lack of a sense of community, and ultimately a lack of inner peace and meaning in our lives. Traditional religion has lost its ground but spiritual essence still lies within us. Hence this study attempts to find if significant difference exist between two groups; One which is practising Yoga and other group which has Non Yoga practitioners. This study also intends to explore if Yoga practice has any impact on Spiritual Intelligence of practitioners and non-practitioners.

3.2 Hypotheses

- There is a significant difference between the mean score of Yoga and Non Yoga practitioners in terms of Spiritual Intelligence.
- The level of Spiritual Intelligence is higher among Yoga practitioners than non –Yoga practitioners.

3.3 Variables

1. Spiritual Intelligence

- | | |
|----------------------------|----------------------|
| a. Innerself | b. Interself |
| c. Biostoria | d. Life Perspectives |
| e. Spiritual Actualisation | f. Value Orientation |

2. Practitioner Type (Yoga and Non –Yoga)

3.4 Operational Definitions

◆ Yoga Practitioners

In the present study Yoga Practitioners may be defined as participants who are practising Indian ancient Yoga system and following instruction /practices of Yoga on a daily / weekly basis regularly irrespective of their daily profession which they are engaged with.

◆ Non-Yoga Practitioners

In the present study Non-Yoga Practitioners may be defined as participants who are not practising any Indian ancient Yoga system or not following instruction /practices of Yoga on a daily /weekly basis. They are engaged in their respective professions.

◆ Spirituality

Spirituality is an element of intelligence because it predicts functioning and adaptation and offers capability that enable

people to solve and attain goal

3.5 Selection of the Samples

Sample for the study was selected from NGO Shree Sharada Multipurpose Society's Sri Adiyoga International Institute for Learning & Research and Nashik Blood Bank. Nashik, by using purposive method. The age range of the sample is 18 to 75 years. The sample constituted of total 80 Yoga and Non Yoga practitioners out of which 40 will be from different Yoga programs (Diploma & MA) and staff of Nashik Blood Bank (20 technical and 20 non-technical employees). The data was collected from NGO from Maharashtra State. The data was scored, analyzed as per the manual. 'z' test score was calculated.

3.6 Sample Design

A total Sample of 97 practitioners equally distributed between types of employees and levels of experience from NGO of Maharashtra state selected for the research study.

The Table showing sample distribution

Showing the table of Sample Distribution			
Practitioner	Practitioners		Total
	Yoga Practitioner	Non-Yoga Practitioners	
18 to 30 Year	15	16	31
30 to Above Year	40	26	66
Total	55	42	97

3.7 Tools for Data Collection

The Roqan Psychometric Spiritual Intelligence Test (RSIT) prepared for the study by Prof. Roquiya Zainuddin and Ms. Anjum Ahmed (2010) was used. This tool was employed in the present study- a. Roqan Spirituality Intelligence Test (RSIT) developed by prof. Roquiya Zainuddin and Ms. Anjum Ahmed (2010). There are 78 items in this scale and consists of six sub dimensions-i-The inner self, ii- The inter self (items on scale, iii- Biostoria, iv- Life perspectives, v- Spiritual Actualization, vi- Value orientation

3.8 Statistical Tools

Descriptive statistical method was employed and statistical parameters like mean, S.D., and Z test were carried out for analysis of the data. Analysis and interpretation of Data was done by tabulations of questionnaire responses using MS-EXCEL and Online Statistical Test Calculator tool. Table No.01 Showing Mean, S.D., Z Values of Spiritual Intelligence on Yoga and Non Yoga Practitioners. RSIT questionnaire was administered as per instruction provided in its respective manual before starting, all participants will be explained properly about the present study and confidentiality of information will be maintained. The instruction of above was mentioned and measures was clearly explained to the participants and also demonstrated.

There was time limit of (20 min) for answering. After administrating the test the scoring of the data mentioned was done as per instruction given in the manual. Statistical technique- The data obtained for the present study through appropriate statistical technique such as Mean, S.D. and Z-Test. The permission was obtained from the authorities/ Management of NGO for this study for data collection (Maharashtra State) after the establishment of rapport, personal information and the 'Roqan Spiritual Intelligence Test (RSIT)' was administrated.

3.9 Results and Hypotheses Testing

On the basis of the interpretation of results, Hypotheses statements were tested and conclusions were drawn.

4.0 RESULTS & INTERPRETATION

Table No: 4.1

SI- Sub Dimensions	YOGIC SAMPLE			NON -YOGIC SAMPLE		
	N	Mean	SD	N	Mean	SD
Inner Self	55	38.16	4.20	42	37.62	5.45
Inter Self	55	83.36	7.42	42	78.24	11.32
Biostoria	55	24.04	3.61	42	23.10	4.65
Life Perspectives	55	42.58	4.74	42	39.95	6.94
Spiritual Actulisation	55	93.67	8.65	42	87.05	11.72
Value Orientation	55	51.07	5.04	42	47.48	8.52
SI	55	333	1.98	42	313	2.96

Graph No:4.1

5. DISCUSSION

From the Percentile Table it has been observed that

-The value of "Spiritual Intelligence" for Yoga Practitioners found to be high and for non yoga practitioners found low.

6. CONCLUSION

1. The calculated value of "z" for Spiritual Intelligence after comparing mean scores of Yoga and Non Yoga Practitioners i.e 2.64 at 0.05 significance level is not in the 95% critical value accepted range (-1.96 : 1.96)
2. It was observed from the Table No 4.4 that means Spiritual Intelligence Score of Yoga Practitioner is 333 and Non Yoga Practitioner is 313.

6.1 Hypotheses Testing

1. It was hypothesized that there is a significant difference between the mean score of Yoga and Non Yoga practitioners in terms of Spiritual Intelligence.

From the conclusion No-1, it has been observed from the difference of averages between two sample populations (Yoga and non Yoga) is big enough to be statistically significant. Hence Hypotheses no-1 is accepted.

2. It was hypothesized that the level of Spiritual Intelligence is higher among Yoga practitioners than non -Yoga practitioners.

From the conclusion No-8, it has been observed that Spiritual Intelligence of Yoga Practitioner is 333 and Non Yoga Practitioner is 313. Hence Hypotheses no-2 is accepted.

6.2 Implications

- The study implies or gives hints for practitioners who are engaged in the Yoga profession to study their development or stage of evolution..
- The roots of social or organisational problems of behaviours can be traced by studying the SI dimensions and will also helpful for talent development managers to design the staff development programs.

6.3 Limitations

- The sample is limited to Nashik region and not big enough due to time constraints.
- There could be breaks in the Yoga Practices or no continuity of practice while claiming that they are Yoga Practitioners. Hence sample size should be collected from wider topography to reduce the bias and faking.
- There is time limit for this study due to academic reasons.

6.4 Recommendations

- The study can be conducted with larger sample size.
- The study need to be conducted from various cities to explore more details in the sub dimensions and their interrelations and impact on total SI score.
- The study can be conducted further with different Yoga Streams / Traditions of Yoga in the country to find which prevailing Yoga practices are contributing /impacting more on Spiritual Intelligence Score (SI)
- In the present context when 21 June has been declared as International Yoga Day. It will be interesting to know the SI of other country Yoga Practitioners (other than India) to study the

“Nationality” as a variable. Hence replication of this study at international level is recommended.

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