

BUDDHIST APPROACH TO GLOBAL EDUCATION, ETHICS, HARMONY AND PEACE THROUGH QUANTUM MEDITATION

by Ven. Bhikkhu Ananda*

ABSTRACT

The neuroquantum science of consciousness now made it clear, practical and real in the laboratory of quantum technology that quantum meditation (QM), quantum physics of mindful meditation and metta mediation could play an important and significant role in global education, ethics, harmony and peace for the well-being of all. Recent researches in quantum physics and neuro-biochemistry of mind have shown deep connections to Buddhism and quantum consciousness. The Buddha described human life as a process or series of ever changing process. The deepest experiences in meditation lead us to intimate awareness of life processes which are dynamic and continuous wherein we can observe our thought process at quantum level changing from negative to positive. Thoughts, when wilfully applied, they can be transformed into ethics, harmony and peace by effortful learning, the process of education. The whole process could be made global if individual and society work in the same direction. This process, in Buddhism, is known as kamma theory, wherein mind is the chief of all good and bad states of consciousness. According to Buddhism, kamma is the visible form of consciousness. It arises and disappears

*. Ph.D., (Biochemistry), Director, International Buddhist Meditation Vihara and Research Centre (IBMVRC), Aurangabad. M.S. India.

into impermanent combinations which we cannot see and is beyond our reach. Kamma is volition, the Buddha says. Thus kamma is not an entity but a process, action, events, energy and force. Our conception of action comes from the mind and cannot be explained without reference to the characteristics of consciousness which corresponds to the Grand Unified Theory (GUT) which comes very close to the idea of non-physical but purely phenomenological idea of the Dhamma of the Buddha. This all is governed by the dynamics and energetics of pure quantum consciousness that arise in quantum meditation.

INTRODUCTION

The human brain consists of complex matter and mind (1-5). The brain has its specific chemistry and chemical specificity in causation of consciousness (6, 7). Significant contributions are being made in the field of chemistry as to how the mind operates (5). Electronic and molecular events take place in the brain that give rise to consciousness. The whole biomolecular mechanism of life is electron dependent. The electrons cause functional changes in the behaviour of macro and micro molecules of living matter. The emergence of life process is the inter-play of matter and energy that contribute to evolve consciousness. The behaviour of electron in the human brain is manifested through electro-chemical reactions which may be the reflection of inter-play of fundamental particles generated that results in generating consciousness and awareness depending upon the level of organisation of molecules (8). The interactions and functional operations of brain and mind make it understandable about molecules and mind (9, 10, 11, 12).

It is further recognized that the electronic and quantum chemical events give rise to different states of human consciousness. Where we observe the connections and interactions between mind and matter. Basically it is the consciousness which affects the quantum electronic states and vice-versa. Truly speaking, electron and consciousness are just one reality and there exists not any duality (13-15). Recently, electromagnetic field theories (EMF theories) of consciousness propose that consciousness results when brain produces an electromagnetic field with specific characteristics (31, 32) and Johnjoe McFadden (33, 34, 35) have proposed EMF theories.

Some electromagnetic theories are also quantum mind theories of consciousness; which include quantum brain dynamics (QBD) (37, 38). Conscious electromagnetic information (Cemi) theory, which, proposes that every time a neuron fires to generate an action potential and post synaptic potential in the next neuron down the line, it also generates a disturbance in the surrounding electronic field. McFadden has proposed that brain's electromagnetic field creates a representation of the information in the neurons. McFadden also proposes that the digital information from the neurons is integrated to form a conscious electromagnetic information (Cemi) field in the brain. Consciousness is suggested to be the component of this field that is transmitted back to neurons and communicates its state externally. Thoughts are viewed as electromagnetic representation of neural information and the experience of free will in our choice of actions is arranged to be our subjective experience of the Cemi field acting on our neurons. McFadden claims that the Cemi field theory provides a solution to the binding problem of how complex information is unified within ideas to provide meaning: The brain's EM Field unifies information encoded in millions of neurons.

A word about Quantum Brain Dynamics:

The concept underlying this theory derives from the physicists Hiroomi Umezawa (16) and Herbert Fröhlich (17). Recently, their ideas have been elaborated by Mari Jibu and Kunio Yasue. The recent paper "The emergence of mind as quantum field phenomenon" (77) is about mind, vacuum, quantum biology and artificial intelligence. This paper suggests the result of quantum interaction between subatomic and force fields wherein it is made clear that living cells are bio-machineries that work with a combination of electrical and biochemical processes supported by quantum mechanics from which the quantum mind is derived. Nowadays, the human mind and quantum physics are being studied in the language of quantum mind, quantum meditation, quantum life, quantum brain and quantum psychology. Presently in Buddhism, mind only ground consciousness and quantum *Kamma* (78) have become the matter of quantum research.

1. QUANTUM MEDITATION

Quantum meditation can be defined as “the meditation in which quantum mind phenomena is at work in integration with neuroplasticity of brain with wholesome states of mind”. In simple words, meditation is a powerful technique of purification of mind, body and speech in which systematic expansion of awareness or consciousness take place. The neuro quantum scientists have been exploring all the possibilities in the field of physiology, neurobiology, quantum biochemistry, psychobiology and neuro-quantum physics of mind (16-25, 52-53, 55-56).

2. MEDITATION AND QUANTUM THEORY

Meditation helps make contact with higher state of consciousness with vacuum state. Dr. Domash (scientific research on T.M., Meru, 1976) and Dr. Capra, the particle physicists give their views and hypotheses on meditation and quantum field theory. Dr. Domash points out the “There exists a striking parallel between the attributes of pure consciousness and the properties of vacuum state of quantum field theory. The vacuum state is the state of least excitation of the fields of matter and energy. It is also zero particle state of all possible configurations of matter and energy and excitations of vacuum state field and transcendental consciousness is the state of least mental activity, a state in which no specific thought exist yet consciousness is mentioned. Both the vacuum state and the state of transcendental consciousness are unique states characterized by perfect orderliness for unboundedness and all potentialities.”

Similar views are put forth by Dr. F. Capra (Tao of physics, 1975), who states that “Einstein’s unified field theory is similar to *Dhammakaya* in Buddhism, which is the ultimate unified form from which springs all the phenomena, unified field is compared with *Sunyata*, the void. This void which has an infinite creative potential and can easily be compared to the quantum field subatomic physics. The quantum field gives birth to an infinite variety of forms. According to field theory of matter, a material particle such as an electron is merely a small domain of electrical field within which the field strength assumes enormously high value. The relation of form and emptiness can be conceived as a state of mutually exclusively

opposite but only as two aspects of the same reality which co-exists and are in continual cooperation”.

Our concept of physics comes from mind cannot be explained without reference to the characteristic of consciousness (31-32). Infact, theory of events points out the replacement of matter by events which corresponds to the quantum electrodynamic field theory which comes very close to the idea of non-physical but purely phenomenological idea of the *Dhamma* implied by Khanika-vago (27) theory of momentariness of *Abhidhamma Pitaka*. From Buddhist point of view, matter is the continual oscillation between moment (non-being) and stability (being) and the synthesis of which represents becoming.

In Buddhism, all mental phenomena causally conditioned (*Paticca Samuppada*), that means all causal laws operation is not only in the physical realm (*Utu niyama*) or biological realm (Bija niyama) but in psychological realm (Citta niyama) too (28, 29), and that is why it is said, “All things are preceded by mind, governed by mind and are creations of mind” (30).

3. THE NEUROSCIENCE AND MINDFULNESS MEDITATION

Research in mindfulness meditation recently has shown that neuronal and molecular changes in the brain take place with wholesome states of mind in wellbeing of human. It has, therefore, received the attention of neuroscientists of various fields (44-51). The studies in this area have shown the changes in multiple aspects of multiple function in healthy individuals and patients. Mindfulness meditation originally comes from Buddhist meditation. The studies in this area indicate changes in thoughts, emotions, feelings and behaviour (64). It has been reported that in mindfulness breathing meditation, vipassana meditation (moment to moment non-judgemental awareness), and *metta* or compassion meditation (59-63).

The positive changes in the brain structure and therefore in the behaviour of meditators have been shown through different techniques such as Magnetic Resonance Imaging (MRI) and functional Magnetic Resonance Imaging (fMRI) (70). These techniques have investigated neuroplasticity in brain regions such

as multiple prefrontal regions, limbic regions and the striatum for emotion regulation, for attention control, the anterior cingulate cortex (ACC) and the striatum, and for self-awareness, insula, medial prefrontal cortex and posterior cingulate cortex and precuneus. Structural MRI data suggest that mindfulness meditation might be associated with greater cortical thickness (65) and might lead to enhance with white matter integrity in ACC (66, 67).

Other attentional related brain region in which functional changes have been observed following mindfulness meditation include the dorsolateral prefrontal cortex (PFC), where responses were enhanced during executive processing (68). Neuroimaging studies have shown enhanced emotion regulation associated with mindful meditation (68, 69-73). According to Buddhist philosophy, the identification with a static concept of 'Self' causes psychological distress. Misidentification from such a static self- concept results in the freedom to experience a more genuine way of being. The enhanced awareness (making awareness itself on object of attention), mindfulness meditation is thought to facilitate a detachment from identification with the self as static entity (59, 74). In case of compassion meditation, activation in insula is enhanced (128).

4. CONCEPT OF KAMMA IN BUDDHISM

*"Sabba papassa akaranam
Kusalassa upasampada
Sa-citta pariyo dapanam
Yetam Buddhānu sasanam"*

Not to do any *akusala kamma* (unwholesome deeds)

To do the *kusala kamma* (wholesome deeds)

And purify the mind

This is the teaching of The Buddha. (Dhammapada, Buddhavagga, 183).

Further to explain more, *kamma* consists of five precepts and eightfold path:

Five precepts:

1. Not to kill

2. Not to steal
3. Not to indulge in sexual misconduct
4. Not to tell lies
5. Not to intoxicate

Eightfold path:

1. Right Understanding (*Samma Ditthi*)
2. Right Thoughts (*Samma Sankappa*)
3. Right Speech (*Samma Vācā*)
4. Right Action (*Samma Kammanta*)
5. Right Livelihood (*Samma Ajiva*)
6. Right Efforts (*Samma Yāyāma*)
7. Right Mindfulness (*Samma Sati*) and
8. Right Concentration (*Samma Samadhi*)

With this,

“By *kamma* the world moves, by *kamma* men live; and by *kamma* are all beings bound.

As by its pin, the roaring chariot wheel,
 By *kamma*, one attains glory and praise.
 By *kamma* bondage, ruin, tyranny,
 Knowing that *kamma* fruit manifold,
 Why say ye, “In the world no *kamma* is.” (76).

“VOLITION IS KAMMA” (*Anguttara Nikaya*) (76, p-348).

The Buddha says: “I declare, O Bhikkhus, that volition (*cetānā*) is *kamma*, having willed as acts by body, speech and thought, every volitional action of persons, except those of Buddha and *Arahatas*, is called *kamma*. An exception is made in their case because they are delivered for both good and evil. They have eradicated both ignorance and craving, the roots of *kamma*. “Destroyed are their germinal seeds (*Khina-bija*), selfish desires no longer grow”, states the *Ratana Sutta*. This does not mean that the Buddha and the *Arahatas* are passive. They are entirely active in working for the real wellbeing and happiness of all. What is most important is: “In the working of *kamma*, its most important feature is mind. All our words and deeds are coloured by mind or consciousness we experience at such particular moments. When the mind if unguarded, bodily

action is unguarded; speech also is unguarded; and thought also is unguarded” (76, p-350)

“By mind the world is led, by mind is drawn; and all men own the sovereignty of mind”.

“If one speaks or acts with a wicked mind, pain follows one as the wheel, the hoof of the draught-ox”. (*Dhammapada*, V, I)

“If one speaks or acts with a pure mind, happiness follows one as the shadow that never departs”. (*Dhammapada*, V, 2)

In short, like attracts like. Good begets good. Evil begets evil. This is the law of *kamma*. In Buddhist sense, *kamma* is the law of cause and effect in the ethical realm. (76, p-351).

“Thoughts themselves are the thinkers”- William James (76, p-358).

Dependent on individual psycho-physical continuity or flux is every experience the so-called being has passed through, every influence felt, every influence received characteristic of transcendental or human is force or energy.

So, the entire *kammic* energy is dependent on the dynamic mental flux (*citta santati*) ever ready to manifest itself in multiple patterned phenomena as occasion arises. Therefore, *kamma* is an energy (force) transmitted and transformed from one existence (point existent) to another. It plays the chief part in the moulding of character of individual and society. The understanding of this law is essential for the global education, ethics, harmony and peace through quantum mind and quantum meditation.

5. QUANTUM MEDITATION, NEUROPLASTICITY AND TRANSFORMATION

It is, now, known beyond doubt that meditation brings about plasticity (changes) modifications in the human brain (44). It is neuroplasticity that has the greatest potential for meaningful interaction with Buddhism. Various scientists and doctors such as Stephen LaBerge, Richard Davidson and John Kabat-Zinn have been prominently working in this area of research. “The quantum and the Lotus” by Matthieu Richard and Trinh Xuan Thuan

(45) explores the physics and Buddhism with their parallels. The Buddhist theory of neuroplasticity is now gaining ground in modern quantum science.

The work of A. Lutz, J.D. Dunn and R.J. Davidson, on “Meditation and neuroscience of consciousness: An introduction” in the Cambridge handbook of consciousness (Cambridge: Cambridge University Press, 2007, certainly attracts the scientists like Nobel laureate Roger Sperry and Thomas Wille, the father of modern neurology and many others whose names are reflected often in neuroscience research on meditation. There are numerous Buddhist meditation practices. But mindfulness meditation and compassion meditation are being used on large scale in the field of research. According to Schwartz: That wilful, mindful effort can alter brain function-and that such directed brain changes neuroplasticity are a genuine reality. Mental action can alter the brain chemistry of an obsessive-compulsive disorder (OCD). The mind can change the brain (46). It is now being shown that chronic pain, anxiety disorders, general psychological wellbeing, psoriasis and recurrent depression have been treated by mindful meditation (39). The other studies have revealed that this type of meditation also produce changes in brain structure showing meditation can induce neuroplasticity (47). Also, compassion meditation had shown that selfishness and ethnocentrism decrease. This practice of meditation suggested the development of positive mental states transforming emotions such as happiness and other positive emotions like compassion and non-attachment which prove that meditation can change the brain through the process of neuroplasticity where patterns of neural activity or even the structure of the neurons can be altered.

During compassion meditation, change in patterns of prefrontal activation and physical location correlated to positive emotions have been observed (48). The quantum neuro-physicists and neurobiologists agree that consciousness is process and research on neuroplasticity has revealed that brain is dynamic (49). According to Laura Vollmer, “The cultivation of compassion will necessarily result in the diminishment of hate and ethnocentrism. Neuroplasticity has shown that change in the mind and brain are observed” (50, 51).

6. GLOBAL EDUCATION, ETHICS, HARMONY AND PEACE

The basic foundation of Buddhism is based on three most important pillars:

1. *Sila* (Morality)
2. *Samadhi* (Meditation)
3. *Pannya* (Wisdom)

This in totality would serve the real basis of global education, ethics, harmony and peace. In the age of digitalization and quantum computing phenomenal life, Buddhism contributes enormously in many disciplines like medicine, technology, logic, mathematics, artificial intelligence, philosophy and spiritual practices. The scientists and societies evolved thus are basically important in increasing the overall wellbeing of human kind where scientific wisdom can come to our rescue. In this era, mental health is crucial looking at the multi-complexity of life. If understood and practiced “*dhammachakka ppavattana sutta*”, the neuro-quantum dynamics of mind and its plasticity through meditation can solve the problems of global education, ethics, harmony and peace.

The dependent origination (cause and effect theory) of Buddhism which is equivalent to quantum theory of physics, which means everything is nothing more than set of relations. In other words:

- When this is, that is.
- This arising, that arises.
- When this is not, that is not.
- This ceasing, that ceases.

If one knows this, the sufferings: physical, mental and spiritual are annihilated. The phenomenal life is thus built on a set of relations. We create illusions in our mind because of cravings, and therefore it is hard to realise that the world is like bubble or *sunnyata* (void) or quantum reality, unreal but real. Therefore Buddhist teaching, i.e. *dukkha*, *anatta* and *anatma* (no self) make us understand that mind is the master, mind creates everything and everything is the reflection of mind with respect to *kamma*. If mindfulness meditation and compassionate meditation are taught which produce the state of mind devoid of *raga* (greed), *dosa* (hatred), *moha* (delusion)

wherein the different forms of *kamma* like charity, morality and meditation in combination with liberty, equality, fraternity and justice can transcend the individual and society. If one, therefore, works at quantum *kamma*, the process of experiential reality in accordance with quantum meditation dynamics comes about. And we see, “As we sow, so we reap”. We are thus the result of what we do and what our mind is. This is the perfect approach to what, here, we are dealing with.

CONCLUSION

If the Buddhist Grand Unified Theory (GUT) of mental forces *sila*, *samadhi* and *pannya*; and the Grand Unified Theory of physical forces work in integration coherently, then global education, ethics, harmony and peace will prevail forever and ever on this planet earth.

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