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Meditation and World Peace

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Abstract

Feelings were certain kinds of self-respect and self-esteem, selfworth, and self-accomplishment, as well as romantic love and friendship in human being. Since the hippocampus in brain is linked to memory and the context of events in which emotions arise, it is easier to understand why persons who suffer from depression begin to have distorted views of their own history and the origin of their depressive state. On the other side emotions are also extensively connected with the functioning of the body, in particular with the immune system, the endocrine system (which regulates hormones) and with the autonomic nervous system which regulates heart rate, blood pressure. Persons disposed to anxiety and depression would benefit greatly if they would meditate daily on compassion, for themselves and for all sentient beings. Thus, Emotions can be controlled and modified if the mind is trained. One of the best ways to train the mind is through meditation i.e. Vipassana is a way of self-transformation through self-observation - it can be freely practiced by everyone, at any time, in any place, without conflict due to race, community or religion, and will prove equally beneficial to one and all. In the present-day conditions are so complex and living beings on the Earth planet is sitting on the self-made explosives those can be use by any one any time. For those as well as common men Once the mind of individual control this can be spread to the whole World and meditation would maintain peace.

Key words: Meditation, World peace, Anxiety, Depression.

People suffer from depression, discouragement, hatred, resentment, fear, and anger. And those feelings give birth to more and more violence. Road rage leads to traffic injuries and deaths. Young people either shoot at peers and teachers or commit suicide. Spouses kill spouses or parents kill children or vice versa. Thus, our generation has chosen selfmotivated war, invasion, and occupation as the principle weapon for creating safety and peace in the world and for establishing democracy. Of course, not everyone is functioning in negativity, but the energy of it surrounds us. We are swimming in the ocean with negativity even if we haven't swallowed it. Those of us walking spiritual paths have a tremendous challenge if we are to counterbalance this negativity. First, we have to overcome any negativity within. Then we can help to transmute the energies permeating the group psyche. How Can We Overcome Destructive Emotions [1], it reports on a scientific dialogue between the Dalai Lama, Buddhist scholars, and Western psychologists, neuroscientists, and philosophers. The book is very grounding and encouraging. It provides evidence that meditation definitely effects change, physiologically, emotionally, mentally, and spiritually. For thousands of years spiritual teachers have taught that negative emotions

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alienate us from other persons and the world around us and have advocated meditation as a way to transform emotions, and Buddhists have a 2,606year history of investigating the workings of the mind and learning how to overcome our tendencies toward destructive emotions. Now scientific research and advanced technology have proven the effectiveness of these techniques.

Western emotions tend to be judged good or bad according to their usefulness in structuring social life. Happiness, sadness, love, friendship, forgiveness, gratitude, regret (or remorse for having done something wrong), guilt and shame contribute to better interpersonal relationships, whereas anger, contempt, indignation and fear tend to break down the social fabric. Consequently, the Westerners in the dialogue were inclined to view the following as destructive states of mind: low self-esteem, overconfidence, harbouring negative emotions, jealousy and envy, lack of compassion, and inability to have close interpersonal relations. They viewed as constructive states of mind, self-respect, selfesteem (if deserved), feelings of integrity, compassion, benevolence, generosity, seeing the true, the good, and the right, love, and friendship. As you can see, nearly all of these emotions, or states of mind, are directly related to interpersonal relations.

Buddhists place far more importance on structuring one's soul than on structuring social life. Therefore, they view destructive emotions (also called obscuring or afflictive mental factors) as something that prevents the mind from ascertaining reality as it is, causing a gap between the way things appear and the way things are. This is a concern for those who seek to evolve spiritually by learning to discern what is true and real. Thus, Buddhists view express us the desire, or excessive attachment, as destructive because it makes it impossible for us to see a balance between the pleasant and the unpleasant, the constructive and the destructive, qualities in something or someone. Instead, we view the object of our desire or attachment as one hundred percent attractive. Aversion, on the other hand, blinds us to some of the positive qualities of the object, causing us to feel one hundred percent negative toward that object, wishing to repel, destroy, or run away from it.

Emotion and Negativity

Buddhist philosophy evaluates emotions as negative is that they cause you to experience less happiness, less well-being, less lucidity and freedom, and more distortion. Buddhist scriptures speak of eighty-four thousand kinds of negative emotions, but they can be represented by five main ones: hatred, hostility or anger; desire, attachment, or craving; confusion, ignorance, or delusion; pride; and jealousy (the inability to rejoice in others' happiness). In addition, the mental states of afflictive doubt and afflictive views are considered destructive. Buddhists are not so much concerned with the fact that the above-mentioned emotions make it difficult for us to enter into and enjoy relationships. Instead, they know that these emotions make the one who experiences them unhappy, and to be unhappy makes it difficult to make progress on a spiritual path. Therefore, feelings were certain kinds of self-respect and self-esteem, self-worth, and self-accomplishment, as well as romantic love and friendship (Figure 1).

Neuroscientists

The development of the MRI has made it possible for them to study the intricate web of neural connections linking thoughts and feelings, cognition and emotions. What they have discovered is that there is not just one area of the brain that regulates emotions. Instead, many parts of the brain work together to produce the complex behaviour that we call an emotional response. A critical zone for regulating emotion is the frontal lobe, right behind the forehead and a part of the cortex. Another is the parietal lobe, an area where representations from the senses, such as vision, hearing and touch, all come together. The parietal lobe also plays a role in mental representations, such as when we picture something



Feelings

DesireDisappointmentFigure 1: Feelings appear as desire and disappointment.

"in the mind's eye." Then buried within the middle of the brain, in the region known as the limbic system, is the amygdale, which turns out to be very critical for certain kinds of negative emotions, particularly fear. Finally, the hippocampus, a long structure just behind the amygdale that has been linked to memory has an important role in emotion because it is essential for our appreciation of the context of events.

When depression is treated with antidepressant medication, it prevents the atrophy of the hippocampus that typically occurs if the depression goes untreated. Since the hippocampus is linked to memory and the context of events in which emotions arise, it is easier to understand why persons who suffer from depression begin to have distorted views of their own history and the origin of their depressive state. Another example of this connection between mind and body is the finding that the parts of the brain that are most involved with processing and regulating emotions are also extensively connected with the functioning of the body, in particular with the immune system, the endocrine system (which regulates hormones) and with the autonomic nervous system (which regulates heart rate, blood pressure, and so on). Therefore, it is not surprising that the mind and emotions have such a powerful influence on the functioning of the body (Figure 2).

People who have a shorter recovery time also find it easier to control their emotions if you ask them to. Moreover, these people produce less of the hormone cortisol, which plays a key role in stress. Therefore, those persons who tend to have strong emotional responses and to take longer times to recover from them are more likely to suffer from stress-related conditions. Cortisol is a steroid hormone, in the glucocorticoid class of hormones. When used as a medication, it is known as hydrocortisone. It is produced in humans by the zona fasciculata of the adrenal cortex within the adrenal gland [2]. It is released in response to stress and low blood-glucose concentration. It functions to increase blood sugar through gluconeogenesis, to suppress the immune system, and to aid in the metabolism of fat, protein, and carbohydrates [3]. It also decreases bone formation [4] (Figure 3).

Craving, neuroscientists have discovered that in virtually all forms of craving that have been studied, there is an abnormality in the chemical system's ability to produce dopamine, which plays an important role in reward and in the pleasurable feelings that occur in response to reward. So, if one engages in habitual craving, he becomes less and less able to feel satisfied due to the reduction of the production of dopamine. Outside the central nervous system, dopamine functions primarily as a local chemical messenger. In blood vessels, it inhibits norepinephrine release and acts as a vasodilator (at normal concentrations); in the kidneys, it increases sodium excretion and urine output; in the pancreas, it reduces insulin production; in the digestive system, it reduces gastrointestinal motility and protects intestinal mucosa; and in the immune system, it reduces the activity of lymphocytes. With the exception of the blood vessels, dopamine in each of these peripheral systems is synthesized locally and exerts its effects near the cells that release it. Several important diseases of the nervous system are associated with dysfunctions of the dopamine system, and some of the key medications used to treat them work by altering the effects of dopamine-Parkinson's disease (Figure 4).





Thus, Buddhist practitioners have been utilizing what amounts to an "inner science," a systematic method for transforming the inner world to produce a better human being - one that is more selfless and compassionate, with greater calm and equanimity. One result of that program, he observes, is relief from the tyranny of destructive emotions. The brain consumes up to twenty percent of the energy used by the human body, more than any other organ [5]. Brain metabolism normally relies upon blood glucose as an energy source, but during times of low glucose such as fasting, exercise, or limited carbohydrate intake), the brain will use ketone bodies for fuel with a smaller need for glucose. The brain can also utilize lactate during exercise [6]. Longchain fatty acids cannot cross the blood-brain barrier, but the liver can break these down to produce ketones. However, the medium-chain fatty acids, octanoic and heptanoic acids, can cross the barrier and be used by the brain [7]. The brain stores glucose in the form of glycogen, albeit in significantly smaller amounts than that found in the liver or skeletal muscle

Brain Activity

People have high levels of brain activity in the left prefrontal cortex, they simultaneously report feelings such as happiness, enthusiasm, joy, high energy, and alertness. On the other hand, high levels of activity in the right prefrontal cortex correlate with reports of distressing emotions such as sadness, anxiety, and worry. In fact, they found that people with an extreme rightward tilt in the ratio of the activity in these prefrontal areas are highly likely to succumb to clinical depression or an anxiety disorder at some point in their life. People in the grip of depression who also report intense anxiety have the highest levels of activation in those prefrontal areas. Right-to-left activation in the prefrontal areas that offers a barometer of the moods we are likely to feel day to day. That ratio represents what amounts to an emotional set point, the mean around which our daily moods swing, persons disposed to anxiety and depression would benefit greatly if they would meditate daily on compassion, for themselves and for all sentient beings. Such meditation does not require training. Rather, a decision to sit quietly, breathing into the heart center, and intending to awaken compassion within and breathe it out to all is sufficient. Paul Ekman [8] found trained meditators is that they were quicker than other people at recognizing the emotional states reflected in the faces of others. Charles Darwin wrote in his 1872 book, The Expression of the Emotions in Man and Animals that "facial expressions of emotion are universal, not learned differently in each culture". Persons who tend to get upset easily by the smallest surprise of one kind or another might try practicing the Open State meditation, described above, or one-pointed concentration, a fully focused concentration on a single object of attention (Figure 5).

A transparency between their personal and public lives. The second quality is selflessness, lacking concern about status, fame, or ego. The third is compelling personal presence that others find nourishing. And finally, the qualities of attentiveness and concentration preclude a wandering mind, whether in meditation or in interaction. Emotions can be controlled and modified if the mind is trained. One of the best ways to train the mind is through meditation. Thus, the world today needs citizens and leaders who can work toward ensuring stability and engage in dialogue with the 'enemy' no matter what kind of aggression or assault they may have endured. The mind and emotions are inseparable, but how they interact can be changed if we are intentional and persistent in our work with self [9] (Table 1).

Robert Zajonc, a University of Michigan psychologist, published two reviews in 1989 of the "facial efference theory of emotion", also known as facial feedback theory Adelmann and Zajonc [10] and Zajonc, et al. [11] which Zajonc [12] first introduced to the scientific literature in an article published in Science in 1985. This theory proposes that the facial musculature of mammals can control the temperature of the base of the brain (in particular the hypothalamus) by varying the degree of forward and backward flow through a vascular network (a so-called rete mirabile). The theory is based on the idea that increasing the temperature of portions of the hypothalamus can produce aggressive behavior, whereas cooling can produce relaxation. Our emotional language has comparable descriptors, such as "hot-head" and "coolbreezy". The theory offers an explanation for the evolution of common facial expressions of emotion in mammals. Little experimental work has been done to extend the theory, however (Figure 6).

Location of the Hypothalamus, in Relation to the Pituitary and to the Rest of the Brain

Ecological balance is a theory stipulating that natural conditions, including numbers of various animal and plant species, remain stable on their own through variations over time. The environment in which the man and other organisms live is called the biosphere. The biosphere is made up of different regions that have different types of flora (plants) and fauna (animals). The types of organisms in an area are determined by various factors such as the climate, temperature, rainfall, etc. The regions based on their physical and biological nature are classified into ecosystems. For example, pond ecosystem, evergreen forest ecosystem, desert ecosystem, etc. The organisms, in addition to being dependent on the environment for their needs, are also dependent on each other. This dependency is especially for food. This results in the presence of food chains and food webs (Figure 7).

Social metabolic processes begin with the appropriation by humans of materials and energy from nature. These can be transformed and circulated to be consumed and excreted finally back to Nature itself. Each of these processes has a different environmental impact depending on the manner in which it is performed, the amount of materials and energy involved in the process, the area where it occurs, the time available or the Nature's regenerative capacity [13]. Although many of the studies in social metabolism are narrowed to the inputs and outputs of materials and energy of a particular State (imports and exports) because of the ease of access to information about commercial transactions [14], social metabolism also addresses in detail other metabolic processes, such as those carried out in smaller societies, the services that Nature provides to humans, as well as the specific cultural form that people adopt when performing each process.

Meditation

Meditation practices may differ in the modern Buddhist traditions and non-sectarian groups according to the founder, but the main objective is to develop insight. Insight is the intuitive light flashing forth and exposing the truth of impermanency, the suffering and the impersonal and

Table 1: Expressed emotions and adaptive functions [9].

Expressed emotion	Initial physiological function	Evolved communicative function	
Fear	Increased visual field and speed of eye movement from widened eyes	Warning of potential threats. Appeasement to aggressor.	
Surprise	Increased visual field from widened eyes	More research needed	
Disgust	Constriction of face openings reduce dangerous inhalations	Warning of dangerous foods, behaviors, and ideas	
Happiness	More research needed	Absence of threat	
Sadness	More research needed	Vision handicapped by tears to show appeasement. Gain sympathy.	
Anger	More research needed	Warning of impending threats. Signals dominance.	
Pride	Increased lung volume in preparation for encountering challengers	Increased social status.	
Shame/Embarrassment	Reduces and hides vulnerable body areas from potential attacks	Decreased social status. Wish for appeasement.	



Figure 6: Location of the hypothalamus, in relation to the pituitary.

unsubstantial nature of all corporeal and mental phenomena of existence. It is Insight-wisdom that is the decisive liberating factor in Buddhism, though it has to be developed along with the two other trainings in morality and concentration. The culmination of Insight practice leads directly to the stages of Holiness. Insight is not the result of a mere intellectual understanding but is won through direct meditative observation of one's own bodily and mental processes. Thus, Vipassana is a way of self-transformation through self-observation. It focuses on the deep interconnection between mind and body, which can be experienced directly by disciplined attention to the physical sensations that form the life of the body, and that continuously interconnect and condition the life of the mind. It is this observation-based, self-exploratory journey to the common root of mind and body that dissolves mental impurity, resulting in a balanced mind full of love and compassion. The scientific laws that operate one's thoughts, feelings, judgements and sensations become clear. Through direct experience, the nature of how one grows or regresses, how one produces suffering or frees oneself from suffering is understood. Life becomes characterized by increased awareness, non-delusion, selfcontrol and peace (Figure 8).

According to the Buddha's teaching of Dependent Origination, everything, including the psychophysical compound that we call individual, exists only in relation to other beings and things and undergoes constant changes responding and reacting to them. The next section examines the Buddhist perspective on the causes violence and ways to prevent violence and realize peace. The last section explores the potentials Buddhist contributions to the peacemaking efforts and the promotion of a culture of peace in today's world. Believing that the root of violence is located within the mind, Buddhism has placed a greater urgency upon inner reflection. With the awakening to the interdependent reality, selfish compulsive responses will be replaced by lovingkindness, compassion, sympathetic joy, and equanimity. On the behavioral level, one practices peace daily by observing the Five Precepts. To prevent in-group disputes, the Buddha teaches the six principles of cordiality in any community. As for inter-group or international affairs, Buddhist scriptures

are rift with stories that teach nonviolent intervention. The Buddhist worldview is surprisingly in accordance with the insights of peace studies in its process-oriented paradigm, its insistence on peace by peaceful means, and its holistic framework of peace, which would play a vital role in the efforts of bringing the culture of peace into existence around the world towards transforming Society. Thus, Vipassana Meditation Process has high importance to get orient the individuals with better physique, psychosocial state that helps to become good professional with focused managerial aptitude schools. So that institutions can bridge the gap between 'what society wants and what institutions now providing'. Vipassana is one of India's most ancient meditation techniques. Long lost to humanity, it was rediscovered by Gautama the Buddha more than 2604 years ago. The word Vipassana means seeing things as they really are. It is the process of self- purification by self-observation. One begins by observing the natural breath to concentrate the mind. With a sharpened awareness one proceeds to observe the changing nature of body and mind and experiences the universal truths of impermanence, suffering and ego lessness. This truth-realization by direct experience is the process of purification. The entire path (Dhamma) is a universal remedy for universal problems and has nothing to do with any organized religion or sectarianism. For this reason, it can be freely practiced by everyone, at any time, in any place, without conflict due to race, community or religion, and will prove equally beneficial to one and all.

Feeding System

The extreme lateral part of the ventromedial nucleus of the hypothalamus is responsible for the control of food intake. Stimulation of this area causes increased food intake. Bilateral lesion of this area causes complete cessation of food intake. Medial parts of the nucleus have a controlling effect on the lateral part. Bilateral lesion of the medial part of the ventromedial nucleus causes hyperphagia and obesity of the animal. Further lesion of the lateral part of the ventromedial nucleus in the same animal produces complete cessation of food intake.

There are different hypotheses related to this regulation:



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Figure 8: Way of meditation-gross happiness.

Theologides [15].

Lipostatic hypothesis: This hypothesis holds that adipose tissue produces a humoral signal that is proportionate to the amount of fat and acts on the hypothalamus to decrease food intake and increase energy output. It has been evident that a hormone leptin acts on the hypothalamus to decrease food intake and increase energy output.

Gutpeptide hypothesis: gastrointestinal hormones like Grp, glucagons, CCK and others claimed to inhibit food intake. The food entering the gastrointestinal tract triggers the release of these hormones, which act on the brain to produce satiety. The brain contains both CCK-A and CCK-B receptors.

Glucostatic hypothesis: The activity of the satiety center in the ventromedial nuclei is probably governed by the glucose utilization in the neurons. It has been postulated that when their glucose utilization is low and consequently when the arteriovenous blood glucose difference across them is low, the activity across the neurons decrease. Under these conditions, the activity of the feeding center is unchecked and the individual feels hungry. Food intake is rapidly increased by intraventricular administration of 2-deoxyglucose therefore decreasing glucose utilization in cells.

Thermostatic hypothesis: According to this hypothesis, a decrease in body temperature below a given set-point stimulates appetite, whereas an increase above the set-point inhibits appetite.

Peptide hormones and neuropeptides that regulate feeding [16] (Table 2).

Anorexia

Anorexia nervosa, often referred to simply as anorexia, is an eating disorder characterized by a low weight, fear of gaining weight, a strong desire to be thin, and food restriction [17]. Many people with anorexia see themselves as overweight even though they are in fact underweight. If asked they usually deny they have a problem with low weight. Often, they weigh themselves frequently, eat only small amounts, and only eat certain foods. Some will exercise excessively, force themselves to vomit, or use laxatives to produce weight loss. Complications may include osteoporosis, infertility and heart damage, among others. Women will often stop having menstrual periods (Figure 9).

Bone density peaks at about 30 years of age. Women lose

bone mass more rapidly than men.

The study indicates that the Vipassana Meditation process enhanced their professional skills and approaches. Majority students reported that (42.2%) the awareness process helped them to control over their tensions, anxiety and impatience and reduce their anxiety to perceive things professionally than personally. While a considerable proportion of students indicate that (21.8%) the self awareness process helped them to develop a balance of mind and they became more empathetic, organized, confident and disciplined (13.5%). The awareness process developed objective perception (8.3%) helped students to learn from within (3.8%). It also facilitates to better interpersonal relationships among students (10.5%). A very few percentage of students (2.3%) reported no benefit out of Vipassana Meditation Process (Table 3-4).

The study clearly indicates that majority business management graduates get physical advantages of Vipassana Meditation process, in one way or other. Major benefits include understanding of hidden potentials (20.3%), ability to withstand pain (15%), flexibility of physique, (12.8%), positive feeling (11.3), increased concentration (6%) etc. Students obtained different advantages by undergoing this awareness process.

Meditation Process Bridge the Gap in Consciousness and Awareness

Thus, Awareness is primordial; it is the original state, beginning less, endless, uncaused, unsupported, without parts, without change. Consciousness is on contact, a reflection against a surface, a state of duality. There can be no consciousness without awareness, but there can be awareness without consciousness, as in deep sleep. Awareness is absolute, consciousness is relative to its content; consciousness is always of something. Consciousness is partial and changeful, awareness is total, changeless, calm and silent. And it is the common matrix of every experience. "Awareness is the base, the screen on which consciousness appears. The screen can take on any form and is there prior to any form. As soon as a form appears, a thought, a concept, and experience, awareness is conscious of it. Our mind" is something more objective because "mind" means clear differentiation and understanding. "Mind" involves clear discrimination-that which discriminates the characteristics of objects. So, we use the mind to understand things because mind understands the manipulation of consciousness. Mind is a pattern of consciousness which is born from awareness which is in turn a function of our original nature as explanation of Buddhism. Once the mind



Table 2: Peptide hormones and neuropeptides that regulate feeding [16].

Peptides that increase feeding behavior	Peptides that decrease feeding behavior	
Neuropeptide Y	(α,β,γ) -Melanocyte-stimulating hormones	
Melanin-concentrating hormone	Cholecystokinin	
Agouti-related peptide	Cocaine- and amphetamine-regulated transcript peptides	
Orexins (A, B)	Corticotropin-releasing hormone	
	Glucagon-like peptide 1	
Galanin	Insulin	
Ghrelin	Leptin	

Table 3: Professional Advantage of Meditation.

Sl. No.	Destantional Advantage of Mission	Students	
	Professional Advantage of Vipassana		
1	Developed balanced mind,		21.8
2	Control over Tension angry frustration, agitation anxiety, impatience, Reduce stress		42.2
4	More empathetic, organized, confidant, orderly and disciplined		13.5
5	Objective perception		8.3
6	Build good relationship with peers, relatives, and colleague		5.3
7	Handle conflict situation		3.8
8	Make better decision making		9.8
9	Enhance my productivity		.8
10	No benefit, not convinced. Only a spiritual process.		2.3
11	Better concentration	14	10.5
	Total	133	100.0

Table 4: Physical Advantages of Meditation.

OL N		Students		
Sl. No.	Physical Advantage of Vipassana			
1	Understand ones own hidden strength and potential.	27	20.3	
2	Reduced Anxiety about food (One meal is enough in one day)	2	1.5	
3	Body becomes more flexible.	17	12.8	
4	Physical level resistance increased	2	1.5	
5	Aware of healthy diet	3	2.3	
6	Efficiency of digestive system increased.	3	2.3	
7	Get rid of too much addiction of tea having habit	2	1.5	
8	Increased energy level	3	2.3	
9	Feel healthy and fresh	15	11.3	
10	Reduced body weight	4	3.0	
11	Better breathing	2	1.5	
12	Early wake up and early bed habit attained	2	1.5	
13	Increased concentration	8	6.0	
14	Ability to withstand pain	15	11.3	
15	No back pain	1	.8	
16	Leg pain subsided	1	.8	
	Total	133	100.0	

of individual control this can be spread to the whole World and meditation would maintain peace.

References

- 1. Goleman Daniel (2003) Destructive Emotions: How can we Overcome Them? A Scientific Dialogue with the Dalai Lama. Bantam Dell.
- 2. Scott E (2011) Cortisol and Stress: How to Stay Healthy When You Are Feeling Stressed. Self-Improvement, Verywell mind.
- 3. Hoehn K and Marieb EN (2010) Human Anatomy & Physiology. Benjamin Cummings, San Francisco.
- 4. Chyun YS, Kream BE, Raisz LG (1984) Cortisol decreases bone formation by inhibiting periosteal cell proliferation. Endocrinology 114: 477-480.
- Swaminathan N (2008) Why Does the Brain Need So Much Power? Scientific American. Scientific American, A Division of Nature America, Inc.
- 6. Quistorff B, Secher NH, Van Lieshout JJ (2008) Lactate fuels the human brain during exercise. FASEB J 22: 3443-3449.
- Marin-Valencia I, Good LB, Ma Q, Malloy CR, Pascual JM (2012) Heptanoate as a Neural Fuel: Energetic and Neurotransmitter Precursors in Normal and Glucose Transporter I-Deficient (G1D) Brain. J Cereb Blood Flow Metab 33: 175-182.
- 8. Ekman P (1990) The Universally Recognized Facial Expressions of

Emotion. Kairos.

- 9. Mariamne P (2003) What Can You Do About Negative Emotions Within You and Around You? Teleos institute.
- Adelmann PK and Zajonc RB (1989) Facial efference and the experience of emotion. Annu Rev Psychol 40: 249-280.
- 11.Zajonc RB, Murphy ST, Inglehart M (1989) Feeling and facial efference: Implications for the vascular theory of emotion. Psychol Rev 96: 395-416.
- 12.Zajonc RB (1985) Emotion and facial efference: a theory reclaimed. Science 228: 15-21.
- 13. Manuel GDM and Toledo VM (2014) The Social Metabolism: A Socio-Ecological Theory of Historical Change. Springer, USA.
- 14. Layke C, Matthews E, Amann C, Bringezu S, Fischer-Kowalski M, et al. (2000) The Weight of Nations: Material Outflows from Industrial Economies. World Resources Institute, DC, Washington, USA.
- 15. Theologides A (1976) Anorexia-producing intermediary metabolites. Am J Clin Nutr 29: 552-558.
- 16.Nestler EJ, Hyman SE, Holtzman DM, Malenka RC (2009) Molecular Neuropharmacology: A Foundation for Clinical Neuroscience. Neural and Neuroendocrine Control of the Internal Milieu, pp: 263.
- 17. Attia E (2010) Anorexia Nervosa: Current Status and Future Directions. Annu Rev Med 61: 425-435.