Introducing the similarities of Science, Philosophy and Art Of Asana, Pranayama & Osteopathy

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The origins of Yoga are traceable back 5000 thousand years with its roots in India. Osteopathy, was described for the first time in 1874 by A. Still in the United States. However, history of manipulation goes back to the era of Hippocrates.

Yoga as a science, philosophical practice and a living art is an accessible way to infuse peacefulness and purpose into one's existence. It affects our physical, mental and spiritual life and Brings equanimity and reflection to a nervous and distracted mind.

The practice of Yoga shares themes and purposes with the ideals of the Hindu religion (Krishna teaching Yoga to Arjuna in The Bhagavad Gita for example). It is however not specifically a religion in and of itself. Yoga is one among several systems of Indian philosophy.

Patanjali describes yoga as a state of mind in which the psycho-mental processes (Playful Mind) come to rest. Through practice and self-restraint this state will be achieved. Words of Patanjali are so clear and pure that their divine origin has been widely acknowledged.

A relation to God is also clear in osteopathy. A. Still, the founder of osteopathy, often calls God the "Universal Architect". He writes: "I do not claim to be the author of the science of Osteopathy. No human hand framed its law; I ask no greater honour than to have discovered it." He goes on to say, "give me the age of God and I will give you the age of Osteopathy" and "Osteopathy is God's law, and whoever can improve on God's law is superior to God Himself. Osteopathy opens your eyes to see and see clearly; its practice covers all phases of disease and it is the law that keeps life in motion."

Sutherland, the founder of Cranial Osteopathy, applied the osteopathic principles to the cranium and discovered that a wave-like fluctuating movement runs through the whole body and its power and energy can be used to release injury or disease. He called that rhythmical, involuntary movement "primary respiration." He said, "We know that the cerebrospinal fluid is present and contains the 'highest known element' and that we are now learning, through the cranial concept, how to utilize its force in behalf of the ills of mankind". Still writes, "The cerebrospinal fluid is the highest known element that is contained in the human body, and unless the brain furnishes this fluid in abundance, a disabled condition of the body will remain. He who is able to reason will see that this great river of life must be tapped and the withering fields irrigated at once, or the harvest of health be forever lost."

On that note, Iyengar, an important Hatha yoga teacher of our time says, "Practising the yoga positions provides the human body with energy and improves circulation. Practising the Asanas removes all those obstacles within the body which are caused by poor circulation. The positions irrigate the organism and wash away the obstacles. As soon as one has been freed from complaints that had lead to disintegration, one returns to integration and life, and health begins to bloom. But if one does not irrigate one's body, drought and famine occur in the body as incurable diseases."

Yoga Asana and Pranayama

Yoga Asanas (positions /postures) bring strength, gracefulness and lightness of the limbs to the practitioner. One develops mobility, balance, and stamina through practicing regularly.

In Asana practice, the practitioner keeps the body in a specific position, and this physical posture may reflect a specific mental pattern. By practising the Asanas, the practitioner obtains health and perfect balance of body and mind. Patanjali writes, "An Asana shall be stable and comfortable. The perfection of an Asana is obtained, when the practitioner exercises it effortlessly and meditates on the infinite existence. From that time on the Sadhaka (practitioner) will not be disturbed anymore by dualities."

Pranayama is the knowledge of controlling the breath with deliberate exercises. Pranayama consists of the flow of inhalation that draws in fresh oxygen, and exhalation that draws off exhausted air and toxic substances, and breath retention that distributes the energy to the whole body. Disciplined breathing provides a necessary dynamic to one's yogic routine.

Laun writes with reference to Iyengar, "Prana means Air, breath, vigour, vitality, energy. Prana is the energy which penetrates the Universe at all levels. This energy is of physical, emotional, mental, sexual, spiritual and cosmic nature. Prana is the breath of life of all beings in the Universe. It is often translated as breath, but this is only one of its manifold manifestations in the human body. Prana is in the body of the individual, part of the cosmic breath of the universal spirit. By practising pranayama, the practitioner tries to bring the individual breath into harmony with the cosmic breath."

Patanjali describes the effects of pranayama as follows, "Pranayama removes the veil that hides the light of knowledge. And the inner mind becomes able to concentrate."

Osteopathy and Yoga on Mobility

Mobility assessment is necessary for appropriate osteopathic diagnosis. When motion and mobility of tissues are reduced, the supply of nutrients and oxygen will be restricted. The tissue will lose its vitality and there will be higher chances of diseases. Rollin E. Becker writes, "If you have life as a factor that manifests itself in motion and movement at all levels from gross motion and movements to minute electron levels within cellular function or fields of ego, mind, and emotion, then life as a factor should be studied and developed until it, too, can be a clinical experience synchronous with the clinical development of motion and movement as manifesting patterns of life." Removing a restriction at one of these levels is a fundamental point of osteopathic treatment. The importance of motion and mobility is clear in yoga, too. Iyengar writes, "Mobility, balance, stamina and great vitality develop by practising Asanas."

Osteopathy and Yoga on Unity

Rollin E. Becker writes, "The body is a complete system of tissues and fluids in constant mobility and motility." This law of unity applies to mind, body and spirit, and intelligently reflects the whole. In Yoga, unity of body, mind and soul is the ultimate focus. Iyengar writes, "The aim is to unite what God gave to us: body, mind and soul. In every single person there is an enormous disintegration between body, mind and soul. The art of yoga was given to us to unite these disturbed vehicles of the self, so that manhood may develop as a whole. ...Practising the Asanas and the Pranayama serves the interrelationship of the countless parts of the body." Still mentions that, "The failure of one organ will produce disease of the whole body."

Yoga and Osteopathy on Arteries

"The rule of artery and vein is universal in all living beings, and the osteopath must know that, and abide by its rulings, or he will not succeed as a healer." According to Still, a successful osteopath must promote blood and lymphatic purification for healthy cellular function. Great importance is placed on sustaining healthy arterial integrity. This is achieved through correcting any mobility and/or circulatory hindrances which may cause damage to tissues and fluids if left untreated in the long term.

Iyengar writes, "Our health and survival are dependent on the respiratory system and blood circulation. These are the two doors to the kingdom of the human organism. ... By letting the blood circulate in the unhealthy areas of our body, they are fed, toxins dissolve and the various afflictions and symptoms of physical disease disappear."

"He who is able to reason will see that this great river of life must be tapped and the withering field irrigated at once, or the harvest of health be forever lost." Sutherland adds: "The cranial technician is learning how to irrigate Dr. Still's withering fields."

Yoga and Osteopathy on Self Healing

Osteopath René Pelletier writes: "Within your body you have all the necessary processes for the vital functioning of your body, to combat invaders, to recognize and respond to genetic mutations, and to repair and regenerate injured structures. In fact, your body does this every day, for example removing damaged red blood cells (erythrocytes) and replacing them with new cells."

In his autobiography, Still describes an intelligent, thoughtful, and benevolent Consciousness that has considered human wellbeing in all aspects, especially the aspect of the human entity as a self-reorganizing and self-harmonizing system tuned into the ecosystem which it inhabits; the human being as a microcosm within a macrocosm, and vice versa. He writes, "Believe that a loving, intelligent Maker of man had deposited in his body in some place or

throughout the whole system drugs in abundance to cure all infirmities, on every voyage of exploration I have been able to bring back a cargo of indisputable truths, that all remedies necessary to health exist in the human body. They can be administered by adjusting the body in such a manner that the remedies may naturally associate themselves together, hear the cries, and relieve the afflicted. I have never failed to find all remedies in plain view on the front shelves and in the store house of the Infinite – the human body."

Homeostasis is the central marker to which all living beings attune. As Osteopaths we put things were they suppose to be, into their place and nature will do the rest. Osteopath trusts the nature to the end. When the body is relieved from various harmful influences it can again heal itself.

We can find a parallel to this in the work of Iyengar when he writes: "Dissolving of toxins and the curing of illness can take time. It is a natural process which proceeds in the rhythm of natural processes." He mentions that nature only cures the disease and writes: "You have to rely on your own nature and let nature alone put the human organism in a position to function as quick and effective as it is able to."

Yoga and Osteopathy on Structure and Function

One of the most important points that Osteopathy focuses on is a close relationship between structure and its function. Dr. Still noticed that when there is restriction of motion in the structure it affects the body's ability to receive the necessary ingredients from the flowing fluids essential for health.

In Yoga, Iyengar also writes: "Physical health is important to the mental development, because in a normal state thinking works through the nervous system. When the body is ill or the nervous system is strained, the thinking becomes restless or lazy and dull. Concentration or meditation becomes impossible."

Yoga and Osteopathy on Structural, Visceral and Craniosacral

The Osteopath examines the restrictions and the loss of mobility as a cause in somatic system dysfunction considering vascular and craniosacral elements. Treatment of the restricted mobility does not only restore the area but the organism as a whole.

In yoga, specific muscles are gradually built up and the mobility of the organs improve at the visceral level. The capacity of lungs increase and diaphragmatic breathing improves. This facilitates the relaxation of the whole body and the blockages open. Also the vitality of the primary respiration improves at the craniosacral level.

Yoga and Osteopathy on Visceral

As the practitioner of yoga relaxes and engages the muscles, fluid circulation increases and pumps into new and unused vessel paths. This process is a very effective use of energy to resist the disease. Pranayama also ensures proper circulation of the body fluids as a prerequisite for their proper functioning in the kidneys, stomach, liver, spleen, intestines, skin and other organs.

Richard C. Miller, psychotherapist and yoga therapist, writes of Abdominal-diaphragmatic breathing that as diaphragm moves, it brings movement to the stomach, intestines, and liver, and promotes the health of these organs. He also mentions that the heart is attached to the diaphragm, its movement provides a massaging action to the heart and promotes lymphatic circulation throughout the body.

In Yoga, Bandhas activate the diaphragm and intensify breathing. Bandha means "bandage" and happens as a result of contractions in the certain areas of the body, which influence the direction in which energy moves. One of the Bandhas, *udduyana bandha* or abdominal lift has a great mobilizing effect on the viscera and a stretching effect on the diaphragm.

Coulter explains, "To do it you must exhale to your maximum, hold your breath out, try to inhale without inhaling and create a vacuum in your chest that sucks your diaphragm and abdominal organs to a higher than usual position in the torso. ...regular practice of *uddiyana bandha* will stretch, and in time lengthen the diaphragm's muscle and connective tissue fibers, as well as keep the zone of apposition between the diaphragm and the chest wall healthy and slippery." This will help to breathe more comfortably and efficiently.

Yoga and Osteopathy on Craniosacral

In Asanas and Pranayamas awareness is directed into each and every part of the body. Awareness is a great healing mechanism and even can prevent oncoming disturbances, by keeping the awareness on the structures the energy can be directed at will as fluids follow promoting internal organ health. Where the mind goes energy follows.

Barral writes: "Osteopathy should be concerned with all the moves in the human body, from the smallest and simplest movements to the most complex. This leads to a confluence of the structural and energetic approaches. Osteopathic treatment, whatever form it takes, is an energetic action because the fact that we can have an impact on motion contributes to an improvement in the distribution of energy."

Yoga and Osteopathy on Breath and Energy

Greenman mentions that voluntary inhalation enhances flexion movement of the craniosacral mechanism, and voluntary exhalation enhances extension movement. Craniosacral motion can be directed towards flexion or extension by using Pranayama which intensify inhalation

or exhalation. Rollin E. Becker, gives the example of the lotus position (padmasana). "They have suspended their primary respiratory mechanism in mid-air - their entire mechanism from the cranial vault down to the sacrum is literally hanging in space. Because this involuntary mechanism is rhythmically moving to and fro, the fluid, the reciprocal tension membrane, the central nervous system, and the articular mechanism can just hang there in suspension and allow the potency within the cerebrospinal fluid to nourish every single cell in the body. ... They are literally in a state of self-treatment when they are in that position; they are making this mechanism a living factor of function."

Life force plays a crucial role in both systems, osteopathy and yoga. Both systems aim at the free, unrestricted flow of energy, which is part of the universal energy.

Yoga and Osteopathy on Universality

Human body and life are part of a universal wholeness. This idea can be found both in yoga and osteopathy. Sutherland Writes, "Where is that cerebrospinal fluid? Is it only in my body? No. It is in each and every one of your bodies. There is an ocean of cerebrospinal fluid in this room... The Breath of Life is within each."

Becker believes that, "we are in relation to the whole universe and respond or reflect as positive and negative spirals in relation to the whole – not to the limited mechanism within our skins."

M. Keane, psychologist, yoga teacher and yoga therapist writes that universe is made of vibrating waves and particles changing their form and shape. Each element has different vibrations of particles, some subtler and some more gross. Our words and our thoughts are vibrations and our emotions are expressions of our mind/body systems. Yogi aligns the self with the universe.

This requires a free flow of energy in the mind/body. When the body becomes tense to protect itself from negative influences, this protective tension blocks the free flow of energy, which limits the right perception.

In osteopathy memory is attributed to the connective tissue / the fasciae. These tissues store physical as well as mental trauma. Treatment of the restricted tissues releases the energy, which manifests itself as emotions, memories and mental patterns coming up or a revival of the trauma. This point of view also is popular in Buddhist meditation practices that are aligned with Dharma, the law of nature.

Yoga and Osteopathy on Still point

Marc Halpern, the founder-director of the California College of Ayurveda mentions that in stillness Prana flows freely and allows the physical body to heal and repair damages. In the silence when inhalation changes to exhalation and exhalation changes to inhalation, there is a moment of pure awareness (Being). We become aware of ourselves as a part of the universe and this renews us, cleanses us, and heals us at the deepest level of our being. We feel motivated to enjoy our life again. This text by Jean Klein in Yoga Journal is valid in both yoga and osteopathy can be found: "By the simple presence of silence, things find their natural harmony."

Yoga and Osteopathy on the Connective Tissue

Based on what Paoletti writes, When there is tension, irritation, inflammation or continuous pressure, the connective tissues' defence systems start the process of calcification at the points of insertion, transforming into bony tissue. Paoletti mentions that this adaptation system is reversible.

Osteopath A. Thomas writes, "Practicing the yoga postures is one of the only processes which satisfies the criteria for restructuring fascia, namely, broadening and lengthening it past the existing limits of extensibility." To get the result throughout the body multiple Asanas needs to be practiced and this releasing compression on the fascial structures can help the nervous, vascular and lymphatic system.

W. Thomas Crow writes, "Research has shown that changes in the tissue structures of the body change the structure of the endoskeleton. Such endoskeletal changes in turn change the gene expression and the metabolism of the individual cell. Therefore, we can cause significant changes at all levels by manipulating the body tissue." In this case we can say Asanas can heal the somatic and functional abnormality or impairment of an organ or system and can prevent an osteopathic dysfunction.

Arpita, a former faculty member in Eastern Studies at the Himalayan Institute also believes that Yoga improves "functioning of the muscular, respiratory, digestive, endocrine, central nervous, reproductive, and urinary systems and increases autonomic balance and control."

Yoga and Osteopathy on Detoxification

Detoxification is important to both yoga and osteopathy. In a speech on the healing power of yoga, Dr. Daya Mullins describes "Proper function of digestion is essential to gain or maintain health." Many yoga Asanas support good digestion. Also the purification practices of yoga (Kriyas) eliminate waste products from the body.

The Osteopath knows that accumulation of toxicants are a cause of diseases. Still acknowledged this and wrote that long before any diseases appear, the whole system of blood supply, lymphatic and cellular systems of the fascia, brain, lungs and heart get filled up with impure and unhealthy fluids and that these disturbances are the cause of at least ninety percent of the diseases we try to cure by chemical drugs. He worked to directly treat the lymphatic system of nerves, and unload their contents continually until all impurities were

discharged. Still writes: "Osteopathic adjustment means to so adjust the body that normal action will be sufficient to supply nerve force equal to the demand for construction, and to keep the body or organ in a healthy condition by casting out all impure substances before they become oppressive either from quantity or destructive and deadly poisonous chemical changes which result from stagnant fluids in the body."

Yoga and Osteopathy on the Immune System

Yoga is strengthening the immune system. Paula Kout, a writer and yoga teacher, writes, "Handstand, forearm balance, headstand and shoulderstand work on the immune system. ... They actually renovate the hormonal system of the body, the ductless glands of the body, to start to balance their activities. Production of hormones, the endocrine system as a whole, is all renovated."

Osteopathic techniques and Craniosacral osteopathy influences the immune system. Mobilization, detoxification, relaxation and the strengthening of the immune system are the aims of both osteopathy and yoga to keep the organism as a whole in better function and reduce disturbances and functional abnormality or impairment of an organ or system.

Yoga and Osteopathy on the Breathing

Breathing should be monitored carefully in every patient during an osteopathic treatment. Good breathing improves circulation as well as elimination and prevents toxicants from accumulating in the bloodstream.

Breathing is the central focus in yogic practice. Iyengar mentions that because of bad circulation, digestive and excretory organs cannot work well. Toxicants accumulate and diseases spread out in the body. He calls the respiratory system, the door to purification of body, soul and mind and Pranayama, the key.

Breathing is one of the most common factors in all the ancient healing modalities. Changing sensation of the breath has direct connection with the changing patterns of thoughts, feelings, and emotions as well as changes of the body positions.

David Frawley, the director of the "American Institute of Vedic Studies, mentions that Pranayama "is an excellent means for treating weakness, lack of energy, chronic exhaustion, weak immune system and for recovery." He also believes that Pranayama can help "with mental disturbances. It alleviates depression, grief and attachment and reduces stress and tensions." He says: "No stimulant can improve the mood so lastingly."

Breathing is essential for our life and is also the connection of our inner world with the world outside. Breathing connects us to one another and all living beings. Based on the writings of Prof. Ilse Middendorf, the founder of the Institute for the Perceptible Breath in Berlin, If we have anxiety, worries, fears or struggles, our body becomes tense and the rhythm of our

natural breathing changes. Restricted breathing and disturb body function is harmful and causes illness.

The osteopath can feel the restrictions in the body, as he treats to release the tense tissues with the assistance of breath, patient feels liberation on the mind/body. In osteopathy as well as in yoga, the healing effect of breathing is acknowledged and is used accordingly. Since correct breathing can improve posture and reduce tensions a tailored sequence of Asanas and Pranayama exercises could support an osteopathic treatment.

Yoga and Osteopathy on the Diaphragms

Since the beginnings of osteopathy the great importance of the diaphragms has been emphasized. Still writes on the diaphragm, "This diaphragm says, By me you live and by me you die. I hold in my hands the powers of life and death." He emphasizes that diaphragm must be kept normal in tightness at all places.

Torsten Liem believes that the relaxation of pelvic diaphragm is absolutely necessary for craniosacral motion because it influences the mobility of the sacrum and the coccyx.

Gertraud Laun referencing to Van Lysebeth and Iyengar writes, In yoga Bandhas are muscle contractions in the regions of the diaphragms. They influence blood circulation, nervous system and the endocrine glands. Proper engagement of Bandhas prevent the waste of energy and direct it to where is it required. *Jalandhara*, *uddiyana* and *mula bandha* are essential Bandhas. They spread energy equally throughout the anatomy and help to supply the body with a maximum amount of air.

Jalandhara bandha (tucking the chin to the chest) is assigned to the craniocervical and cervicothoracic diaphragm, keeping the energy in the heart region. Thyroid gland and parathyroid gland, the neck, head and brain benefit from this Bandha.

Uddiyana bandha (the lift of the diaphragm when the abdominal organs are sucked backwards towards the spine) is connected to the thoracoabdominal diaphragm. Iyengar calls the diaphragm a meeting point of the physiological and the spiritual body and Osteopath Andrew P. Thomas calls the diaphragm a second heart. Hatha Yoga Pradipika writes that *uddiyana* is the most excellent among all the Bandhas and its mastery leads to natural liberation.

The pelvic diaphragm is in connection with mula bandha or the root lock in yoga, the mild contraction of muscles between the anus and the genital organs and their vertical elevation towards the navel, which seals the energy within the body.

Through the lens of Osteopathy, the diaphragm is also very importance for the free flow of the fluids. Osteopath pays attention to the different energy levels of the patient. Psychoemotional dysfunctions and disbalances are often found in the area of the individual's

diaphragm. Osteopathic visceral manipulations and craniosacral therapy are effective tools to influence them positively and put them back into their natural place.

Yoga and Osteopathy: Supporting One Another

Natalie Nevins, a board-certified osteopathic family physician and certified Kundalini Yoga instructor in Hollywood, California writes: "As an osteopathic physician, I focus a lot of my efforts on preventive medicine and practices, and in the body's ability to heal itself. Yoga is a great tool for staying healthy because it is based on similar principles." Both systems have in common the ideas of unity and universality. Unlike today's western medicine, where the aspect of wholeness has completely been lost, both osteopathy and yoga acknowledge the unity of body, mind and soul and emphasize looking at the body as a whole. They also regard the body and life as part of a universal whole. Osteopathy aims in being in a rhythmic balanced interchange with the environment and yogic aim is to align the personal energy with the universal energy. Both mean the same.

Arteries demand the unrestricted flow of the fluids for health and for the cure of diseases. Gertraud Laun mentions that Still and Iyengar use the same metaphor: Both yoga exercises and osteopathic techniques are the rain which prevents withering fields of the body and the loss of health. Also, as there are techniques in osteopathy for the structure, viscera or the craniosacral, there are several yoga exercises that affect these fields. Yoga can reduce or eliminate the factors that cause a disease and it will usefully support osteopathic treatment. Change of diet, postural improvement and reducing stress certainly increases the effect of osteopathic treatment. When mind/body has fewer negative influences to deal with, it will be easier to benefit from the osteopathic treatment, and the self-healing powers can be guided more effectively.

Torsten Liem writer of Osteopathy and (Hatha) Yoga suggests, "patients could be encouraged to be aware of bodily and emotional sensations during the treatment. Or patients could be encouraged to be aware of changes in their breathing pattern during the treatment."

The practice of Asanas, Pranayama and Meditation could increase the osteopath's ability to feel and provide a great counterbalance to his/her work. Yoga promotes the free flow of energy that can be very beneficial to the osteopath and to the patients at all levels.

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