

SPARKS

MERIDIANS AND MORE...

Thank you to Paul Grilley for recommending *The Spark in the Machine: how the science of acupuncture explains the mysteries of western medicine* by Daniel Keown. And thank you to Paul again and Sarah Powers for introducing me to the work of Dr Hiroshi Motoyama.

These are notes from those two books. I have had my own interesting journey with such ideas and I must admit that my background is that of scepticism and doubt. I first read *Theories of the Chakras* (by Motoyama) more than ten years ago and found it difficult to understand and discussing concepts that did not have much resonance – if any – with my own beliefs. Ideas and beings change of course over time and a shift to that changing has been the Daniel Keown book which I highly recommend: it might not be beautifully written, but it is informative and resonated strongly with me. After I had finished that, I went back to Motoyama's book for a re-reading and this time there was more engagement.

May the notes below be of help for you on this journey of exploring and understanding, transforming and connecting.

The spark in the machine: how the science of acupuncture explains the mysteries of western medicine by Daniel Keown. He received a medical degree from Manchester University in 1998 and has worked as a registered doctor – in 2008 he completed a degree in Chinese Medicine and Acupuncture.

“Wikipedia merits fascia with a mere 18 lines; textbooks of medicine ignore it completely, and its only contribution to western medicine is that it sometimes gets inflamed and it sometimes throttle parts of the body... Despite this, every good surgeon respects fascia. Every nerve, muscle, blood vessel, organ, bone is covered in it... Fascia is there to enable the body to know where things should be and what they should be doing...

Chinese medicine respects fascia as much as, if not more than, any surgeon. It devotes not one, but two, organs to this most universal of tissues: the Pericardium and the Triple Burner. However, western medicine disputes that these organs exist...

Fascia is Latin for ‘bands together’, for that is what it does – it binds together tissue... Fascia is everywhere in the body and it is extremely strong. So strong that in the days of Bjorn Borg and John McEnroe, professional players’ tennis strings were made from the fascia from the gut of a cow... Fascia is impenetrable to almost all biological substances, and not only is it an electrical conductor and resistor, but it also generates its own electricity: fascia is piezoelectric...

Meridian is a poor translation and channel is a much better one...
It is quite astonishing that the connective fabric of our body, the tissue that wraps and joins our entire body, is in effect an interconnected, living electrical web...

An electrical force held in a fabric into which our body is woven: this is science that is beginning to sound like Chinese medicine and Qi...

Our life is electric, and what is bio-electricity if not concentrated metabolism, pure bio-energy, what Chinese medicine sees as Qi? The parallels between Qi and electricity are intriguing. Science often balks at the idea of Qi as a vague invisible force but is quite happy to believe in the vague invisible force of electricity...

Qi, the organisational force of the body, moves according to simple laws, yet like water it carries with it different properties depending on its location. Water in rivers, oceans, lakes, streams, glaciers and even clouds remains water but has very different characters. Lakes are still, clouds rise, oceans roll, rivers flow...

All the organs have strong emotional ties via hormones. The adrenals produce adrenalin; the gut, serotonin (a calming, happy hormone); the liver cleans up histamine, the hormone of irritability; and the heart is affected by all the other hormones... when your liver fails you become irritable... it is difficult to feel happy, content, replete when your gut is malfunctioning...

These connections persist in adult life as three simple layers (in three dimensions): the outer part, which forms skin and nervous system; the inner part (the Yolk Sac), which forms gut and glands; and the middle part which forms all else – blood, bone, fascia and muscle...

It is the space between cells, between organs and between fascia, where the Acupuncture channels lie... The physiological effects of Acupuncture have been studied and vary from blood pressure lowering, to heart rhythm regulation, and on to airway opening...

In mathematical terms the body is an enormously well-run and beautiful fractal, and DNA is the source code...the spirals in the body are formed not in computers but in the myelin sheaths surrounding nerves; the fractal trees are made in the lung; and the fractal web is woven into neurons in the brain. This fractal programme is producing something much more complicated than a picture...it is doing that with information from a strand of fibre one-millionth of the width of your hair – DNA.

The Yellow Emperor's Classic of Internal Medicine dates from the second century BC, but it is known that Acupuncture needles made from bone date from around 1000 years before that...

The Acupuncture points are the control centres in this messaging system but they would be nothing without the channels of communication...

Well points mark the end of the beginning, the start of our nails; Spring points occur where fingers and toes start; Stream points occur at the wrist and ankle; River points occur on the shin and forearm; sea points are found at the knee and elbow (*Note from me – another source says that the well, spring and stream points are around the fingers – and that the river points are wrists and ankles and sea points at elbow and knee*)...

These points are not just at areas of great change, they are areas of great change.

Qi is the organising force of the body. It is intelligent metabolism or, for want of a better expression, the Life Force... The body is connected, the thing that connects it is called connective tissue, and the most ubiquitous connective tissue is fascia...

Electricity in the body is found where energy is concentrated. We find it most easily in the heart and brain, the two organs that use the most energy for their size. Electricity is an example of highly concentrated Qi...

It moves in the paths of least resistance (the fascial planes) and it moves from internal to the external ending in the extremities (fingers and toes)...

The Acupuncture channels of the East are the fascial planes of the West...when we understand the journey a single cell takes to become the (wonderful, magnificent) creatures we are, we will understand the connections that Chinese medicine teaches...

The world of Yin and Yang is thus shaped. When the Chinese described the Yang aspects of the cosmos, it was male and fiery, rockets and explosions; the Yin was female and earthy, Jane Austen and cream teas. Yin and Yang form a duality, a completion of the cosmos... Nowhere is Yin and Yang better expressed than in this ultimate race – the race of sperm to egg. It is difficult to think of a more Yang substance than sperm: it is fast, shaped like a rocket, packed with engines and even contains an explosive tip. Yang lives fast and dies young.

Eggs, however, are the archetype of Yin: they are immobile and fat (an egg is thousands of times bigger than sperm), packed with nutrients, but allow themselves to be wafted through life. They are so passive that they just lie there waiting for a sperm to penetrate them, completely incapable even of deciding which sperm will succeed. Yin barely lives but lasts forever. Even their origin is a manifestation of the principles of Yin and Yang; sperm are produced on the outside, eggs on the inside. Yin and Yang do not exist as separate entities; they are part of a whole, they cannot exist without each other...

The body consists of a trinity: the outside, inside and middle; the Yang, the Yin and the Blood; the ectoderm, endoderm and mesoderm...

There are three elements in this symbol: Yin, Yang and the space between the two. Without this (potential) space, Yin and Yang would not be able to move. This space is considered to be Qi in Chinese philosophy and is the dynamic aspect of the trinity...

Studies show that one of the most important things for you avoiding a heart attack – along with stopping smoking and exercising – is having a loving relationship. Furthermore, if you have a heart attack, forget about getting pills – what you really need is a husband or wife who loves and listens to you, for with these people you are three times as likely to be alive after 15 years. Sadly, when your loved ones do die, watch out: broken hearts are for real. In the first day after a bereavement people are 21 times more likely to get a heart attack...

The Heart in Chinese medicine is the organ of Fire within Blood... Qi movement is all about fascial planes. Like water it moves along the path of least

resistance, and in the case of the Heart channel this is along the largest arteries...

In Chinese medicine the Kidneys not only store the Jing; they also 'dominate' water, 'control' the bones, 'fill' the marrow, and are responsible for creating the brain and spinal cord (which are considered to be bones filled with 'peculiar marrow'). The Kidneys are also seen to drive willpower and are the seat of fear within our body, helping us to manage risk appropriately...the right Kidney is the abode of the mysterious 'gate of vitality', the elusive Ming Men....

The Qi connection with the voice box is one reason why, in so much of Chinese medicine, the state of the voice is intimately linked to the quality of Lung Qi. The reason why people who have had a bereavement or loss have a change in the quality and quantity of their voice is because of this connection. Grief affects our lungs because grief is about loss. Whilst our lungs delicately hold on to the spiritual aspect of our existence, loss reminds us of the impermanence of our lives and the lungs struggle to cope with this...

Serotonin is best known as the feel-good hormone, but less known is that over 95% of serotonin is found not in the brain but in the gut...

The Heart is so important that it needs protection and this protection comes from the Pericardium...

Smooth flow of Qi goes hand-in-hand with smooth flow of Blood, since Qi is the commander of Blood. In other words, organisational energy moves Blood around the body to where it is needed; where Qi goes, Blood follows...

The kind of people with anger that is always coming to the surface are seen as having a Liver problem in Chinese medicine...there is a hormone of irritability – it is histamine... The Liver's ability to ensure the smooth flow of emotions relies upon its ability to clean the blood of histamine and other related substances...

Medicine is ruled by the drug companies whose primary motivation is profit. They distort the entire system, they fund the research, they (indirectly) chose the professors – in effect they rig the system. Until people realise what a distorted, corrupt place the health system and medical 'research' is, then we are not going to get the best out of it...

Too many acupuncturists are woolly minded and unquestioning and too many doctors are pig-headed and arrogant. Ignoring 5000 years of medical tradition and healing because you don't understand it is not being scientific, it is being stupid and ignorant. Likewise, blindly following 5000 years of tradition because you don't have a curious and sceptical mind is bound to send you up a blind alley".

And this is from *Theories of the Chakras – Bridge to Higher Consciousness* by Hiroshi Motoyama – he is a Japanese parapsychologist, scientist, spiritual instructor and author whose primary topic is spiritual self-cultivation and the relationship between the mind and body. His system is a synthesis of Samkhya (atheistic), Buddhism (non-theistic) and Shinto (theism) that incorporates yogic cultivation, the energy systems of the body-mind as well as faith in God.

“The governor vessel meridian, as known in acupuncture, shows clearer correspondence within the sushumna... The nadis of yoga and the meridians of Chinese medicine are both channels of vital energy ie prana or Qi; the courses of the energy flow in them bear a close mutual resemblance; many of the functions they perform are the same...

I consider the nadis to be essentially equivalent to the meridians of Chinese acupuncture; from my research, it appears that these channels are formed of connective tissue and filled with body fluid. It is at the joints that the flow of Qi energy (equivalent to the grosser form of prana) is easily impeded... There are twelve major meridians of Qi energy which course over and through the body; most of them are related to one particular organ which they transverse. The terminal points of these meridians are located on the fingers and toes and are known as ‘sei’ (‘well’) points...

The value of sitting in vajrasana to stimulate the muladhara chakra can be explained in terms of acupuncture theory. The muladhara controls the functions of the urogenital organs which in terms of Chinese medicine are governed by the urinary bladder and the kidney meridians...these meridians are stimulated by the weight of the upper half of the body in vajrasana, and this stimulation is transmitted to the muladhara chakra, helping to activate it...

The heart meridian passes through the tongue and therefore is stimulated by khechari mudra...

This is another method helpful for awakening the anahata chakra. It consists of awareness of the mantra SO during inhalation and HAM during exhalation. Be at ease during this practice...

The Yoga-shikha Upanishad says ‘the muladhara chakra, which lies between the anus and the genitals, is of a triangular shape’...

The numbers of nadis and meridians may be similar. Although there are twelve ordinary and eight extraordinary meridians, vast numbers of minor meridians also are said to exist. It is quite possible that if all these were counted, the total number of meridians might reach 72,000, the figure usually associated with the nadis... The routes of the nadis in the limbs are not usually described...

When one sits in vajrasana, the medial and lateral areas of the leg below the knee touch the floor and are thus stimulated. The meridians which transverse these areas are the very ones which control the digestive function: the stomach and gall bladder meridians in the lateral area, and the spleen and liver meridians in the medial region. The area which pressed hardest against the floor contains points on the stomach meridian known to be particularly effective in improving stomach function...

Is there anything in acupuncture theory which corresponds to the five pranas of yoga? I feel that the ‘triple heater’, a conception which posits upper, middle and lower systems of vital energy in the body, is the corresponding principle...

The primary function of oriental medicine is the maintenance of health in the physiological system, rather than the manipulation of mental or spiritual states...meridian theory offers few clues concerning a possible functional connection between Qi energy and the spiritual evolution of man...

Each of the major schools of Indian yoga has its own methods to awaken these centres. Raja yoga emphasises concentration and meditation on the charkas; in Karma yoga, the emphasis is on dissolution of karma; in Jnana yoga, one attempts to develop prajna or wisdom; in Laya yoga, one endeavours to acquire paranormal abilities and develop the interaction with divine beings; in Bhakti yoga, the practice is centered on self-redemption, love and devotion to God; and in Mantra yoga, the chanting of mantras is practiced...

Satyananda says that although the word 'nadi' is often translated 'nerve', it is derived from the root nad, 'to flow'. Therefore, it should be interpreted to mean the flow of psychic consciousness and not simply a physical conduit for this flow...

In addition, an attitude of constant optimism must be maintained. Inner peace and harmony in relations with others should be practiced, regardless of any confusion, conflict or malicious intent one encounters. Negativity and pessimism are obstacles to the awakening of the anahata... According to Satyananda, it is also important to keep in mind the thought 'the whole world is within me. I am in everyone. Everyone is in me'..."

Hopefully these ideas and practices will help us along the paths of transforming – what is so important is maintaining dialogue and cultivating openness of mind. Good luck!

Norman Blair 28 July 2014