We do seem to live in a world where, increasingly, scientific proof appears to be needed to establish, or verify, the authenticity or efficacy of any particular phenomenon and none more so than in the field of medicine, whether orthodox or alternative. However, as one contemporary writer succinctly suggests:

"Incomplete, scientific explanation does not negate the existence of a phenomenon, nor does it preclude it from practical use" (1)

The art and science of acupuncture would appear to fit most definitely into this category and must surely count as one of the most enduring of phenomena that continues to mystify and confound the orthodox scientific community. That acupuncture works is no longer viewed as an issue, as it would not have stood the test of time. However, what has become an issue is how it works? Although in this brief exploration we may not be able to answer that question in a definitive manner, we do have two diverse theories to explore, which may give us an insight into this profoundly noble and time-honoured medicine that has helped countless millions of people, in its over 2,500 year history.

The first theory to be discussed is the Oriental Classical Theory, which has developed over several millennia in China, Korea, Japan and other far Eastern countries. In this view, man, nature and the universe are seen in a more philosophical and natural way. Humanity is considered as a part of nature and not somehow separate from it. Therefore, humanity is subject to the laws of nature. Only when humanity follows the laws of nature in relation to every aspect of life can there be true health, peace and harmony. However, human beings are not perfect creatures and their lifestyles do not always comply with the laws of nature, therefore, over time, this can result in disharmony occurring at different levels of their being. In the Classical Theory, treatment is directed towards harmonising the pattern of disharmony that has affected the individual, by influencing the Qi, or life-force energy, which is considered to flow through the body in a network of channels or meridians.
The second theory we shall explore is the Western Modern Theory, which emerged in the latter part of the 20th century, through acupuncture being practised increasingly by the orthodox, allopathic medical fraternity in many parts of the world. In this view, it is generally considered that the restoration of health using acupuncture treatment is achieved by stimulating the nervous system of the body. This is considered to release the body’s own endogenous opiates (internal pain killing chemical substances), which in turn has an effect at the site of pain and causes some relief or cure. In this scientific theory, the same methods as used to measure the efficacy of drug treatment are applied to acupuncture treatment and results and conclusions of effective treatment are then collated based on modern scientific methodology.

Before reading the following two theories, it is hoped that the reader will appreciate that what follows is only a brief overview intended for the understanding of the lay person and does not really do justice to the incredible complexity of both the Classical and Modern Theories of Acupuncture.

THE CLASSICAL THEORY OF ACUPUNCTURE

It is generally accepted that the origins and discovery of the art and science of acupuncture are sadly lost in the mists of antiquity. However, as we saw in Chapter 2, the ancient physicians that probably discovered, formulated and first practised this skill were probably the (Oriental) Shaman mystics and/or masters of the martial arts, certainly as long as 2,500 years ago and probably much longer.

The Classical Theory of acupuncture has, as its foundation, a number of Oriental philosophical concepts that together make up a formidable edifice of knowledge. It is enriched with a vast body of empirical observation that has been carefully handed down from generation to generation over many centuries; something that cannot easily be dismissed. Knowing how these concepts are considered to work separately, as well as collectively, as an integral whole, is essential to understanding the Classical Theory.
The following table illustrates just some of these philosophical concepts, any one of which could form the basis of a one, two, or three day lecture:

### ORIENTAL PHILOSOPHICAL CONCEPTS

- **DAO** ………………………………… Progenitor of Time and Space
- **YIN YANG** ………………………. Eternal Opposites of Nature/Universe
- **SAN QI (Tian/Di/Ren)** .......... Three Powers: (Heaven/Earth/Man)
- **SAN BAO (Jing/Qi/Shen)** ...... Three Treasures: (Essence/Energy/Spirit)
- **SI SHI** …………………………… Four Seasons
- **SI XIA** …………………………… Four Pillars of Destiny
- **SI JIAN** …………………………… Four Methods of Diagnosis
- **WU XING** ………………………. Five Elements/Phases
- **LIU QI** ………………………….. Six Divisions
- **LIU YIN** ………………………….. Six Climates
- **QI QING** ……………………….. Seven Emotions
- **QI HSING** ……………………… Seven Stars
- **BA KUA** ………………………... Eight Trigrams
- **BA QI MAI** …………………….. Eight Extraordinary Meridians
- **BA GANG** …………………….. Eight Principles
- **BA FENG** ……………………… Eight Winds
- **JIU ZHOU** ……………………… Nine Continents
- **TIAN GAN** ………………….. Ten Heavenly Stems
- **DI ZHI** ………………………… Twelve Earthly Branches
- **JING LUO** ……………………… Twelve Main Meridians

Underlying these Oriental philosophical concepts is the general theory of Qi (universal life force, or energy) which is unique to the Oriental mind. For the Oriental philosopher, everything in the universe is made of Qi, which drives the universe and permeates every aspect of creation. In this schematic, an individual is seen as a unique, dynamic, formulized, energetic structure that changes from moment to moment. Whether Qi is condensed into phenomena such as bone, blood or tissue, or whether Qi is dispersed into phenomena such as thought patterns, or emotions, it is still viewed as flows of energy, that exist simultaneously in differing densities, but changing endlessly from one moment to the next.

### JING LUO: THE MERIDIAN SYSTEM

Notwithstanding the various states of density of Qi (there are considered to be over 80 different types) it is thought that a discreet, specific energy called JING, flows in a network of channels or meridians called JING LUO, that traverse the entire body. These energy pathways are invisible (you can't see them!) and intangible (you can't feel them!) and are viewed like a cobweb of interconnecting channels, an energetic matrix that endlessly animates, regulates, regenerates and perpetuates the being, from its very first, to its very last, breath of life ...
In order to access these life nurturing channels to correct an imbalance that may have occurred, one has to find and stimulate the appropriate acupuncture points. These points are to be found at different distances along the meridian pathway and their locations are very specific. Locating an acupuncture point, or points, accurately is of the utmost importance, if treatment is to be effective.\(^5\)

An analogy that may help in describing the meridian system is where it may be compared to the London Underground System. Those of us who have trodden the streets of London know that although we can't see them, deep down below the ground, there are networks of interconnecting tunnels in which trains transport people from one location to another. From above the ground we can't see these tunnels, and, most of the time, we can't feel them either, but we know they exist and the only way we can access them is via a station. The station is located at a fixed point: it is not 10 meters this way, or 10 meters that way, it is exactly where it is! In a similar way, we can only access the meridian system via the acupuncture points, which are at specific distances along the meridian; a millimetre either way, and we are 'literally' missing the point!

In the JING LUO system, there are considered to be twelve main meridians that traverse the body bilaterally and are linked to the twelve main organs. Each of the major organs is represented by a meridian bearing its name. Therefore there is a liver meridian, a lung meridian a stomach meridian and so on; in fact, all the main organs are represented. There are also considered to be eight extraordinary meridians, which chronologically predate the twelve main meridians in the formative process of the foetus and are, therefore, at a deeper level of organization of the human being. Only two of the eight extraordinary meridians have discreet pathways or channels, the other six use points on the twelve main meridians. The twelve main meridians are seen more like rivers of Qi, and the eight extraordinary meridians more like reservoirs of Qi. There are also several other meridians and collaterals in this schematic; however, they are beyond the scope of this brief overview.

Within the meridian network flows the Qi, or life force, which can be considered to be either YIN or YANG in nature and, just like the blood circulation, flows endlessly around the body, constantly animating and nurturing the individual. The Classical Theory of acupuncture suggests that it is this energy that may become deficient, excessive, stagnated or blocked and needs to be restored to a balanced level and harmonious flow.
When the *Classical Theory* of acupuncture was formulated, it considered that the human being was designed in such a way as to be a self-repairing, self-regenerating organism. Perhaps we can use the following analogy to describe the way those ancient Oriental doctors may have seen this process: If we were to cut ourselves, what happens? We bleed. Then what happens? After a few minutes as the blood coagulates, the bleeding stops, then, after a day or so, we have a scab, then after a week or two, we have a scar. As individuals, we did not do anything volitionally to help this process, it just happens naturally, because the body was designed in such a way as to repair and regenerate itself automatically.

So, how and why did these ancient Oriental philosophers/doctors/martial artists think that by inserting a few needles here and there into a sick or injured person, they could help the healing process and affect a cure? It is quite likely that if they had deduced that the body was a self-repairing, self-regenerating organism, then it would follow that on a deeper and more profound level, the body’s different organs and organ systems may need extra stimulus to help them do what they were designed to do.

Therefore, when needles are placed in acupuncture points, it is considered that they trigger or activate the Qi system into action. This in turn causes vibration at the level of density of anatomy or physiology that is in disharmony, thus acting like a catalyst to enhance these systems to work at their optimum level. This in turn promotes and accelerates the healing process and brings about a return of harmonious equilibrium of YIN and YANG in the body.

To give an example, on a physical level, there is one acupuncture point called in Chinese, ‘Yang Ling Quan’, which in English translates as, ‘Yang Tomb Spring’ and which is given the point designation of Gall Bladder 34. This point is located near the outside of the knee, just below the head of the fibula and, among other functions and qualities, is designated as a HUI, or Influential point, which influences muscles and tendons. Theoretically, needling this point will activate the level of density of Qi that relates to muscles and tendons and thus stimulate those parts of the body where a patient may be suffering from any number of muscular complaints.

Another example, this time relating more to psychological processes, is an acupuncture point called in Chinese, ‘Shenmen’, which in English translates as, ‘Spirit Door’ and which is given the point designation of Heart 7. This point is located on the transverse crease of the wrist and, among other functions and qualities, is designated as a LUO, or Connecting point, as well as a SHU-STREAM, or Source point. Theoretically, needling this point will activate the level of density of Qi that relates to the SHEN, or Spirit and among other things, will assist in calming the mind of a patient suffering from any number of psychological disorders.
Concerning the Classical Theory of acupuncture, there is so much more that could be said, however, it is hoped that this brief insight will give the reader some idea of how this profound phenomenon is seen to work from the Oriental perspective...

THE MODERN THEORY OF ACUPUNCTURE

The Modern Theory of acupuncture, as investigated and expounded by scientists and doctors working in this field, almost exclusively deals with the analgesic, or pain-relieving qualities of acupuncture. Most orthodox research projects on how acupuncture works would appear to focus in on this single, but nevertheless important aspect.

The modern use of acupuncture in the orthodox arena would seem to have started around the mid-point of the 20th century. It was at this time that orthodox clinical practitioners in China began to use acupuncture as a form of analgesia to assist in surgical operations, some of which were of a major nature.

For example, the following extract is taken from an observation of Professor JI-SHENG HAN:

“One autumn day in 1965, while I was walking down the campus of Beijing Medical College, Dr. PENG REICONG, the then vice-president of the college, approached me with a question: Dr Han, what is your opinion of acupuncture anaesthesia? Does it merit any serious investigation?” I had not heard of acupuncture anaesthesia before. After hearing what the vice-president had to tell me, however, I was both fascinated and incredulous. With both doubt and fascination I set out the very next day to visit the Institute of Tuberculosis located at the outskirts of Beijing, at the suggestion of the vice-president. Seeing is believing. There I was to observe an operation of pulmonary lobectomy (performed) under acupuncture anaesthesia. The visit proved to be an exciting experience. The scene was hard to believe and difficult to forget. There on the operating table lay a young lady waiting to receive a lung resection due to tuberculosis. Punctured in her each limb were 10 needles. On the wall of the operating room was set a signal board controlled by the head acupuncturist. With the progress of the operation, the head acupuncturist issued his instructions through the signal board to four subordinate acupuncturist who, accordingly to the instructions, twisted the needles in the patient's limbs. It took 30 minutes of needle manipulation before the operation began. Under the surgical lamp, while scissors, scalpel and haemostats moved busily over a long chest cut, the patient, calm, with eyes open, was chatting with her nurses peacefully without any expression of suffering. It was not until then that I came to see the intention of the vice-president: surgical operations can be performed under acupuncture analgesia with little or no pain …“(6)
As mentioned in the introduction, because this brief discussion is for the benefit of the lay reader, I have endeavoured to keep technical details to a minimum (*probably because I don't understand them either!*). However, a certain amount of more in-depth information is needed to illustrate how far-reaching and complex the intervention on the body acupuncture has, as seen through the eyes of current scientific thinking.

In relation to acupuncture analgesia, over a period of many years, a great number of scientific experiments have been conducted in different parts of the world and most would suggest that the efficacy of acupuncture is obtained through stimulation of the nervous system. The simple explanation is that the insertion of a needle or needles into the body activates the nervous system. This in turn sends signals to the brain, which releases endogenous opiates (the body's own, pain-killing chemical substances) such as endorphins, enkephalins, serotonin and many others, that in turn diminish, block or eliminate the pain.

These conclusions have been reached after experiments have been conducted in which acupuncture has been deemed (generally) ineffective in the area supplied by a particular nerve which has been blocked by local analgesia, or in the case of animal experimentation, where section (removal) of a principal nerve supplying a particular region again results in acupuncture being (generally) ineffective.

The word 'generally' has been used in parentheses, as the results of these experiments are not conclusive. The reason being that in other scientific experiments which have been conducted, it has been found that the effects caused by acupuncture stimulation can cause, not only the endogenous opiates to cross through into the blood circulation system, but also to trigger certain hormones to be released into the blood circulation system as well.

The endogenous opiates and the hormones, via the blood circulation system, then continue to have an analgesic effect, in spite of the scientific tampering with the nervous system of the human or the animal. Other experiments have also been conducted where acupuncture has been performed on one animal and subsequently either the cerebrospinal fluid or the blood of the acupunctured animal, has been transferred to another animal and the second animal experiences the analgesic effect.

So, now we see that there are two possible modes of transmission of acupuncture stimulation according to the *Modern Theory of Acupuncture*; neural mediation, via the nervous system and humoral mediation, via the blood circulation system. These mediations can work independently of one another or possibly in harmonious conjunction with one another, to affect the body in a positive manner.
Diagram 3 basically illustrates how the Neural Mediation Theory is seen to work. Note that neurone 3, the inhibitory neurone, is the prime mover in this configuration and acts to stop the pain impulse from travelling across the synaptic gap. (8)

Although the *Modern Theory* can demonstrate to a certain degree, how acupuncture can diminish or eliminate pain via the nervous system or blood circulation system or both, it perhaps does not look at the bigger picture, and thus fails to explain how acupuncture can help alleviate functional or psychological disorders not necessarily characterized by pain. For example, on the physical level, there are several functional disorders that would fit into this category, such as asthma, irritable bowel syndrome, various prolapses, glandular irregularities, skin disease, hiatus hernia, Bell’s palsy, infertility and probably more. (9) In relation to the psyche, there are several conditions that again respond to acupuncture treatment, such as anxiety, stress, phobias of various kinds, emotional or depressive states, and again probably others also. (10) The *Modern Theory* also fails to explain how acupuncture can help with conditions of addiction to tobacco, alcohol and drugs. (11) Therefore, it has to be said that, because of these inconsistencies, the *Modern Theory*, although increasing our understanding of the mechanisms by which acupuncture works, must still be viewed as being somewhat incomplete.

**CONCLUSION:**

We now have a brief insight into how acupuncture is viewed, both from the Classical and Modern theoretical standpoints. However, as we can see from our discussion, one of the great mysteries and controversies that continue to surround acupuncture in the modern world is the explanation of the exact mechanisms by which it works.

Although acupuncture has been successfully practised for over 2,500 years and has relied on a theoretical framework of reference which encompasses philosophical, as well as empirical aspects, we should not necessarily believe that, because it has always been done like that (*albeit with considerable success*), these classical concepts are all necessarily true. Modern scientific methods of research, analysis and discovery should be carefully considered by all concerned, if they are found to enrich our understanding of how this amazing therapy works. If classically trained practitioners continue to believe in traditional theories, notwithstanding modern scientific discoveries, then they may find themselves in the same category as the Flat Earth Society! Thankfully, most classically trained practitioners have an open-minded view on these matters and would almost certainly embrace the ultimate truth when it is discovered, whatever that may be!

Personnel involved in modern scientific analysis must also acknowledge that acupuncture does not easily lend itself to modern research methods. From a traditional point of view, there is a considerable problem in trying to apply rigorous scientific methods of research to a phenomenon that has so many variables as to make it almost impossible to subject it to the modern channels of investigation.
As implausible as it may seem to the scientific community, in the case of acupuncture, it may be necessary and more appropriate to study cases on an individual basis, rather than in groups, with all that it implies for double blind trials. If enough classically trained acupuncturists, together with their patients, were to participate in a serious in-depth study of individual cases in a national UK trial (or any other country for that matter), then, in the long-term, maybe patients in general would benefit from acupuncture practitioners from all backgrounds having a clearer understanding of the benefits that such an in-depth study might bring. Although an individual study such as this may take some time to complete, in the long-term, it may help to alleviate suffering more efficiently and universally. For classically trained practitioners, the prospect of waiting a considerable period of time for such a study to be conducted and the results to be collated is not such a great burden, as they are the recipients of a time-honoured therapy and, as such, are perhaps more sympathetic to vast spans of time in relation to the understanding of data and phenomena.

However, people who practise Western medicine have been brought up in a climate of rigorous research and require explanations which come from evidence-based scientific methodology to satisfy their professional curiosity. \(^{(12)}\) Therefore, efficacy of acupuncture treatment can only be accepted after countless trials have taken place, proving that a particular treatment methodology can be repeatedly shown to produce the same results to a greater or lesser degree. Therefore, for the modern, scientific community, perhaps it may be much more difficult to accept that a different model of investigation may have to be used to successfully reach conclusions as to the reasons for the efficacy of such an unusual form of treatment such as acupuncture.

In attempting to bridge the gap between the two distinctly opposing but worthwhile theories, it is gratifying to know that the two sides are now beginning to talk to each other and to learn and understand from each other that there are no simple answers as to how acupuncture really works. Although it may take a very long time to reach accurate conclusions and find the ultimate answer, it is also gratifying to know that, notwithstanding the how and the why, acupuncture will continue to help alleviate the suffering of countless numbers of people (and animals for that matter) and perhaps ultimately, that is all that matters!

For the classically trained practitioner of acupuncture, time has an enduring quality; however, for the new, orthodox champions of acupuncture, who are only now discovering how effective it can be to alleviate suffering, but feel an urgency to discover the exact mechanisms of this therapeutic phenomenon, I am reminded of an old Oriental proverb:

*The ox may be slow, but the earth is patient.* \(^{(12)}\)
FOOTNOTES:


3) The following notes may be useful in gaining a further insight into the Oriental term Qi /Ki

   i) Qi can be written as either Qi, or Ki, and is usually pronounced as 'Chee', in Chinese and as 'Key', in Korean or Japanese.

   ii) The Chinese character for Qi, has been variously translated in the West as, inter alia, 'energy', 'air'; 'wind', 'power', 'force', 'current' or 'breath' and generically as 'the universal life force' or 'vital energy of the universe'. While all these terms help to give us a reasonably good idea of what the Chinese concept is all about, ultimately it is probably best not to try to translate the concept of Qi, but rather, to leave it simply as Qi. This will allow the individual to interpret the meaning of the concept in his or her own way, from the personal experience of continued usage.

   iii) In following the above line of thought, the reader will find that every time any of the above translations appear in quotes, or any other form, the term (Qi) in parenthesis will be placed immediately after as a constant reminder that we are always talking about Qi!

   iv) For a more in-depth discussion on Qi, see Chapter 3, Acupuncture & Qi - The Universal Life Force

4) PHILIP D HOLMES, Qi - A Philosophical Review, Chapter 5, The Classification of Qi, ICOM Thesis, 1990

5) Some contemporary authors are suggesting that acupuncture points do not exist and that as long as a needle is inserted into a certain 'area', it will have the same effect. Through many years of experience as a professional acupuncturist, practising on a daily basis, the author has found that unless an acupuncture needle is accurately placed in a designated acupuncture point, and stimulated in the appropriate way, results will be ineffectual.


The word ‘anaesthesia’ is quoted verbatim and is used three times in the quote; however, perhaps the author meant to say ‘analgesia’, as is used in the last line of the quote?

For those readers who are not sure of the difference in meaning of these two terms:

**ANALGESIA:** a specific area of insensibility to pain, without loss of consciousness.

**ANAESTHESIA:** A loss of sensation and usually of consciousness without loss of vital functions, artificially produced by the administration of one or more agents that block the passage of pain impulses along nerve pathways to the brain.
7) Since the 1950s, many experiments and much research into the effects of acupuncture have been conducted in various countries around the world such as China, Russia, USA, UK, and Sweden to name a few.


Neurones are programmed in the language of electricity and chemistry. When an electrical impulse reaches the tip of an axon, it fires a chemical called a neurotransmitter (acetylcholine or other transmitter). This chemical message diffuses across a gap, called a synapse, to receptors on the next cell, triggering another electrical impulse that travels down a second axon, until the message reaches millions of neurones. The enkephalin neurone exerts pre-synaptic inhibition to transmission along the normal pathway. Acupuncture activates the enkephalin neurone, thereby causing pre-synaptic inhibition. Acupuncture therefore elevates the pain blocks the transmission of the pain impulse threshold.

9) Several such cases are documented from the author’s own experience in clinical practice since 1989. Also see: The British Acupuncture Council website - RESEARCH Section on www.acupuncture.org.uk

10) Several such cases are documented from the author’s own experience in clinical practice since 1989. Also see: The British Acupuncture Council website - RESEARCH Section on www.acupuncture.org.uk

11) Several such cases are documented from the author’s own experience in clinical practice since 1989. Also see: The British Acupuncture Council website - RESEARCH Section on www.acupuncture.org.uk

12) See Professor Kathy Sykes: Alternative Medicine, The Evidence - Acupuncture. Open University documentary in conjunction with the BBC - 2006

13) Old Oriental proverb - author unknown