

## **Dr. Yoshio Manaka's insights and contributions to the field of TEAM.**

Stephen Birch

*"There are more things in heaven and earth Horatio  
than is dreamt of in your philosophy".*

William Shakespeare; Hamlet; I. v. 166.

### **Introduction**

Acupuncture and its broader field, traditional East Asian Medicine (TEAM) have been trickling into the West for a number of centuries. Their first appearances in the late 1600s through the 1800s were small waves that rose and fell. In the period after the second world war they, especially acupuncture, started penetrating more vehemently into Western culture, in the 1950s into Europe and in the early 1970s all over.

But we should also not forget that just as we in the West turned our eyes Eastward, Asian cultures have been importing Western thinking and technologies even more aggressively. Sugita Gempaku's translation of a Dutch anatomical text in the late 1700s started a revolution in thinking, seeing and acting in Japan [1]. Things Western had penetrated much more deeply and with permanent roots before the current wave of import of acupuncture and TEAM started in the post war period in the West [2]. These processes signal a long term, slow process of mutual acculturation as ideas and methods mingle, penetrate and mutually influence each other [3]. This process is well entrenched today so much so that many forms of Asian medicine that we look at in the West seem familiar because of the Western undercurrents within them. This process of cross cultural penetration is a very large and deep process. Occasionally people appear that play an important role in such a process, Dr Yoshio Manaka was, I believe, one such person.

Dr Manaka was a man who stood in both worlds, able to look in both directions. As a physician and surgeon he did not waste much time before studying herbal medicine and then acupuncture. Fluent in modern and classical Chinese and Japanese, French, German, English with smatterings of other languages such as Russian, Korean and Sanskrit, he read and studied widely. He kept up with not only the traditional literatures and their scholarship, but the new literatures appearing in all those languages. He also kept up with developments in medicine, biology and physics. He tried to find ways of treating both the Eastward flowing currents and the Westward flowing currents equally without discrimination (a task that few researchers before or after have been able to accomplish). Besides these intellectual feats, he was also a renowned clinician, his results were very impressive. In addition he was a researcher, writer, poet, painter, sculptor. In short he was a very rare individual, with a wide range of skills, talents, insights and knowledge.

I am honored to have studied, practiced, taught, researched and written in English about Dr. Manaka's work for over twenty three years. I was especially honored to have been invited for internships in 1986 and 1988 to his hospital in Odawara so that I could help write his book 'Chasing the Dragon's Tail' [4]. For the first years I was working in the US, and for the past twelve years I have been back in Europe. 'Chasing the Dragon's Tail' was the culmination of a lot of his work and has been translated to German. His ideas, contributions and methods have spread across three continents as they are taught in the US, Europe and Australasia.

I feel that his legacy is so large that a piece focusing on his theoretical and philosophical contributions to the field of acupuncture would be helpful. His biological, physical and mathematical models of human energetics are considerably broader and deeper than any I have come across in the field. They are very exciting, directly relating traditional East Asian Medical theory to new advances in the Western physical sciences.

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### **Perspectives**

Traditionally, Western science is founded on the assumptions that there is an objectively observable and measurable world that is reducible to its basic separable components. These parts obey immutable laws, which allow prediction of the behavior of all things, animate and inanimate. In the nineteenth century this proved to be remarkably successful, allowing incredible industrial and technological growth. So great have been these successes that virtually the whole infrastructure of the biological and medical sciences in the modern world is based upon the above basic assumptions.

Modern physics has arrived at a model of the world that is far removed from the assumptions on the nineteenth century science. No longer can we patently describe things as being objectively measurable and reducible to basic component parts. The world is multilayered with complex interactions between all parts [5]. Most of what exists is actually hidden from us, unobservable and unmeasurable. The world as we know it is more like the ripples on the pond surface. What we previously called 'space', which meant 'absence of something', has been described as "a holomovement in which there is an immense sea of energy...which is to be understood in terms of a multidimensional implicate order" [6]. Like the "immense sea" the world is for the most part hidden from us.

Most research in the field of acupuncture has focused on looking for nineteenth century models of action to explain what acupuncture is and how it works. It is very curious that the basic philosophical precepts of nineteenth century science: reductionism, dualism and causality, are utilized in attempts to explain a model that is by many accounts wholistic, employing non-reducible, non-dualist and non-linear causal thinking [7].

If we are to utilize the information and models developed by biomedicine and acupuncture, we must find another broader based conceptual framework in which to state the model, one that is able to embrace both systems [8].

These are not the only questions that arise in a modern study of acupuncture theory and practice. Aside from these philosophical issues there is an increasing number of experimental, theoretical and clinical findings that raise fundamental questions about the assumptions behind Western scientific, especially biomedical thinking. Developments and experimental evidence in quantum physics have shown us that we cannot separate the particles of matter (atoms etc) from consciousness (the observer) [9]. Research into the effects of consciousness have demonstrated this inseparability [10]. Models have emerged recently about how patients, practitioners and therapies might interact at a quantum level 'quantum entanglement' [11]. Several very important stories are emerging on these fronts.

The study of 'form' in nature is one that spans many scientific disciplines. Considerable evidence from many diverse fields suggests the existence of 'morphogenetic fields', which lie outside of the realm of the measurable and observable. These morphogenetic fields not only are unmeasurable, hidden from view, but are irreducible and even exist outside of the flow of time as we know it [12].

The problems of repeatability in scientific experimentation are particularly important. This holds especially true in the subtle energy movements and fluctuations of acupuncture.

The biggest problem is still that of the methodology, underlying assumptions and basic world view of the scientific paradigm. It is not going to be possible to describe one world view purely in the terms of another. We must find another approach that can embrace both without radically altering either. This is a deep problem that few researchers in acupuncture have asked, let alone tried to address and solve.

Dr. Manaka is one of those few gifted people in every generation that can see into the future and hold up a beacon by which the rest can be guided. It is quite obvious that his theoretical work has been dedicated to asking and addressing this question. Through his models of how acupuncture works, of what the meridians, qi and acupoints are, he defined a new approach that embraces both Eastern and Western philosophical values and assumptions.

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At the heart of his theoretical model lies the notion that the theories and rules of acupuncture - yin-yang, five phases, qi, meridians, acupoints etc - belong to a much broader unobservable biological signal system that operates at very low levels of energy, and is very sensitive to 'tiny stimulation' [13] This signal system arose throughout the course of evolution and has been outdated by the more efficient neurological hormonal and other signal systems. The older signal system now exists enfolded within the body, operating continuously at unobservable levels and clearly manifesting only with the correct stimulus energy input. This signal system works cooperatively with the other less primitive systems, and has the role of global regulation.

It is mainly unobservable and unmeasurable like Bohm's holomovement and Sheldrake's morphogenetic fields yet some of it has been clearly described by the ancient Chinese. The Chinese concept of 'qi' which flows within, nourishes, protects and regulates the body, represents an explicitly described part of the signal system. The meridians, their acupoints and their relationships to the body, described by yin-yang and five phase theories, all represent descriptions of some of the rules that govern the transmission and activity of the signals (qi). These only become clearly observable when low energy, small input stimulation is given. With larger input stimulation other systems are activated which tend to mask the signal system.

This theoretical perspective developed in Dr. Manaka's research and practice over many years of innovative and original work. Almost all aspects of the general theory are supported by clinical and experimental evidence and results [13]. While most researchers have tried to measure the 'mechanisms' of action of acupuncture, few have actually paid attention to the details of traditional theory. Dr. Manaka is one of a very few who has had the genius capable of addressing these questions.

Recognising the limitations of the current scientific approach, at least in biology and medicine, Dr. Manaka proposed the existence of a hidden signal system that has parallels to Bohm's "implicate order". Systems theory and information theory provide more than a sufficient conceptual language base for describing the signal system. While we can observe some of the effects and rules of the signal system, we are unable to clearly define the nature of the signals. Likewise the Chinese concept of qi is virtually undefinable as is the concept of 'information' when not bounded by quantifications and qualifications. In fact Dr. Manaka is not alone in suggesting the use of information and systems theories for modeling the new paradigmatic world views. Foss and Rothenberg developed a model that is quite similar in several respects to Dr. Manaka's and the traditional East Asian models [14].

Dr. Manaka proposed the development of a new language for handling the complexities of these issues. "Biasology" is his proposed field of study [see paper in this issue]. The theoretical application of biases at a systems and information level is very adequate for handling these difficulties. It both avoids the Cartesian duality of the Western paradigm and allows for descriptions of the effects of subtle influences or small information flows on the body. His expanded definition of bias is "diverse factors intrinsic or extrinsic to the body, which can intervene in the activities of the biological signal system. They might cause unusual reactions, and thus pathogenic conditions. They might disturb the recovery process from disease, or under certain circumstances, promote health and healing" [15].

Developments in mathematics and physics in the last twenty years such as topology, nonlinear thermodynamics and their modern offshoots, the recent study of chaos models as part of the larger field of 'complexity' are particularly fruitful. Contrary to nineteenth century expectations and assumptions, chaotic systems generate order spontaneously and in a seemingly universal manner [16]. Suffice it to say, this 'hidden order', that lies behind all systems, both chaotic and ordered, probably plays a significant role in the 'hidden signal system' that Dr. Manaka has described.

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The body has left-right, anterior-posterior and inferior-superior halves, which when taken together define an octahedron that relates to the nature of the meridians and extraordinary vessels. This model defines some of the structure-function relationships implicit in yin-yang theory [17]. The significance of the octahedral model lies not in the mechanisms which generate these patterns, but the flow of information (energy, qi) between these octants. The hidden rules and regulations which govern the existence of the pattern are much more significant as they are defined in yin-yang theory. While not yet mathematically described, Dr. Manaka hoped one day that these models would catch the attention of mathematicians who can formally flesh out these models.

In the description that follows, I would like to develop a model of information (qi) storage and transfer in biological systems that I think accurately reflects Dr. Manaka's intentions. We can model information storage and transfer in biological systems after adult human memory. Generally the adult human operates at a certain level of memory recall. He/she will generally remember most, if not all major life events, plus many everyday details of current and past experiences. Also, a certain amount of early experience will be remembered. In principle any and all experiences can be recalled, from the very earliest on up to the present. Practices such as hypnosis, psychotherapy and re-birthing have shown that even tiny unnoticed details may be accessed.

Each individual has their own selection process for what is consciously noticed and remembered - based on multiple factors like personality, need, previous experiences, learning etc. However, it appears that many events or phenomena that came into the individual's experience subliminally or consciously, still exist as 'old forgotten' experiences. Through the total course of the individual's life, all experiential information is stored. Some is easily accessible (remembered) and most is hidden or enfolded (forgotten).

Perhaps the totality of information that is stored in biological systems is stored in the same manner. Some of the major occurrences through evolutionary, embryological, species and individual development, are also readily recallable; especially that information necessary for adapting to current circumstances. In principle though, all information stored from the beginnings of life up through evolutionary and embryological development is recallable [18]. To use Bohm's terms, the information that is stored and not currently manifesting, can be said to be 'hidden' or 'enfolded'.

Relative to acupuncture theory and practice, the 'energetic' or 'qi' system that is described, can be seen as part of the body of 'stored information'. At certain stages of evolutionary and, or embryological development, this information and it's flow (meridian circuitry, qi movement etc) served specific biological functions. It exists in the body now, much like old childhood memories. Both relate directly to previous experiences but still exert influences now and in the future. They are mostly unobservable, but in specific circumstances, they can be recalled. Some people have excellent recall of past events. Similarly some people can easily and directly experience the meridians and flow of qi [19].

Add to this the complexities of interaction inherent in Jung's 'Collective Unconscious' and the vast store of memories that each individual can tap into the and the 'morphogenetic fields' model of Sheldrake, where for both animate and inanimate objects, mental and non-mental events, like 'resonates' with like [20], allowing for layers and levels of unobservable information flow.

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To understand a particular set of information flows, for instance the meridian and qi systems, we need to unravel the particular rules and grammar regulating them. These are likewise 'hidden' from us. Using broad based multidimensional and interpretational models like qi, yin-yang, five phases, the zang-fu, meridian functional units, the Chinese described a simple means for handling these complex problems. These simple terms and models, taken in their multiplicity of interactions, allow for complex modeling for life, nature, health and disease. The language of theories of Chinese medicine, when interpreted in this manner, make considerable sense of the history, body of literature and clinical practices of the medicine.

These are, I believe, representative of some of Dr. Manaka's insights and models into acupuncture theory and practice. They step completely outside of the traditional scientific paradigm into a broader more inclusive world view. In so doing Dr. Manaka has brought acupuncture and Traditional East Asian Medicine (TEAM) into the twenty first century, and possibly beyond. He did not reject the old scientific paradigm, but merely questioned its assumptions. He did not diminish the Chinese philosophical world view, rather he transitioned it into the modern world. Conflict between disparate paradigms are not resolvable without recourse to a broader based encompassing model. In creating his vision of this new paradigm, Dr. Manaka shows his true intellectual genius. This becomes ever more clear when you look at how he applied these ideas clinically in very effective ways and in research, to create novel ways of proceeding and investigating.

### **Postscript**

Working with Dr. Manaka was like exposing oneself to a kind of knowledge and curiosity virus. Since working with him I have been infected with the need to continue his work and try to contribute to the slow acculturation of two old cultures, in what has been called the 'mangle of practice'. I can never be like Manaka, I have neither his charm nor his intelligence, but I have made a few efforts over the years. Besides practicing and teaching his methods, I have made progress with regards research and developing methods to help smooth out the 'mangling' that naturally occurs with such long-term cultural intertwining. I have been working on mathematical modeling for over twenty years [21], went out and got a PhD in clinical research design issues and contributed dozens of papers to 'mainstream' research on acupuncture [22] and more recently have started honing in on the model I believe Manaka was searching for. I have started publishing some of this work [23] and hope to get the rest published after further peer-review [24]. I hope in later publications to talk further with you about these things.

Thank you

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