The Transformative Nature of Jiankang Qigong:
Merging Asian Approaches with Western Pedagogy
TRANSFORMATIVE LEARNING

- Transformative learning refers to a learning process that goes beyond the mere acquisition of factual information and focuses on the transformation of the learner in some meaningful way through fundamental changes in perspective.

Jack Mezirow
Transformative Learning for the 21st Century:

- Transformative learning that facilitates a shift of consciousness which in turn dramatically alters the way the learner sees himself/herself with other humans, with the natural world, and even the entire universe (O’Sullivan, 1999)
Transformative Learning and Education

fostering critical thinking in students and honing their ability to analyze information from a variety of perspectives, rather than having them merely amass information and skills

“The dichotomy of richness of information and poverty of understanding” (Glisczinski, 2007)
Fostering transformation requires higher education faculty to rethink, reform, and redesign their curriculum so that valuable instrumental learning exists within a framework of communicative and emancipatory critical reflection—or critical assessment of assumptions supporting the justification of existing norms, contexts, history, social structures, and power structures that shape epistemological perspectives.”
“An instructor who is proficient in facilitating a certain form of ‘disorienting’ mental exercises can convey a greater sense of reassurance to everyone in the class” (Cranton, 1996)
Disorienting dilemma: a dilemma that induces a perspective transformation in learners, thereby encouraging them to revise their meaning structures that, in due course, promote transformative learning (Mezirow, 1995)
Meta-analytical transformative learning, stemming from Asian ancient cultures:

• Many ‘facilitators’ of transformative learning from an Asian perspective write about their journeys into realms of knowledge acquisition involving deep introspection, usually framed within a context that encourages contemplation and reflection.
Embodied Transformative Learning

- Adult learners to engage in learning activity through ‘embodied pedagogy’ (e.g. Ng, 2000)
- Students experience the effects of learning enhancement by harnessing their ‘subtle energy’
- A fundamental principle that comes through their works is the understanding that subtle is the force behind intelligence.
Quantum Physics

- There are five main ideas represented in Quantum Theory:
1. Energy is not continuous, but comes in small but discrete units.
2. These discrete units behave both like particles and like waves.
3. The movement of these particles is inherently random
4. It is *physically impossible* to know both the position and the momentum of a particle at the same time. The more precisely one is known, the less precise the measurement of the other is.
5. The atomic world is *nothing* like the world we live in.
Principles of Quantum Mechanics

The role of the Observer
http://www.youtube.com/watch?v=FN8BqGRP5WA

Connectivity, or “Entanglement”
http://www.youtube.com/watch?v=Jh8uZUzuRhk
If the central proton if an atom was the same size as a golf ball, the electron would be the same size as a baseball. This baseball-sized electron would be spinning around the golf ball-sized proton in the center in such an erratic way as to form a giant sphere around it at a distance of about two miles. That is a sphere that is four miles in diameter.
Max Planck
Neils Bohr
The Quantum Revolution

http://www.youtube.com/watch?v=InoMBWnTXpg

Michio Kaku
The Fabric of the Cosmos: Quantum Leap

http://www.youtube.com/watch?v=Nv1_YB1JedE

5:50

Brian Greene
The Higgs Boson

http://www.youtube.com/watch?v=yKz07k04D70

Brian Cox
Quantum Biology

- Fundamental biological processes that involve the conversion of energy into forms that are usable for chemical transformations are quantum mechanical in its nature. These processes involve chemical reactions themselves, light absorption, formation of excited electronic states, transfer of excitation energy, transfer of electrons and protons, etc.
Why Quantum Mechanics?

"The ultimate aim of the modern movement in biology is in fact to explain all biology in terms of physics and chemistry... Quantum mechanics, together with our empirical knowledge of chemistry, appears to provide us with a 'foundation of certainty' on which to build biology."

Francis Crick
1966
Diamagnetic levitation

- Work by Andre Geim
In the case of diamagnetic levitation, the gravitational force is compensated on the level of individual atoms and molecules.
Quantum Physics and Molecular Biology

- The eminent quantum physicists Fritz London and Niels Bohr suggested that quantum phenomena might be essential for life processes.

- The genetic code is only half the story - DNA is a quantum mechanical biowave computer

- Recent research has demonstrated that electromagnetic signals are of key importance in the regulatory functioning of DNA. Part of it is based on ultraviolet luminence creating biophotons that have been experimentally demonstrated to be able to enhance metabolic reactions a thousandfold.

- Another aspect is an electromagnetically mediated "language" for communication between DNA and the cells.
The Field: The Quest For The Secret Force Of The Universe

• The Field tells the story of respected frontier scientists all over the globe who have produced extraordinary evidence to show that an energy field - The Zero Point Field - connects everything in the universe, and we ourselves are part of this vast dynamic web of energy exchange.

• The Field also reveals a radical new biological paradigm-that on our most fundamental level, the human mind and body are not distinct and separate from their environment, but a packet of pulsating energy constantly interacting with this vast energy sea.

Work of Lynn McTaggert
Molecules of Emotion

• The mind is not just in the brain -- it is also in the body.
• The vehicle that the mind and body use to communicate with each other is the chemistry of emotion.
• The chemicals in question are molecules, short chains of amino acids called peptides.
• The chemicals inside our bodies form a dynamic information network, linking mind and body.

Down the Rabbit Hole Part 10
• [http://www.youtube.com/watch?v=M3Mu4ziPf3A](http://www.youtube.com/watch?v=M3Mu4ziPf3A)
• Emotions and Health Enhancement
• [http://www.youtube.com/watch?v=s9s4wfl-BWk](http://www.youtube.com/watch?v=s9s4wfl-BWk)

Work of Candace Pert
The New Biology
Neuropeptides are produced primarily in the brain, although almost every tissue in the body produces and exchanges neuropeptides.

Neuropeptides are called messenger molecules because they send chemical messages from the brain to receptor sites on cell membranes throughout the body.
New interest is being generated by the fact that these people not only change behavior, but their brains and their bodies also change. Different personalities within one person have different brain wave patterns, different handedness, and different allergies. Eyeglass prescriptions and such objective measures as eye pressure and corneal curvature differ. A person may be nearsighted or farsighted in different personalities or even be colorblind in one but not another. As they change from personality to personality, these people experience dramatic physical characteristic changes as well.
The Mind-Body Connection

- All systems of the body exchange neuropeptide information, and it is the internal feeling state (emotions) that elicits the neuropeptide response. This is the mind-body connection in which every change in the mental-emotional state causes a change in the body physiology. Likewise, every change in the body physiology causes a change in the mental-emotional state.
The Heart's Code: Tapping the Wisdom and Power of Our Heart Energy

Presents the scientific evidence that the heart literally thinks, remembers, speaks to the brain about its own unique feelings, and connects with other hearts.

It presents evidence of cellular memory and that some heart transplant recipients report receiving memories and personality characteristics of their donor.

Dr. Paul Pearsall, 1998
Institute of HeartMath

- Researching heart intelligence and stress management
- “A change of heart changes everything”
- The power of the heart to bring mind and emotions into coherence through rhythm patterns.
Bioenergetics -- the study of energy flow through living systems (Smith, 2006).
The Seven Emotions of Traditional Chinese Medicine

- The emotions are considered the major internal causes of disease in TCM.
- Within normal limits, emotions cause no disease or weakness in the body. However, when emotions become so powerful that they become uncontrollable and overwhelm or possess a person, then they can cause serious injury to the internal organs and open the door to disease.
- It is not the intensity as much as the prolonged duration of an extreme emotion, which causes damage.
When one is excessively joyful, the spirit scatters and can no longer be stored. However, in TCM, joy refers to a state of agitation or overexcitement, rather than the more passive notion of deep contentment.

The organ most affected is the heart.

Over-stimulation can lead to problems of heart fire connected with such symptoms as feelings of agitation, insomnia and palpitations.
When one feels anxiety, the *qi* is blocked and does not move. Anxiety injures the **lungs**, which control *qi* (vital energy) through breathing. Common symptoms of extreme anxiety are retention of breath, shallow, and irregular breathing. The shortage of breath experienced during periods of anxiety is common to everyone. Anxiety also injures the lungs' coupled organ, the **large intestine**.
思 Pensiveness

Pensiveness or concentration is considered to be the result of thinking too much or excessive mental and intellectual stimulation. Any activity that involves a lot of mental effort will run the risk of causing disharmony. The organ most directly at risk is the spleen. This can lead to a deficiency of spleen qi (vital energy), in turn causing worry and resulting in fatigue, lethargy, and inability to concentrate.
The **lungs** are more directly involved with this emotion. A normal and healthy expression of grief can be expressed as sobbing that originates in the depths of the lungs. However, grief that remains unresolved and becomes chronic can create disharmony in the lungs, weakening the lung qi (vital energy). This in turn can interfere with the lung's function of circulating *qi* around the body.
Fear is a normal and adaptive human emotion. But when it becomes chronic and when the perceived cause of the fear cannot be directly addressed, then this is likely to lead to disharmony. The organs most at risk are the kidneys. In cases of extreme fright, the kidney's ability to hold qi (vital energy) may be impaired leading to involuntary urination. This can be a particular problem with children.
Fright is another emotion not specifically related to only one organ. It is distinguished from fear by its sudden, unexpected nature. Fright primarily affects the heart, especially in the initial stages, but if it persists for some time, it becomes conscious fear and moves to the kidneys.
DISEASE PREVENTION AND RESTORING HARMONY: CONTROL THE EMOTIONS

• Natural killer cells have receptors for various neuropeptides, including those released during stress.

• NK cell activity might be modulated by a person's emotional responses.

• The "stress hormone" cortisol can impair immune functions, eventually leading to damage.
**Vitalism:** The theory or doctrine that life processes arise from or contain a nonmaterial vital principle and cannot be explained entirely as physical and chemical phenomena.

Vitalistically speaking, healing involves a closer connection between mind, body, and emotions.

Neuropeptides are thought to be the molecular language that allows them to communicate.
“There are a lot of factors which affect the anti-disease ability of the organism, but the leading one has to do with whether the spirit, nervous system, and various defenses of the organism are perfect.

A lot of evidence proves that those who are optimistic and undertake exercises [in China, this refers mainly to taiji and qigong] tend to have healthy and sound function of the nervous system, strong physiques, and naturally great anti-disease ability and immunity.”

Subhuti Dharmananda, Ph.D., Director, Institute for Traditional Medicine, Portland, Oregon
What is QiGong?

- **QiGong** (or *ch'i kung*) refers to a wide variety of traditional “cultivation” practices that involve movement and/or regulated breathing.

- The 'qi' in 'qigong' means breath or gas in **Chinese**, and, by extension, 'life force', 'energy' or even 'cosmic breath'. 'Gong' means work applied to a discipline or the resultant level of skill, so 'qigong' is thus 'breath work' or 'energy work'.

Qi is the inner energy field of your body. It is the bridge between the outer you and the Source. It lies halfway between the manifested, the world of form, and the Source ... Qi is the link between the Source and the physical universe.

Work of Eckhart Tolle
• **nervous system**: Using qi-gong allows an individual to enter into a tranquil state allowing the brain to be oriented towards a higher conscious level.
Therapeutic Effects of Qi-Gong

• **cardiovascular system**: Qi-gong reduces the burden of the heart. It changes the excitability state that dominates the heart and blood vessels, makes the capillaries expand and lowers the heart rate.
Therapeutic Effects of Qi-Gong

- **digestive system**: Digestion and absorption are enhanced.
Therapeutic Effects of Qi-Gong

- **respiration system**: Respiration rate may be decreased oxygen consumption is lower. The lowered metabolic rate and decreased energy consumption is thought to aid in the recovery of bodily functions.
Therapeutic Effects of Qi-Gong

• **endocrine and immune system**: The practitioners' hormonal regulation becomes well adjusted. Total immune functions are enhanced as well.
Transformation through Qigong

- Energy enhancement works with the concepts of **vitality** (*jing*), **energy** (*qi*) and **spirit** (*shen*), the three elements of *qigong* that form the essential principles of human experiential growth: vitality can be turned into energy, energy into spirit, and spirit back into its original state as an abstract life-force.
Types of Qigong

There are different classifications of qigong. It can be classified into health-protecting qigong, therapeutic qigong and martial art qigong, or classified into hard (or tough) qigong and soft qigong. Soft qigong includes health-protecting qigong and therapeutic qigong.
Hard qigong is also called *kungfu* qigong.

The Empty Mind - Shaolin Temple Monks

http://www.youtube.com/watch?v=Llqup1Uir6k&feature=channel
Soft Qigong

• In its more developed form it is effective in adjusting the functions of the nervous, respiratory, digestive, blood circulation and endocrine system. In short, qigong proves to be able to prevent and treat diseases, protect and strengthen health, and prolong life.
Jiankang Qigong

- *Jiankang Qigong* consists of simple, yet highly effective exercises.
- TJQG can help to promote the body’s natural healing energy, reduce stress.
- It can help create a feeling of well being.

http://www.youtube.com/watch?v=-fD7iuzPw8o
http://www.youtube.com/watch?feature=endscreen&v=6XsSijCBza4&NR=1
Replenishing Your Energy Through Bioenergetics: Health Qigong (Jiankang Qigong)

Charles P. Beaupré
Ph.D., Educational Psychology
Connecting Quantum and Qi:

_The Tao of Physics_ (1975)

Fritjof Capra, Ph.D., physicist and systems theorist

“Qi bears the most striking resemblance to the concept of the quantum field in modern physics.”
Quantum meets Qi

- “The Quantum Tai Chi” (Gauge Theory: The Dance of Mind Over Matter)

P. Stephen Petersen, PhD.
Esogetic Colorpuncture: Aculight Therapy System for Body, Mind and Spirit

• Like acupuncture, colorpuncture presupposes that the balanced flow of energy through the meridian system will support good health. However, colorpuncture achieves this by introducing vibrational information into the body in the form of different colored light frequencies via the meridian system.

Work of Peter Mandel
Ayurveda and Prana

- [http://www.youtube.com/watch?v=l2Zw-vYn270](http://www.youtube.com/watch?v=l2Zw-vYn270)
- [http://www.youtube.com/watch?v=fqaCEdeP4AA&NR=1&feature=fvwp](http://www.youtube.com/watch?v=fqaCEdeP4AA&NR=1&feature=fvwp)
The major systems of the body—circulatory system, nervous system, musculoskeletal system, digestive system—are covered with a continuous connective tissue fabric.

This continuum extends throughout the body, even into the innermost parts of each cell.

Each tension, compression, movement causes the connective tissues to generate bioelectric signals.

This fabric is a communication network that can carry the bioelectric signals between every part of the body and every other part.
The more advanced quantum and particle physicists are now coming to the same conclusion about the underlying unity of humanity and nature that ancient Chinese and Indian philosophers described in their writings depicting subtle human relationships with the cosmos. The only difference in approach between the ancient and modern viewpoints is that the old Oriental and Vedic teachers came to their insights through meditation and inner psychic probing of the universe, while modern scientists have arrived at their conclusions through a more mechanistic, electronic, and empirical approach.
Dr. Richard Gerber, renowned biomedical researcher: “We are living during a historical period that will someday be characterized as one of the greatest philosophical and spiritual shifts in human thinking to come along in nearly a thousand years”

“We are all connected by our source, each made up of the same stuff. Modern Physics has proved what spiritual sages have been saying for thousands of years: that all matter is essentially vibrating energy. We consist of moving electrons, protons, and neutrons and the bare components when investigated more closely really just drill down to vibrating energy that has no boundary. Essentially, beneath what appears to be our skin and bones and cells, we are bare beingness, shifting and flowing energy operating under the illusion the we are separate and apart from each other.”