

Compare and contrast the philosophy and history of Western Medicine and Traditional Chinese Medicine.”

-The Greek philosophers Hippocrates, Plato and Galen imbued early Western medicine with naturalistic and vitalistic principles and Aristotle developed Logic in Western thinking and medicine. Paracelsus was a seminal influence on medical chemistry. Present Western medicine has been greatly shaped by the mechanistic and reductionist theories of Descartes, later supported by Democritus. In Chinese medicine the ancient Yi Jing first recorded the fundamental theories of Qi and Yin Yang and with the Five Phases theory introduced in Nei Jing these three theories are indispensable to Chinese medicine. Zhang Zhong Jing and Bian Que through "Treatise on Cold Damage" and Nan Jing added new observations and ideas on pathology, etiology and treatment. Daoism, Buddhism and Confucianism strongly developed the naturalistic and integrative ideas found in Chinese medicine.

-The "Father of Medicine" Hippocrates (460 - 377 B.C.E., author of *Airs, Waters, Places and The Sacred Disease*) emphasized and fathered the fundamental concept of precise observation and description, and the important causal relationship between environmental factors and disease. This was major precursor to "scientific method" essential in today's evidence based medicine. Secondly he tried to identify disease types and establish appropriate treatment and explain its rationale while avoiding speculation. Thus like the Chinese Nei Jing he challenged the entrenched supernatural and magical healing systems of the times, instead of seeing disease due to demons he described it as a knowable, natural phenomena. He introduced the doctrine of the four humors, and great minds must have thought alike when he wrote that "health is the expression of a harmonious balance between various components of man's nature, environment and ways of life" (Harper 1997) as this echoes the great Daoist saying of a "balanced and harmonious way". Hippocrates also believed in the body's inherent ability to heal itself i.e. *vis medicatrix naturae*.

-Plato (427-347 B.C.E.. Republic), believed in eternal "universals": universal qualities representing not things but the properties and relations of things. Like Hippocrates he was also idealistic and wholistic, stating "the cure of any part should not be attempted without treatment of the whole" (Harper 1997), and that it was an error to separate soul and body.

-If A equals A, can A equal not A? Sometimes according to Chinese Yin Yang theory, but never according to Aristotle! Aristotle (384 - 332 B.C.E.) believed in empirical materialism, that reality came to mean only that which could be substantiated materially, which is an important foundation of scientific thinking. Aristotle developed the idea of causation, that "men do not think they know a thing till they have grasped the 'why' of it (which is to grasp its primary cause)" which is central to western thinking and medicine. Also dominant is his opposition of contraries: "the same thing cannot at one and the same time be and not be" (McKeon 1941), i.e. "A" cannot be "not A" which Kaptchuk (2000) describes as the cornerstone in Western Logic. This opposes the Chinese Yin Yang concept of opposite but complementary qualities, that a phenomena can be itself and its contrary, i.e. "A" can also be "not A" (Maciocia, 1998)!

-The rationalist Galen (130-203 C.E., *On the Natural Faculties*) saw a dynamic functional activity or controlling life force directing a body process toward a specific end which he called "faculty". Like Hippocrates he believed in concepts of the harmony of the four humors, elements and life force. He introduced theories of "pneuma", physiology of metabolism, the three digestions and blood circulation. Galen used animal and vegetable remedies and with Dioscorides he wrote the first western *materia medica* a fundamental text in the history of medicine. He made anatomy and physiology the cornerstone of his medicine (Kaptchuk 2000), and his work powerfully synthesized much medical knowledge and was to be the authority for many centuries.

-Paracelsus (1493-1541) also emphasized observations and condemned Galen, but his ideas swung away from empiricism back to the theoretical, speculative and philosophic. He shared the neoplatonic tradition of belief in continuity of existence, the immaterial divine One, or *mysterium magnum*. Bodily processes are essentially chemical in nature said Paracelsus, and he used "spagyric" or chemical medicines, as well as Galen's remedies adding to the western *materia medica* which became a seminal influence on the development of iatrochemistry or medical chemistry.

- Vesalius (1514 - 1564) believed that observation, precision and accuracy took precedence over authority, speculation and logical inference. He was the first to refute certain errors of Galen by using detailed anatomical observations and dissection.

We are all machines, all reducible to smaller parts and eventually molecules said Descartes (1596 -1650, *Meditations, Principles of Philosophy*) and his thoughts revolutionized Western science and medicine. His Cartesian, analytic, deductive, reasoned way of thinking, saw the world and the human body as a machine. He separated mind and matter, spirit and body, reducing the body to structural parts from organs to tissues, cells to molecules. Mechanical laws were said to universally govern all phenomena and thus developed further the "scientific method" and the absolute physical laws refined by Galileo and Newton (Beinfeld 1991). Pellegrino (1981) argues "Cartesianism is the unspoken philosophical substratum of contemporary medicine" and with it came a decline in feudalism, Roman Catholic church, and a separation of Heaven, Nature and man. Science was the new "religion", and man sought to conquer and overcome Nature.

-Does blood flow like a river or ebb like a tide? Like a river said Harvey and his modern concept of the circulation of blood in 1616 overthrew Galen's view of ebb and flow of blood, and helped revolutionize science and redirected the course of medicine. Unlike the Greek speculations and imaginative constructs, Harvey relied on facts, precise observations, well defined experiments and empirically based and logically sound reasoning.

-Atomism, associated with Democritus and Lucretius held that matter consists of infinite indestructible particles in combinations, and disease was merely a subgroup of the phenomena of nature. Platonic and atomism schools form the historic foundations of Western medicine and reflect the dialectic of rationalism vs. empiricism that underlie medical progress (King 1971). The vitalists like Galen, Paracelsus, Bichat and Stahl imitated Plato by believing in the concept of "pneuma", "anima" or vital integrating "life force" of living creatures which distinguishes them from non-living and/inert matter, and they opposed mechanistic principles of Descartes. Notably, Kaptchuk (2000) argues it is a mistake to equate this "vital force", or the modern concepts of energy in physics, with qi, as the Chinese believe matter is dynamic, never inert. However, modern physicists like Capra, Bohm and Grof are abandoning the mechanistic, reductionist Newtonian-Cartesian model, speaking no longer of matter and mechanism but of process, events and relations. They consider mind and consciousness to be integral constituents of existence rather than mere derivatives of matter (Grof 1984). Remarkably this picture of the universe resembles the one portrayed by ancient Chinese thought.

-How is Chinese medicine different to Western medicine and how is it the same? One of the answers comes from Yin Yang theory which has no western equivalent. The most ancient of all Chinese classics, *Yi Jing*, introduced the yin yang theory, a mathematical schematic of the phenomenological universe of man, nature, heaven and earth. *Yi Jing* states that everything comes from the interaction of yin and yang, when they unite, there is qi, thus there is life! Sun Si Miao states in *Nei Jing* (Maoshing 1995) "if one does not know the *Yi [Jing]*, he is not qualified to discuss the Great Medicine". Yin yang theory represents complementary and opposite qualities and argues that any object in nature is both a unified whole, and the whole composed of two parts with opposing qualities (Liu 1995). It describes how things function and relate to each other and the universe. Yin yang is probably the single most important theory of Chinese medicine, and all Chinese medical physiology, symptoms, pathology, and treatment can be reduced to Yin yang (Maciocia 1998). Simply put disease is caused by yin yang imbalance which the physician works to bring into harmony by either tonifying deficient yin or yang or reducing excess yin or yang. If you've ever had acupuncture or Chinese herbs chances are something in you was meant to be either notified or reduced!

-Nearly four thousand years ago the Yellow Emperor Huang-Di broke through thousands of years of belief in supernatural healing by introducing science and other arts of civilization. "The Yellow Emperor's Classic of Medicine" (Huang-Di *Nei-Jing*: ~100 B.C.E.) is the oldest, most important and most influential Chinese medicine text. Although its ideas are 4,000 years old it is the most frequently cited text of all Chinese medicine,

and like the Hippocratic corpus represented a break from supernatural healing. It includes the theories of Qi, Yin Yang and Five Phases, physiology, pathology, meridians, anatomy, blood circulation, etiology, diagnosis, differentiation of symptom-complexes, and prevention and treatment of disease by acupuncture, moxibustion and herbal medicine. It emphasizes the spiritual and philosophical aspects of disease and well being and stresses preventative medicine as being superior to treating the already ill.

Could a 2,000 year old text still be relevant in clinical practice today? It is thanks to Zhang Zhong Jing writing "Treatise on Cold Damage and Miscellaneous Diseases" (Shang Han Lun, 220C.E). It built upon the Nei Jing by providing hundreds of prescriptions and therapies for infections and miscellaneous diseases. It systemized the study of clinical medicine, establishing and defining the basic principles of diagnosis and treatment through identification and differentiation of disease patterns, especially fever epidemics. Its "Six-channel pattern identification" theory is one of the mainstays of modern practice (Zhang 1999).

-"The Classic of Difficult Issues" (Nan Jing) was written in the second century C.E. and is attributed to the legendary physician Bian Que. It reconciled the contradictions of Nei Jing and provided many new observations. It discusses pulse diagnosis, meridian theory, internal organs, disease pathology, acupoints and acupuncture manipulation techniques (Zhao 2004). Porkett (1982) asserts that it reflects the Confucist trend of treating problems from a strictly theoretical perspective.

-Can you imagine wandering the countryside tasting hundreds of different plants? Shen Nong, the "Pharmacist Sage" did, sampling hundreds of plants for their medicinal functions, developed farming and introduced the technique of acupuncture (Ho 1997). He is associated with "Pharmacopoeia Classic of the Divine Husbandman" (Shen-nong Ben-cao Jing), the first ever Materia medica which records 365 kinds of animal, plant and mineral drugs, and divides them into three classes, the highest promoting longevity and the lowest treating disease (who said prevention is better than cure first?).

-The cornerstone of Daoism is "Dao De Jing" attributed to the great sage Lao Zi. Dao can mean "road", "way", "awareness in motion" and "balanced and harmonious way" and has metaphysical meaning, referring to a nameless, formless, eternal principle that rests behind everything in the universe (Zhao 2004). This is central to the Chinese concept of integration of all things, including Yin Yang and Qi. The Dao De Jing states "all things bear yin but embrace yang, thus their pulsing qi unites". The sense of qi as a medium for the interconnectedness between universe and all its phenomena, and Daoism's accurate and precise observations of nature and empiricism allowed Chinese medical theorists to explain the relationships between individuals, body, mind and spirit and environmental factors and disease. This harmony with Nature, and perception of disharmony in the body pervades Chinese medicine and allows the physician to recognize signs, symptoms and to use inner sensitivity, to know the imperceptible inner essence (unnameable "Dao"). It allows him to recognize disease patterns often long before a western doctor would. The Daoists practiced methods of yang sheng ("cultivate health") such as meditation, breathing, Qi gong, dietary discipline, use of herbs and sexual exercises. The Daoists revered life and sought elixirs, herbs and minerals to prolong life, thus contributing to the development of medicine, alchemy and pharmaceutical techniques, encouraging prevention instead of cure.

-Like Lao Zi the second great Daoist philosopher Zhuang Zi emphasized the importance of Qi in nature, particularly water, thus acupoints derive many names from springs, hills and valleys. He also placed high value on non-action, the middle way of nature as law, and significantly, the Chinese word for middle way is the same used for the important du channels which command yang Qi. Thus in life the "middle way" controls one's life and longevity (Zhang 1999).

-Buddhism had a profound influence on the Chinese culture and intellectualism, and from the first century C.E. large numbers of Buddhist sutras were absorbed into Chinese thought. Buddhists believe that peace of mind comes from emptying one's mind in meditation, being free from man made disturbances, and that life and the world are illusory. If the mind and soul are freed one is "awakened" and won't suffer from disease. Buddhism influenced Qi Gong and used it to purify the senses in order to awaken the mind and

spirit. Buddhism's effect on Chinese medicine was subtle, however many Indian Brahmic medicines, herbs and their systematic correspondences were adopted into the Chinese medicine, including the longevity herb Ajiatno.

-Confucius was a great ethical teacher living in fourth century B.C.E. and like the Daoists referred to the "way" and "right action", but less in a metaphysical sense and more as a practical, ethical principle. He preached that high moral order, rituals, social hierarchy and worship of ancestors that was essential to health, welfare and religious experience. This principle of organization and well ordered harmony found its way into the structure of herbal formulas and the organ system. One of the Confucian five moral principles, ren, is concerned with unselfish inner love of humankind and Ho (1997) cites a definition of medicine as "the art of ren", a principle of charity and altruism similar to the Hippocratic oath.

What is Qi? Where is Qi? Can you touch Qi? Everything on earth and in heaven is created from Qi. (Zhang 1999). Qi provides a continuity between coarse, material forms and tenuous, rarefied non-material energies, and human Qi is the result of the interaction between heaven and earth. This illustrates the interaction between human Qi and natural forces central to Chinese medicine, and used in determining etiology, diagnosis and treatment e.g. the four pathologies of deficient, sinking, stagnant and rebellious Qi (Maciocia 1998). Qi creates human life and gives rise to processes which form, animate and bind the body, organs, essence, body fluids and external movements (Scheid 2002). Dense or vibrant Qi is associated with health, sparse Qi with sickness and Qi can be manipulated by acupuncture.

-Five phase theory is the "extension or expression of yin yang theory applied to the nature of material substance and to the various interrelationships that exist between matter in its different phases" (Zhang 1999). The five phases can strengthen or weaken yin or yang, and are affected by seasons, emotions, climates, grains etc. Disharmony and dominance of any phases at the wrong time will cause disease. Five phase theory is used to describe physiology through the xang-fu organs, and pathology, diagnosis, and treatment.

-The present day western physician often thinks in linear terms of cause and effect, looking for a single cause of a specific disease which he then isolates, changes, controls, or destroys. Western medicine is primarily reductionist looking only at the diseased part and not the whole body. In contrast Chinese medicine is integrative, wholistic, circular and promotes harmony. Chinese medicine believes all life occurs within a unified circle of nature that is in constant motion with all things mutually dependant upon each other, and when in balance, life is harmonious (Beinfeld 1991). In the practice of Chinese medicine the body is an integrated system, the condition of any of its parts reflects the condition of the whole. From observation of the outward changes in the body the physician can judge the condition of the whole and treat the whole, not just the symptom (Liu 1995).

-Even though Western medicine has been built on both idealistic and vitalist principles, today it is primarily materialistic. It looks at structure, form and anatomy and relies on technology, hard data, and clear and definite etiology. As Kaptchuk (2000) suggests if there is no precise data or etiology (e.g. low back pain, I.B.S.) Western medicine may be ineffective. In comparison Chinese medicine is energetic and empirical, drawing on thousands of years of clinical observation, experience and inferring of correspondences, to look at process, function and pattern and most importantly energy (e.g. Qi) rather than matter. Western anatomy is regarded only materially whereas Chinese anatomy includes xang-fu organs and meridians which are seen only in terms of process and flow of "energy". Meridians are intangible and unexplainable by Western science, Chinese medicine avoids, as Needham (1954) suggests the historical European dilemma and schizophrenia of Democritean mechanical materialism vs. Platonic idealist spiritualism, by instead considering Qi which pervades everything. Disharmony of Qi is associated with disease and the Chinese physician seeks to re-establish normal Qi flow by using acupuncture, herbs, diet or lifestyle.

-Western medicine, influenced by Descartes, sees the body as mechanical, looking at mechanical laws and biochemical pathways, and further reducing the body into isolated parts. Chinese medicine is naturalistic,

its ideas generated from observing the cycles of nature. As Dao De Jing says "Dao follows the way of nature".

-Western medicine seeks to categorize etiology and pathology of disease, and finds the same disease in different individuals. It sees most disease as being an invasion from without and categorizes often external causes such as infections, toxins, immunologic, traumatic and hereditary etc. Likewise Chinese medicine categorizes its causal factors such as exogenous, endogenous and miscellaneous but emphasizes more the pattern of unbalance. Unlike Western medicine, different Chinese doctors may see different patterns in one individual, looking both within and without the body, advising the client to take responsibility for maintaining health from within. Thus Chinese medical examination is more subjective, non intrusive, interactive using touch, smell, looking and involves more critical thinking, wisdom and intuition. The physician works as a partner to the client. Western examination and diagnosis is objective, comparatively impersonal, invasive, reliant on technology, using biochemical testing of body fluids, and knowledge, and the doctor holds more domination (Eckman 2000). Western medicine is presentist, having developed most of its ideas only over the last 150 years, revering the latest research, evidence and practice and often ignoring material more than 20 years old, whereas Chinese medicine embraces the old knowledge, absorbs most theories and discards little, although some theories' popularity (e.g. Five phases) may wax and wane. It is essentially thousands of years old and it's most important text, Nei Jing, is almost 2000 years old. Western medicine originated with idealist, vitalist principles but the pendulum has swung to the domination of reductionist and mechanistic principles in present medicine. These principles imbue Western medicine, science and technology with the urge to conquer nature rather than be part of it, and threatens man's health and future. The Chinese sees man as being between Heaven and Earth, and Chinese medicine seeks harmony and wisdom to heal the whole body and integrate man with nature and Heaven. As we see mind and body being integrated in psychosomatic concepts, and mind and matter in modern physics, one hopes a merging of Eastern and Western philosophies will benefit the efficacy of medicine worldwide and the health of humankind.

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