

Explorations of Traditional Chinese Medicine

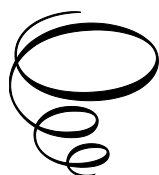
Explorations of Traditional Chinese Medicine:

Insights for Science Education

Edited by

Stevenson Xutian, Dongyi Cao
and John Junion

**Cambridge
Scholars
Publishing**



Explorations of Traditional Chinese Medicine:
Insights for Science Education

Edited by Stevenson Xutian, Dongyi Cao and John Junion

This book first published 2023

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Copyright © 2023 by Stevenson Xutian, Dongyi Cao, John Junion
and contributors

All rights for this book reserved. No part of this book may be reproduced,
stored in a retrieval system, or transmitted, in any form or by any means,
electronic, mechanical, photocopying, recording or otherwise, without
the prior permission of the copyright owner.

ISBN (10): 1-5275-1896-5

ISBN (13): 978-1-5275-1896-4

TABLE OF CONTENTS

Celebrity Quotes about TCM by Great Chinese Leaders	viii
-----------------------------------------------------------	------

Acknowledgement List of Contributors and Volunteers	ix
-----------------------------------------------------------	----

Introduction	1
--------------------	---

Ushering in a New Era to Develop Traditional Chinese Medicine
and Human Life Science

Stevenson Xutian, Yaoping Zhang, Joy Zhou

Part I: Comprehension of TCM Principles

Chapter 1	16
-----------------	----

The Unique Characteristics of Traditional Chinese Medicine

Stevenson Xutian, Dongyi Cao, JoAnn Wozniak, John Junion, Johanne
Boisvert

Chapter 2	33
-----------------	----

A New Exploration and Understanding of Traditional Chinese Medicine

Stevenson Xutian, John Junion, Louise Wozniak

Chapter 3	53
-----------------	----

Six Advantages of Traditional Chinese Medicine over Conventional
Western Medicine

Qian Jia

Chapter 4	66
-----------------	----

The Fundamental TCM Principle of Five-Phase Tendency and Six-Cosmic
qi: A Holistic View of Human Life under the Milky Way System

Stevenson Xutian, Bo Yu

Chapter 5	109
-----------------	-----

Integration of Holistic Principles in TCM with Technologies in CWM:
The Inclusive Development Direction for Future Medicine

Dongyi Cao

Chapter 6	133
The Function and Manifestation of the Internal Organs	
Stevenson Xutian, Bo Yu	

Chapter 7	149
Current Acupuncture Research on Opiate Drug Addiction	
Jiulin Wang, Xiaozhen Fan, Fu-Lin Wang	

Part II: TCM and Modern Sciences

Chapter 8	170
New Development in Traditional Chinese Medicine: Symbolism Digit Therapy as a Special Naturopathic Treatment	
Shanyu Li, Stevenson Xutian	

Chapter 9	187
Quantum Theories and Experimental Achievements Inspire the Explanation of TCM Acupuncture	
Stevenson Xutian, John Junion, Johanne Boisvert	

Chapter 10	200
Frontier Science Promotes Exploration of Principles and Methodologies of Acupuncture in Traditional Chinese Medicine	
Stevenson Xutian, JoAnn Wozniak, John Junion	

Chapter 11	215
Effects of Needle Puncture and Electro-Acupuncture on Mucociliary Clearance in Anesthetized Quails	
Shusheng Tai, Jiulin Wang, Feng Sun, Stevenson Xutian	

Part III: TCM Daily Practices and Healthy Lifestyles

Chapter 12	228
TCM Principles of Disease Prevention Development: The History of Smallpox Vaccine-Therapy	
Dongyi Cao	

Chapter 13	243
A Quantum System View of Human Life and the Moral Renaissance: Combined Quantum and Dao's Knowledge System	
Zhensu She, Yi-Jun Liu	

Chapter 14	250
Questions and Answers about Acupuncture	
Stevenson Xutian, Martin Wang, Maureen Schaber	
Chapter 15	299
Introduction of Famous Traditional Self-Training Programs	
Kevin Zhu	
Chapter 16	330
Tai Chi Quan: A Combined Mind-Body Exercise	
Stevenson Xutian, Shusheng Tai, John Junion, Feng Sun	
Chapter 17	358
Case Studies of TCM Acupuncture's Comprehensive Effectiveness on Chronic Knee Pain	
Stevenson Xutian, JoAnn Wozniak, Ju Jing, Fu-Lin Wang, John Junion	
Chapter 18	376
Understanding Turmeric from the Herb Curcuma through TCM and CWM Approaches	
Jiulin Wang, Xiaozhen Fan	
Chapter 19	387
A Case Study of TCM Acupuncture on Depression Management	
Stevenson Xutian, Ju Ling, John Junion	
Chapter 20	403
Typical Case Studies for Symbolism Digital Therapy	
Shanyu Li, Chunbin Li, Ailian Peng, Wentao Geng, Stevenson Xutian	

Appendices

I. Nomenclature of Acupuncture	421
II. A List of Commonly Used Chinese Herbal Medicines.....	471
III. List of Classic Chinese Herbal Prescriptions.....	494

CELEBRITY QUOTES ABOUT TCM BY GREAT CHINESE LEADERS

"Chinese Medicine is full of treasure. It is one of China's finest contributions to the world" - Mao Zedong

(中国医药学是一个伟大的宝库。中国对世界的大贡献，中医是其中的一项。毛泽东)

"Traditional Chinese Medicine (TCM) embodies profound philosophical wisdom complete with healthful concepts and practical experiences spanning thousands of years of Chinese history. It is a treasured collection of ancient Chinese science and a key to the treasure trove of Chinese civilization. In-depth research and scientific summarization of TCM will enrich the world's medicine and promote life science research" – Xi Jinping
(中医药学凝聚着深邃的哲学智慧和中华民族几千年的健康养生理念及其实践经验，是中国古代科学的瑰宝，也是打开中华文明宝库的钥匙。深入研究和科学总结中医药学对丰富世界医学事业、推进生命科学研究具有积极意义。习近平)

"The modernization of Traditional Chinese Medicine may lead to a revolution in medicine, and in return, the revolution in medicine may lead to a revolution of the whole of science" - Qian Xuesen

(中医现代化可能引起医学的革命，而医学的革命可能要引起整个科学的革命。钱学森)

ACKNOWLEDGEMENT LIST OF CONTRIBUTORS AND VOLUNTEERS

Adam Rummens
Newcastle upon Tyne NE6 2PA
UK

Ashley Ann Bodnarchuk
Vegreville, Alberta T9C 1R2
Canada

Bo Yu
Concord, California
USA

Colette Miller
Vegreville, Alberta T9C 1R2
Canada

Chun-Su Yuan, MD, Ph.D.
Tang Center for Herbal
Medicine Research, University
of Chicago, Chicago, Illinois
USA

Craig Miller
Vegreville, Alberta T9C 1R2
Canada

Cui-Hong Zhang
Shanghai 200030
China

Dongyi Cao, CMD, Professor
Hebei Academy of Chinese
Medicine Research
Shijiazhuang, Hebei
China

Edward Crooks
Lower Garth, Cowlam,
Driffield, East Yorkshire YO25
3AD
UK

Feng Sun, Ph.D., R.Ac
Burnaby, British Columbia V5I
2N6
Canada

Fengrong Zhang, RTCMP R.Ac
Ontario, Canada

Fu-Lin Wang, R.Ac. CMD,
MPH, Ph.D.
President of Bethune Oriental
Medicine Center, Edmonton,
Alberta, Canada

Grant Wilde
Calgary, Alberta T2T 1B7
Canada

Helen Yuan
Changsha, Hunan
China

Hua Kang, Ph.D.
Amherst, New York
USA

Jiuling Wang
Grant MacEwan University
Edmonton, Canada

JoAnn Wozniak, Ph.D.
Retired Psychologist
Mahomet, Illinois
USA

Joanne Ella Parsons, Ph.D.
Commbe Dingle, Bristol
United Kingdom

Johanne Boisvert, Ph.D.
Winnipeg, Manitoba
Canada

John Junion, Ph.D.
Dayton, Ohio
USA

Joy Zhou, Ph.D.
Edmonton, Alberta
Canada

Ju Ling, CMD, L.Ac
New Medicine Center
Naperville, Illinois
USA

Kevin Zhu
San Jose, California
USA

Kyle Bodnarchuk
Vegreville, Alberta T9C 1R2
Canada

Liz Meleyk
Vegreville, Alberta T9C 1R2
Canada

Mark Chaney
Edmonton, Alberta
Canada

Martin Wang, Ph.D.
Edmonton, Alberta
Canada

Maureen Schaber
Harrison Hot Springs
British Columbia V0M 1K0
Canada

Qian Jia, Professor
Chinese Information Institute of
Science and Technology
Beijing, China

Qing-Yu Zeng, Scholar,
Chengdu, China

Sandy Wilde
Calgary, Alberta T2T 1B7
Canada

Steven K H Wang, MD,
FAAFP, Professor
University of Alberta
Canada

Stevenson Xutian, Ph.D., R.Ac,
L.Ac
Canadian Institute of
Complementary and Alternative
Medicine Research
Edmonton, Alberta
Canada

Shucheng Zheng
University of Saskatoon
Saskatoon, Saskatchewan
Canada

Shusheng Tai, Ph.D., RTCMP
Burnaby, British Columbia V5L
2N6
Canada

Sirong Chen
Coquitlam, British Columbia
Canada

Ted Moorman
Grand Junction, Colorado 81501
USA

Xiaozen Fan, R.Ac.
TCMD Bethune Oriental
Medicine Center,
Edmonton, Alberta
Canada

Xuesen Qian, Ph.D.
China Association for Science
and Technology, Beijing, China

Yaoping Zhang, Ph.D.
University of Wisconsin
Middleton, Wisconsin 53562
USA

Yi-Jun Liu, Ph.D.
Beijing University
Beijing, China

Zhen Yuan
University of Saskatoon
Saskatoon, Saskatchewan
Canada

Zhensu She, Ph.D., Professor
Peking University
Beijing, China

INTRODUCTION

USHERING IN A NEW ERA TO DEVELOP TRADITIONAL CHINESE MEDICINE AND HUMAN LIFE SCIENCE

STEVENSON XUTIAN, YAOPING ZHANG,
JOY ZHOU

“Traditional Chinese Medicine (TCM) embodies profound philosophical wisdom complete with healthful concepts and practical experiences spanning thousands of years of Chinese history. It is a treasured collection of ancient Chinese science and a key to the treasure trove of Chinese civilization.” (Xi Jinping, 2010)

Abstract: Conventional Western Medicine (CWM), regarded as the primary medicine of the world, and TCM, the first medical system implemented in China, have developed from two completely different and independent medical systems. Unlike TCM, CWM is based on atomism and mechanism within three-dimensional space. On the other hand, TCM represents the “*qi* monism principle” of Chinese culture and is beyond the limitations of three-dimensional space. It involves “unobserved” substances like *qi*, with energy and information and the holographic function of the universe, and the *qi* “field” that permeates the all space.

However, the rapid development of science and technology in the twentieth century, such as quantum physics, helped address specific human consciousness and explains a series of phenomena previously tricky for the ordinary person to understand, although these concepts were deeply comprehensible in TCM and acupuncture. TCM has always been ahead of its time.^[1, 5] TCM and acupuncture research explore human life and its function, encompassing a new field of study known as human life science (HLS).^[1, 3] This knowledge does not directly relate to other organisms but only to human beings, which differs from Western modern life science

(MLS). The ancient Chinese had already discovered that humans have both physical and energy or spirit systems, united within the human body.

The efforts to integrate (create a hybrid from) the two systems started 60 years ago and have been affected by a misunderstanding of the system theory of TCM. This misunderstanding has critically damaged TCM. Instead of capitalizing on TCM's ability to exploit a long history of scientific wisdom and deep knowledge of human life, as well as many secrets of the universe, TCM's framework of system theory was forcibly reformed into the CMW framework and required to meet CWM evaluation standards. In spite of this, many farsighted scientists predict that TCM and CWM will be able to cooperate harmoniously to establish "future medicine," which will follow the theory system of TCM and absorb all the promising technologies, proper treatment methods, and principles of both TCM and CWM.^[1] Many examples demonstrate the value of succeeding in equal cooperation and supplementing each other. It will open a new era for TCM to benefit from developments in HLS and MLS. Of course, for historical reasons, TCM theoretical research and medical terminology are behind in meeting the demands of the modern era. It will require extraordinary efforts to improve the TCM education system.^[2]

Keywords: TCM; CWM; Modern Life Science (MLS); Human Life Science (HLS); *Qi* Monism; *Qi* Field; Consciousness and Subconscious; Unobserved Substances

I. Different Understandings of Life Science between the East and the West

1. Introduction to Modern Life Science (MLS)

In the Western definition, life science is a branch of natural sciences that studies living organisms (microorganisms, plants, animals, and human beings), their structure, function, evolution, behavior, life processes, and relationships to each other and their environment. These include such sciences as biology, botany, zoology, physiology, biochemistry, and ecology.^[6] In its early stage, biology mainly focused on collecting observed phenomena of life. Since the twentieth century, it has focused more on the cellular or molecular levels, such as cell biology, biochemistry, and molecular biology. In a strict sense, within the Western definition, life science explores the nature of various living things rather than the nature of life. Therefore, despite tremendous progress in research on the biological structure and observable phenomena such as DNA, genes, and proteins,

there still needs to be a breakthrough in studying bodily functions and interrelationships between organisms. In contemporary biological research, the relationships between physical structure and the function phenomenon should be more complex and consistent.^[3, 6]

“Life” refers to a semi-open matter-based system with a stable phenomenon of substance with energy metabolism that can respond to stimuli and can reproduce objects with life mechanisms. From a scientific point of view, individual life must experience the process of conception (birth), growth, aging, and death. In contrast, a population's life evolves through natural selection to adapt to environmental changes, replacing individuals over generations.^[1] Creatures are independent individuals characterized by self-organization and self-production.

From a philosophical point of view, atomism and mechanical theory deeply influence the mode of thinking and research methodologies of contemporary modern life sciences or Western life science (WLS). Its cosmology follows reductionism, which believes a system is the sum of its parts. It is the part that determines the whole, and generally, WLS studies focus on matter and morphological structure rather than the function and nature of life.^[3, 6] MLS does not recognize unobserved/dark matter and denies consciousness and the spirit's direct influence on the subjective case. Furthermore, WLS does not recognize holism (in TCM called natural generation theory), which views the system as a whole, not just as a collection of parts.^[1, 3] Therefore, the methodology of WLS has its limitations with significant opportunities for improvement.

2. Eastern Human Life Science (HLS)

For more than three thousand years, the object of TCM and acupuncture research has included the life and functions of human beings as the framework for the Chinese medicine system. Since the end of the last century, scientists have included these parts of TCM knowledge in human life science.^[1, 3] It is different from MLS theory, which focuses primarily on human life, particularly emphasizing the function of life; HLS studies the entire development process, including birth, growth, aging, and death. TCM shapes the characteristics of Eastern human life science cosmology. More specifically, thousands of years ago, Chinese ancestors had already discovered that humans have a physical system with flesh, blood, and bones composed of cells and an energy system that ordinary people cannot see. This energy system includes meridians, the field of *qi*, the invisible light of various colors, and the conscious and subconscious systems.^[1, 7] Human life's material and physical aspects are easily understood. However, the

latter part of the energy (spirit) system is incomprehensible in the traditional mechanical framework (focusing on a structural form). Still, it aligns with the current frontier science research results of quantum physics.^[5, 7]

Moreover, TCM pays special attention to the connection between human life and the cosmic environment, which is inextricably linked with substance, energy, and information. It is noted that the state of life and its changes are directly affected by environmental changes, even as a primary cause. Ancient Chinese philosophers realized that the universe also seemed like a living body. The human body is a small universe, maintaining the order of holographic movement as a whole that is in harmony with nature. Therefore, the philosophical guiding ideology of the Eastern HLS is not a mechanical theory but the unity of man and the universe. It is the overall unity and balance of body and consciousness. Consciousness is not only produced by a living human body but also is the effect of interaction with substance, energy, and information on the human body, life, and even the surrounding environment. Modern quantum mechanics can help in the understanding of these concepts. In other words, a living human body has many functions and characteristics that are difficult to fully understand and explain by using conventional science only. To understand human life and its mystery, we urgently need to broaden contemporary science thinking and fully realize that human life cannot be separated from consciousness.^[3, 7]

Based on the above understanding, we have noticed one thing that unites modern physicists exploring the structure of matter and Eastern scholars seeking the levels of spirit and life. That is, both subjects of exploration are beyond the scope of the ordinary senses. They are similar experiences because they require understanding abstract and more intuitive concepts.^[5]

3. Eastern Ancestors Explored ‘Human’s Great Wisdom’ Practice and Achievement

Thousands of years ago, Chinese ancestors discovered and created techniques and methods, including meditation practices, to develop the great wisdom initially rooted in the human body, which differs from the Western logic model. It is the main reason that TCM is advanced in modern science by three thousand years in some aspects of its studies of the nature of human life. For example, three thousand years ago, TCM had already discovered the multiple functions of the human heart, which is not only a blood pump, a muscular organ, as described in CWM, but also has the functions of coordinating the internal organs and leading consciousness, thinking, and emotion.^[1] Moreover, the heart in TCM can also interact

closely with the brain to process information while preserving and carrying important information from the entire human body. In addition, the heart itself has a strong energy field. Therefore, it is regarded as a core to help the human body overcome disease and maintain health. ^[4,8] However, modern medicine has yet to discover all these functions of the heart. ^[6] Another concrete example is that over three thousand years ago, the classic TCM books had recorded in detail the structure, functions, and medical applications of the triple burner (三焦)—a *fu* organ, the largest internal organ of the human body. However, modern medicine did not know about this organ in the human body until March 2018. ^[4, 11]

About 3,000 years ago, several ancient Chinese medical works, including the *Neijing*, comprehensively discussed a complex meridian system throughout the human body and explained in detail the theoretical and practical methods of using this system to treat diseases. Due to its convenience, speed, and efficiency in clinical practice, the concept of meridian systems has been introduced worldwide and welcomed by many people. However, because the meridians and acupuncture points are invisible to ordinary people and not easily detectable by traditional instruments, Western medicine does not recognize them, nor do the westernized TCM practitioners accept them. Fortunately, in recent years, the unremitting efforts of life science practitioners have helped reveal some historical findings, creating the first set of meridian photos using "invisible photography" techniques.

Fig. Intr 1.1 shows Hand *Tai Yin* Lung Meridian. The meridian system looks similar to the diagrams commonly seen in textbooks. It lies in the same position as the left and right branches of the larynx, through the inner lumen, and down to the abdomen. However, in the arm area, the meridian is not shallow under the skin but is more profound in the muscle. This new finding and research achievement are precious and significant.



Fig. Intr-1.1: Hand **Tai Yin** Lung Meridian ^[21]

The Eastern epistemology outlined above draws from *qi* monism (Eastern cosmology), based on the three classic Chinese books: the *Tao Te Ching* (道德经), *The Yellow Emperor's Classic of Medicine*, and the *Yi Jing* (Book of Changes, 易经). According to *qi* monism, the universe was created in "nothingness" of the quiet space called the "utmost point" (*yuanji* 元极). However, it is not a vacuum but rather full of *qi*, generally an observed object that feels like air (*wuji*, 无极). *Qi* is the source of all things, constantly moving and changing. The "infinitely large" has nothing outside, and the "infinitely small" has nothing inside. Laozi describes it well in the *Tao Te Ching*: "The path is a thing only as indistinct, only as obscure. Obscure, indeed, indistinct; within it, there are images. Indistinct indeed, obscure indeed, within it, there are things. Secluded indeed, elusive; within it, there is the essence. Its essence is extremely true; there's trustworthiness within it, information."^[9] Before it had divided into two poles, it was "infinite"; once divided into *yin* and *yang*, it is transformed into *tai chi* (太极) and divided into two kinds of form. And it continues to change, so that "one produced two, two produced three, three produced all things"; thus, it produces the whole universe. Moreover, everything in the world is spiritual and connected. Everything that has appeared, existing or disappearing, is a

chance for change. The real reason and source are the souls of the heart (*xin*) and spirit. A famous life scientist Yan Xin told us that human beings should contribute to the ecological balance of the universe.^[9] It is consistent with this proposal to establish the destiny of the community of human beings from China.

TCM has made significant contributions to human life science and medicine due to its profound understanding of and practice of human consciousness. The research and analysis of contemporary cutting-edge science are aware of the foresight of TCM in this area.^[3, 4] Modern physics research shows that what people can see today—the "objective world"—only accounts for 4% of the universe's entirety. The other 96% is dark matter and dark energy, for which most details are unknown. According to the principles of physics, matter is dividable into three levels: 1) that can be visually perceived; 2) that is testable with instruments; and 3) ultra-microscopic matter—that is detectable through theoretical speculation, such as quantum-scale objects such as photons, which are observable through either vision or instruments. Man is an individual in the macroscopic world, and the microscopic and ultra-microcosmic worlds determine its functional state. The Schrödinger equation in quantum mechanics describes a form of motion of a probability wave function. Its specific explanation, a system composed of many atoms and molecules, is still unknown, and how human thinking develops is even more anomalous. Studies have shown that to understand consciousness, we must observe and investigate the level of macroscopic quantum mechanics. Human consciousness, thinking, and memory should correspond to macroscopic entanglement. Quantum entanglement existed in ancient times. Probability waves generate entanglement, but as long as one of the particles is measured, entanglement is de-integrated.^[7] According to a series of functional characteristics of the human body, as revealed in TCM, they align with quantum-specific features. Scientists have proposed to conceive the human body as a macroscopic "quantum some" (quantum somebody) to open up thinking about studying human life characteristics, which may provide a breakthrough for life science research.^[3, 5]

II. Misunderstandings about TCM; "Integration of TCM and CWM" Does Damage to TCM

During the First Opium War in 1840, Western ships and armaments opened the door to China and caused Western medicine to collide with Chinese medicine. It resulted in some extreme examples of national nihilism in modern Chinese history, such as "Western Civilization Taking over the

East," "Corrections of the Errors of TCM Works," and the "Abolition of TCM." Thanks to the effort of Chinese people who were enthusiastic about TCM it survived, but has struggled with its reputation. With the founding of the People's Republic of China, to find a path of joint development for both medical systems, China initiated the exploration of the "integration of TCM and CWM" with good intentions. Although an admirable undertaking, it was unsuccessful due to misunderstanding TCM's essence. Robust Western science and technology were the impetus for CWM to become overwhelmingly popular, thereby accelerating the demise of TCM.^[10]

Reviewing the "integration of TCM and CWM" in China more than 60 years ago, we can now fairly evaluate and understand this initiative. At that time in history, modern science still needed to develop to its level of popularity. Most people could not recognize that the ancient Chinese sages had exploited the great wisdom of human beings, who had explored the system theories of TCM that contain scientific wisdom and deep knowledge about humans, life, and the many secrets of the universe. It looks ahead and is more advantageous than the basic theory of CWM. We can now use scientific evidence to understand and explain TCM theory's advancement and scientific nature. However, despite thousands of years of history, TCM faces many issues and challenges with its development in modern times. Predominantly flawed policies using CWM theory and standards to reform TCM have led to a loss of essence in TCM. In reality, in the competitive environment of CWM, TCM has its practical problems in adapting quickly to match economic development expectations. At the decision-making levels, leaders at the time, like most people, believed that CWM was "scientific" and that TCM was "unscientific"; TCM was forcibly reformed into the framework and evaluation standards of CWM. More seriously, administrative interventions damaged TCM, allowing CWM methodologies and thinking to attempt to improve TCM education. In fact, through teaching, learning about, and practicing TCM within the framework of CWM, TCM has been losing its essence. The practice of the "integration of TCM and CWM" has caused TCM to continue to mutate, retract, and gradually diminish.^[10, 12]

However, with the fast development of industries and technology and the intensification of urbanization, the deterioration of the human living environment has increased the variety of chronic and intractable diseases. Western medicine has gradually exposed specific inevitable or difficult-to-solve problems, such as severe side effects related to treating symptoms rather than the disease. There are certain particular problems in handling complex disorders, such as depression, age, sub-healthy illness, excessive drug development periods, or high medical expenses.

According to recent scientific research,^[7] due to CWM based on such improper theories, it is impossible to understand the nature and function of human life, including consciousness, emotion, and awareness of the unobservable system of the human body. TCM has far-reaching strategic enlightenment based on the overall balance theory of the human body's multidimensional and multi-level system. Despite CWM's perspective of anatomy and modern instruments to study the human body, TCM is much more advantageous than CWM, over three thousand years ahead. Therefore, TCM can draw conclusions from the system theory view.^[16] Still, CWM has achieved brilliant results in advanced technological utilization and instrument research.

III. Harmonious Cooperation between TCM and CWM Will Establish the Future Medicine

CWM has shown more advantages than TCM for a long time. However, frontal science research recently found that CWM based on atomism and mechanism within three-dimensional space only accepts observed objects and is, therefore, improper, leading to a development bottleneck and other issues. TCM content has more advantages than science technologies, especially TCM system theory, which has a pull-ahead advantage over CWM.^[16]

TCM, represented by *qi* monism, is beyond the limitations of three-dimensional space and has a holistic and system science view. It involves "unobserved" substances: *qi*, energy, information, knowledge of the holographic universe, and the *qi* "field" that permeates space and exploits the human life function included in human life science.^[1, 3] However, modern science, such as quantum physics, addresses specific human functions, explaining a series of phenomena that TCM and acupuncture had previously understood.

As the famous scientist Qian Xuesen explained, "The development direction of future medicine is on TCM's side; at least CWM will come to the theoretical road of TCM."^[7, 16] TCM and CWM will cooperate harmoniously together to establish the "future medicine," which will follow the theory system of TCM and absorb all technological advantages, proper treatment methods, and principles from both sides. Of course, there may be a long way to go! But, looking for a bright future for all humankind, we will try to succeed.

On October 1, 2018, the World Health Organization (WHO) included TCM in its medical program for the first time, which had a global

influence.^[19] Scientists predicted that the twenty-first century would be the century of life sciences. A new paradigm for future medical science that integrates the wisdom of TCM with CWM will emerge shortly. For example, for physical problems such as musculoskeletal injuries, from diagnosis to treatment, CWM is more direct, convenient, effective, practical, easy to understand, and widely welcomed compared with TCM. However, complex situations like mental illness, psychosomatic diseases, multiple diseases with complicated symptoms, environmental and genetic disorders, and sub-health and aging diseases are challenging for CWM to diagnose and treat compared with TCM, which uses a holistic and systematic approach. Thus, it may be easy to see that TCM plays a unique role and has no side effects. That is, the two systems use highly different concepts. It is not reasonable to use administrative measures to combine the two systems. The successful way to enhance the cooperation of TCM and CWM would be to utilize the strengths of each in a manner of mutual respect, with equal competition in the field, with each trying its best to overcome its shortcomings and complement the other.^[10, 12]

In recent years, the Chinese government's promotion and support of TCM have created slightly better conditions for complementary cooperation between TCM and CWM. For example, some large cancer centers have set up a "TCM Treatment Department" to provide treatment and timely consultation to patients after their surgery and therapies to prevent cancer recurrence, spread, and metastasis. More specifically, TCM can flexibly arrange different treatment plans based on an individual patient's conditions, such as "surviving with tumor," "non-proliferation through detoxification," and restoring visceral functions through TCM treatments during chemotherapy or post-radiotherapy. Those measures have achieved good results with statistical validation and saved several terminal patients' lives.^[14, 15]

Furthermore, some well-known CWM experts actively utilize the holistic thinking of TCM and absorb the practical methods of TCM to resolve some significant issues. For instance, a cardiovascular expert lamented the current situation of the low rate of treatment for patients with sudden cardiac disease. To deal with this problem, he utilized holistic healing techniques in TCM to emphasize the patient's active collaboration with the doctor during the treatment. He provided patients with special training that combined psychological consulting, public health education, and the active participation of patients and their families in the treatments. The doctor has achieved remarkable results by adopting this holistic approach from TCM.^[12] Initially, TCM treatment for AIDS was not readily recognizable because it could not kill the AIDS virus directly. However,

research shows that TCM now improves patients' appetite and excretion functions so that patients can quickly improve their physical fitness and return to work.^[10] The above examples fully demonstrate beneficial synergies rather than a hybrid between TCM and CWM because this research respects the philosophical theories of TCM and employs CWM technology. A good comparison is the developed history of TCM and the Beijing opera, which has retained its traditional essence but absorbed many advantages from Western art. What is the reason for this?

The development of modern quantum mechanics and TCM theory have gradually broken down the conventional scientific limitation of a mechanism using atomism theory. The human body, recognized by quantum theory, comprises the body and the spirit (consciousness). It coincides with the idea that the soul and the human body are united, as advocated by TCM three thousand years ago; however, for a long time, this fact has attracted little attention from people. Yet it may be a critical component that suits both TCM and CWM, characterized by the unity of man and nature and the integration of body and mind.

We should profoundly study and explore the critical role of human consciousness, spirit, morality, and aspirations in preventing and treating diseases. It will promote the purification of human minds. As pointed out in the *Neijing*, the "heart [controls] mental and emotional activities." ^[1] We should genuinely bring future medicine into full play and achieve the goal of the holistic health of the human body and mind with social harmony.

IV. The Special Contributions of TCM to Fighting against Covid-19

Meanwhile, TCM and acupuncture successfully reduced SARS mortality in 2003.^[10] During the coronavirus pandemic, TCM has proven robust and advantageous in fighting the spread of Covid-19. According to a report, over 90% of Covid-19 patients in China utilized TCM herbal treatment; of those, approximately 90% had reported benefits.^[17, 18] Here is another excellent example. There were 1,476 Covid-19 cases hospitalized in Wuhan Hospital, including 662 severe and critical coronavirus cases. Four hundred eighty-four patients received TCM treatment, while 178 did not receive Chinese herbal medicine. The result showed 15 deaths in the TCM decoction group and 56 in the non-TCM decoction group. Statistical analysis showed that the TCM decoction group showed an 87.7% reduction in fatalities, which was remarkably different from the group that did not use Chinese medicine. There were 312 cases matching age, gender, and disease severity by propensity scores. Among them, 13 patients died in the TCM decoction

group and 36 in the non-TCM decoction group. Multiple regression analysis showed that TCM treatment reduced mortality by 82.2% compared with the control group; the survival rate was about 88.6%.^[17] China developed TCM prescriptions with three kinds of herbs, specifically against Covid-19. Covid-19 attacks the immune system resulting in hyperfunction and overwhelming damage to the viscera. There is no immediate solution using CWM. However, balancing the *qi* circulation can harmonize the immune system; TCM using simple acupuncture can increase the survival of patients by enhancing the quantity of oxygen absorption and reducing the need for respirators.^[18] Presently, many countries welcome TCM treatments during the spread of Covid-19. Now China has become the first country to control Covid-19 completely. The World Health Organization (WHO) highly recognizes the enormous value of TCM for world health.^[20]

References

1. Ni M. S., *The Yellow Emperor's Classic of Medicine*—a New Translation of the Neijing Suwen with Commentary, Shambhala, Boston and London, 1995.
2. Xi J. P., A speech on the Confucius Institute of Traditional Chinese Medicine at RMIT University in Melbourne, Australia, http://news.china.com.cn/2020-04/01/content_75886847.htm
3. Qian X. S., *On Human Science*, People's Military Medical Publishing House, Beijing, China, 1988.
4. Xutian S., Wozniak J., Junion J. Frontier science promotes exploration of principles and methodologies of acupuncture in traditional Chinese medicine. *J. Acupunct. Tuina Sci.* 2019, 17(4): 231–38.
5. Xutian S., Junion J. Modern quantum theories and experimental achievements motivate new exploration of acupuncture in traditional Chinese medicine. *J. Acupunct Tuina Sci*, 2018, 16(4): 282–88.
6. Life Science Web: <https://www.sciencedirect.com/journal/life-sciences>. Oct. 6, 2020.
7. She, Z. S. *The New Frame of the Complicated Systemology: Combined Quantum and Dao's Knowledge System*. Beijing: Science China Press, 2012.
8. Pearsall, P. *The Heart's Code*, Broadway Books, New York, 1998.
9. Xutian S., Tai S., Yuan C. S., *Handbook of Traditional Chinese Medicine* (3 vols), World Scientific Publishing, 2015.
10. Jia, Q., et al. *The Strategy of Chinese Medicine*, Chinese Ancient Books Publishing House, Beijing, China, 2007.
11. Benias P. C., Wells R. G., Sackey-Aboagye B., Klavan H., Reidy J., Buonocore D., Miranda M., Kornacki S., Wayne M., Carr-Locke D. L., Theise N. D. Structure and distribution of an unrecognized interstitial in human tissues. *Scientific Reports*. [2018-03-27].

12. Qiguang Chen, *The Stratagem of Chinese Medicine and Horology (2007–2017)*, Social Sciences Academic Press, China, 2017.
13. Xutian S., JoAnn W., Ju L., John J., Shusheng T., Case studies of Chinese acupuncture's comprehensive effectiveness on knee pain, *J. Acupunct. Tuina Sci*, 2017, 15(4); 270–76.
14. Liao, G. S., Apaya M. K., Shyur L. F., *Herbal Medicine and Acupuncture for Breast Cancer Palliative Care and Adjuvant Therapy*, Evid. Based Complement Alternat. Med. 2013:437948. PMCID: PMC3694462 DOI: 10.1155/2013/437948
15. Wang Z. Q., Li S. S., et al., Effect of acupuncture on *lung* cancer-related fatigue: study protocol for a multicenter randomized controlled trial, published online November 9, 2019.
16. Fritjof, Capra, *The Tao of Physics—An Exploration of the Parallel Between Modern Physics and Eastern Mysticism*. Shambhala Publications, USA, 1975.
17. Chinese newspapers and journals report TCM treatment effects for Covid-19. People's Daily:
http://paper.people.com.cn/rmrb/html/2020-04/04/nw.D110000renmrb_20200404_2-04.htm.
18. Forum of People's Health: 2020.
19. WHO, News Feature, 2018.
20. WHO (2020). Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19).
21. Zhu NL, Exploration of the virtual world and Discovery of human potential. Dec. 9, 2022.

PART I:

COMPREHENSION OF TCM PRINCIPLES

CHAPTER 1

THE UNIQUE CHARACTERISTICS OF TRADITIONAL CHINESE MEDICINE*

STEVENSON XUTIAN, DONGYI CAO,
JOANN WOZNIAK, JOHN JUNION, JOHANNE
BOISVERT

Abstract: Traditional Chinese medicine (TCM) has significantly contributed to human history, especially in China, as recorded for thousands of years. However, the characteristics of TCM in both theory and practice make it different from conventional Western medicine (CWM). The attributes of TCM include phenomenological, philosophical, and methodological aspects. This paper briefly discusses some historical turning points and innovations in TCM development in China, explores human body enigmas such as the heart, compares different aspects of TCM and CWM, and identifies the unique characteristics of TCM treatment compared to other medical systems.

Introduction

Sixty years ago, the Chinese government focused on promoting TCM in China and began advancing TCM's medical, educational, and research developments. In the late 1960s and early 1980s, TCM was crucial to public health, especially for disease prevention in rural China. China used 1–2% of the world's health expenditure then, even though it had 25% of its population. In contrast, the United States used 47% of the world's health expenditure but had 5% of the world's population.^[4, 10] In 2003, the SARS outbreak caused severe alarm and fear in East Asia.^[10] Without an effective anti-viral drug, Western medicine seemed helpless against SARS. However,

* Adapted from *the American Journal of Chinese Medicine*, 40(2): 231–244 (2012).

even without a clear understanding of the SARS virus, TCM physicians could successfully diagnose lung abnormalities in patients with SARS symptoms and propose effective treatments to promote the flow of stagnated *qi* (energy, material, and information), as well as reduce mortality, costs, and side effects from other medications. As a result, thousands survived and successfully recovered from the deadly SARS virus.

As recognized and reported by the World Health Organization (WHO), clinical statistics show that TCM reduced SARS mortality by more than 30% and significantly reduced drug side effects.^[29] TCM-treated SARS patients relied on self-defense or self-healing capabilities to survive the disease. TCM's holistic theory, *bian zheng shi zhi* (辨证施治), diagnoses symptoms based on disease development and treats them based on individual needs.

Some TCM practices, especially acupuncture, have been implemented in more than one hundred countries and regions.^[5, 13, 33] TCM's path is unlike modern medical developments. When evaluating TCM treatment using conventional Western medicine (CWM) standards, the main complaint is that TCM theory is difficult to understand or cannot use modern scientific means to explain its essence clearly. Therefore, in the late twentieth century, TCM in China became the second choice after Western medicine. TCM textbooks dropped some basic principles of Chinese medicine, and the limited resources to support academic research in TCM were shrinking even further. There are several critical reasons for this situation. First, while still relevant today, modern language must explain the complicated theories and methodology of the ancient classics and the culture of scientific understanding. Nowadays, people are attempting to teach, learn, and practice TCM within the framework of CWM, even to the point of reforming TCM with modern CWM theories, while ignoring the essentials of TCM. Second, TCM has distinct advantages in promoting optimal health outcomes for humankind.^[20, 26, 30] It seems unwise to downplay these benefits and treat TCM as an appendage of, or an afterthought to, CWM.

The Western upsurge in acupuncture and TCM emphasizes methods but neglects basic principles, even in traditional Chinese herbal medicine. Although herbal medicine and acupuncture are inseparable in holistic TCM, some tablet herbs now contain only herbal extracts and some chemical elements.^[11, 14, 18] Anatomically based acupuncture replaces traditional, authentic Chinese acupuncture, which centers on circulating blood, *qi*, and meridian systems.^[9, 17] Anatomical treatment is not accurate acupuncture if not connected with the circulatory *qi*. A good acupuncturist stimulates acupuncture points with the finger of one hand and inserts the

needle to the correct depth with the other. Traditional Chinese herbs utilize the temperament, taste, and flavor of the herbs and their effect on corresponding meridian channels. These herbs are considered *qi*-based energy comprehensively and holistically, not just in simple chemistry. The treatment would only be effective if the true essence of acupuncture and herbs is well understood. TCM, therefore, faces alienation. It is critical to clarify the principles, maintain the methods, and preserve the integrity of TCM. A revival of fundamental TCM education has been taking place in China to guide TCM development worldwide.

TCM has been practiced and systematically studied for approximately three thousand years. TCM is closely related to ancient Chinese philosophies and therefore has cultural connotations. Old TCM theory involves features that are different from CWM. Consequently, it is difficult for a person educated in a different culture and medical system to understand the nature of TCM, including the intangible characteristics of *qi* and the meridian system. Although the theory support for TCM may still need to be fully understood, its medical results are noticed and appreciated. Similarly, modern scientists have gradually accepted the existence of invisible matter (dark energy).^[8, 28]

I. The philosophy of TCM

1. The phenomenological theory of TCM

TCM's "phenomenological theory" uses a description of phenomena or functions and not a full explanation of causation. Its highly developed observations include connections to the invisible body systems (meridian, aura, and *qi*). Authentic TCM believes that the internal and external energy flow dramatically impacts human health. For example, in TCM theory, "deficiency" and "excess" relate to, rely on, and enable each other to support health actively. Qi's flow through the body responds to shortages and excesses to constantly retain balance. In extreme cases, *qi* confusion, obstruction, or stagnation causes illness or poor health. *Qi* movement is largely dependent on, and inseparable from, blood flow.

TCM theory includes well-known phrases to describe the relationship of *qi* and blood; for example, "let *qi* guide the blood," "blood forms the *qi*," "*qi* is the commander of blood; blood is the mother of *qi*," and "*qi* pushes the blood circulation."