Philosophic Perspective: A Comparative Study of Traditional Chinese Medicine and Western Medicine

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Abstract

This paper at first makes a comparative study of the two different paradigms of Traditional Chinese Medicine (TCM) and Western medicine. The author holds that there are four essential differences between the two paradigms: the theory of Yin and Yang as well as five phases vs. modern natural science, experienced ″black box″ vs. objective anatomy, overall synthesis vs. concrete analysis, and ″thought experiment″ vs. scientific experiment. Next, from a dynamic view of theoretic development, the author deeply discusses TCM's defensive method, which influenced upon its evolution. This paper concludes that TCM will go on enlightening modern medicine with its traditional experiences and thinking methods; yet as a research programme which lacks evolutionary capacity, it will meet more challenges of Western medicine.

Keywords: Traditional Chinese Medicine (TCM), Western medicine, Paradigm, Research programme

1. The differences between two kinds of paradigms

According to T. S. Kuhn's theory, it is a sign of maturity in a kind of science with which there is a paradigm. (Kuhn, 1962) We believe that the forming of the paradigm in Traditional Chinese Medicine (TCM) could explain why it has overlived other traditional medicines in history. The special but systematic theory and therapeutic method promoted TCM from the treatment wholly by means of experience. Admitted1y, Chinese medical comprises elements that have not been validated by procedures generally recognized in modern science, notions that we would now deem speculative. But in effect TCM has still been playing an important role in Chinese people's everyday life, in spite of Western medicine's dominance. It has long been an idea to integrate Chinese medicine with Western, however it has so many tough barriers ahead and long way to go. One significant thing is to deeply understand the inner conflict and differences between the two paradigms, and it is far insufficient to confine the comparative studies, which only focus on concrete therapeutic effects. (Kuhn, 1977)

1.1 The theory of Yin and Yang as well as five phases vs. modern natural science

The most important difference between Chinese and Western medicine concerns the basic hypothesis or the fundamental principle that is in TCM known as the theory of Yin and Yang as well as five phases. The theory is embodied in every aspect of TCM theoretical system. It is used to explain the tissues and structures, physiology and pathology of human body, and directs clinical diagnosis and treatment, and even drug classifying is also based on this intuitive world view.

Modern medicine depends on basic modern sciences, such as physics, chemistry, biology. Its basic branches include human anatomy, embryology, physiology, biochemistry that concern human body's structure and life's activities, and parasitology, pathologic anatomy, pathophysiology that study why diseases happen, and pharmacology etc.

As a special way to describe the property and state of nature, the theory of Yin and Yang as well as five phases has some outstanding advantages which mainly contain the concept of organism as a whole, determining treatment by identified patterns based on an overall analysis. Yet this traditional theory from intuitive and analogical thinking is a closed and circular reasoning system that can not be falsified and incommensurable with modern science. Since every part in a scientific paradigm is not a isolated theory of statement but depends on the core theory in an integrated whole; the two fundamental principles' distinction must lead to a essential conflict between TCM and Western medicine. It is the most puzzling and difficult problem to modernize TCM at present.

1.2 Experienced "black Box" vs. objective anatomy

Human body's structure in TCM distinguishes itself from physiological anatomy in Western medicine, for it is based on Chinese traditional bowels and viscera theory and channels and network vessels theory. So there is different knowledge of the viscera, organs, pathologic and physiological activities between Chinese and Western medicine. (Li, 1998)

It has a clear, accurate position and functions in modern medicine, when the viscera and organ is divided through the positive and inter-subjective standard. Human body's structure is given by human anatomy, and the obvious physical tissue structure is definite and objective, although it is also involved with the functional factor.

The way giving human structure in TCM is like the ″black box″ method in modern system thinking, which classes the structure through experienced functions and does not care the concrete inner detail. For instance, the kidney is never a definition in anatomic sense but a black box functional system which basically includes the functions of urinary system, reproductive system, and part of the endocrine system and nervous system. TCM holds that the kidney is ″the origin of five viscera and six bowels, and the root of twelve channels and network vessels, ″ and so is ″the center adjusting all human viscera and bowels.″ This understanding of kidney is far from that of in human anatomy of modern medicine. In TCM view, its black box systems have many overlapping functions and the complexity that is usually contain many more possibilities. For example, the system of channels and network vessels can not be equated with the concept of nervous system in Western medicine, for the former is a complicated functional system which connects several other human body systems except nervous system, and has not been made clear in modern experiment.

1.3 Overall synthesis vs. concrete Analysis

The studies of modern medicine usually seek a concrete goal. According to many new technical advances, esp. biological engineering development, Western medicine distinguishes itself by its clear aim, deep recognition, quick effect, and as soon as a study acquires a breakthrough, then come a standard therapeutic method, which often is popularized easily and has an objective effect.

The character and advantage of TCM come from its special point of view, which treat human being as an organic whole and aims at adjustment and balance of the whole. This value view of emphasizing the unity with in the body and with the surrounding shows in almost every criteria and principles of treatment, for example, searching for the root of a disease, regulating Yin and Yang, act accordance with time, place and individual. It in a certain degree happens to hold the same view with modern systematic features and principles including integral, first-rate, synthetical, and dynamical aspects. Yet because of overemphasizing the over-all whole, it limits TCM to develop concrete and deep knowledge of individual details and leads to lack of analysis and under-standing of subtle difference and phenomena.

Owing to the above-mentioned principles, the treatment in TCM relies mostly on experience of doctor concerned, and so short of positive standard. Therefore, TCM is facing more and more challenges of Western medicine, which succeeds with inter-subjective, reliability and concrete intention. It is evident from the foregoing discussion that there is a dilemma now in TCM to stick to its traditional principles of treatment which will be criticized for its less objectivity and slow effect; or to change the basic principle to seek treatment of the tip which will lost TCM essential and become only the experiential formula provider to supplement Western medicine.

1.4 "Thought experiment" vs. scientific experiment

Just as in other natural sciences, scientific experiment is a basic tool in modern medicine, which can simplify the research object and imitate natural process to observe and collect data under a controllable condition. By means of experiment, modern medical research may propose a hypothesis and then test and verify it inter-subjectively. The systematic experimental method is an underlying motive power to move modern Western medicine forward rapidly. In contrast with lab research of Western sciences, TCM test and verification depends on human feeling and experience. The therapeutic process in fact may be called a ″thought experiment″, which just a course to apply and practise the indubitable theory of Yin and Yang as well as five phases through everyday experience.

As for fundamental theory, TCM studies are not to explore the unknown world but to confirm what our ancestors' conclusion. Even if we accept human body as a test body and admit this experienced test tradition; we must also admit the individual-based test is fart from regular and objective method in scientific lab. We believe that it is a main reason to slow down the development of TCM. We have also noticed it has a variety of experimental methods applied in TCM these days, however exists a tough problem--most scientific experiments can not mach the fundamental theory in Chinese medicine. Owing to foregoing reason as well as

incommensurability between Western and Chinese medicine paradigms, the idea to integrate Chinese and Western medicine can only be limited now in concrete, scattered application and comparison. In this case, the experimental apply become a way only to verify TCM is sometimes useful. TCM could not acquire an overall development and breakthrough in real sense, without solving of the disjointedness between TCM fundamental theory and scientific experiment.

2. The competitive power comes from the evolutionary capacity

2.1 From the static paradigms to the dynamic research programme

Our foregoing comparison may be enough, if TCM is only a kind of traditional knowledge, which has withered away, and of some value to archeological studies. Yet, although there are deep and wide distinctions between TCM and Western medicine, an astonishing fact exists in China for over a century, TCM is still being widely used and developing to a certain degree, while modern medicine come into Chinese society and has obtained its dominance. Therefore we could not accept Kuhn's opinion about paradigms change, who believes that it happens at the same time while the accepting of a new paradigm and the abandoning of an old paradigm. We hold that Kuhn's monism could not explain the phenomena about TCM. So we need a dynamic theory such as I. Lakatos' methodology of scientific research programmes to discuss the competition and developing trends between TCM and Western medicine.

2.2 The defensive method dominates evolutionary capacity

In accordance with the Lakatos' opinion, the structure of a scientific research programme contains a hard core, protection belt. The hard core consists of underlying premises and fundamental principles. Protection belt is the periphery that can use its elastic function to defense the refutation against the hard core. In western sciences, the protection belt can adjust itself by changing or adding auxiliary assumptions. According the rapid development of natural sciences, Western medicine had owned a substantial but open hard core, which can be developed by means of new scientific branches such as molecular biology and genetics. As for the protection belt of Western medicine, it depends on an assortment of auxiliary assumptions usually being part of a branching subject, such kind of loose relations could make protection belt adjust to progressive trend, because it often can not bring about conflict against hard core. (Lakatos, 1976)

On the contrary, TCM research programme owns a very strong power to defense hard core by dissolving any refutations and abnormalities not by positive heuristic. First, unlike relatively independent subtheories in Western medicine, the hard core in TCM--theory of Yin and Yang as well as five phases, is not a hypothetical theory or a postulate but an undoubted final cause. In case this hard core should change, TCM research programme will become only the accumulated experience and will disintegrate. Next, the theory of Yin and Yang as well as five phases run through every part of TCM system, every auxiliary assumption is actually an embodiment of the hard core. So the whole structure has a strong identity and tight relation with its hard core, which shows itself at every place and thinking. In this case, there is not plenty of room for maneuver of protection belt which has to struggle hard to defense hard core by negative heuristic, Third, as the basic concepts of TCM come from analogical thinking not from hypothetical method, their meanings are usually associating, equivocal and uncertain, which may dissolve the refutations easily. For instance, any experiment and development of anatomy could not shake the concept of kidney in TCM, because it is based on the general feeling and a vague definition in contrast with definite analogical concept in Western medicine. Last but not least, the cognition of disease cause in Western medicine is often steady, while it always forms multi-explanation in TCM. For example, the theory of viscera contains multifarious relations of pentad plus distinction of Yin and Yang in each viscera. There relations lead to transfer of disease around pentad parts, which would bring about different explanations of the same disease pattern. The pluralistic and transferable character makes TCM protection belt tenacious and falsifiable which causes there has been never a real break-through of the fundamental theory since the *Canon of Medicine*, the earliest and most comprehensive medical classic, compiled about 2000 years ago.

2.3 Evolution and devolution

Revolution is not the proper word. What is happening in modern medicine is a tremendously rapid evolution. The defensive method we have discussed above show the difference between two research programmes which actually compete with each other. A question now comes out--Western medicine will replace TCM totally in the future? (Zou, 2008)

In Kuhn's view, a better theory should be superior to the old one in following aspects: accuracy, consistency in the theory, simplicity, extension and effectiveness. It is evident that TCM now has two advantages over the

Western in consistency and simplicity. Lakatos also points out the criteria about substitute between two research programmes:

1. New theory (T') has more experienced contents than old theory (T).
2. T' can explain the previous successes, i.e. T' contains all irrefutable contents of T.
3. The new experienced contents have been verified by observation or experiment.

Regarding above three items, Western medicine only has to meet difficulties at 2, while replacing TCM, because there are many of successes in TCM could not be explained till today in modern science. For example, how did TCM know the relation between kidney with hematopoiesis? And how to explain the theory of channels and net work vessels which to some degree has been verified by experiment? Therefore, we may expect that TCM will still exist with its opponent for a long time, although it has not been at present in an actual evolutionary state.

3. Conclusion

What I mean here is not that the two kinds of research programmes' positions and trends are the same. As the defensive method of Western medicine and TCM above mentioned, the two rivals are not equal, for one--Western medicine--is evolutionary while the other devolutionary. According to rapid advances of modern and systemic sciences, the room in which TCM could play with its unique theory is diminishing. It could not be denied that TCM may go on enlightening modern medicine with its traditional experiences and thinking methods in some degree, yet as an integrated research programme, it evidently lacks evolutionary capacity. If TCM should not seek a significant sense of revolution, it would recoil from more challenges from the development of Western medicine, and would be facing research programme's disintegration in the future, which we never hope.

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