**Shot-Put and Taijiquan**

**—The contrast and difference between Chinese and Western sports**

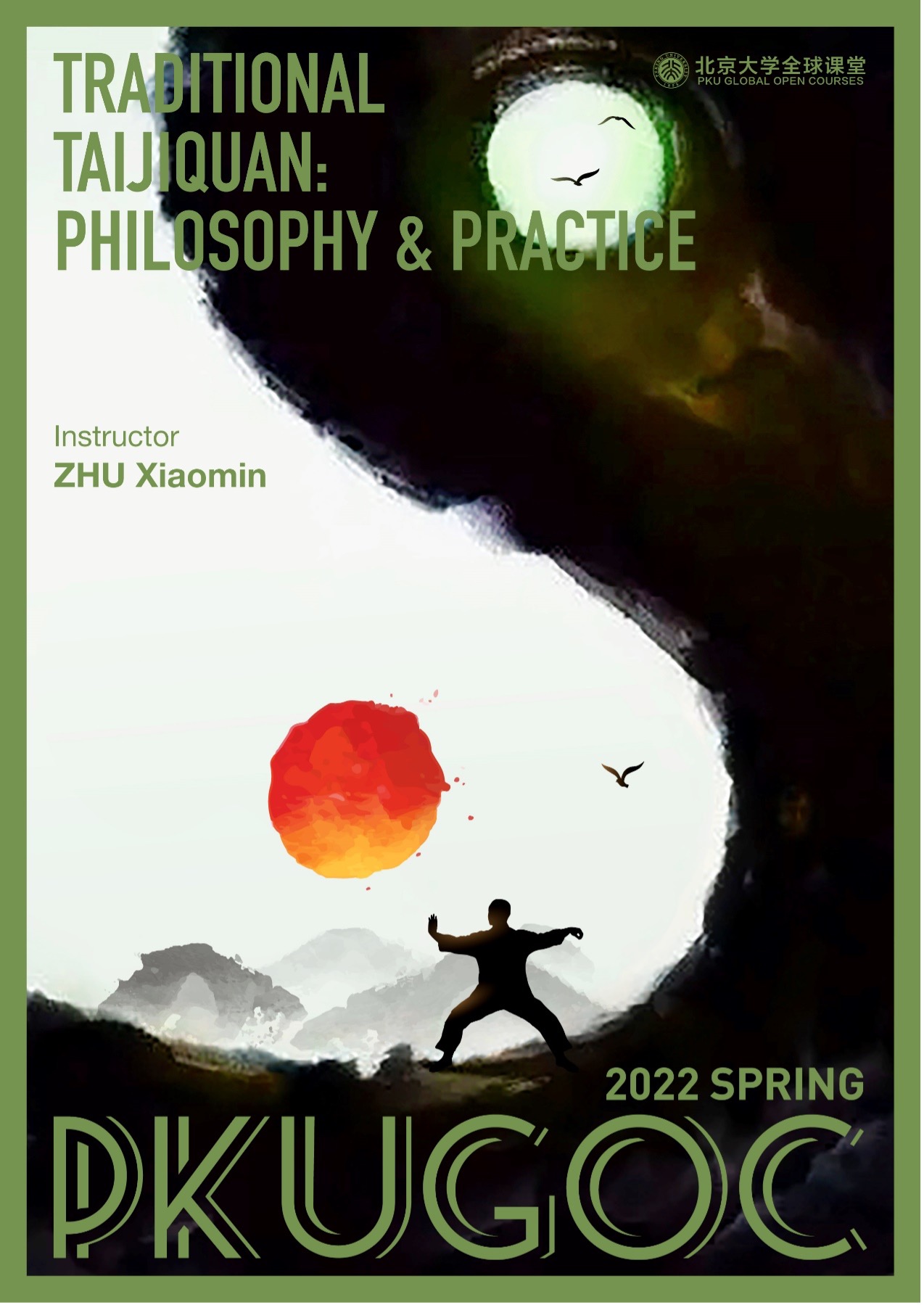
Zhu Xiaomin

Department of Philosophy, Peking University / Research Center for Science Communication, Peking University

As a child, I was weak and often sick, so I was a frequent visitor to the hospital. I still remember the horrible experience of being woken up by the nurse in the middle of the night for an injection when I was hospitalized, and my two tonsils were removed due to repeated inflammation and hyperplasia. However, it was this experience that encouraged me to strengthen my body and improve my health with exercise. During my school years, I slowly built up my fitness through long-distance running, doing pullups, engaging in martial arts practice and participating in various track and field events at primary and secondary school sports meets, where I won the championship in the 100m, 800m and 4x100m races. When I was in college, I could put the 5kg shot as far as 11.8 meters, which exceeded the full score of 10.7m. (The other event where I beat the score of 100 was in the 50-meter race, where I got a time of 6.2 seconds.) I remember that the boys in my class had three chances to put the shot, but the sports teacher only allowed me to throw once, which made me quite depressed as that meant I didn’t have the chance to improve my performance and show off!

After I went to work at Peking University, in 2008, and as I grew older, there were more and more limitations on the kinds of fitness exercise I could choose. In athletic competitions, my favorite event was the shot put (plus a solid ball), while in martial arts, I started to practice traditional taijiquan, which is a sport that overcomes rigidity with flexibility.

So far, I have won 14 top-eight places in the university staff games (at most two events per year), among which my best result in shot put was 3rd place, and among the faculty, I got 1st place many times (once I was the only faculty in the top-eight members of solid ball). When I asked the department if there was any reward after I got two good grades, the head of the department office looked back at me carefully and said, “More than ten years ago, a teacher in our department won a prize in the sports competition, and I think the reward was a milk pot.” Prof. Lou Yulie was sitting on the sofa reading the newspaper, and after hearing this, he smiled and said, “One milk pot isn’t enough, give him more!”



**The taijiquan class of the author of PKU Global Open Courses**

In order to put the shot, I needed to do some systematic strength training, lifting dumbbells and barbells before the competition. However, after our traditional taijiquan practice, the teacher warned us many times not to practice weightlifting so that the muscles would not become hardened, which would not be conducive to relaxation and the operation of internal qi. Mr. Wang Peisheng, a famous Wu-style taijiquan master, explicitly warned that weight training is not needed at all to enhance the power of taijiquan. On the one hand, I was reluctant to give up my favorite shot-put project, and on the other hand, I wanted to practice the internal energy of taijiquan. In order to compromise between the two, I gradually shortened my weight-training time from 3–4 months to 1–2 months to prepare for the shot put , while traditional taijiquan was a daily workout. Gradually, with years of practice and perception, my shot-put performance has become stable. As long as I go through strength training, when I compete, I will be in the top five. I have been able to feel the internal energy of taijiquan more and more clearly in the past two years (according to the traditional masters, this means that the path is right), and I seem to have found the balance between shot put and taijiquan. For this reason, I have been very interested to compare the different sporting principles, power generation and fitness effects between the Western shot-put and the traditional Chinese taijiquan.

**Shot Put: Higher, Faster, Stronger**

When I was in high school and college, I was fascinated by track and field sports, especially the shot put. I thought it was amazing that in such a small circle (about 2 meters in diameter), the human body could explode with such great energy—“As quiet as a maiden when at rest, moving like a thunderbolt”. Whenever I walked on a road and saw a suitable stone or brick, I would attempt to put it. At that time, the Chinese women’s shot put was in the midst of the glorious era of Huang Zhihong, and her winning of the first world championship in track and field for China was very exciting for me.

For this reason, I read a lot of professional books on track and field training, and followed the scientific method of strength training in the books a few months before the competition, and I have been continuing to do that up until now. To make it easier to practice at home, I bought 4 or 5 pairs of detachable dumbbells and reassembled them into different weights, ranging from 10kg or 15kg to 20kg for a single dumbbell. For two years, I also tried to lift 25 kg dumbbells with one arm, but gave up due to lack of wrist strength and for fear of getting a contusion. My main exercise principles and methods are as follows.

The way to choose the maximum weight dumbbell: if you can easily lift it 12 times, it means that the weight is too light; if it is very hard to lift even 8 times, it means that the weight is too heavy. Of course, this maximum weight can always be adjusted as the level of training improves.

The main purpose of the explosive-power strength exercise method: using two arms in turn, quickly lift 8-12 times in a single set, with each set repeated 6-12 times; meanwhile, different action exercises can be spaced. For example, for the maximum weight of dumbbells, I usually stand and push up (divided into straight arm and rotating arm lift), which helps to coordinate the strength of the whole body. Lighter dumbbells can be used to alternate between several back, shoulder, and abdominal muscle movements. Each strength exercise, from the preparation of warm-up activities to the end of finishing relaxation, lasts about 1.5 hours or more.

This systematic training requires that the interval between two training sessions should not be less than 24 hours in order to allow full muscle adaptation and recovery, but the training must be repeated within 72 hours to avoid degradation of the training effect. In this way, muscle strength can continue to grow and continue to accumulate progress.

In accordance with the above scientific and systematic training, 3 times a week for 3 to 4 months (or even 1-2 months in recent years), the effect is very obvious: responding to the weight of the dumbbells, the body feels tight, strong, and elastic, especially the strength and definition of the shoulder and arm muscles is clearly visible. As long as we train ourselves gradually by dumbbells, it’s certain that we will get increasingly satisfying results, which is quite inspiring. In the book “The Art of Expressing the Human Body”, Bruce Lee mentions that, after 14 weight-bearing exercises in 44 days (of course, the intensity of Bruce Lee’s exercises was much higher than mine), the growth of his left and right biceps and left forearm circumference was actually close to 2 cm.

One year, I went abroad as a visiting scholar during the winter vacation and came back just in time for the start of school, so I was extremely busy and did not do any systematic strength exercises. Thinking that my shot-put performance had been in the 4th or 5th place for many years, I thought it would not be a big problem to get a ranking even if I did not exercise. However, I have to admit bad luck always follows those who are unprepared! At the games in late April: we competitors in the 40-year-old age group were supposed to put a 5kg shot, but, by mistake, the referee brought out a standard shot, which weighted 7.26kg, and it was too late to adjust at the time. We just had to put the large shot. As soon as I put the shot to my shoulder, I felt very uncoordinated. But seeing that my ranking was hovering around 8th place, I pushed hard on the last throw, my legs stepping vigorously, but my waist, shoulders and arms could not coodinate coherently, which caused my body movements to be distorted by the heavy shot. I slid and turned, so that my right big toe hit the toe plate in front of the throwing circle directly, and I almost fell down. I was in sharp pain, and was very worried that a fracture had occurred. It was my worst performance that year, and I only got 7th place. Fortunately, my right big toe was not broken, but it was purple and swollen, and the nail cap was broken in half, and the black bruising under it took six months to heal. From this, I gained a deep understanding of the opposite aspect: If you want to participate in track and field sports like shot put, which challenges one’s limit (though it is an insignificant personal limit), you must do so in a scientific and systematic way, and must undergo sufficient training with a serious attitude and gradually improve your body’s ability to adapt in a step-by-step manner; otherwise, it is like a lazy farmer planting the land—he fools the land and the land fools him too with very poor products—not only do you not get the desired effect, but you could easily get injured.

**Taijiquan: Loose, slow and even, soft**

In contrast to the shot put, which requires intense, fast, vigorous training and explosive movements, the daily practice of traditional taijiquan requires the body to be relaxed and soft, and the movements to be slow and even. In the view of taijiquan, the active use of muscles (not to mention the special training of large muscles) will “injure the whole because of the small” and “harm the whole because of the partial”—restricting the natural and harmonious overall performance of the body.

I started getting involved in traditional taijiquan in 2008, and my understanding of taijiquan in the first few years was limited to the understanding of routine gymnastics-style body movements. After more than ten years of exploration and understanding, I slowly began to understand that the movement pattern of taijiquan is a relaxed and flexible state of the body, using qi to move the body, promoting the outside from within, and utilizing the body as a whole. For example, in the action of kicking the legs, the legs cannot be partially kicked out; rather, the action should commence through the dispersal of internal qi, when the whole body is loosened—in fact, the legs are automatically “loosened” out (so-called “open”). Similarly, when the legs are withdrawn, the legs are not singularly drawn back, but the action must be done the same way: the leg is not just drawn back when it is withdrawn, but through the convergence of internal qi and the coordinated retraction of the whole body, the leg is naturally “sucked” back (the so-called “together” or “closing”), and “an opening and a closing, the boxing art is complete.”

A few years ago, when a traditional master was teaching the movement of “Parting the Wild Horse’s Mane”, he told us to open both arms and the whole body from the heart “like a flower blooming”—this completely overturned my initial perception of the gymnastic practice of taijiquan. Imagine a flower blooming: its petals open from the inside out in an orderly fashion, small and soft, but full of life and vitality—this is also a case of “extremely soft but extremely hardness”. Each movement of taijiquan also requires natural coordination, from the inside out, flexible and round.

In contrast to the daily training of putting a lead ball, which focuses on the real and measurable growth of muscle strength, taijiquan promotes “empty and silent qi”. This internal qi is like an “energy flow” or “information flow” that has no material carrier; so far, it has been difficult to explain this by modern science. By emphasizing the loosening of the whole body to let the internal qi flow freely, the cold and crisp effect of “sending energy like releasing an arrow” can also be achieved. Someone once questioned Yang Jianhou face to face: How can a loose-looking taijiquan move and push people? The latter replied, “It is because of the loose and relaxed movements that people can be pushed.” It is difficult for many traditional taijiquan enthusiasts to understand and feel this internal energy and its use, even after many years of practice. Here I would like to present my own practice and perceptions, as follows.

Since 2008, I have studied Chen, Wu, Yang, and Wu/Hao styles of traditional taijiquan and started to practice stake-standing 6 or 7 years ago. During that time, a friend who preached martial arts enthusiastically told me that stake-standing should be done with hot air coming out from the soles of both feet, but I felt that I could not imagine this internal qi at all, and ignorantly laughed at his statement. But since New Year’s Day 2021, I have been surprised and amazed by the gusts of hot qi that often fall to the soles of my feet when I was practicing stake-standing. And I can feel obvious progress in my stake-standing in recent years . For example, the heat falling to my feet gradually changed from a clump to a steady stream of heat; the heat falling to the soles of my feet started to spread from the center of my feet to the whole soles of my feet and toes; the soles of my feet used to be only warm, but now they occasionally feel hot; the heat on the soles of my feet, which was only present during static stance, is now also present during dynamic exercising. Even when practicing in the cold winter wind, the hands and feet will be warm and comfortable. As some boxers have imaginatively and vividly described, standing in the snow and ice can also produce a “spring-like feeling”.

A traditional master once said that if the average person practices taijiquan in the correct way, the hands easily experience the heat because the two arms do not need to bear weight and are relatively easy to relax; but because of the body’s weight on them, the legs are very difficult to loosen, and experiencing the flow of internal qi is more difficult (ordinary people are used to using the right leg, so its muscles are more developed, and it’s relatively easier to loosen the left leg than the right leg, so that left leg will experience a sense of heat first). Some people may not find the right feeling even after 10 or 20 years of practice. This is another characteristic of traditional taijiquan practice: it is not like the strength training for putting a lead ball, where there must be a step-by-step improvement and the training standards and results are quite “objective” and reliable. Many people who practice taijiquan may spend their whole life doing partial body movement taiji exercises, and the more they practice, the more they move away from the core concept of taijiquan. No wonder Li Yaxuan said “99% of taijiquan practitioners are wrong”, and the number of real top taiji masters is even rare—“only a few in every generation”.

Therefore, not only is it impossible to unify the requirements of taijiquan, but even if the master teaches by his own words of mouth and movements of his own body, and according to the disciple’s talent and personal conditions, there are still a lot of cases where a father finds he cannot be pass on his taijiquan experience to his son, and a formal apprentice cannot learn true taijiquan from his master. Disciples who have completed their studies often have different styles and form their own schools. For example, of Yang Luchan’s three true disciples, Wan Chun got Yang’s “sinew“ and was good at hardness of strength, Ling Shan got Yang’s “bone“ and was good at pushing people, and Quan You got Yang’s “skin” and was good at flexibility. Yang family’s three generations of masters also had their own specialties: Yang Luchan broke into the world, Yang Banhou fought the world, Yang Jianhou raised the world, and Yang Chengfu spread the world. It can be said that “each tree is a unique bodhi, a person has his unique taiji”. Even if their master is the same person, each disciple may learn to perceive the path of taijiquan differently. As the painter Wu Changshuo once said: People who are similar at me are dead, people who break my record improve, people who make use of my style stay alive.

**Shot Putting and Taijiquan—The Beauty of Each**

Many Western sports that share the same principles of shot-put training, such as strength exercise, outdoor walking and marathon running, have flourished in recent years in China, and their passionate goal of “higher, faster, stronger” that constantly challenges the limits of the body, their relatively objective and standard training methods, and the “immediate results” they offer are attracting more and more Chinese young people to participate in them. However, the traditional taijiquan’s neutral and peaceful fitness, health, and combat philosophy, such as internal and external cultivation, the unity of heaven and man, “Any raising hands and kicking feet can be taiji movements too” and “You need ten years practice of taiji before pushing with others/ You need ten years to get the right feeling of Taijiquan ”, is becoming more and more difficult for modern people to understand and accept.

In my taijiquan dissemination discussion class, a graduate student who had taken a class in 24-posture simplified Taijiquan bluntly said that Taijiquan was “ugly” and that some of the movements were “inexplicable”. One wonders if his knowledge and understanding of taijiquan were unknowingly influenced by his preconceptions of Western science and movement concepts, or “cultural pollution”. A student, when looking at the traditional master’s taijiquan photo, criticized his performance of the taijiquan movement “right kicking foot” for “not even straightening his leg”, and I immediately asked her, “Why do you think a straight leg must look good?” taijiquan is all about keeping the middle/center and using the middle/center, attacking and defending at the same time, kicking foot no higher than the waist, and “curving and saving” to avoid going too far. It seems that such traditional concepts are completely unfamiliar to young students nowadays, and it is difficult for them to identify with those concepts. In the past two years, I have started to arrange for students in my classes to go to the field to experience the teachings and real kungfu of folk taijiquan masters, and they all admitted with surprise that they would never have believed that there is such a relationship between kungfu and philosophy if they did not feel and experience it for themselves.



**right kicking foot by Qiu Yiguo, a master of Yang style Taijiquan**

A master’s student who was also a member of the basketball team at the College of Chemistry took my taijiquan class, and when we talked about how the palms would feel hot and swollen at the beginning of taijiquan practice, she blurted out, “My hands get hot when I play basketball too!” There was a sense of disdain in her words. Now that she is a doctoral student, I would like to ask her again if she gets hot on her soles when she plays basketball, as I occasionally run into her on campus.

A martial arts professor who teaches 24-posture simplified taijiquan lamented helplessly in a private conversation that he had no way to incorporate the traditional taijiquan practice into modern classroom teaching. At first, I had a hard time recognizing his point of view, but then I realized that the main way to show the results of the mandatory taijiquan class for college men is usually a large-group (that is, with hundreds of people) performance of 24-posture taijiquan at the opening ceremony of the field day in every April. The requirement for the performance is that the movements be uniform and standardized, with the taller students lowering their movements and the shorter ones stretching their arms and legs. Isn’t such a uniform teaching requirement like the bed of Procrustes, where the long legs are sawed short and the short legs are stretched long? How can we achieve the individualized presentation of traditional taijiquan, which is based on the principle of “finding comfort” by yourself?

Behind these simple superficial differences and cognitive differences, there is actually a vast difference between the paradigms of Chinese and Western sports and fitness, from the basic concept to the practice. How to perceive and coordinate the relationship between the two? Is it that “you can’t have both fish and bear’s paw“—that you can only choose one or the other, negating or replacing one with the other? Or can the two coexist peacefully and beautifully?

In this regard, it is very important to deeply understand the essential differences between Chinese and Western movements and to avoid the simple and crude dichotomy of scientific or unscientific demarcation, or the forced over-interpretation of one paradigm by another. For the sake of space, I will only briefly discuss a few points here:

First of all, a Western research paradigm will affect or even mislead the understanding of traditional taijiquan. Two years ago, I attended an international conference on taijiquan, and I could see from the agenda of the conference that the topics of the presentations by the experts and scholars were as follows: the auxiliary treatment of coronary heart disease, the relief mechanism of taijiquan for frozen shoulder, the efficacy of taijiquan for hepatitis B, the rehabilitation of patients with nephritis, the recovery effect of taijiquan for patients with hypertension, the healing effect of taijiquan for patients with lumbar disc herniation, the benefits of taijiquan for pulmonary embolism, the healing effect of taijiquan for patients with lumbar disc herniation, the study of the effects of taijiquan on the prevention and treatment of pulmonary embolism, the improvement of insomnia by taijiquan ......, and so on. Although the original meaning of science is the “study of subdisciplines”, the perception of taijiquan may have the negative effect of becoming more and more detailed and fragmented—”seeing the trees but not the forest”, or even “You can’t even see Mount Taishan when your eyes are blinded by a leaf”. Some foreign taijiquan researchers at the meeting confessed that there is a great lack of research results on the humanistic aspects of taijiquan that can be grasped as a whole. Indeed, if each field of study is only dedicated to taijiquan in its own “acre of land”, then it will only bring a more and more fragmented understanding of taijiquan.

According to the American College of Sports Medicine, for healthy adults, the minimum intensity of exercise should be 50% of one’s maximum oxygen uptake, and the heart rate should be 130-135 times per minute in order to exercise the cardiovascular system and enhance physical fitness. In order to meet this Western exercise theory, some domestic experts have argued that those practicing taijiquan should try to reach or approach this heart rate, thus meeting the international standard for cardiovascular exercise. Imagine if a person’s heart rate reaches 130 to 135 beats per minute while practicing taijiquan, could he still be neutral and comfortable, breathe naturally, and be calm and relaxed? Isn’t this kind of blindly-introduced scientific research and deduction a little bit like cutting the foot to fit the shoe or adopting the foreign without incorporating it holistically? Indeed, quantitative data often only implies a certain degree of accuracy, which does not necessarily mean exactness, let alone correctness.

Secondly, we should pay attention to the difference between the two in terms of practical concepts, such as the difference between “inside” and “outside”. The Japanese writer Haruki Murakami mentioned in his book “What I Talk About When I Run” that he insisted on long-distance running for many years and had participated in all-marathon, ultra-marathon, and triathlons dozens of times. In order to challenge his limits, he even trained hard to specialize in running muscles. As a result, due to his long-term, strict, high-intensity practice, “all his muscles became tight and stiff”, and he compared his muscles to “eating leftover bread from a week ago, hard and stiff, such that it was difficult to imagine that these were actually his own muscles”. For this reason, he had to ask a professional fitness instructor to help him stretch and relax several times to avoid muscle overload or spasms. The fitness instructor, every time he saw Murakami’s “Bang Bang hard“ muscles, expressed amazement: “If it were anyone else, they would already have run into difficulties, yet you have managed to escape it so far!“

In my own strength training for the shot-put competition, I have also often felt muscle pain and stiffness. The daily practice of taijiquan requires that muscle pain and local stiffness be avoided as much as possible, and whenever any part of the body becomes sore or stiff, it must be soothed by fine-tuning the posture and intention and relaxing from the inside out—then the condition will disappear. Therefore, a boxing theory says: “In taijiquan practice, one must use the heart to practice qi; there must be no turbulence of mind, movements must be purely natural; no pain in the tendons and bones, no effort marring the skin.” Once the master looked at my boxing and criticized me, “You’re practicing too seriously”—”over seriousness” is actually a problem! It turns out that the “looseness” of taijiquan is “don’t try so hard to be loose!”—if one is too serious, it is easy to overload the idea and this will lead to restrained, rigid movements, far from the natural and smooth path one should be pursuing.

Nowadays, many people are keen on muscle lines, molding their outer appearance, super training for muscle gain, blindly following the trends for fashion, bodybuilding, and excessive dieting. As a result, they often attend to one thing and lose sight of another, going to extremes. For example, some bodybuilding professionals have an enviably strong appearance, but frequently suffer from sub-health, premature death, and even sudden death. It seems they have deviated from the way of health and longevity—as the saying goes, “something that looks beautiful from the outside, like gold or jade, may be filthy inside!” Traditional taijiquan’s theory of fitness and health care emphasizes harmony from the inside out and the whole. Through “flow of qi and blood, daily infusion, circulation throughout the entire body, without stagnation at any time”, the circulation of qi and blood in the five internal organs of the body is enhanced, and then qi fills the four extremities—radiating out, nourishing the limbs, making the five organs healthy and the five limbs strong (here, the head is also considered a limb). “Don’t ask for firm skin and thick flesh but for qi and bones to be firm”, the inner and outer are combined, the mind is comfortable and the body at ease, and the body and mind are coordinated to achieve the fitness and health effects of fullness of energy, spirit and relaxation.

Thirdly, in the specific practice methods, we should also pay attention to the differences between the two, such as the difference between “local” and “overall”. Compared to shot-put strength training, which focuses on the leg muscles, shoulder muscles, arm muscles, and other “local” parts, taijiquan is concerned first with the overall smoothness and unobstructed breath. For example, not only the hands and feet, elbows and knees, shoulders and hips (the external triad), but also all parts of the body (the entire body as a “family” or a symphony); not only the heart and mind, mind and qi, qi and strength (the internal triad), but also the internal and external must be combined (six in one). In order to avoid too much emphasis on local muscles, I have stopped the practice of sitting and lifting dumbbells to strengthen the shoulder and arm muscles in recent years and changed to a standing weightlifting method of coordinatiing the whole body to exert force.

In conclusion, the concept of “higher, faster, stronger” in Western sports has encouraged the advancement of various fields, and the scientific means and quantitative methods are improving day by day, constantly challenging the limits of human beings, while gradually leaving the general public far behind, and gradually moving away from people’s daily fitness. The method of taijiquan, on the other hand, regards physical fitness, technique, and body cultivation as a trinity, which is self-suficient and self-fulfilling. There is no need to prove anything by competing with each other, defeating others, and conquering nature. “There is no fixed law in the application of law, any movement itself is the law; every move should be integrated both inside and outside, both in form and spirit; reality is not completely hardness or full, emptiness is not completely powerless or nothing; yin and yang grind on, from which all laws are derived.” Because of this, “a thousand words cannot explain the wonder of even a single movement in taijiquan”. There is no need to distinguish between these two completely different sports and fitness concepts, and there is no need to choose one over the other. “The ways of the Dao runs parallel but are not contradictory.” We should have both the magnanimity to appreciate the beauty of others, and also the self-confidence to affirm the beauty of each one.

There is a taijiquan teacher in Taiwan who is a master of kung fu and is highly respected. When he was young, he worked in the underground warehouse of a bank, where his time was relatively flexible and the warehouse space was large, so he could practice taijiquan there whenever he wanted. Later, due to his conscientious and responsible work, the bank offered him a promotion and salary increase and transferred him to the administration department, but he refused and insisted on working in the warehouse until his retirement to facilitate his practice of taijiquan. Wu Tu’nan, a famous master of Wu style, once said that he taught his disciples in strict accordance with the traditional way of practicing taijiquan of his predecessors, and would not change even if all his disciples ran away. Wang Yongquan, an orthodox master of Yang style, also proposed to the relevant authorities that he could spend three years teaching the unique training methods of traditional taijiquan to improve the technical skills of casual fighters, but received no response. It is saddening to see that, on the one hand, traditional taijiquan masters are dedicated to asking questions and sticking to their traditions while their living environment is becoming increasingly constrained and marginalized; on the other hand, some so-called modern management, research, and teaching institutions are quite unfamiliar with China’s own cultural traditions, either treating them as if they were nothing, or rejecting them. Because of this, there is an urgent need for a paradigmatically systematic and comprehensive understanding and recognition of traditional taijiquan transmission methods and the different philosophies behind them, especially the need to respect their independent, autonomous, and sustainable development space.

Interestingly, through the long-term practice of shot put and taijiquan, I have found that there seems to be some “similarity” between the two: the “tightness” of the shot put, in turn, has led me to better understand the “looseness” of taiji. The thoroughness of the set of taijiquan movements also helps me to put the shot in a more coordinated way. The “stillness like a virgin, movement like a thunderbolt” of shot put and the “extreme softness and then extreme hardness” of taijiquan are in fact similar. To be able enjoy the beauty of both these two sports, what a pleasure it is!

Translated by: Wu Tianpeng

**铅球与太极**

**——兼谈中西方运动的对比和差异**

朱效民

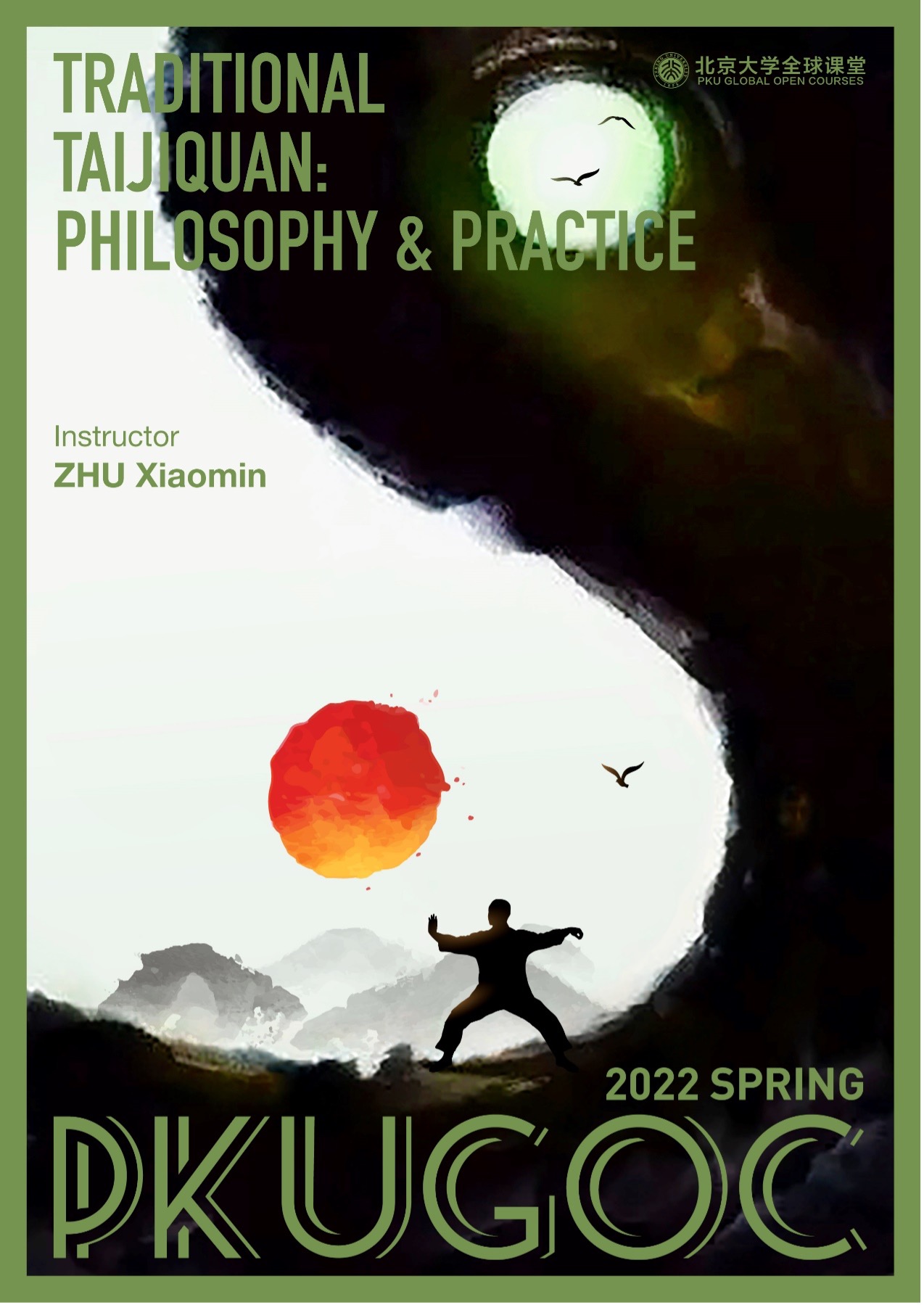
北京大学哲学系 / 北京大学科学传播研究中心

我小时候体弱多病，打针吃药是家常便饭，也是医院里的小常客，至今还记得住院时半夜被护士叫醒打针的恐怖经历，两个扁桃体也由于反复发炎增生而被摘除了。但也因如此，促使我加强体育锻炼以提高健康水平。上学期间通过练习武术、长跑和拉单杠慢慢增强了体质，在中小学的体育运动会上也多次参加各项田径项目，并得过100米、800米、4x100米的冠军。上大学时5千克的铅球我可以推11.8米，超出了满分10.7米的成绩（我另一个超出100分的项目是50米跑，成绩6.2秒）。记得班里的男生体能测试推铅球都有3次机会，但我每回只推一次，体育老师就不准再推了，让我挺郁闷没有继续提高成绩和表现一下的机会。

2008年到北京大学工作后，随着年岁增长，江湖梦远，可选择的健身种类也有了越来越多的限制。在运动会上田径方面我喜爱的项目只有铅球了（外加一个实心球项目），武术方面我开始练习以柔克刚的传统太极拳。

至今我在校教职工运动会上先后拿过14个前八的名次（每年个人最多参加两个项目），其中铅球最好成绩是第3名，在教员（faculty）中则多次是第1名，实心球有一回前八名里也只有我是大学教员。某一年拿了两个不错的名次后问系里有无什么奖励，系办公室主任迷起眼睛仔细回想了想，说道：“十多年前咱们系有老师在运动会拿过名次，好像奖励了一个奶锅。”楼宇烈老先生当时正坐在沙发上翻看报纸，听到后笑呵呵的打抱不平：“一个奶锅太少了，再加点儿！”

为了推铅球，我需要在比赛前进行一些推举哑铃和杠铃的系统力量训练。但练习了传统太极拳后，师傅多次提醒不要练习举重，以免肌肉变硬，不利于太极拳的放松和内气运行。吴式太极拳名家王培生先生更是明确告诫，完全不需要重量训练来增强太极拳的功力。这使我感到挺为难，一方面不愿意放弃自己喜爱的铅球项目，另一方面又很想练出太极拳的内气。为了折中，我为准备推铅球而进行的负重训练时间从运动会召开前的3至4个月，逐渐缩短为现在的1到2个月，传统太极拳则是每天雷打不动的健身方式。渐渐地，随着多年的实践和感悟，我的铅球成绩很稳定——只要经过力量训练，凡参赛，必进前五，太极拳的内气近两年感觉也越来越明显（按传统师傅的话说是路子走对了），似乎找到了铅球和太极拳之间的平衡。为此，对比一下来自西方的铅球运动和中国传统的太极拳两者之间迥然不同的运动原则、发力方式和健身效果等，毋庸置疑也是一件有意义、且有趣味的事情。



**本文作者在全球课堂开设的太极拳课程**

**铅球：更高、更快、更强**

上中学和大学时我对田径运动，尤其是铅球非常着迷，觉得在那么小的一个圆圈里（直径约2米）人的身体能够爆发出如此巨大的能量——“静若处子，动似雷发”，实在令人惊叹。平时走在路上，看见一块合适的石头或砖块，我都会顺手推一下。当时中国女子铅球正是黄志红的辉煌时代，她奋力一掷，为中国首夺田径世界冠军的飒爽英姿更是让人热血沸腾。

为此我读了不少田径训练方面的专业书籍，在比赛前几个月按照书里的科学方法进行力量训练，并坚持至今。为方便在家里练习，我买了4、5副可拆卸的哑铃，重新组装成不同的重量，单只哑铃从10千克、15千克到20千克不等。有两年还试过单臂举25千克的哑铃，但因手腕力量不足，容易挫伤而放弃了。我的主要练习原则和方法如下。

选择最大重量哑铃的方法：如果能够轻松举起12次就说明重量太轻了；如果很费力都举不到8次就说明重量太大了。当然，随着训练水平提高，这个最大重量也随时可以调整。

以爆发力为主要目的的力量强度练习方法：单组两臂轮换快速上举8-12次，各组分别重复6-12次，不同的动作练习可间隔进行。比如，最大重量的哑铃我通常是站立式向上推举（分直臂和旋转臂上举），这样有助于协调全身的力量。中间可用轻一些的哑铃交替练习几个背部、肩部、腹部肌肉的动作。每次力量练习从预备热身活动到结束整理放松约1.5小时以上。

而所谓系统训练则是要求，两次训练的时间间隔不得少于24小时，以让肌肉充分适应和恢复，但又必须在72小时内重复进行训练，以免训练效果退化。如此才能够让肌肉力量不断增长，并持续累积进步

按照上述科学、系统的训练，每周3次的重复练习坚持3、4个月，甚至最近几年的1、2个月，效果都非常明显：感觉身体被哑铃“压得”非常紧致、结实，富有弹性，尤其自己肩臂部位的肌肉状态和力量增长明显可见，而且只要循序渐进、一步一步地投入练习，必会有层层效果显现，屡试不爽，令人振奋。《李小龙健身法》一书中也提及，在44天里李小龙经过14次的负重练习（当然其练习强度要大很多），他的左右肱二头肌围和左前臂围的增长幅度居然都接近2厘米。

有一年寒假我出国访问交流，回来刚好赶上开学，异常忙碌，没有进行系统力量练习。想着自己的铅球成绩多年来一直是第4、5名的样子，亦有侥幸心理觉得即使不锻炼拿个名次应该问题不大。到4月下旬运动会比赛当日，“屋漏偏逢夜雨”——我们40岁年龄组本应该投5千克的铅球，裁判员却弄错拿来了7.26千克的标准铅球，时间上也来不及调整了。大伙儿只好硬着头皮、一个个呲牙咧嘴地费力推大号铅球。我把铅球往肩上一放就感觉浑身很不协调，眼瞅着自己的名次在第8名附近徘徊，最后一投更是发狠用力猛推，结果腿上蹬出大力，腰、肩、胳膊却无法连贯传导，滑步转体时身体动作被铅球压得变形而难以控制，以至于右大脚趾直接狠狠地撞到了投掷圈前的抵趾板上，几乎摔倒，顿时疼痛难忍，十分担心发生了骨折。这一年成绩最差，名列第7。万幸右大脚趾没有骨折，但又紫又肿，趾甲盖也被顶断了一半，其下的黑色淤血半年后才逐渐消失。这从相反的方面使我得到一个深刻的认识，对于铅球这种挑战极限（虽然是微不足道的个人极限）的田径运动，如果参加就必须认认真真地做科学、系统、足量的训练，按部就班地逐步提高身体的参赛适应水平，否则犹如懒农种地——“人哄地皮，地哄肚皮”，不但得不到预期效果，反而很容易造成运动伤害。

**太极拳：松沉、慢匀、柔和**

相对于推铅球运动要求紧张、快速、大力地训练和爆发，传统太极拳的日常练习则要求身体松沉柔和、动作缓慢匀称、甚至用意不用力。在太极拳看来，主动使用肌肉（更不用说专门训练大块肌肉了）反而会“因小失大”“因局部而害整体”——束缚身体自然、通透、和谐的整体发挥。

我从2008年开始接触传统太极拳，最初几年对太极拳的认识也仅限于套路体操式肢体运动的理解。经过十多年的摸索体悟慢慢开始明白太极拳在身体松柔状态下的以气运身、以内催外、周身一家的运动模式。比如蹬腿的动作，腿不能局部去做蹬出的动作，而是通过内气的疏散，全身整个松开，实际上腿是自动“松”出去的（即所谓“开”）；同理，收腿时也不是单一地把腿抽回来，而是通过内气的收敛，全身协调回缩，把腿自然地“吸”回来（即所谓“合”），而“一开一合，拳术尽矣。”

几年前，一位传统师傅在教野马分鬃的动作时，告诉我们要“像花开一样”从心里面打开身体以及两臂的动作——这完全颠覆了我最初对太极拳体操化习练的认知。不妨想象一下鲜花绽放的情形：花瓣由内到外井然有序、徐徐打开，虽然娇小柔弱，却生机盎然、充满生命的活力——此亦即“极柔软而又极坚刚”是也。太极拳的每一动作同样要求，由内而外、灵活圆润、自然协调，“日久出天然，随意见天真，玄妙在天工”，非行云流水、气韵生动不可形容也。

相对于推铅球的日常训练把重点放在实实在在、可量可测的肌肉力量增长方面，太极拳则推崇“空空寂寂一气游”，而这个内气却像是没有物质实体、现代科学至今难以解释清楚的“能量流”或“信息流”。通过强调全身松开让内气通畅无阻，也可以达到“发劲如放箭”的冷脆效果。曾有人当面质疑杨建侯：看上去动作松松垮垮的太极拳，如何能够把人发出去？后者回答说“正是因为松松垮垮地发人，才可以把人发放的更远呢。”对此内气及其使用，即使许多传统太极拳爱好者习练多年也很难真正理解和实际感受到。此处我结合自己的实践和感悟，略述如下。

从2008年至今，我先后认真学习了陈式、吴式、杨式以及武氏等传统太极拳，6、7年前开始练习站桩。期间有传武的朋友热心告知站桩要站的两脚底呼呼往外冒热气，我当时却觉得对此内气完全不能想象，并无知地嘲笑其说法。但从2021年元旦开始，站桩时我的左右两腿先后经常有一团一团的热气落到脚底，这使我既惊讶又惊喜。现在一整年过去了，我明显感到此内气越来越强烈，例如下落到脚的热气从一团一团的逐渐变为持续稳定的热流；落至脚底的热气，从以前只在脚心部分，开始扩散到全脚掌以及脚趾头；以往脚底只是温热，现在偶尔也有发烫的感觉了；原来只在静态站桩时才有的脚底热气，现在动态打拳时也经常有了，即使冬日在刺骨寒风中练拳，也会手脚发热，暖和舒服。恰如有拳友形象地描述，在冰天雪地里站桩，也能站出“春天般的感觉”。

传统师傅介绍说，一般人按照正确方法习练太极拳，手发热比较容易体会到，因为两只胳膊无须承担体重，相对易于放松；但两腿因为承重，很不容易松开，体会到内气流动较为困难（普通人多习惯使用右腿，其肌肉也更发达，相对反而左腿比右腿更容易松开，会先有热气涌出之感）。有些人练10年、20年也不一定会找到正确感觉。这又是传统太极拳的一个习练特点，无法像铅球的力量训练，按部就班必有阶段性提高，而且训练标准和结果都有相当的“客观”性和可靠性。许多人练习太极拳可能一辈子都在做局部肢体运动的太极操或太极舞，甚至越练越远离太极拳的核心理念。难怪李雅轩说“99%的太极拳习练者都练错了”，真正的太极顶尖高手更是羚羊挂角、“代不数人”！

因此，太极拳不但无法统一要求，即使师傅口传心授、因材施教，依然有大量的诸如父辈的太极拳传不到儿子，正式的徒弟得不到真传的情况存在。学成出师的徒弟，往往也风格各异、自成一派。如杨露禅的三个真传弟子——万春得其筋而获劲刚，凌山得其骨而长发人，全佑得其皮而善柔化。杨家三代出高手同样各有擅长：杨露禅闯天下，杨班候打天下，杨建侯养天下，杨澄甫传天下。真可谓“一树一菩提，一人一太极”，纵然师从一人，每个徒弟学习感悟太极拳的道路可能亦不相同，恰如画家吴昌硕所言：似我者死，破我者进，化我者生。

**铅球与太极拳：美人之美、各美其美**

与铅球训练原理一脉相承的许多西方运动，如力量练习、户外徒步、马拉松等近年来在国内蓬勃兴起，其不断挑战身体极限的“更高、更快、更强”之激情梦想、相对客观标准的训练方式、 “立竿见影”的效果之彰显越来越吸引年轻人的加入。而传统太极拳的诸如内外兼修、天人合一、“举手投足皆太极”“太极十年不出门”等中庸、平和的健身、养生、技击三位一体的理念，却越来越令现代人难以理解和认同。

在我的“太极拳传播讨论”课上，就有修过24式简化太极拳的研究生直言，太极拳“很难看”，一些动作“莫名其妙”，不禁令人担心他对太极拳的认知和理解是否不知不觉中受到了西方科学、运动理念的先入之见、或者说“文化污染”？也有学生观看传统师傅的太极拳照时，批评其右蹬脚“连腿都没有伸直”，我当即反问她“你为什么觉得腿伸直就一定是好看的呢？”太极拳讲究守中用中、攻防兼备，起脚不过腰，“曲蓄而有余”，避免过犹不及走极端。看样子，这类传统理念对于现在的年轻学子似乎已经完全陌生，也难以认同了。近两年，我开始安排课上学生去现场体验民间太极拳师傅的师徒传授和真实功夫，他们无不惊讶地承认，如果不是亲身去实实在在地感受和体验，绝不会相信竟然还有这样的功夫和理念。

有位也是北大化学院篮球队队员的硕士生曾修我的太极拳课，在谈到练习太极拳的初级阶段手会有热胀的感觉时，她脱口而出“我打篮球时手也会发热！”言语中颇有不屑之意。现在她已经读博士生了，在校园里偶尔还会碰到，我倒很想有机会再问问她，打篮球是否也会气血通畅到脚底而发热？

一位教24式简化太极拳的武术老师在私下聊天时无奈地感慨，自己没有办法把传统太极拳的练习方法融入到现代的课堂教学当中。起初我还挺难认可他的观点，后来逐渐明白了：高校男生必修太极拳课，其主要教学成果的展现方式通常即是运动会开幕式上的集体24式太极拳演练。表演要求自然是动作统一规范、千人整齐划一，个高者动作放低、个矮者手脚伸长，如此标准一致的教学要求岂不是犹如长腿锯短、短腿拉长的“普罗克拉斯提斯之床”（ the bed of Procrustes）吗？又如何能够做到传统太极拳以“找舒服”为原则的“十人十太极”的个性化呈现呢？

**杨式汪脉太极拳传人邱贻国先生之右蹬脚**

在上述简单的表面不同和认知差异的背后，实际上蕴含着中西运动、健身从基本理念到实践操作在范式层面上的霄壤之别。如何认知和协调这两者之间的关系？是否“鱼与熊掌不可兼得”，只能做二选一，用一种否定或取代另一种？亦或二者是否也可以和平共处、美美与共？

这其中，深刻地认识到中西运动两者之间本质上的差异性，避免简单粗暴地以科学或不科学的二分法进行划界，或者以一种范式强行过度解释另一种范式等都是十分重要而关键的问题。限于篇幅，此处简略论述几点如下。

首先，唯西方研究范式马首是瞻，将严重影响甚至误导对传统太极拳的理解。两年前我参加过一个太极拳的国际会议，从会议议程中可以看到各位专家学者的报告主题基本上都是诸如：太极拳对冠心病的辅助治疗、太极拳对肩周炎的缓解机理、太极拳对乙肝的疗效、太极拳有助于肾炎病人的康复、太极拳对高血压病人的恢复作用探讨、太极拳运动对腰间盘突出患者的治愈功效、太极拳有利于肺栓塞的防治、太极拳对失眠的改善……等等，这类秉持西方科学方法的分门别类、不断细化的研究模式固然都有其自身的合理性——科学的本义即是“分科之学”，但对太极拳的认知却可能带来越来越细节化、碎片化的负面影响——“只见树木，不见森林”，甚至“一叶障目，不识泰山”。会上亦有国外太极拳研究者坦言，目前非常缺乏对太极拳整体全面把握的人文领域的研究成果。的确，如果只是各个学科领域分别在各自的“一亩三分地”里对太极拳进行西式分科细化的专门探讨，那么对太极拳来说，只会带来越来越多“盲人摸象”般支离破碎的认识。

美国运动医学学会认为，对于健康成年人，要使心血管系统得到锻炼，达到增强体质的目的，锻炼的强度最低应为本人最大摄氧量的50%，心率应达到130-135次/分。为了迎合这一西方运动理论，国内有专家论证，练习太极拳可以达到或接近这个心率，从而符合心血管锻炼的国际通用标准。试想一下，如果一个人练习太极拳时的心率每分钟达到130至135次，他还可以做到中正安舒、呼吸自然、气定神闲吗？这样盲目引进的科学研究和推论是不是有点削足适履、食洋不化？当下许多研究似乎离不开定量数据、定量模型，然而所谓定量往往只意味着某种程度上的精确性，并不一定代表准确性，更不必然表示正确性。

其次，在实践理念上要注意区分两者之间的不同，比如“内”与“外”的不同。日本作家村上春树在其著作《当我跑步时我谈些什么》中提到，他常年坚持长跑，有几十次参加全马、超马比赛和铁人三项赛的经历。为了不断突破自己的极限，甚至刻苦训练专门的跑步肌。结果，由于长期严格的高强度练习，“浑身肌肉紧绷僵硬”，“肌肉仿佛一个礼拜前吃剩的面包，又硬又僵，很难想象这竟是自己的肌肉”。为此他不得不多次请专业的健身教练帮助拉伸和放松，以避免肌肉超出负荷或痉挛，后者每回都对村上“邦邦硬”的肌肉感到惊诧不已：“一般人的话，早就出毛病啦，你居然还能平安无事！”

我自己在为推铅球比赛而进行的力量训练中，也同样会经常有肌肉酸痛、僵硬的感受。而太极拳的日常习练却要求尽可能避免出现肌肉酸痛和局部僵硬的现象，一旦身体任何部位有发酸、变硬的苗头，均会通过微调姿势和意念、由内到外地放松而随时使其舒缓和消失。故有拳论直言：“太极拳练法，以心行气，不用浊力，纯任自然，筋骨鲜折曲之苦，皮肤无磋磨之劳。”一次师傅看我打拳，批评道：“你打的太认真了”——“认真”居然也有问题！原来，太极拳的“松”是“连放下也要放下”——太认真了容易意念过重而导致动作拘谨、僵化，离自然顺遂的大道反而远矣。

现在许多人的健身热衷于肌肉线条、外形塑造，为增肌而超强训练，为时髦而盲目跟风，为塑身而过度节食。结果却常常走向极端，顾此失彼，事与愿违，如一些健美专业人士徒有令人称羡的强健外表，却频频出现亚健康、早逝、甚至猝死的现象，似乎与康养长寿之道背离，可谓金玉其外，却又外强中干。传统太极拳的健身、养生之理强调顺其自然、由内而外、整体和谐。通过“气血流注，日日贯输，周流全身，无时停滞”，增强气血在体内五脏的周流运行，继而气灌四梢——辐射滋养肢体，五脏健而后五肢（此处头部也算一肢）强。“不求皮坚肉厚，而求气沉骨坚”，内外相合，神舒体安，身心协调，达到气满、精足、神逸的健身养生效果。

再次，在具体的练习方法上，也要注意两者之间的差异，比如“局部”与“整体”的差异。相对于铅球力量训练分别侧重腿部肌肉、肩部肌肉、手臂肌肉等“局部”的部位，太极拳首先关注的是整体通畅、一气流行。如不但手与足合、肘与膝合、肩与胯合（外三合），而且全身各部分都要合（周身一家）；不仅心与意合、意与气合、气与力合（内三合），而且内与外也要相合（六合如一）等等。为了避免过多突出锻炼局部肌肉，我近几年停止了以前为强化肩臂肌肉而专门坐着举哑铃的练习方式，改为站立式全身协调发力的举重方式。

总之，西方运动“更高、更快、更强”的理念，鼓励向各个领域高歌猛进，科学手段、定量方法日臻完善，不断突破人类极限、取得辉煌成就的同时，其日益专业化、精英化的发展却也逐步将普罗大众远远抛离在后，与百姓的日常健身更是渐行渐远。而传统太极拳却视健体、技击、修身为三位一体，是本自具足、自我圆成的，无须靠彼此竞争、击败别人、征服自然来证明什么，且法无定法，动即是法，一举一动皆内外兼备、形神具足、境界无穷，实非全然占煞，虚非全然无力，阴阳磨荡，衍生万法，如“长江大海，滔滔不绝”，因而“每一势拳，往往数千言不能罄其妙。”此两种截然不同的运动、健身理念，其实也不必分出高下，亦无须非此即彼。“道并行而不相悖”，既应有美人之美、欣赏他人的雅量，亦需有各美其美、自我肯定的自信。

台湾有一太极拳老师傅，功力精湛，德高望重，年轻时在一家银行的地下库房工作，时间相对灵活，库房空间也大，他因此随时随地练功不辍。后因工作认真负责，银行给他提职加薪，调他到行政部门工作，他却拒绝了，坚持一直在库房就职到退休以方便习练太极拳。吴图南曾言，自己严格依照前辈习练太极拳的传统方式教授徒弟，即使徒弟因怕吃苦都跑光了也不会改变。汪永泉也曾向相关部门提议，他可以用三年时间传授传统太极拳的独特训练方法来提高散打运动员的技击能力，但却没有得到任何回应。两厢对照，令人唏嘘，一方面传统太极拳师傅一心问道、坚守传统，同时他们的生存环境却日渐局促和边缘化；另一方面，一些所谓现代的管理、科研、教学机构却对我们自己的文化传统颇为陌生，或视之如敝履，或拒之于门外。正因为如此，这些传统太极拳的传承方式及其背后的不同理念亟需进行范式化的系统、全面的了解和体认，尤其需要尊重其独立、自主、可持续的发展空间。

有趣的是，通过铅球和太极拳的长期习练，我发现二者似乎也有些许“相通”之处：铅球的“紧”反过来也更好地促使我理解太极的“松”；太极拳的“节节贯穿”也同样有助于我更加周身协调地推出铅球；铅球的“静若处子，动似雷发”，与太极的“静极而动”“极柔软而后极坚刚”岂不是亦有异曲同工之妙也。可以享受到这两种运动的美，而且“美美与共”，不亦乐乎！

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