

The Influence of Industrial Civilization to Ecological Civilization on the Concept and Behavior of Sports

Yi Zhang, Huawei Liang*

School of Physical Education, Henan Polytechnic University, Jiaozuo, Henan 454000, China

*Corresponding Author.

Abstract: *The formation of sports concepts is influenced by various factors, such as institutional policies, level of economic development, education level, etc., lifestyle, etc. the form of human civilization is also an important influencing factor. the development of human society may be divided into primitive civilization, agrarian civilization, industrial civilization and ecological civilization. This paper tries to analyze the changes and evolution of sports concepts and the influence on sports behavior from industrial civilization to ecological civilization. The first-level index gives weight to 0.5, reflecting the equality between teachers and students. After that, the entropy weight method is used to determine the weight of each second-level index, which is an objective weighting method. The less the variation degree of the index is, the less the information it reflects, and the lower the corresponding weight should be.*

Keywords: Industrial Civilization; Ecological Civilization; Sports Concept; Sports Behavior.

1. INTRODUCTION

Industrial civilization is a historical-philosophical category. the completion of the modern industrial revolution has brought human society into a new civilization and social development with industrialization as the main symbol, mechanized mass production as the main mode of production, and the refinement of labor division as the main mode of cooperation. Industrial civilization has created great material wealth and a rich and colorful spiritual life for human society, and the desire of human beings for a better life has also propelled the continuous development and progress of industrial civilization. the emergence of industrial civilization was a major turning point in human civilization, where machine-based production led to an unprecedented increase in man's ability to use nature, and mankind gained unprecedented achievements in developing, transforming, using and conquering nature. As a result of technological progress, the physical and intellectual nature of labor in agrarian-like societies was increasingly dissipated by machines. the worker operates the machine and it is the machine that acts directly on the object of production. the machines became more and more automated, and the physical element of labor became less and less, while the intellectual element, characteristic of industrial labor, became more and more important.

The study of machines also influenced the human understanding of the body. Some thinkers, philosophers, and medical doctors have even drawn analogies between the human body and machines, arguing that the various movements of the body are like the operation of a machine, and that the body functions in precisely the same way as a machine does in production. the development of science and technology and the ideology of human body understanding influenced each other and promoted each other, forming a social trend of attaching importance to the body and studying it, and Europeans formed a preliminary view of the body, thus forming a profound influence of the body awakening on the development of sports.

1.1 The basic theory of sports in the period of industrial civilization

During the industrial civilization, the philosophical idea of mechanism made people regard the body as a purely physical existence, and the functions of the human body were regarded as functioning in a mechanical way, thus promoting the study of the body as an experimental scientific object and the development of sports physiology and human anatomy, which provided more scientific knowledge support for people to carry out sports, and made people hold a more scientific and rigorous attitude toward sports.

1.2 School sports in the industrial civilization

In school sports, along with the emphasis on the concept of the body, in the field of education not only emphasized

the physical movement ability of students, but also began to pay attention to the social development of the body under the influence of Enlightenment thinking, further expanding the value of physical education, and began to pursue the simultaneous enhancement of the body and spirituality and morality, which promoted the rapid development of school sports [2].

1.3 Competitive sports in the period of industrial civilization

Introduction to the author: Zhang Yi, May 1994, female, master's degree in school of physical education, Henan University of technology, research direction: social sports management. Corresponding author: Liang Huawei, male, 1978.01, Professor, graduate supervisor, School of physical education, Henan University of technology, main research direction: social sports management.

Due to the popularization of mechanization, people have a uniform standard for the specification and quality of products. In sports, people also began to focus on unifying the rules of the game and practicing and competing according to a uniform lifestyle and standard. In addition, because of the values of freedom, equality and fraternity in the Enlightenment, the application of contractual thinking and the spirit of fair competition in the field of sports competition, the behavior of sports competition gradually became standardized, and the importance of the rules of competition agreed upon by each other to ensure the standardization of competition behavior, the protection of the athletes' bodies and the maintenance of fair competition. Thus, the improvement and unification of training facilities and training rules have promoted the benign development of competitive sports.

1.4 Mass sports in the period of industrial civilization

During the period of industrial civilization, the production and lifestyle of human beings changed greatly. on the one hand, it greatly damaged the original social order and social structure, resulting in the surge of urban population and the phenomenon of massive migration. on the other hand, it also contributed to the improvement of social productivity and the standard of living of the people. With the popularity of assembly lines and mechanization, people's work became more and more monotonous. When separated from the heavy and boring work, people began to look for satisfaction outside of work, and sports activities such as horseback riding, fencing, dancing, etc. became a fashionable and recreational part of life for people from all social strata. the main purpose of participating in sports activities is to spend leisure time and enrich personal life, as a kind of compensation and catharsis outside of work.

2. THE CONCEPT OF SPORTS AND SPORTS BEHAVIOR FROM THE PERSPECTIVE OF ECOLOGICAL CIVILIZATION

The history of human society is a process of evolution from primitive civilization to agricultural civilization to industrial civilization and gradually to information civilization. In the primitive and agricultural civilizations, human beings could only carry out various production and living activities under the constraints and framework of the natural environment, and "living off the sky" was an important characteristic of human beings in this era, while entering the industrial society, human potentials and desires were exploited and abused infinitely. For more than a hundred years, mankind has been conquering and plundering nature. In the process of industrialization, with the rapid advancement of science and technology, the production and lifestyle of human beings have changed dramatically, and while human beings are consuming the natural ecology excessively, human beings are also suffering from the retaliation of nature. Ecological sports is the thinking and expectation of people in the field of sports under the environment of ecological civilization.

(1) the single leg straight leg hard pull, known as the king of posterior chain exercises. It develops the whole chain of movement of the body and enhances body balance. In order to better exercise the lower body strength, we can use the tool of kettlebells in the exercise. Ask the hand on the opposite side of the supporting foot to hold a kettlebell and lean forward from the hips while lifting the free leg backwards. Do 3 or 4 sets of 5 to 10 reps per leg for 6 weeks in order to have some effect.

(2) Side step squats, a great single leg exercise that combines single leg strength, dynamic flexibility and moderate instability. This exercise can be done as both a warm-up exercise and a strength exercise. When doing the movement be careful to keep your weight on the heel of the side of the squat and keep your knee directly above your toes. In addition, we can also use the Mini Stretch Band Side Straddle, which creates some internal rotation on the feet and gives greater stimulation to the external hip rotators. the Swiss ball flexion is also a great way to train

lower body strength. This exercise is an advanced exercise as it requires the use of the gluteus and erector spinae muscles to stabilise the trunk.

2.1 The basic theory of sports in the period of ecological civilization

In the period of industrial civilization, while people exalt human subjectivity, human beings experienced defiance of nature, and during this period, when the powerful human intervention in nature exceeded the self-regulating ability of nature, and nature was unable to endure human plundering and ravaging, human beings themselves faced an ecological crisis. When the global ecological crisis emerged globally, the myth of industrial civilization was shattered and people could no longer enjoy and savor the fruits of industrial civilization with peace of mind. In the field of sports, people pay more attention to how people of different ages, populations and diseases can use sports to achieve a state of physical and mental health.

2.2 School sports in the period of industrial civilization

By optimizing the natural, social and normative ecological environment of school sports, it is conducive to the establishment of a good educational ecosystem, which is also important for achieving educational goals. The form and process of education and the educational and social environment of a specific period together constitute the educational ecosystem environment. The continuous improvement of the educational ecosystem environment and the construction of an ecological physical education system can promote the sustainable development of ecological physical education. In addition, using the basic principles of educational ecology to explore the laws and ecological mechanisms of physical education development and to explore ways and means to optimize the ecological environment of physical education is a hot spot of current research.

2.3 Competitive sports in the period of ecological civilization

Competitive sports itself is a cultural phenomenon. Olympic culture is profound and profound, and it is a field that sociologists and sports scholars keep exploring. "Faster, higher, stronger", "more participation", "more human, more moral, more healthy", etc. are the cultural essence of Olympic sports. To strengthen the construction of competitive culture is to guide people to pursue and actively participate in competitive sports, to enjoy sports as a way of life, to receive education on fair competition, to pursue their own life values, and to constantly improve their personalities. Under the influence of ecological civilization thought, competitive sports not only pay attention to competition results, but also gradually begin to pay attention to the personal character of athletes, the sustainable development of their careers, the utilization rate of venues, and the environmental protection of events. The development of competitive sports to a more multi-dimensional and multi-level ecosystem

2.4 Popular sports in the period of ecological civilization

With the deepening of the concept of ecological civilization, the sports academia began to think about "ecological sports" under the concept of ecological civilization from the mid to late 1990s. With the deepening of ecological civilization and the gradual improvement of the concept of "ecological sports", the sports community, represented by the International Olympic Committee (IOC), began to reflect on modern sports from two dimensions: natural environment and social and humanistic environment, and to practice in various aspects, and to make efforts to solve the environmental and humanistic crisis faced by modern sports. "Ecological sports" and "low-carbon sports" have come into being. Influenced by this idea, people are more and more willing to go out and choose outdoor leisure activities, and gradually began to appear sports towns, etc., the development trend of combining sports and tourism, but affected by the epidemic, the development of sports and tourism integration in recent years has been temporarily affected. In terms of for sports and fitness pay more attention to their physical health and shape, the pursuit of natural beauty and health beauty.

3. FUNCTIONAL TRAINING PROGRAMME DESIGN FOR FOOTBALL SHOOTING TRAINING

The take away distribution route optimization problem is a distribution collection traveling salesman problem. This type of problem involves two types of customer needs: One is the distribution demand, which requires the goods to be sent from the distribution center to the demand point; another is the collection demand, which requires the goods to be transported from the demand point to the distribution center. When all the distribution and collection requirements are fulfilled by a limited-capacity vehicle starting from the distribution center, the driving

route is arranged to form a Hamilton loop with the shortest journey. In this article, the demand side is the college students waiting for a takeaway delivery. the takeaway riders perform the functions of the distribution center and require the shortest path to meet most college students' needs. Two methods will be used to solve this problem, also, the planned routes will be compared to figure out the difference and the reasons.

3.1 Core strengths

The core is all the muscles in the central part of the body. Any workout that works the abdominal, hip or even scapular and chest muscles can be considered an important workout. the important point is, crucially, that not all of your body workouts are maximum intensity workouts. Most cardiac workouts are essentially a moderate contraction workout that is more for activating and toning the muscles and is important for reducing injury and improving the performance of the athlete. In his monograph, Boyle emphasises that core strength exercises fall into three basic categories: resistance to extension, resistance to lateral flexion and resistance to rotation.

(1)Anti-extension exercises, which can be performed using prone push-ups, i. e. kneeling plank supports, where the force arm is lengthened and shortened by rolling the ball. Reaching plank holds, which only require the athlete to reach their hands towards an object in front of them, can be performed using a cone barrel. the athlete starts with the forearm and elbow for support. the reach goes from a four-point support to a three-point support, keeping the core stable.

(2)Resisting lateral flexion exercises, start with a simple flat side brace, using the elbows for support and pulling the scapulae down and back, tensing the whole body. Later, the difficulty can be increased moderately, such as side brace rowing, where athletes can use elastic bands or tension ropes to do rowing movements.

(3)Anti-rotation exercises, using the standing position to throw the ball sideways, about 0.5 to 0.9 metres from the wall, holding the ball sideways on the left side, consciously using the legs and knee and hip joints to generate force, feeling the hip to push out the feeling, as a way to strengthen the flexibility of the hip joint and core strength. the overhead throw from a standing position uses the torso rather than the arms to throw the ball overhead.

3.2 Lower limb strength

In the past, most of the training methods for lower limb strength used barbell half squats and deep squats with some jumping exercises, which were boring and did not have very good results. In functional training you can do sumo pulling with the help of kettlebells. In a squatting position, sit back at the hips until the end of the dumbbell or the handle of the kettlebell can be grasped within touching distance. the latissimus dorsi and lower trapezius muscles fire up and lift it up. Another way to train is to develop single leg strength. There are already many coaches who have abandoned the traditional two-legged training approach and are favouring a strict single-leg training programme. Single leg strength is an important intervention for functional lower limb strength training and can increase an athlete's interest in actively participating in lower limb physical activity. Therefore, the following training methods can be used.

The development of Internet technology and the popularization of online consumption have promoted the upgrading of various industries. In recent years, the rise of O2O platforms represented by Ele. me and Meituan has brought broad business opportunities to the catering industry. the income of takeaway riders mainly depends on the number of delivery orders and customer reviews. As a particular consumer group, college students show a strong sense of dependence on delivery services. College students with a relatively fixed schedule considered that whether the food delivery on time is the main criterion for evaluating food delivery riders. Takeaway riders near the university campus should attach great importance to punctual delivery when receiving multiple orders. the delivery route needs to be reasonably planned as the shortest distance to improve delivery efficiency.

3.3 Basis of functional training programme design

Before designing an effective functional training programme, it is important to analyse and understand the demands of the sporting technique. It is obvious that shooting techniques emphasise core strength, lower body speed and explosive power. the design of every programme should begin with the preparation period. For footballers training in shooting technique, it is important to make specific arrangements in the training. Athletes need to be told the number of sets of exercises, the specific requirements and the time between them, and the intervals should be strictly controlled and regulated to avoid them resting too long and affecting the rhythm. the

second is strength training. From a strength point of view, most sports are the same and the needs for basic strength training are very similar. the academic Boyle suggests that 80% of the training is likely to be the same, no matter what the sport. We need strength to improve explosive power and speed. Think of strength as the foundation on which to build all other athletic performance. For football shooting techniques in particular, there is a greater demand for explosive power and speed in the lower body.

The food delivery service is getting more and more popular in recent years. the delivery route planning is a hot spot problem. In this research, two methods are used to do the same location route planning in Chinese University of Hong Kong. the first method is using python to create a programme by calling Dijkstra to organize the route, the other one is using Arcgis network analysis to achieve route planning. the difference of the routes between two methods will be concluded and the reasons will be analysed. In the planning result, the route planned by Arcgis is 6.9Km and the route planed by Dijkstra programme is 5.4Km.

3.4 Shooting technique is an essential and key technique in football

In addition to the high demands placed on the mental, physical and physical fitness of the player, it also places high demands on their core strength, lower limb explosive power and foot speed. Functional training is a new training method introduced in China. Its aim is to train the individual's sense of body control and introduce a certain amount of instability training through different forms of various exercises, allowing the individual to gain stability and react on their own. As a sporting technique that combines speed and strength, traditional training methods and approaches are no longer sufficient to meet the current training needs. Functional training is a highly effective method of training that incorporates multidisciplinary theories and perspectives and is based on the structure and energy metabolic characteristics of different sports to design a series of movements that conform to the laws of human movement. This paper therefore introduces the theory of functional training methods into football shooting training to provide a reference basis for future football training.

4. CONCLUSION

Any civilization form is only a historical phenomenon, historical process, and will eventually die out and be replaced by a new civilization form. the development and change of civilization forms represents a new way of thinking about the way of living for human beings. We have benefited from the development of industrial civilization, during which sports have been widely popularized and standardized. But when we began to reflect on the roots of the crisis of industrial civilization, seek countermeasures to solve the crisis, re-examine the relationship between human beings and nature, re-establish the ultimate value of human existence, and seek the harmonious development of human society and nature, sports also gradually formed a new view of sports for harmonious development under its influence. Functional training has expanded from competitive sports to school sports and has been widely used in school physical education. By starting from the basis of functional training programme design, citing the theories and methods of functional training and combining them with the needs of football shooting technique training, this paper provides some training methods for the design of football training programmes from three perspectives: core strength, lower limb strength and foot speed, to provide an effective pathway to deal with the current dilemma of football players' shooting technique training.

REFERENCES

- [1] Lang Huanlin. the connotation of people's livelihood in (X_JP)'s thought on ecological civilization [J/OL]. Journal of Central South University of Forestry Science and Technology (Social Science Edition), 2022(02):1- 7+25
- [2] Chen Zhenbao. Research on the construction of humanistic environment of university physical education in the context of ecological civilization [J]. Environmental Engineering, 2022, 40(03):319
- [3] Liu Lin-Xing, Li Yue-Ping, Zhu Shu-Ling, Liu Jian. Study on the deep integration development of ethnic sports culture and ecological tourism in the Yellow River Basin [J]. Journal of Xi'an Sports College, 2022, 39(02):197-203.
- [4] Wu M. D., Jiang Chuanyin, Han Yuji. From original ecology to ecological civilization: The ecological history and dialectical reversion of minority sports development [J]. Guizhou Ethnic Studies, 2017, 38(09):134-137.
- [5] Tang Peng, Xie Zhengyang. Research on the alienation of sports culture in the context of modern industrial civilization development concept [J]. Journal of Wuhan Institute of Physical Education, 2016, 50(12):27-33.
- [6] Santana JC. functional training [M]. People's Post and Telecommunications Publishing House, 2017.

- [7] By Boyle M. Zhang DY, Wang X. Translation. Functional training in sports, second edition [M]. People's Post and Telecommunications Publishing House, 2017.
- [8] Gray Cook. Movement: a functional movement training system [M]. Beijing Sports University Press, 2011.
- [9] Li Jeming, Zhao Qi. A few thoughts on functional training in competitive sports training [J]. Hubei Sports Science and Technology. 2016, 35(9):826-828, 846.
- [10] Wang Gang, Lin Meng, Tang Zhisong. Psychological analysis of football players' shooting techniques and training methods [J]. Shandong Sports Science and Technology, 2009(4):28-29.
- [11] Sun Q. Research on football shooting techniques and teaching methods [J]. Talent, 2015(8):182.
- [12] Zhang Wei. Analysis of the shooting technique of young football players in China [J]. Sports science research, 1999(1):3-5.