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Research Article

COGNITIVE METHODS UNDER THE CONDITION OF VIRTUAL REALITY TECHNOLOGY

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ABSTRACT

After entering the 21st century in human society, the social form has dramatic changes. The generation of virtual reality technology brings a huge impact on our life, it also causes the reconstruction of the new epistemology system in the field of philosophy. This article will discuss cognitive methods under the condition of virtual reality technology.

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INTRODUCTION

One of the major progress in the development of modern science and technology is using virtual reality technology to reach virtual construction by recognizing objects and environment, and creating a new field for the development of philosophical epistemology, and putting forward a new challenge for the traditional epistemology. It has great philosophical significance to further study cognitive methods under the condition of virtual reality technology.

Materialism Epistemology Foundation of Virtual Cognition

The development of virtual reality technology is a new argument to the dialectical materialism, providing a new opportunity for its development. The material category is most important and basic category in Marxist philosophy. Lenin summarized new achievements that atoms can be divided in natural science and experience in the struggle of materialism and idealism, and then based on Engels's instructions, it further pointed out the material unity principle of Marxist philosophy, he thought that "material is marked to philosophical category of objective reality and the objective reality is acknowledged through the sense, it does not depend on our feeling, it is the copy, photography, reflect of feeling."¹ A material as a philosophical category does not rely on people's consciousness to exist, and it is objective reality reflected by people's consciousness. The only characteristic of the material is objective substantiality.

Thinking movement expresses things by means of virtual and digital, constructing new things in the virtual space to create

impossible things in the natural space to form virtual reality and virtual world, which raises the transformation of human thinking and behavior framework. The production of virtual thinking mode is a kind of inevitable. So which relationship is virtual condition and physical unity? Virtual as a philosophical term means "plausible". Moreover, virtually is not equal to the mere fiction. It is one of the states that it makes things around us symbolic and digitized. The subject has minds and thought. After things are symbolized in the virtual world, the change of the role has the characteristics of diversity and anonymity. Under the virtual condition, energy and sensitivity have been separated. Our information state tends to be symmetrical in the virtual world, and have no right to limit various interference factors encountered in real life. Our feelings and energy what we know and see are absolute, not relative. In the unphysical space, it does not have energy but it has real properties, it exists relatively independent, it is separated from the subject in the reality.

The objectivity of the virtual world itself proves the scientific nature of Marxist material theory. It is seen from its existence state. Virtual has broad and narrow sense. Narrow sense of virtual refers to digital virtual in our time. Due to the digitization, a human has two real platforms for the first time, namely the natural platform and the digital platform. The fund of the digital platform makes human transform from practical philosophy and practical thinking ways into the virtual philosophy, virtual practices, and virtual thinking ways. The word "virtual" use digital way of 0-1 to express and compose things and relationship. Specifically speaking, virtual use the digital way to constitute things or code this relationship, thus

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forming the real digital space, which different from the reality.² In such a specific space, we use digital symbols to communicate, it replaces language. Although the material, which has the specific properties, is infinite and invisible, it can't deny the objectivity, and it also cannot deny that it is an objective prototype in the real society. Because virtual is based on reality, if there is no objective reality, there would be no virtual. Virtual driving, virtual enterprise, virtual bank, virtual office, virtual schools, virtual tourism, virtual love, marriage, friendship, virtual medical, virtual shopping, virtual games, virtual library, virtual community, virtual community, virtual countries, even virtual earth, and so on can be found in real life. Therefore the virtual world is a kind of the real unphysical space with the characteristic of reality. It is also a kind of perceptual. It can also be used by our feelings to copy, photography and reflect, so it is also the objective reality and true portrayal of the material. The virtual world is the evolution of Marxism material view undoubtedly. The material is the production and performance of consciousness, it depends on the consciousness. If there is no consciousness, there would no material at the same time. Material refers to the commonalities of substantial objects and physical forms. The concept of material is generalized from substantial objects, and forming a universal philosophical concept. The relationship between substance and form, philosophical substance concept or category and another scientific substance concept is universality and individuality.

A virtual network is also a kind of objective existence. It is "a kind of technology existence based on reality, which is the realistic simulation, emulation, deformation, miniature or expansion"³. As a result, although the objective existence is both virtual and reality, the achievements of human practice and thinking are bound to affect the original material world. And it is also worth pointing out that although this kind of virtual can transcend reality, reality category does not become small. On the contrary, people continue to expand the reality space through virtual."⁴In the category of philosophy, it defines by the relationship of material and consciousness. The material is not consciousness. It does not rely on consciousness. The material is independent and original to consciousness. Consciousness depends on the material, and embodies the Materialist Point of View that the material is primary and consciousness is secondary, and reflects the materialist monism that the world is the origin and the essence is the material. The opposites between material and consciousness have the absolute meaning only in a very limited extent. The range is on the basic problem of epistemology that just admits what is primary and what is secondary. Beyond this range, the opposition is relative. It is because that consciousness is the reflection of the material. Reflector and be reflected are interconnected. Mao Zedong once said that material could be turned into spirit, and the spirit can be turned into the material in the human practice activity.⁵ "A correct cognition need to pass from material to spirit, from spirit to matter, namely from practice to cognition, from cognition to practice. It can be able to complete from recognition to practice by repeating so many times."⁶ The connotation of the material is objective reality, then the nature, social existence, all sorts of things and phenomena belongs to the category of the material, they have the common properties of material, such as: sports, time, space, regulation, mode of production, practice and its

results. They can reflect the materialist views completely. The material can be reflected and known by people's consciousness.

Virtual Cognitive Method Based on Materialism

The important feature of the virtual world is indefinite of time and space. This characteristic determines that the network can go beyond the original three-dimensional material space, even four dimensional. The three-dimensional mesh model provides the possibility for the formation of multi-dimensional space, and offers a wider range of new time and space for the material world, giving a new development opportunity to Marxism material world. In short, the special existence state of the virtual world not only didn't show that the virtual world can be separated from the material. From a new point of language symbol system to play its technical function, it is clearly the technical extension and expansion of language symbol system. "The primary meaning is not the break-through and transcendence of nature, but the existence of human beings", "It has cemented the subjective creative spirit, which can more reflect the autonomy of practice, thus deeply embody the practical essence of human beings."⁷ Under the virtual condition, recognizing property changes of the subject is also extremely important, because it bases on the foundation of the mode of thinking of the inter-subjectivity of the inner identity of subject and object. The essence of virtual reality based on virtual reality technology is object simulated by the physical reality (i.e., the original object), while the essence of virtual reality based on Internet technology is a "digital" social relation, it is "a new type of social existence".⁸

With the advent of digitization, human philosophical thinking way is transforming from reality thinking mode to virtual thinking way. So under the virtual condition, our cognitive method is a new production based on previous thinking way. Virtual Practice is a bidirectional objective activity, which forms between subjects and objects based on a digital system of agents. As a new practical form, virtual practice is that people use digital intermediary way to realize the transcendence of realistic sensuality.⁹ Compared with the previous way of thinking, cognitive methods under the virtual conditions break through the traditional thinking pattern, it has general cognitive methods and social characteristics of our thinking. There are some new features and social functions, which different from the traditional thinking way on the basis of reality practice. Our previous methods of recognizing things is to find their interest but cannot explain the problems in the real world, then form concept and the relationship between the concepts in our mental world, and after taking some operation to form hypothesis and validate in the real world. If the verification result is not in conformity with the reality, it is to be modified and reenter into the cycle of proposition formation. Conversely, if the verification results are in conformity with reality, they can be applied to the real world. But with the development of social practice, the dominant thinking way is bound to change accordingly in different times. As Engels pointed out that the theoretical thinking is a product of history, it has completely different forms and contents in different times."¹⁰

Whether it is in the virtual or reality condition, whether it is human or nature, we should make some research to reveal its regulation. In the meanwhile, we must abstract a proposition from the real world, then propose assumptions and experimentally verify the authenticity. This process should be

the same. The difference is that due to the complexity of human beings, there will still be a lot of difference in the process of cognition. It is the problem of individual differences. Here involve the properties again, I think that people is a simple but complex combination of nature instinct and social attribute. The social attribute is an important symbol that people are different from animals. It causes the complexity of human beings. Standing in the individual development or the whole developmental process of human beings, there is a common regulation that individuals and human beings are rich of social attribute, taking far away from animal instinct as value targets.

The Importance of Imagination in Virtual Cognitive Methods

Virtual reality can increase the capacity of human absorption information. Based on the general psychology theory, virtual reality has the function to amplify cognitive ability, it is necessary to strengthen people's perception ability of sense organs. In real life, our cognitive ability depends on many aspects, involving our subjective judgment, observation and the subtle sensibilities of our own mind. But under the virtual condition, they are not enough. Virtual technology put all kinds of real information on the receptor of the main body, making the main body get all kinds of information easily and increase the capacity of body's perception information, enhancing the ability of the subject's perception of information.

We can better transfer our feelings within the scope of space, time and specific range in the virtual and real world. Only in this way can we reconstruct the space and time in the virtual condition to establish a virtual environment, making people get the similar feeling like we live in the real world. Although our energy and feelings are separated under the condition of virtual, the feeling, which passes on to the receptors, is real. Such as 4D movie, in the process of watching movies, especially horror or science fiction movies, we have the spirit of high tension, all the body organs are in a state of high speed. Epinephrine secretion reached a high level, the heart speeds up, pore shrinks, then metabolism is accelerated. In the nervous state, human potential is very huge. Under the condition of virtual, we can beyond our physical space in the real world. Under such special conditions, it is not enough for us to feel things around us only by our five senses, and things that sometimes we feel are not the same as the real world. Because in the virtual condition what we feel is just felt by our own feeling. When information transforms to the sensitive, spatial and empirical forms, the relationship between the abstract information can better feel and understand. Virtual thinking is a kind of creative thinking, previous thinking only runs in the space of thinking, thinking is invisible. Due to the mode of virtual thinking, thinking runs in the virtual space created by human beings. Thinking has become behavioral and perceptual in a digital way. Thinking becomes the real system as the process of action. It is visible and can be repeated.

Virtual makes thinking and behavior integrated together, "thinking is behavior". What we think and see can realize in such a nonphysical space one by one under the virtual condition. I think that the imagination is a kind of important tool and method for cognitive methods under the virtual condition. It is creative. But this kind of creative imagination is not a figment of the imagination. It is based on the progress of human and the development of theory. Marx and Engels once

said that division becomes a real division only when physical labor and mental labor separate. This was the moment when consciousness can realistically imagine: It is something that is different from the consciousness of the existing practice. It doesn't have to think of something real, it can actually imagine something. From that moment forth, consciousness can get rid of the world to construct "pure" theory, theology, morality, and so on. ¹¹ The essence of the meaning of this passage of Marx and Engels is to tell us that virtuality is virtual to reality under the virtual condition. It is a virtual reality at the same time. The explanation has a realistic basis. There are all kinds of imagination and guesses in the early of our human production. As early as in ancient times, human beings explain the phenomenon by means of the fantasy and imagination. When we have not enough to understand ourselves and our surroundings, we can use our imagination to explain the things we can't explain. We don't use text to record myth, legend, and saga. On the contrary, imagination gives us a powerful influence. For example: when the natural phenomenon thunder cannot be explained, we can imagine that thunder and lightning occur because of angry of Thunder and Lightning. When natural disasters such as earthquake or flood occur, people will think it is a violation of the gods in the sky.

And Strauss analyzed examples of the Greek myth, the connotations of its three generations named Oedipus explains the confusion that the ancient Greeks come from land or parents. Italian philosopher Vico also proposed in his book called "new science" that the ancients lived happily by imagination. These examples can explain that legend or myth have a great influence on human beings. Marx once explicitly took religion as an important way that human grasp the world, at the same time, he also revealed that religion is that "Human nature realizes in fantasy". ¹² Religion is also an explanation of the world, but it is geared towards ethics, at the same time, it is also a fantasy virtual, it also expresses the real side of human nature. It is to master the world and beyond the reality. Religion expresses people's pursuit of infinity. It also points out the importance of the limitless. Under the virtual condition, our subjective desire is also a kind of limitless. Our desire is infinite in real life. Virtual is a true reflection of reality. In fact, virtual and reality also can be seen as a whole. The whole hides in the past and breeds the future. We use the imagination to make the past things from time and space, as well as its background evolve into the current space, even the future space to see the truth of the matter. Because the society has the complicated property, society itself is a complicated complex. It is difficult for human beings to make an accurate judgment with our naked eye and rational thinking. We can make it happen qualitative change to use our virtual special symbols and computer program to analyze it, allowing us to avoid suffering damage or recommit the same error.

CONCLUSION

Marxist philosophy focuses on the people's production and liberation in the real world, but it is not enough. After the full development of the virtual world, Marxist philosophy should also focus on a series of problems, involving the virtual life, the principal contradiction of the virtual society, and the mutual transformation of the virtual world and the real world. The constituent parts of organisms have changed in the virtual world, physical space has also changed. The production

capacity of the subject depends entirely on knowledge. Knowledge has become the first productivity. Virtual space created by thought space is also subject height free space. Time and space exist in a compressed state. People who have mutual exchanges don't have to be limited by country and region, people are equal, there is no level difference, the restrictions of occupation, age and gender were out, people can express their views and choose information freely. In a word, virtual reality technology control and interfere free activities of the subject. The obstacles of the free imagination disappear. Individual freedom and subjective independent also become a matter of fact increasingly. Human identity and thinking maximize the publicity in the virtual world. At the same time, the network is a set of aggregation that subject has freedom. Under the condition of virtual reality created by digital, everyone is the master, everybody can be free to choose, it fully embodies autonomy and independence of subject. The individualization of human thought obtains the full display in the virtual way of thought.

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