The Thinking Paradigm and Contemporary Value of Ecological Thought in Engels's *Dialectics of Nature*

Haihong Yin

1. School of Marxism, Xinjiang Normal University, Urumqi, Xinjiang 830000, China;  
2. Hubei Engineering University, Xiaogan, Hubei 432000, China  
*Email: 117246448@qq.com*

**ABSTRACT**

Engels' *Dialectics of nature* contains profound ecological thoughts, such as the dialectical materialistic view of ecological nature, the view of ecological practice of the unity of man and nature, the view of ecological science and technology that takes into account natural values and economic development, the transformation of capitalist mode of production, and the realization of two "reconciliation" ecological political views. The practical thinking paradigm, which unifies freedom and necessity in practice, restores the theoretical problems to practice and human life itself, and extends those abstract theoretical problems from human life itself, thus laying a philosophical and theoretical premise for the emergence of its ecological thought. Understanding the essence of ecological problems and putting forward the fundamental path to solve the ecological and environmental problems in today's world is the contemporary value of the ecological thought in Engels's *Dialectics of nature*.

**Keywords:** Dialectics of nature; Ecological thought; Thinking paradigm; Contemporary value

1. **INTRODUCTION**

*Dialectics of nature* is a work on the dialectics of natural science and natural movement written by Engels from 1783 to 1882, which lasted for ten years (actually Engels paid attention to the problems of nature and natural science for 40 years). Due to Marx's death in 1883, Engels transferred his energy to the work of sorting out volumes 2 and 3 of *Das Kapital* and leading the workers' movement. As a result, dialectics of nature became an unfinished manuscript of Engels, which was not published until the former Soviet Union was published in 1925.[1](#) The dialectics of natural movement revealed by Engels from nature and the social dialectics revealed by Marx from the field of social history complement and support each other, forming a complete philosophical theoretical system. Although Engels did not clearly put forward the concept of "ecology" in the dialectics of nature, there is no doubt that it contains rich ecological thoughts. Analyzing the thinking paradigm of ecological thought in Engels's *Dialectics of nature* and expounding its contemporary value is of great significance to the construction of ecological civilization in China in the new era.

2. **THE BASIC CONTENT OF ENGELS' ECOLOGICAL THOUGHT IN DIALECTICS OF NATURE**

In the dialectics of nature, Engels revealed the dialectics of nature itself and established the dialectical materialist view of nature, supported by the achievements of the development of modern natural science. Engels warned people "don't be too intoxicated with our human victory over nature. For every such victory, nature retaliates against us."[2](#) This paper analyzes that the root of the capitalist ecological crisis lies in the capitalist system and its mode of production, and puts forward the scientific theory of changing the social system and realizing two "reconciliation". Based on the dialectics of nature, Engels proved that the social and historical development logic of "two inevitability" is the same as Marx's conclusion from social history, which confirms and supports each other.

Engels put forward the ecological view of dialectical materialism in *Dialectics of nature*; The dialectics of nature is applied to the specific practice of human understanding the world and transforming the world, and the value basis of ecological economic construction is constructed; It criticizes the anti ecological nature of...
capitalism and pursues the scheme of reconciliation between man and nature from the institutional reform. It includes four aspects:

2.1. Dialectical materialist view of ecological nature. [3]

The main viewpoints include: first, the pre-existence of nature to man: Nature exists before man, man is a product of nature; Second, man's dependence on nature and nature's restriction on man: The survival and development of human beings cannot be separated from nature, and all the substances and energy that human beings need for survival are derived from nature; Third, the unity of man and nature: Man and nature should reach a state of harmony. On the one hand, man should conform to nature and respect the laws of nature.

2.2. The ecological practice view of the unity of man and nature.

The main viewpoints include: first, practice is the fundamental force for human beings to differentiate from nature: Practice distinguishes man from animals, man from nature; Second, practice is the basis of the unity of man and nature: Human beings realize the exchange of energy between man and nature in practice; Third, practice is the way for people to obtain means of living from nature: Only through practice can human beings develop and use nature to serve their own survival and development.

2.3. The concept of ecological science and technology that takes into account natural values and economic development.

The main viewpoints include: first, the regularity of the development of nature itself: The development of nature has its own laws. The correct attitude of human beings in the face of natural laws can only be to recognize and use the laws to serve mankind, but not to change the laws; Second, the "two sides" of science and technology: On the one hand, science and technology can better serve the survival and development of human beings, on the other hand, it will also bring a series of ethical and social problems, and practical measures must be taken to maximize the advantages and eliminate the disadvantages; Third, give consideration to the dynamic balance between environmental protection and social development: The development of the other cannot be exchanged at the expense of one party. Human beings cannot exchange temporary development at the expense of the environment, nor can they do nothing in front of nature.

2.4. Change the capitalist mode of production and realize the ecological political view of two "reconciliation".[4]

The main points include: first, there are profound political problems behind environmental problems: The unjust and unreasonable international political and economic order has brought great harm to the environmental problems of today's society; Second, the capitalist mode of production is the root of the ecological crisis: The disorderly expansion and predatory nature of capital is the concrete manifestation of the anti-ecological nature of capital; Third, institutional change is the fundamental path to realize the "reconciliation" between man and nature: This is to achieve a fundamental change in the relations of production, to replace the capitalist system with a socialist and communist system.

3. The Thinking Paradigm of Ecological Thought in Engels’s Dialectics of Nature

How Engels' ecological thought in Dialectics of nature came into being, of course, is closely related to Engels' era background and his own theoretical literacy, but more importantly, it lies in the establishment of his practical philosophical thinking paradigm, which lays a philosophical theoretical premise for the emergence of his ecological thought. Of course, the practical philosophical thinking paradigm was jointly completed by Engels and Marx. The practical philosophical thinking paradigm is also the philosophical theoretical premise for the establishment of all theoretical achievements of Marxism.

The so-called thinking paradigm refers to the basic path or way for people to think about problems. Philosophical thinking paradigm is the basic path or way for people to solve the contradiction between freedom and necessity. It is not only the premise of answering all philosophical questions, but also determines the direction, nature and content of answering all philosophical questions. In short, necessity is that human beings living in nature must be constrained and restricted by the laws of nature, and freedom is human yearning and pursuit for the ideal world. Since human beings are derived from nature, they cannot be subject to natural inevitability like ordinary natural beings. Since human beings go beyond the natural world and point to the ideal world, they cannot but be dominated by the freedom as the existence of the ideal world at the same time. Since the birth of mankind, it has faced the contradiction between necessity and freedom, which constitutes the original structure of human existence.
Generally speaking, there are three ways for human beings to solve the contradiction between freedom and necessity: first, to solve the contradiction between freedom and necessity by worship and place their trust in religion (which is closely related to man's obedience and dependence on nature under the conditions of agricultural production). The main manifestations are objective idealism and old materialism, which is the thinking paradigm of ontology; Second, solve the contradiction between freedom and necessity in a perceptual way, and attribute necessity to a free thinking paradigm (which is closely related to man's active domination of nature under the condition of industrial production mode). The main performance is subjective idealism, which is the thinking paradigm of consciousness theory; Third, the thinking paradigm that unifies freedom and necessity in practice restores theoretical problems to practice and human life itself, and extends those abstract theoretical problems from human life itself to illustrate it. It overcomes the defects of ontological thinking paradigm starting from objective existence and unable to reach self and conscious thinking paradigm starting from self and unable to reach objective existence, and restores the true face of the world. This is the paradigm of practical thinking.

The practical thinking paradigm has at least three rationality aspects: first, it gives a reasonable explanation and solution to the defects of ontology thinking paradigm and consciousness thinking paradigm; Second, ontological thinking paradigm and consciousness thinking paradigm are included in itself as the abstraction of practical thinking paradigm; Third, the interpretation and solution of the contradiction between freedom and necessity is historical, specific and relative. The ecological thought in Engels's Dialectics of nature came into being under the guidance of the historical, specific and relative philosophical thinking of solving contradictions.

4. THE CONTEMPORARY VALUE OF ENGELES' ECOLOGICAL THOUGHT IN DIALECTICS OF NATURE

Engels once pointed out that in order to pursue profits, capitalists recklessly expand production. The resulting serious environmental pollution is mainly borne by workers living in slums and sewage rivers, causing serious health problems. Capital lives in spacious and bright buildings far away from pollution and enjoys superior material conditions. Therefore, on the one hand, capitalists exploit workers, on the other hand, they mainly bear the consequences of environmental damage. The inspiration for us is that today's developed countries in the world transfer high pollution and high energy consumption industries to developing countries, and even directly export garbage. Developing countries have consumed their resources and polluted their environment in such an international division of labor system, and their products are exported to developed countries for their enjoyment. This unfair international division of labor is actually a new kind of exploitation. From this, two conclusions are drawn: first, the contemporary global ecological environment problems are rooted in the anti-ecology of the capitalist system and the unequal international division of labor; Second, to eliminate the ecological crisis faced by mankind, the fundamental thing is to establish a fair and just international division of labor and build a community of human ecological destiny. As Engels pointed out, "If we want to curb the worsening trend of the world environmental crisis, there is no way to solve the problems of production, sales, technology and growth only on a global scale. The more such problems appear, the more it shows that capitalism is unsustainable in ecological, economic, political and moral aspects, so it must be replaced."[5] These two conclusions have important guiding value for understanding the essence of ecological problems and putting forward the fundamental path to solve the ecological and environmental problems in today's world.

At the same time, Engels's understanding of the nature of the laws of nature and the accompanying punishment function in "Dialectics of Nature" can be described as precious words: "Let's not be too intoxicated with our human victory over nature. For every such victory, and nature retaliates against us. Every victory, which at first does indeed have the result we expected, but afterward and afterward has quite different and unexpected effects, often undoing the original result again. The inhabitants of Mesopotamia, Greece, Asia Minor, and other places destroyed the forests in order to gain arable land, but they never dreamed that these places are now barren because of their loss of forests."[6] In the face of setbacks and lessons, "we learn day by day to understand the laws of nature more correctly, and to recognize the nearer consequences caused by our interventions in the habitual processes of nature. or further consequences.”[2] According to Engels’ discourse, human beings, as active beings, are rational animals, and they should and must be predictable and forward-looking in the practice process. On the journey from the kingdom of necessity to the kingdom of freedom, it is necessary to master and utilize things so that natural objects can meet human needs as much as possible, and adhere to the principle of subject scale and value; at the same time, they must obey the stipulations of things and be subject to the movement of natural objects. Law, adhere to the principle of object scale and truth. Even if there are setbacks and problems due to historical limitations or subject ability limitations, as a conscious human being, we must be able to correct mistakes in a timely manner, learn lessons, and truly practice the unity of purpose and regularity in human behavior. Important practical significance.

Engels' ecological thought is the criticism and transcendence of the anti-ecological nature of capitalism,
and the criticism and reflection of industrial civilization, so that the construction of ecological civilization becomes the inherent requirement of Marxism and the fundamental attribute of socialism. Entering the 21st century, the Communist Party of China, adhering to the true meaning of Marxist theory, put forward the major strategic thinking of building a socialist harmonious society, and pointed out that the construction of a harmonious society should follow the principles of democracy and the rule of law, fairness and justice, integrity and friendship, full of vitality, stability and order, and harmony between people. The general requirement for harmony with nature. Among these six points, the relationship between man and nature is a very important basic relationship among various relationships in a harmonious society. If the relationship between man and nature is not harmonious, it is almost impossible to establish a harmonious relationship between man and man and between man and society. Since the 18th National Congress of the Communist Party of China, the Communist Party of China has been committed to the construction of ecological civilization and the harmonious coexistence of man and nature. The retrospect of Engels' ecological thought shows that Engels had theoretically explored the relationship of the dialectical unity of opposites between man and nature in his time, revealed the inherent characteristics and laws of man and nature as a unified whole, and pointed out the solution to man and nature. The inherent relationship between the opposition between nature and the resolution of the opposition between people will provide valuable spiritual inspiration and practical guidance for China to build a harmonious society and move towards ecological civilization.

5. CONCLUSION

Engels' *Dialectics of nature* contains rich ecological thought, which is based on the paradigm of practical philosophical thinking. It is of great value for people to understand the essence of ecological problems and explore the fundamental management of ecological problems. This is "this also requires a complete reform of the mode of production that has existed so far and the whole social system we have today with this mode of production."[2] At the same time, we must actively promote the establishment of a fair and reasonable international division of labor system, build an international cooperation system for ecological and environmental protection guided by the idea of a community with a shared future for mankind, promote energy conservation and emission reduction, enhance the scientific and technological content of industrial development, and vigorously advocate clean energy and renewable energy. Application of renewable energy. As a socialist country, China has always insisted on putting the interests of the people at the highest level, and the life and health of the people in the first place. As a responsible major country, China will always be at the forefront of the times in building a harmonious coexistence between man and nature, leading the way Humanity is moving towards a better future.

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**ABOUT THE AUTHOR:**

Haihong Yin (1981 -), male, is PhD Candidate at Study of Marxism, Xinjiang Normal University; is Associate Professor at School of Marxism Studies, Hubei Engineering University.

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