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RESEARCH ARTICLE

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An Eco-Semiotic Perspective: Principles and Procedures of Tao Te Ching Bankok, Thailand

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ARTICLE INFO	ABSTRACT
Received: May 26, 2024	This Article aimed to study principles and procedure of Tao Te Ching from the perspective of eco-semiotic. In recent years, with increasing attention to environmental and sustainable development issues, researchers regard it as one of the important resources for addressing contemporary environmental challenges. The sample were original text and authoritative translations of the Tao Te Ching. They were selected from literature, case study, network data. Analysis data by Quantitative data analysis and Qualitative data analysis. analyze the symbol system and ecological phenomena in the Tao Te Ching, providing data and information support for theoretical research and practical applications. This research not only helps to deepen the understanding of the
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Keywords	
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Tao Te Ching	theoretical connotations of both, but also provides new theoretical
	perspectives and practical guidance for environmental protection and sustainable development. Future research should further explore the
*Corresponding Author:	inherent connection and application prospects between the two, and promote research and practice on ecological civilization and sustainable social development. The research results were found as follows; 1. Philosophical ideas of Tao Te Ching have close relationship with ecology. Principles and procedure in Tao Te Ching related to ecological system are: thoughts of balance, Tao, etc., 2. Semiotic signs are used to express principles and procedures of Tao Te Ching that are
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	related to ecological system

INTRODUCTION

This study aims to explore the ecological perspectives and principles in the Tao Te Ching using the method of ecological semiotics, and explore their implications for contemporary environmental issues and sustainable development. By analyzing the process of constructing symbols, and meanings in the Tao Te Ching, we can gain a deeper understanding of Lao Tzu's unique insights into nature, human behavior, and social organization. This not only helps us better understand the essence of ancient Chinese philosophy, but also provides new perspectives and values for contemporary environmental ethics and sustainable development. Although some studies have focused on the ecological perspectives in the Tao Te Ching, most of them have focused on the fields of philosophy and religion, with less in-depth exploration from the perspective of ecological semiotics. Therefore, this study aims to fill this research gap and provide new insights and methods for the fields of ecological semiotics and environmental humanities. By combining ecological semiotics with the Tao Te Ching, we can further explore how ancient wisdom aligns with contemporary environmental issues and provide a cross-cultural thinking framework for sustainable development. In this research context, this paper aims to explore the ecological symbols and symbols in the Tao Te Ching, analyze their generation and evolution process, and interpret the ecological viewpoints and principles contained therein. Through this research, we hope to provide new thinking and reference for the environmental awareness and

sustainable development of contemporary society, and promote interdisciplinary research in the dialogue and cooperation between ecology and humanities. Ecological semiotics is a study of the symbolic relationship between organisms and their environment. It not only has a direct theoretical relationship with biology and ecology, but also deeply embeds various relational models between human beings and their environment in history, With the promotion of theoretical semiotics and ecological semiotics, such as Peirce, Jacob von Uexkull and Thomas A. Sebeok, ecological semiotics has become a systematic semiotics research method for organism environment interaction at the macro and micro levels.

The current problems in studying the Tao Te Ching from the perspective of ecological semiotics can be summarized as follows: First, overinterpretation and abstraction. Ambiguity in symbolic interpretation: In the study of ecological semiotics, certain symbols or metaphors in the Tao Te Ching may be excessively interpreted, giving them ecological meanings beyond their original meaning. Second, the neglect of ecological thinking, as seen in natural ecological textbooks. In research, too much attention is often paid to the political philosophy or life philosophy of the Tao Te Ching, while neglecting its role as a natural ecological reading book. Third, there is insufficient integration with modern ecology and a lack of interdisciplinary research. In the study of ecological semiotics, there is often a lack of effective integration with modern ecology. This has led to the understanding of the ecological ideas in the Tao Te Ching remaining at the level of traditional philosophy, which cannot be mutually confirmed and supplemented with the development of modern ecology. Fourth, methodological challenges. The interpretation of symbols is subjective. In the study of ecological semiotics, the interpretation of symbols often has subjectivity.

In summary, the problems in studying the Tao Te Ching from the perspective of ecological semiotics mainly include excessive interpretation and abstraction, neglect of ecological thinking, insufficient integration with modern ecology, and methodological challenges. Future research needs to deeply explore and improve these issues in order to better explore and inherit the ecological ideas in the Tao Te Ching.

This research paper presents the following study design:

- 1. The scope of the research: Tao Te Ching will be the main object of the research.
- 2. Research framework: a comprehensive research framework based on ecology, semiotics and Tao Te Ching is building. This framework includes the perspective of ecological semiotics. The cultural symbols in Tao Te Ching are regarded as ecological symbols, and the relationship between man and nature are discussed.
- 3. Symbolic analysis: Using semiotic analysis methods, the key bio-semiotic symbols in Tao Te Ching will be interpreted and explained.
- 4. Ecological significance of these symbols are discussed, such as ecological balance, sustainable development, etc.
- 5. Practical application will be showed. Eg. how to apply the ecological thought in Tao Te Ching to the practice of environmental protection and sustainable development in modern society.
- 6. Data collection: Obtain multiple versions of the Tao Te Ching, including ancient, modern translations, annotated versions, etc., to ensure the comprehensiveness and accuracy of the research. Then organize the collected text, including chapter division, paragraph marking, keyword extraction, etc., to facilitate subsequent data analysis.
- 7. Data analysis: Conduct in-depth textual analysis on the Tao Te Ching, identify ecological symbols, metaphors, symbols and other elements, and explore their meanings and roles in the text.

Research Objectives

- 1. To explore what eco-semiotic contributed to our understanding of the principles which Tao Te Ching had established.
- 2. To analyze how Tao Te Ching follows the processes of the earth from eco-semiotic perspective- to be tune with the flow of Tao.

LITERATURE REVIEW

The application of ecological concepts to semiotic research first appeared in the Tartu Moscow School's 1983 paper collection. Due to its development in the tradition of European semiotics, this semiotic school regards literature and culture as the main research areas of semiotics. Therefore, this school of thought focuses on culture and its differences from external things, believing that culture and nature are in opposition, and adopts a structuralist approach to describing the material environment (Sonesson 2000). Another main concept of this school is to extend the meaning of text, originally defined as written form or antecedent structure, to ecological research, referring to certain scenarios in the natural environment.

Contrary to the above views, American semiotics and linguist Thomas A. Sebeok proposed a model of animal semiotics. He does not agree to regard human language as the primary mode system, nor does he agree to view complex cultural phenomena (literature, art, music, mythology, religion, etc.) as secondary mode systems derived from natural language. Sebeok (1988:73, 74) believes that there should be another pattern system, the observed world, before the ontology and system occur. Here, symbols are distinguished by the unique sensory organs and nervous system of the species, consistent with the behavioral resources and nervous system of the species. According to Sebeok's view, humans have two mutually supportive pattern systems, one is the language unique to humans as human symbols, and the other is the language used as animal symbols.

The "cosmic holism" of ecological semiotics was first used by Windred Noth of the University of Kassel, Germany, at the 6th International Congress of Semiotics held in Guadalajara, Mexico, in 1996 (Kull 1998: 347). Nöth (1998) argued that Saussure held a view of human semiotics, but had no ecological semiotics perspective. According to Saussure's view, all human knowledge must pass through the filter and sedimentation of language.

In ecological semiotics, the biggest influence on Nöth is Germany biologist Jokob von Uexkull. Uexkul(1928, 1940) The first systematic study of the symbolic nature of the relationship between organism and environment. Uexkull replaces Haeckel's "external world" with the term "Umwelt", but this is an objective environment of the subject, involving the observation of the interaction between the machine and the environment and the specific operational world. Because the machine body includes different species, their requirements for the environment, energy and Angle of view are also different, from which there are many kinds of viewing environment.

Kalevi Kull, head of the Department of Symbols, University of Tartu (1998), is the second positive expression after Nöth and is called "biosemiotics". On the basis of inheriting and developing Tartu's theory, there are three differences between his definition of ecological semiotics and Nöth. (1)Kull believes that Nöth(1998) does not make a clear distinction between biosemiotics and ecological semiotics, nor can he distinguish the similarities and differences with Uexkull's concept of objective environment.

American semiotician J. Dely argues that in terms of subjectivity, human cultural domain can only be relatively autonomous; In terms of inheritance, human cultural domain can only unite and depend on biosemiosis (biosemiosis). It is a physical environment shared by all forms of living things within a larger framework of interdependence. The resolution of this greater whole defines the whole of the cultural semiotics as its constituent parts. This shows that what Deely highlights is the study of cultural semiotics.

Deely also sees ecology as a vast research topic that aims to address the dichotomy between man and nature, showing and explaining how human society is actually just one component of an ecosystem.

Different from Kull's quartile, it discusses the relationship between culture and nature. J. Hoffmeyer(1996:96) from the University of Copenhagen, Denmark, divided nature into internal nature and external nature, thus drawing a triangular relationship including culture, external nature and internal nature. The relation between culture and inner nature is the domain of mental signification, and the relation between inner nature and outer nature is the domain of biological

semiotics. The relation between culture and outer nature is the domain of environmental sphere or bio-semiotics (Kull1998:350).

The accumulation of historical research: Throughout Chinese history, a large number of scholars have studied the Tao Te Ching, leaving behind many annotated documents. These research results have provided rich historical materials and theoretical references for philosophical research in the past two decades. By excavating and organizing these historical documents, philosophical researchers can gain a deeper understanding of the philosophical ideas of the Tao Te Ching.

Western ecologists have a strong interdisciplinary awareness of comparative literature, that is, interdisciplinary cross cultural and even cross-cultural awareness. This "cross" characteristic is a prominent feature of Western ecological criticism and an objective requirement for "ecological cultural diversity". It is a necessary prerequisite for achieving healthy interaction and symbiosis between ecological diversity and cultural diversity. On the one hand, Western ecological criticism transcends disciplinary boundaries to painfully and thoroughly reflect on and clean up the anti natural factors in one's own culture, eliminating the anti ecological factors in one's own culture. At the same time, it also elucidates the kinship between humans and nature from an interdisciplinary perspective. On the other hand, Western ecocriticism scholars have boldly broken through their own cultural circles and moved towards cultures that were once externalized and marginalized by them. For example, they move towards Eastern Taoism, Confucianism, Islam, Buddhism, Hinduism, indigenous cultural beliefs, etc., aiming to absorb different ecological wisdom and paradigms, transform their anthropocentric natural views, green their cultural ecology, and achieve cultural self rescue. Western scholars have approached the Tao Te Ching as a green "Bible" from ancient China.

Studying classic literature from the perspective of ecological semiotics is to better reveal how ecological issues are represented through symbols. Various symbols such as natural symbols, scientific symbols, and political symbols serve as external references for various interpretations, which is crucial for textual symbols sorting out the system network. Yue Guofa et al. (2016) used H. Beston's "The Outmost House 1988" and T. Williams' "Refuge: An Unnatural History of Family and Place 1991" as examples to analyze the textual world of natural literature using ecological semiotics, demonstrating the infinite nature of the finite nature of natural phenomena from the perspective of iconicity, exploring the relationship between humans, nature, and society from the perspective of symbolic realism in the text, and highlighting the aesthetic value of natural literature creation.

Conceptual Framework

This research is a research study. The researcher defines the research conceptual framework based on the theory of eco-semiotics together with the study of Tao Te Ching. The details are as follows.

The concept of symbol itself is very suitable for the semiotic interpretation of ecological problems. Charles S. Peirce (CP 1931-1956) The symbols developed in semiotics can be understood as intermediaries, connectors between aspects of the world. The Peirce symbol is three-part, connecting the narrow representamen, the object of the symbol and its interpretant, and these parts can belong to different spiritual, textual, and physical realms. Symbols - or, more precisely, semiotics, that is, the procedural representation of symbols - allow for the emergence of a connection that would not otherwise exist. Thus, symbols can glue together the various entities and creatures of the world to form meaningful relationships that embody the great ecological potential of reconnection and healing.

Eco-semiotics can be defined as the semiotics of the relationship between nature and culture. This includes the semiotic study of the status and role of nature in relation to humans, i.e., what nature means to us humans and what its meaning was in the past, how and to what extent we communicate with nature. Eco-semiotics studies the semiotics of human interaction with its ecosystem or human ecosystem. In this regard, it can be related to anthropology and sociology of human-nature relationships, environmental psychology, and environmental anthropology, although it is very close to ecology. Ecological semiotics is the field of semiotics, which explores the semiotic process related to ecological phenomena. In particular, ecosystem semiotics studies the semiotic processes that affect

ecosystem functions, the symbolization of environment, the interpretation of nature in culture, and the semiotic aspects of environmental issues. Ecological symbols address the interpretation of signs that human and other organs in the environment. It is also a theoretical tool that allows one to intercept a portion of such signals to model the relationship between any species and its environment.

For Peirce, symbols exist not only in human culture, but the entire biosphere or ecosphere is also a semiosphere. He said, "all this universe is perfused with signs, if it is not composed exclusively of signs) (CP 5.448). For example, the interaction between natural organisms and their environment, the information exchange between the same species or across species, and the perception and reaction between animals to their environment through the senses of touch, smell, taste, vision, hearing, etc., are all symbols. It can be seen that in the tradition of Peirce's sign theory, "sign" is defined as all the symbols of the universe, so it is not limited to the cultural symbols related to human beings. Peirce believes that the symbol is a process involving three relationships, the symbol is the first (first), also known as the representative (representamen), the essence of the representative is the symbol

The sign-vehicle, the object represented by the symbol is the second nature, and the interpretant called the symbol is the third nature (CP 2.274). The essence of Peirce's concept of "symbol" refers to the dynamic symbolic process (semiosis) which includes the representative, the object and the interpreter. The three lack any link, can not realize the symbolic activity.

In Derrida's deconstruction, the whole world is textualized, that is to say, the objective world has a textual nature, and any text and other texts, codes and other mutual texts. Derrida used the phrase "There is nothing beyond the text" to indicate that the meaning does not exist in the symbol itself, but in the difference from the other, so that one symbol points to another symbol, and the other symbol points to the other symbol, so that the world has nothing but interpretation, and the interpretation of the interpreter is endless. Any new text is different from the previous text, language, code layer upon layer, mutual text. Therefore, Derrida uses the concept of "text" to explain its relationship with meaning and symbols. Dean believes that Snyder's concept of text is so similar to Derrida's concept of text because both use "text" to express its relationship to meaning. According to Derrida, everything is symbolic, and all reality is "textual," because all parts refer to other parts, and these parts are indicators of other parts. If writing is defined historically as the sign of asign, then all reality is a graph in some degree, a form of writing.

RESEARCH METHODOLOGY

The research design for this research is as follows:

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- 6. Data collection: Obtain multiple versions of the Tao Te Ching, including ancient, modern translations, annotated versions, etc., to ensure the comprehensiveness and accuracy of the research. Then organize the collected text, including chapter division, paragraph marking, keyword extraction, etc., to facilitate subsequent data analysis.
- 7. Data analysis: Conduct in-depth textual analysis on the Tao Te Ching, identify ecological symbols, metaphors, symbols and other elements, and explore their meanings and roles in the text. Compare the ecological ideas in the Tao Te Ching with ecological concepts in other philosophies, religions, or cultures to reveal their uniqueness and universality. Select specific

chapters or paragraphs from the Tao Te Ching as cases for in-depth analysis and interpretation, in order to demonstrate the ideological connotation of its ecological semiotics.

For research question

1. What has eco-semiotic contributed to our understanding of the principles which Tao Te Ching had established ?

The data collection methods for research question one include:

- 1. Literature review. Collect and conduct in-depth research on the original text of the Tao Te Ching, as well as annotations and translations of its different versions. This is the foundation for understanding its basic principles. Simultaneously collect theoretical works, academic papers, and research reports related to ecological semiotics, especially those that apply ecological semiotics to the study of classical literature or philosophical ideas. Seeking research that combines multiple disciplines such as environmental science, ecology, semiotics, and philosophy to obtain a more comprehensive perspective and theoretical support.
- 2. Case analysis. Select specific chapters or principles from the Tao Te Ching, analyze them using the method of ecological semiotics, and explore the ecological wisdom and semiotic significance behind them. Analyze how these principles align with modern ecological concepts and their implications for contemporary environmental protection and sustainable development.
- 3. Expert interviews. Invite experts and scholars in the fields of ecological semiotics, Taoist philosophy, environmental science, etc. to conduct interviews and obtain their insights and opinions on this research issue. Through interviews, understand the interpretation and application of ecological wisdom in the Tao Te Ching by scholars from different fields, as well as their views on the contribution of ecological semiotics in this field.
- 4. Questionnaire survey. Design a questionnaire to survey researchers or the public in relevant fields to understand their level of understanding of the ecological principles and contributions of ecological semiotics in the Tao Te Ching. Collect questionnaire data and conduct statistical analysis to understand the views and attitudes of different groups towards this issue.

The data analysis methods for research question one include:

- 1. Content analysis. Analyze the content of the collected literature and extract key information and viewpoints related to the ecological principles and contributions of ecological semiotics in the Tao Te Ching. Analyze the inherent connections and logical relationships between these information and viewpoints, and construct a theoretical framework or model.
- 2. Comparative research. Compare the ecological principles of the Tao Te Ching with other ancient philosophical ideas or modern ecological concepts, and explore their uniqueness and innovation. Analyze the unique contributions and advantages of ecological semiotics in interpreting the ecological principles of the Tao Te Ching.
- 3. Quantitative analysis. Quantitatively analyze the questionnaire survey data, and calculate the cognitive level and attitude tendencies of different groups towards the ecological principles and ecological semiotics contributions of the Tao Te Ching.
- 4. Qualitative analysis is conducted on the interview content to extract the core viewpoints and insights of the interviewee. By summarizing and organizing these viewpoints, a deep understanding of the ecological principles and contributions of ecological semiotics in the Tao Te Ching can be formed. Based on data collection and analysis, summarize the contributions of ecological semiotics to understanding the ecological principles of the Tao Te Ching, and discuss the significance of these contributions for contemporary environmental protection and sustainable development. At the same time, point out the shortcomings and limitations in the research, and provide suggestions and directions for subsequent research.

Research question 2:

2. How does Tao Te Ching follow the processes of the earth from eco-semiotic perspective- to be tune with the flow of Tao?

The data collection methods for the second research question include:

- 1. Interpretation of classic texts. Thoroughly study the original text of the Tao Te Ching, especially those chapters that are closely related to natural processes such as nature, the universe, and life.
- 2. Annotations and translations. Refer to different versions of annotations and translations, especially those that integrate ecological wisdom or semiotic perspectives, to gain a more comprehensive understanding of the deeper meanings in the text. Collect theoretical works, academic papers, and research reports on ecological semiotics, especially those that apply ecological semiotics to the study of classical literature or philosophical ideas. Analyze the discourse on the relationship between natural processes, symbolic systems, and human cognition in these literature, and how they align with the ideas in the Tao Te Ching.
- 3. Interdisciplinary research. Search for research that combines multiple disciplines such as environmental science, ecology, philosophy, and semiotics to gain a more comprehensive perspective on the relationship between the Tao Te Ching and natural processes. Pay special attention to interdisciplinary research that explores themes such as natural cycles, ecological balance, and life evolution, as they may provide new insights for understanding the ecological wisdom in the Tao Te Ching.
- 4. On site investigation and observation. Although it is no longer possible to directly examine the ancient natural environment, one can appreciate the similarity between the "Dao" described in the Tao Te Ching and the natural processes by observing the operational processes of modern nature, such as seasonal changes and ecological cycles. This observation helps to concretize abstract concepts in the text and deepen our understanding of the ecological wisdom of the Tao Te Ching.

The data analysis methods for the second research question include:

- 1. Text analysis. Conduct a detailed textual analysis of the relevant chapters in the Tao Te Ching, extracting concepts and expressions related to natural processes, ecological balance, etc. Analyzing how these concepts and expressions reflect the profound insight and unique understanding of natural processes in the Tao Te Ching.
- 2. Semiotic analysis. Using the theories and methods of ecological semiotics, analyze the symbolic system in the Tao Te Ching. Analyze how these symbols refer to things and processes in nature, and how they form a network of interrelated and interacting symbols.
- 3. Interdisciplinary integration. Integrate the analysis results of ecological semiotics with the research results of other disciplines such as environmental science, ecology, philosophy, etc. Through interdisciplinary comprehensive analysis, reveal the inherent connection and complementarity between ecological wisdom in the Tao Te Ching and modern science's understanding of natural processes.
- 4. Case study. Select specific chapters or principles from the Tao Te Ching as case studies for indepth research. Analyze how these cases demonstrate the adaptation and respect of the Tao Te Ching for natural processes, and how they guide harmonious coexistence between humans and nature.
- 5. Theoretical construction. Based on data analysis, attempt to construct a theoretical framework or model regarding the relationship between the Tao Te Ching and natural processes.
- 6. This framework or model should be able to clearly explain how the Tao Te Ching follows the processes of nature to practice the concept of the Tao, and guide humanity to achieve harmonious coexistence with nature.

Based on data collection and analysis, summarize how the Tao Te Ching practices the concept of "Tao" from the perspective of ecological semiotics, following the processes of nature. The discussion of this research is of great significance for understanding the inherent connection between ancient philosophical ideas and modern environmental protection, and guiding humanity to achieve sustainable development. At the same time, point out the possible limitations and future research

directions in the research. For the second research question, this study plans to adopt the following research methods.

RESEARCH RESULTS

Objective 1. The results showed that acturally, philosophy allows debate and depends on a different sort of wisdom than ecology does, a wisdom which considers social, political, and ethical reasoning as well as science. This agrees nicely with the Tao Te Ching and its all-inclusive philosophy, touching on all of the aspects of life which ecosystem aims to include.

Principle one: respecting nature. This is a core principle in the Tao Te Ching. It emphasizes that humans should respect nature and follow its laws, rather than violating or excessively intervening. From the perspective of ecological semiotics, this principle is reflected in the respect and protection of the natural environment, as well as the harmonious coexistence between human activities and the natural environment.

Principle two: Yin Yang Balance. In Tao Te Ching, yin and yang are the fundamental elements that make up the world, and the balance of yin and yang is the key to maintaining world harmony and stability. From the perspective of ecological semiotics, this principle of balance may refer to the need to maintain a state of balance between different species and environmental factors in the ecosystem, in order to maintain the stability and health of the entire ecosystem.

Principle three: Qian Rou Tong Dao. In Tao Te Ching, consciousness is described as the nature of things, with Qian Rou Tong Dao. From the perspective of ecological semiotics, this may mean that humans should maintain a humble and gentle attitude when dealing with relationships with nature and society, in order to better understand and integrate into the laws of nature and society.

Principle four: following the norms of moral ethics. In Tao Te Ching, moral ethics are important principles guiding human behavior. From the perspective of ecological semiotics, this principle may refer to the moral standards and behavioral norms that humans should follow when dealing with relationships with nature and society, in order to maintain the health of ecosystems and social harmony and stability.

Overall, from the perspective of ecological semiotics, the order and principles of the Tao Te Ching emphasize respect for nature, balance of yin and yang, humility and gentleness in the Tao, and the norms of moral ethics. These principles are not only applicable to personal cultivation and moral construction, but also to social governance and ecological construction, aiming to achieve harmonious coexistence between humans, nature, and society.

From the perspective of ecological semiotics, the principles in the Tao Te Ching include harmonious coexistence with nature, governing by inaction, and following the path of nature. And "procedures" refers to:

Practice of governance through inaction: It is not managed through coercion or intervention, but through conforming to the laws of nature and the state of inaction of the Tao to achieve harmony.

Observation and Understanding: By observing nature and human society, understand the symbols behind them (such as language, behavior, culture, etc.) and how they convey information and form meaning.

Action: Based on the above observations and understanding, take actions to harmoniously coexist with nature, including protecting the environment, reducing interventions, promoting sustainable development, etc.

Reflection and adjustment: Continuously reflect on one's own behavior and results, adjust based on feedback, in order to better follow the path of nature and ecological principles.

It should be emphasized that this interpretation method is a new interpretation of the Tao Te Ching by modern scholars from a modern academic perspective, rather than a direct content of the Tao Te Ching itself.

Objective 2. The results showed that according to deep ecology, in accordance with the vast systems of interrelation on earth is the principle of homeostasis - that is, an alteration in one part of the system generates compensation in another part. Homeostasis implies the idea of balance. Everything is involved in an intricate balance that is continually being affected by changes in any part of the system. (Te Tao Te Ching and its Relation to Deep Ecology, Vanessa Phillips, 1995) from this part, we can see that philosophical ideas of Tao Te Ching have close relationship with deep ecology.

Balance is an important concern of the Tao Te Ching. Dao is regarded as the fundamental law of the universe and nature, emphasizing the concept of following nature and governing by inaction. This ideology emphasizes that humans should follow the laws of nature and pursue harmony and balance between body and mind, which is not only related to individual physical and mental health, but also to the harmony and stability of the entire society. By reducing dependence and attachment to external things, inner peace and harmony can be better achieved, thereby maintaining physical and mental balance and coordination. In addition, the concept of yin and yang in the Tao Te Ching reflects the dialectical relationship between things, recognizing the importance of harmonizing yin and yang. Whether in work and life, rationality and sensibility, material and spiritual aspects, a certain balance and coordination need to be maintained. Only in a state of harmony between yin and yang can we better cope with various challenges and difficulties, and achieve harmony and balance between body and mind.

将欲歙之,必固张之之;将欲弱之,必固强之;将欲废之,必固兴之;将欲夺之,必|固与之。是谓微明,柔弱胜刚强。鱼不可脱于渊,国之利器不可以示人。

(《道德经》第三十六章)

Translation:

If you want to move forward, you must firmly hold onto it; To weaken, one must strengthen; To abolish it, one must strengthen it; To seize it, one must firmly hold onto it. It is called 'micro brightness', where softness triumphs over strength. Fish cannot escape from the abyss, and the weapons of the country cannot be displayed to people.

Just like Yin and Yang, strength and kindness, Laozi emphasize balance between human, human and nature. Laozi directly revealed the laws behind all things through the complex and ever-changing appearances, that is, "the way of heaven is to make up for the deficiencies while damaging the surplus", emphasizing the balance of the way of heaven and conforming to the great path, only then can the world enjoy happiness; Only by following the rules can we develop in an orderly manner. This also elucidates his people-oriented ideology, which achieves a natural balance by reducing excess and supplementing deficiency. This balance is not only a guide for personal self-cultivation, but also a principle for social harmony and coexistence.

In summary, the relationship between Dao, harmony, and balance in the Tao Te Ching is reflected in respect for and compliance with natural laws. By cultivating the mind, reducing desires and attachments, and recognizing the importance of harmonizing yin and yang, individuals and society can achieve harmony and balance

DISCUSSION

This study deeply analyzes the wisdom in the Tao Te Ching from the unique perspective of ecological semiotics, revealing its profound ecological philosophical ideas and practical principles. By analyzing the core concepts in the Tao Te Ching, such as "Dao", "governing by inaction", "nature", etc., we find that these principles not only provide profound insights into the relationship between humans and nature, but also provide valuable ideological resources for us to understand the sustainable development of modern society. Especially, the concept of conforming to nature and harmonious coexistence advocated by the Tao Te Ching coincides with the increasing emphasis on ecological protection and environmental ethics worldwide.

Deepening the theoretical research of ecological semiotics: This study applies the theoretical framework of ecological semiotics to the analysis of ancient philosophical texts, expanding the

application field of ecological semiotics and building a bridge for the dialogue between traditional culture and modern ecological theory.

Enriching Ecological Philosophy: Through the interpretation of the Tao Te Ching, we have further enriched the ideological connotation of ecological philosophy, emphasizing the inseparable connection between humans and nature, as well as the important impact of human behavior on ecosystems.

CONCLUSION

We should continue explore the practical application value. The Tao Te Ching not only has profound philosophical ideas, but also has practical application value. With the improvement of people's quality of life and spiritual pursuit, more and more people are paying attention to how to apply the ideas of the Tao Te Ching to practical life, to guide their behavior and handle interpersonal relationships.

The promotion of international cultural exchange should improve. With the acceleration of globalization and the increase of international cultural exchange, the influence of traditional Chinese culture in the international community is gradually increasing. The Tao Te Ching, as one of the important representatives of Chinese culture, has also received increasing attention and research internationally. This international cultural exchange helps to promote domestic research and inheritance of the Tao Te Ching.

The rise of interdisciplinary research should be paid more attention. In recent years, interdisciplinary research has gradually become a trend in the academic community. The Tao Te Ching, as a philosophical work, not only involves the field of philosophy, but also has close connections with multiple disciplines such as religion, literature, and history. This interdisciplinary research method helps to have a more comprehensive understanding and interpretation of the content of the Tao Te Ching.

Suggestions

Although this study conducted a more in-depth analysis of the Tao Te Ching from the perspective of ecological semiotics, there are still some limitations. Firstly, this study mainly relies on text analysis and lacks interdisciplinary empirical research to further verify the universality and effectiveness of its conclusions. Secondly, due to the diversity and subjectivity of the interpretation of the Tao Te Ching, this study may have certain biases or shortcomings in interpretation. Future research can consider the following directions:

- 1. Interdisciplinary empirical research: Combining methods from multiple disciplines such as environmental science, sociology, and psychology, this study empirically examines the ecological wisdom in the Tao Te Ching, verifying its applicability and effectiveness in different cultural and social contexts.
- 2. Cross cultural comparative research: Comparing the ecological wisdom of the Tao Te Ching with ecological philosophy in other cultures, exploring the common understanding and differences of human beings towards nature and ecology under different cultural backgrounds.
- 3. Modern application case study: Select specific social practice cases to analyze how the principles in the Tao Te Ching are applied and implemented in modern society, in order to further test their practical value.

REFERENCES

Agosta, S. J. & Klemens, J. A. (2008). Ecological fitting by phenotypically flexible genotypes: Implications for species associations, community assembly and evolution. Ecology Letters, 11(11), 1123–1134.

Andrews, E. (2003).Conversations with Lotman: Cultural Semiotics in Language, Literature, and Cognition. Toronto: University of Toronto Press.

Clarke, D. S. (1987) Principles of Semiotic. London: Routledge and Kegan.

Emmeche C, Hoffmeyer J (1991) From language to nature: the semiotic metaphor in biology. Semiotica 84:1-42

Hawkes, T. (1977) Structuralism and Semiotics. Berkeley: University of California Press.

Hoffmeyer J (1996) Signs of meaning in the universe. Tr. Barbara Haveland. Indiana University Press, Bloomington .

Hoffmeyer J, Emmeche C (1991) Code-duality and the semiotics of nature. In: Anderson M, Merrell F (eds) On semiotic modeling. Mouton de Gruyter, Berlin, 117–166

Hoffmeyer, J.1996. Signs of Meaning in the Universe [M]. Bloomington: Indiana University Press.

Kull, T. (1988) Identication of clones in Cypripedium calceolus (Orchidaceae). Proceedings of the Estonian Academy of Sciences Biology, 37, 374.

Kull, K. (1999). Towards biosemiotics with Juri Lotman. Semiotica, 127(1-4), 115-131.

Kull, K. (2004). Semiosphere and a dual ecology: Paradoxes of communication. Sign Systems Studies, 33(1), 175–189.

Kull Kalevi 1998. Semiotic ecology: different natures in the semiosphere. Sign Systems Studies 26: 344-371.

Light, A., and H. Rolston (2003). Environmental ethics: An anthology. London: Blackwell.

Maran, T. (2014a). Biosemiotic criticism: Modelling the environment in literature. Green Letters: Studies in Ecocriticism, 18(3), 297–311.

Maran, T. (2007). Towards an integrated methodology of ecosemiotics: The concept of nature-text. Sign Systems Studies, 35(1/2), 269–294.

Maran, T. (2020a). Deep ecosemiotics: Forest as a semiotic model. Recherches sémiotiques.

Nöth, W. 1998. Ecosemiotics [J]. Sign Systems Studies (26): 332-343.

Nöth, W. (2014). The life of symbols and other legisigns: More than mere metaphor? In.V. Romanini & E. Fernández, eds., Peirce and Biosemiotics: A Guess at the Riddle of Life. Dordrecht: Springer, pp. 171–182. Semiotic Inquiry (RS/SI). Special issue on Biosemiotics. ed. J. Bates. Forthcoming.

Peirce, C. S. (1931-1956). Collected papers of Charles Sanders Peirce (8 Vols.) (C.Hartshorne, P. Weiss & A. W. Burks, Eds.). Cambridge, MA: Harvard University Press. [CP Reference by codex to volume and paragraph number].

Peirce, C. S. (1956). Values in a universe of chance (P. P. Wiener, Ed.). Garden City: Doubleday.

Sebeok, T. (1988). One, two, three spells U B E R T Y. In U. Eco & T. Sebeok (Eds.), The sign of three: Dupin, holmes, peirce (pp. 73–74). Bloomington, IN, USA: Indiana University Press.

Sonesson, Göran. (2006b). The meaning of meaning in biology and cognitive science. A semiotic reconstruction. Sign Systems Studies, 34:1, 155-214

Stibbe, A. (2012). Animals Erased: Discourse, Ecology and Reconnection with the Natural World. Middletown: Wesleyan University Press.

Uexküll, J. v. 1928/1940. Theoretische Biologie [M]. Frankfurt/Main: Suhrkamp.

Yue Guofa et al. (2016). Feasible Imitation: Ecological Semiotics Interpretation of the Natural Literature Text World. Journal of PLA University of Foreign Languages, 39:5,129-132.