

10.18686/wef.v2i4.4608

# An Ecological Discourse Analysis of University English Textbook Discourses

Han Zhou

School of Foreign Language, Huaiyin Institute of Technology, Huaian, Jiangsu, 223001, China

**Abstract:** Textbooks are important carriers for knowledge construction and value penetration. In this paper, two discourses are selected and analyzed from the perspective of ecological discourse analysis. By analyzing the distribution features of transitivity processes, mood and modality system, the paper explores the implied ecological ideology in the discourses.

**Keywords:** Ecological discourse analysis; Transitivity processes; Mood and modality system

## 1. A brief introduction of ecological discourse analysis

The emergence of eco-linguistics originates from the growing environmental problems around the world. Scholars have begun to pay attention to the impact of language on the ecological environment, as well as the impact of the ecological environment on language, thus forming the field of ecolinguistics. In the discipline of eco-linguistics, the paradigm of EDA (ecological discourse analysis) has its origins in the 1990s. It was created by Halliday who put forward that the language system itself is ecologically destructive.<sup>[1]</sup> Chinese scholars have achieved fruitful results in the study of EDA from different dimensions and angles. At present, there are fewer cases of analyzing the discourses of university English textbooks from the perspective of EDA. In this paper, some discourses of the New Progressive College English are selected as the research object. The paper analyzes the discourses from the perspective of EDA and aims to reflect the idea of ecological harmony in the discourses.

## 2. Transitivity System of Ecolinguistics

EDA refers to the analysis of discourses from the perspective of ecolinguistics based on certain ecosophy. According to Sttibe, from the perspective of ecological orientation, discourses can be categorized into beneficial discourses, ambivalent discourses and destructive discourses<sup>[2]</sup>. Beneficial discourses can actively encourage people to protect the environment while destructive discourses may lead to the exhaustion of resources and the destruction of the environment. Ambivalent discourses contain some aspects that are consistent with the ecosophy and some are destructive from the perspective of ecological ideologies.

The system of transitivity provides an operational analytical framework for EDA. There are six different types of processes, namely, material processes, mental processes, relational processes, behavioral processes, verbal processes and existential processes<sup>[3]</sup>. Material processes are processes of action or doing. The process is realized by verbs while the participants including Actor and Goal are realized by nominal groups. Mental processes are related to mental reactions such as cognition, affection and perception. The third type of processes is the behavioral process which means the physiological and psychological behavior. Verbal process means a process of saying. Relational process is a process of being. The last type of processes is the existential process which involves one participant, namely the Existent. According to He Wei, from the perspective of eco-linguistics, the participants of processes can be divided into two categories: individual and group, animate and inanimate. Besides, the processes can be extended from the perspective of ecology and be further divided into eco-beneficial, eco-destructive and eco-ambivalent ones<sup>[4]</sup>.

## 3. Mood and Modality System for ecological discourse analysis

Mood is an important way to construct interpersonal meaning. In English, the typical moods in clauses include declarative mood, interrogative mood and imperative mood. The mood types reflect the different social roles and power relations of speakers.

Modality is used to argue about the probability, frequency, obligation or inclination of proposals. Modal operators can be divided according to the different degrees of certainty or usuality. Modal operators with high degree include must, certainly, always, etc. Modal operators with median degree include may, probably, usually, etc. Modal operators with low degree include might, possibly, sometimes, etc. According to Hei Wei and Zhang Ruijie, different modal values represent that the information in the clause or discourse is negotiable. When a discourse

with a high modal value embodies an ecological protective view, the modality used in the discourse is eco-beneficial. In contrast, when a discourse with an affirmative and high modal value represents an ecologically destructive view, the modality used in the discourse is eco-destructive<sup>[5]</sup>.

#### 4. EDA of University English Textbook Discourses Based on Transitivity System

Textbook is a carrier for knowledge construction and value penetration. Discourses in textbooks are crucial for cultivating students' ecological ideologies. In this paper, two discourses are selected and analyzed from the perspective of EDA.

These discourses are selected from Book 4, Unit 1 and Unit 2. The first discourse is a natural discourse with the theme of deep-sea exploration and marine conservation. The second discourse is a social discourse with theme of urban construction and the transformation of hutongs in China.

Through data analysis, it can be known that the two discourses mainly involve five processes, namely material process, mental process, verbal process, relational process and existential process. From analysis, there are a total of 209 transitivity process types in the discourse. Among them, the material process accounts for the largest proportion, with a total of 145, accounting for 69%. Followed by relational process, there are 39, taking up 19%. The third is the mental process, the number is 13, accounting for 6%. Next is the existential process, the number is 8, occupying 4%. The last is the verbal process, the number is 4, accounting for 2%.

From the perspective of ecology, the processes can be further divided into eco-beneficial, eco-destructive and eco-ambivalent ones. Among all the transitivity process types, ambivalent process accounts for the highest proportion, with a total of 137, accounting for 66%, followed by beneficial process, with 54, occupying 25% of the total. The least proportion is destructive process, taking up around 9%. Some examples are analyzed below.

1) *We sank a whale, which had died from apparently natural causes and washed up on shore, 2,000 feet below the Sea of Japan and then descended in submersibles to observe the ensuing feeding frenzy by an array of creatures.*

2) *In order to boost the athleticism and health of average Beijing residents, the government constructed hundreds of outdoor exercise stations.*

3) *The essence of the hutong had more to do with spirit than structure: it wasn't the brick and tiles and wood that mattered; it was the way that people interacted with their environment.*

4) *J.L.B. Smith, the man who described the species, wrote in The Times of London: "We have in the past assumed that we have mastery not only of the land but of the sea..."*

Example (1) is a series of clauses describing the action of a scientific expedition. There are four processes of "sank", "died", "washed up" and "descended". The semantic configuration formed by "sank" is "actor + action process + goal" while the semantic configuration formed by "died", "washed up" and "descended" is "actor + action process". These clauses describe a scientific expedition in which scientists sank a whale that has died of natural causes and observed the subsequent developments. The transitivity processes in these clauses are ambivalent processes.

Example (2) shows that the government has improved the outdoor fitness facilities around the neighborhood to make it easier for residents to exercise. The semantic configuration of this clause is "actor + action process (constructed) + goal". The role of actor is realized by "the government" which is a group subject. It belongs to a beneficial action process because it reflects the government's efforts to improve the facilities and create a more comfortable living environment for the public.

Example (3) illustrates the essence of the hutong. There are two processes of "had" and "was". The semantic configuration formed by "had" is "actor + action process" while the semantic configuration formed by "was" is "carrier + relational process + attribute". It expresses that Hutong reflects the harmony between people and their surroundings. It spreads a positive ecological view and it is a beneficial process.

Example (4) is a mental process, which reflects the speaker's cognition of external things. The semantic configuration of the sentence is "senser + mental process (assumed) + phenomenon". It describes a false perception that man is the master of nature. It conveys a negative ecological value, and contributes to the destructive mental process.

#### 5. An Interpretation about the Ecological Meaning of Mood and Modality

Through data analysis, it can be known that the two discourses mainly involve three mood structures, namely declarative mood, interrogative mood and imperative mood. The declarative mood represents the largest proportion, accounting for approximately 97%, as opposed to interrogatives which account for 2% and imperatives which represent 1%.

From the perspective of systemic functional linguistics, Modality can be expressed by modal verbs and modal adjuncts. The two discourses mainly involve three types of modal elements. Modal expressions with a high degree account for approximately 50% of the total,

while modal expressions with a median degree account for 13% and modal expressions with a low degree represent 37%. The following examples are drawn from the collected data.

5) *Life goes on there just as it did from the beginning. Man's influence is as yet but a passing shadow.*

6) *Whenever a hutong was doomed, its buildings were marked with a huge painted character surrounded by a circle: "pull down, dismantle."*

7) *He always contributed more than his share to a W.C. Club barbecue, and he was always the last to leave.*

8) *This discovery means that we may find other fishlike creatures, supposedly extinct but still living in the sea.*

9) *We will not find megalodon, but we might find the key to our survival on Earth.*

Example (5) expresses that the power of nature is unrivalled and that man is very small in front of nature. The mood structure in example (5) is a declarative mood, which provides authentic information. It represents the mood value at the highest level. The sentence expresses the need for humans to respect the laws of nature and spreads a positive ecological view. It is a beneficial structure.

Example (6) employs an imperative mood, whose interpersonal meaning is primarily command. It reflects the fact that in the 1990s there was not enough awareness of the need to protect old buildings. The mood structure of the sentence is contrary to the ecosophy and it is a destructive structure.

The modal operator "always" in example (7) represents an air of frequency. It has a high modal value, expressing a stronger obligation and willingness. The use of "always" implies that as a member of the Hutong residents, Wang is happy to serve the community and promote the harmonious relations between neighbors. The modal operators in the sentence are in line with the ecosophy and are beneficial in ecological values.

In example (8) and (9), the modal operators "may" and "might" are employed. "May" is a modal operator with a median value while "might" expresses a low value. Both reflect the author's uncertainty. The context implies that only if we pay attention to the protection and exploration of the ocean, we can discover more new species and the key to the survival of human beings. The ecological values of these modal operators are beneficial because they uphold the ecosophy.

## 6. Conclusion

Through this EDA research, it is found that university English textbook discourses are better at conveying ecological meaning through linguistic features, such as transitivity processes, mood and modality. Analyzing the textbooks from the perspective of EDA can help students identify ecologically beneficial and destructive discourses, and further cultivate their love of nature and appreciation of life.

---

## References

- [1] He Wei. "Ecological Discourse Analysis: A further Development of Halliday Model". *Foreign Language Education*, Vol. 42, No. 1, PP. 20-27, 2021.
- [2] Stibbe, A. *Ecolinguistics: Language, Ecology and the Stories We Live by*, London and New York: Routledge, 2015, PP. 24-33.
- [3] Suzanne Eggins. *An Introduction to Systemic Functional Linguistics*, New York and London: Continuum, 2004, PP. 215-239.
- [4] He Wei, Wei Rong. "An analytical framework of transitivity for international ecological discourse". *Modern Foreign Languages*, Vol. 40, No. 5, PP 597-607.
- [5] He Wei, Zhang Ruijie. "An Ecological Analytical Framework for Discourse". *Foreign Languages in China*, Vol. 14, No. 5, PP. 56-64, 2017.