The Presentation and Expression of Animal Discourse and Implications for Reading Teaching: A Case Study of PEP High School ELT Textbooks

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Abstract: Guiding students to establish correct ecological awareness is an indispensable step of cultural awareness cultivation. Based on the transitivity model, this paper takes the PEP high school ELT textbooks as a case study to analyze the presentation and expression of animal discourse. Pedagogical implications are revealed by combining research findings with the aspects of textual analysis -- "what", "why" and "how". Research findings indicate that the ELT textbooks present rich types of animals, apply diverse transitive processes, and convey an ecological concept of "diversity, harmony and interactive coexistence". Based on these findings, the paper suggests that teachers can pay attention to the change of man-animal relationships with the shift of animal types; guide students to collect and classify the participants and processes for imitation of writing styles; and flexibly choose destructive discourse to develop critical thinking ability. These findings can put forward a framework for teachers, but there is still room for empirical research to pinpoint the efficacy and feasibility of the suggested approaches to analyze texts.

Keywords: Ecological Awareness; Transitivity; Animal Discourse; High School English Textbook

1. Introduction

With the relationship between man and nature being more closer, people come to stress the significance of environmental awareness. Language, as noted by Meighan[1], is connected with the local political, sociocultural, and ecological contexts. Hence, ecolinguistics emerges to explore the nexus between language and ecology[2].

For students' ecological consciousness, Ide highlighted the role of ELT textbooks[3]. In China, *The National Curriculum Standards for Ordinary High School English* (edited in 2017 and revised in 2020) (hereinafter referred to as the *High School Curriculum Standards*) stated textbooks should introduce representative animals and plants for students and deepen their understanding of man-nature relationship[4]. Similar research and files have boosted studies in ELT textbooks' ecological contents[5][6]. Many scholars and researchers have found there exist drawbacks in ELT textbooks, like superficial environmentalism[7]and insufficient ecological content[8]. Nevertheless, there is few research discussing about solutions for teachers in practice.

Hu pointed out that sentence can be regarded as a part of discourse study[9]. Transitivity system analyzes structural features of sentences by clause, namely the process, participants in the process and circumstances associated with the process. Halliday classified the processes into six types: material, mental, relational, behavioral, verbal and existential[10]. Therefore, a sentence, even a passage, can be analyzed by transitive processes to explore how it is constructed.

Based on the theoretical backdrop, this paper takes the animal discourse in PEP high school English textbook as a case study with the combination of transitivity. This paper attempts to revolve around three questions of "what", "why" and "how". The types of animals have been classified to answer "what the discourse tells". The distribution of transitive process has been investigated to conclude "how a passage is constructed". And the discourse values have been analyzed to discuss the meaning expressed in the animal discourses. Making reference to above results, this paper will propose three approaches with specific examples.

2. Research Design

2.1. Research framework

The classification of animal has taken previous studies[2][5][11]and research objects into consideration. There contain 6 types of animal: (1) personified animals; (2) animals as production; (3) animals under observation; (4) general animals; (5) animals as victims and (6) animals under protection.

What's more, transitivity system is applied to analyze animal discourse. The action process -- so called the material process in original transitivity model, aims to describe participants' physical movement by "doing". It involves two participants: the actor and the goal (the recipient of the action). The relational process illustrates the relationship between two participants by "having" or "being". The mental process elucidates the cognition, perception and affection, including sensors and relevant phenomenon. The verbal process focuses on "saying" and "communicating", engaging two participants: the utters and the one who is addressed. The behavioral processes "represent outer manifestations of inner workings"[10]. And the existential process reveals the existence by a clause with "there" as an inception.

He and Wei further classified above transitive process as destructive process, neutral process and beneficial process in accord with whether they comply the ecological philosophy of "diversity, harmony, and interactive coexistence"[12]. Beneficial process refers that the clause obeys the philosophy, while destructive process means vise versa. The neutral process connotes it neither obeys nor disobeys the philosophy.

As noted, the transitivity model divides a clause into small elements, explaining how a text is stated through different processes. Further, three kinds of ideological values also help identify the feature of man-nature relationship in the textbook.

2.2. Research questions

(1) How many types of animals are presented in the textbook?

(2) How do transitivity patterns are used to describe the man-animal relationship in the textbook?

(3) What is the ecological view of animal discourses in this textbook?

2.3. Research object

Concerning on the source of animal discourses, this paper selects 75 clauses from natural passages in PEP high school English textbooks. The reason why this version has been chosen are as follows: (1) In the perspective of authority, this series of textbooks are organized and published by the Ministry of Education in China. (2) This version has been recently edited and put into use widely. It thereby exerts great impact on students' ecological awareness. (3) The previous studies on this textbook rarely delve into the natural passages, so there is still a research gap.

2.4. Research Method

Textual analysis will be applied to investigate animal discourses in this paper. The specific analysis steps are as follows:

Firstly, the types of animals are classified to answer "what the animal discourses are about"; Next, all clauses are input into WPS Excel 2019 and annotated according to the transitivity model[12]. Then, data are collected to quantify the distribution of transitive process. Thus, the ecological views of animal discourses are explored. Finally, based on the above research results, three strategies will be put forward to assist teachers to study animal discourses with specific examples.

3. Result and discussion

The analysis of animal discourses is divided into three parts: the first is about "what" types of animals are presented; the second is about "how" animals are presented by abundant transitive processes; and the third is about the judgement of ecological views.

3.1. The Presentation of Animals

The frequency of different types of animals from high to low is as follows: animals under observation, general animals, personified animals, animals as products, animals as victims, and animals under protection. Furthermore, the relationship of observation is the vast majority, with a total of 58 clauses, accounting for 77.3%. The secondary to it is the utilization of animals by humans, which consists of 14 clauses, accounting for 18.7%; The protection of animals by humans only has 4% proportion.

Table 1: The Presentation of Animals in ELT Textbooks (PEP)

Types of animals	Number	Man-animal Relationship
Animals under observation	24	Observation
General animals	23	
Personified animals	11	
Animals as products	9	Utilization
Animals as victims	5	
Animals under protection	3	Protection

Compared to the similar studies carried out by Zahoor & Janjua[2], this paper finds that the ELT textbooks (PEP) pay more attention to the observation of animals rather than utilization. Therefore, the man-animal relationship in ELT textbooks in China is less anthropocentric than that in Pakistani. The reason maybe as follows: the PEP textbooks have been edited in 2019 when China consolidated its place as the second largest economy, so there is no desperate need to stimulate economy by enslaving animals in China.

What's more, the number of personified animals is still less than other two among the observation relationship. However, He and Shen have found the proportion of personified animals in elementary Chinese textbook is much higher than the data in above chart[5].The reasons may be as follows: (1) the PEP textbooks are designed for high school students, who have developed relatively higher abstract thinking capability than primary students. (2) *The High School Curriculum Standards* emphasizes English textbook is an important tool for students to learn the world and form the correct value[4]. But, personified animals are not in accord with the reality, because they are given so many abilities that they don't indeed own[13], like speaking, arguing and etc. Therefore, a great number of passages containing observation rather than personified animals are selected in textbooks to present a vivid and real images of animals in the world.

The secondary relationship between man and nature in the textbooks belongs to the utilization. People acknowledge animals' usage in food, transport, medicine and economy[2][11]. Hence, it does make sense that animals fall into the victim, for instance, people illegally eat penguin, because they nearly starve to death in winter. Furthermore, compared to the first two types of relationship, the proportion of protection is significantly lower, merely accounting for 4%. Therefore, there still exists the anthropocentrism in these discourses, which will have negative influence on the cultivation of students' ecological awareness.

3.2. The Transitivity of Animal Discourse

Based on analysis, the animal discourse in PEP high school English textbook involves action processes, mental processes, relational processes, behavioral processes, and existential processes, but there doesn't include any verbal processes.

Table 2: The Distribution of Transitive Process in ELT Textbooks (PEP)

Transitive process	Ratio
Action process	56%
Mental process	14.7%
Relational process	16%
Behavioral process	9.4%
Existential process	4%
Verbal process	0

This result abides by the basic principle of transitivity, which means the action process, mental process and relational process are the most fundamental processes[10]. As Cook and Sealey has pointed that the proportion has been impacted by the genre of texts[14]. Based on the analysis, it can be seen that

the texts abound in the multiple actions and complicate relationships, because action process has surpassed 50% and the number of mental process and relational process subsequently take the 2nd and 3rd place. Animals don't be endowed with rights to voice, there is no verbal process between man and animals.

In what ways language users apply transitive processes to describe things can reflect their understanding of specific events[15]. The majority of action process in the text appears to highlight the animals' natural condition. Precisely, it can be found that the actors in action process, which are mainly animals, and the verb semantics of the related process are often neutral. Hence, most of animal discourses construct true and real scenes of animal.

But in the mental and relational process, humans always function as the senors and identifiers to describe man-animal relationship, which means human owns higher status in these process while animals have lower places. This phenomenon echoes with what Akcesme mentioned that nature in the sample coursebooks is valued as being a source of aesthetic pleasure[16].

To summarize, the portrayal of animal is close to reality and authenticity, with more or less humans' emotions towards animals, presenting motley of action portrayal and emotional expression. In actual teaching, teachers can guide students to consciously imitate the straightforward and realistic writing style and learn about the description of animals and the expression of human animal relationships.

3.3. The Ecological View of Animal Discourse

Table 3 shows that neutral discourses have an obvious advantage (58.7%), while beneficial (20%) and destructive (21.3%) discourses have similar proportion. This result is resonant to the distribution of transitive process and the presentation of animals in above findings. The ELT textbooks apply action processes (56%, *Table 2*) to depict the observation of animals in an objective and real way. Hence, the neutral discourses rank 1st. The mental and relational processes embody human's opinions and attitudes, which can be positive or negative. However, from the following chart, it can be seen that the beneficial discourse and destructive discourse nearly offset. Therefore, the ELT textbooks overall convey the ecological concept of "diversity, harmony and interactive coexistence".

Table 3: The Ecological View of Animal Discourses in ELT Textbooks (PEP)

Ecological View	Number	Ratio
Beneficial	15	20%
Neutral	44	58.7%
Destructive	16	21.3%

To begin with, a harmonious ecosystem, as defined by He & Liu, should teem with diverse creatures, including humans, animals and plants[17]. They live their lives in peace and interact with each other properly. The ELT textbooks present six types of different animals in a relatively real and objective way, namely, animals under observation, general animals, personified animals, animals as products, animals as victims and animals under protection. All of them bring students a glance of the steady and diversity of natural ecosystem.

Secondly, the consistent development of subsystems also illustrates the sustainability[17]. In the ELT textbook, detailed introduction to the birth, growth, and maturation of koalas and kangaroos showcases the independent development of their offspring. This means the ELT textbook not only notice the present natural animals, but also pay attention to the sustainable development. Furthermore, humans' actions to protect and promote ecosystem diversity are vividly depicted in the ELT textbook[17], for example, "under national protection", "keeping them (antelopes) safe from attacks", etc. These expressions squarely indicate that humans are capable of recognizing the significance of prohibiting illegal behaviors and put it into practice. However, it is worth noting that some destructive discourses in the ELT textbook still convey "anthropocentrism", which requires teachers to make flexible choices in teaching.

4. Pedagogical Implications

4.1. Notice the Multiple Animals and Raise the Awareness of Coexistence

Table1 shows that the textbooks contain rich types of animals and diverse man-animal relationships. Therefore, teachers can guide students to pay attention to summarize and generalize the factors that

affect man-animal relationships. Students are enabled to form a consciousness of harmonious coexistence on the basis of acquiring linguistic knowledge.

Example1 Tibetan antelopes (actor) live on the plains of Tibet, Xinjiang, and Qinghai(1). Watching them move slowly across the green grass, I'm struck by their beauty(2). I'm also reminded of the danger they were in(3). They (goal) were hunted, illegally, for their valuable fur.(4)...Hunters were shooting antelopes (goal) to make profits.(5)...In order to save this species(goal) from extinction, the Chinese government placed it(goal) under national protection.(6)...The antelope population(actor) has recovered (7)and in June 2015, the Tibetan antelope(goal) was removed from the endangered species list(8).

In *Example1*, the man-animal relationships are displayed from three perspectives: observation, utilization, and protection of Tibetan antelopes. Firstly, sentence (1) takes Tibetan antelopes as actors. Their elegant movement in habitat and their beautiful figures are depicted through action process. Through the action and active voice, the Tibetan antelope in sentence (1) possesses "a high level of linguistic power"[15]. Teachers can use multi-modal resources to supplement other characteristics of Tibetan antelopes, such as their group immigration and their thick and dense fur. Not only can students acquire more ecological knowledge, but teachers can also provide a scaffolding for students to understand the plight of Tibetan antelopes on the brink of extinction in the following text.

Next, "danger" has shifted the relationship from observation to utilization. The passive voice is used in the action process (sentence 4), which makes humans' destructive behavior more conspicuous in a clause[9]. Compared to sentence (1), the Tibetan antelopes in sentences (4) and (5) turn out to be the negative recipients of human destroying actions. Subsequently, an active action process is used to describe the efforts and contributions made by the Chinese government to protect Tibetan antelopes -- sentence (6), which shows the Chinese government's awareness in wildlife conservation.

By observing the shifts of man-animal relationship, student can gradually realize the complicated relations between man and nature. Those wrong deeds make it possible for students to retrospect and reflect their own behaviors. And, protective measures taken by authorities also can deepen students' understanding of endangered animal protection. Finally, the multiple and complex relationships can lead students to establish awareness of harmonious coexistence between humans and nature.

4.2. Imitate Writing Style and Raise the Awareness of Equality

Hu has put forth that the relationship between the process and participants can also reflect the writing feature[9]. As what has been shown in *Table 2*, the animal discourse mainly describes the actions in a neutral and objective way. Therefore, in practice ELT, students are supposed to classify and organize these verbs and relevant participants.

Example 2 My favourite is a little creature called the Tasmanian devil. If you are out camping in Tasmania and come across one, the experience might scare you! Tasmanian devils hunt at night, so you won't usually see them, but you may hear their loud cries when they are fighting or eating. The noise they make could wake the dead. Frighting! They are about the size of small dogs and look like rather large black rats. They also have a terrible smell! Their diet is mostly dead animals. Fortunately, despite their name, they are generally not violent towards people.

This example describes the author's favorite animal -- Tasmanian devil. Teachers can guide students to pay attention to the process of action (hunt, fight, eat and make), relationship processes (is, are and have) and psychological processes (see, hear and look like). Writing scaffolding are provided to students about how to describe an animal: action processes are used to describe animals' behavior; The relational process is used to identify and describe the characteristics of animals (size, diet, temperament, etc); Mental processes are used to describe humans' sensation towards animals, like visual.

The main actor in this example is "they" (Tasmanian devil), which is often in the active voice, while the human participants only exist in 3 clauses. Students are supposed to place animals as the subject in writing and to use the active voice more often to convey the equality.

4.3. Elect Destructive Discourse and Raise the Awareness of Protection

Table 3 reveals that there still exist deteriorating discourses in textbooks. These destructive discourses can be employed to make a comparison with beneficial discourses. Based on contrast, students are guided to explore the purpose of human destruction and protection so that their thinking

capacity can be well developed.

Example 3 For hundreds of years, looking after reindeer was a way of life for the Sami. They used the reindeer's meat for food, their bones for tools, and their skin for making clothes and tents. Since reindeer were always on the move, the Sami would pick up their tents and accompany them. Today, most Sami have houses in villages near Sarek and live a modern life just like their neighbour. But every spring, a small number of Sami still follow their reindeer into the valleys of Sarek, living in tents or old cottages and enjoying their traditions.

In this example, the second sentence is destructive, for humans as actors employ reindeer's meat for food, bones for tools and skin for making clothes and tents.The following text, however, involves measures to maintain the stability of the reindeer population, such as "accompanying" and "following". Such seeming paradoxical expressions give teachers and students a good opportunity to brainstorm the reasons behind this phenomenon. By combing with their own experience, students can notice that the reason why the Sami utilize reindeer lies in the maintenance of their own clothing, food, housing, and transportation. It is precisely owing to reindeer that the Sami can last for hundreds of years. However, they do not completely rely on or abuse reindeer. They still own the consciousness that they are able to shoulder the responsibility of protecting reindeer and even evolve it into a tradition. Hence, students can gradually realize that there do exist a bottom line for people to utilize and employ animals.

5. Conclusion

Based on the analysis, it can be concluded that the ELT textbooks present rich types of animals, apply diverse transitive process in plain and objective language styles, and convey an ecological concept of "diversity, harmony and interactive coexistence". In ELT practice, teachers can guide students to analyze complex man-animal relationships from the following three paths: (1) Based on different types of animal, teachers lead students to pay attention to the participants and process types of different clauses; (2) Teachers guide students to imitate the stylistic characteristics to develop writing skills; (3) Teachers flexibly choose destructive language to assist the establishment of a critical ecological view. Of course, this study also has certain limitations, such as the lack of research on the use of animal discourse in real class.

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