

# The Implications of Cognitive Linguistics for English Vocabulary Teaching in Primary and Middle Schools from the Perspective of Basic Category Theory

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**Abstract:** Vocabulary teaching is an essential element of English teaching in middle schools and occupies a large proportion of the current English textbooks for primary and middle schools in China, but there are many problems with its vocabulary teaching. Basic category theory suggests that the process by which people develop an understanding of vocabulary formation and meaning is based on the perception of basic categories and their related relationships. This theory provides teachers with a new way of thinking about vocabulary teaching. Teaching vocabulary within the framework of basic category theory can help students grasp the scientific principles, philosophical views and cultural connotations embedded in English vocabulary, thus effectively improving their language ability and humanistic literacy.

**Keywords:** Basic Category Theory; Cognitive Linguistics; English in Primary and Middle Schools; Vocabulary Teaching.

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## 1. Introduction

English teaching in primary and middle schools in China has always suffered from the drawbacks of exam-oriented education, and countless researchers and front-line teachers have devoted themselves to researching and practicing teaching methods to improve this situation. In vocabulary learning, most students memorize words by rote, using the method of constant repetition, and in the end, the words remain in the students' minds as separate rather than connected wholes. This study discusses new methods of vocabulary memorization by using the basic category theory, a critical theory in constructing cognitive linguistics, to solve the problem of students' inability to remember words and difficulties in memorizing words and to help students form meaningful vocabulary networks in their brains to learn systematic knowledge, thus enhancing their interest in learning English and improving their logical thinking skills.

## 2. Cognitive Linguistics and its Theoretical Foundations

Classical linguistics emerged before the 19th century, with schools of linguistics such as logical grammar and traditional philology emphasizing language's humanistic, logical and communicative aspects. In the 19th century, historical-comparative linguistics emerged, emphasizing the nature of language, and in the first half of the 20th century, modern linguistics, represented by Saussure's structuralist linguistics, led the way in the study of language. In the second half of the 20th century, contemporary linguistics began to emerge, and cognitive linguistics was widely used in language teaching because of its focus on the experiential and cognitive aspects of language.

### 2.1. Cognitive Linguistic Research Genres

From the 1960s to the 1970s, several schools of cognitive linguistic research emerged, with the following three leading schools: The first is the empiricist cognitive school, represented by Wittgenstein. They emphasize that language is

an empirical category, and their theoretical system consists of several aspects, such as the understanding of language, language structure and speech acts. The second is the cognitive theory represented by the linguist Chomsky, who believes that language is a cognitive system consisting of several components such as vocabulary, grammar and pragmatics. The third is the school of cognitivism and symbolism represented by Peirce. [1]

At the end of the 20th century, with the development of cognitive science and the in-depth study of language phenomena, the mainstream Western theory put forward the concept of the human cognitive system, which regards language as an organic structure of human cognition and believes that the processing of the human brain forms language. In other words, cognitive linguistics believes that language is an external expression of the human brain's cognitive processes and that the essential property of language is the externalization of the human thinking mode. From this perspective, it is unsurprising that Chinese and English have a certain similarity and correlation.

### 2.2. Theory of Constructing Cognitive Linguistics

Cognitive linguistics was established in the late 1980s, and over the 30 years of its development, the theories that construct it have become increasingly comprehensive and have been widely applied to language teaching. The dominant underpinning theories include basic category theory, prototype category theory, frame theory and metaphor theory. Basic category theory is the idea that there are many connections between things and that things with similar attributes and properties are more likely to be related and, thus, consciously organized into different categories. Prototype category theory means that people judge, analyze and store things while memorizing and understanding different things and thus produce categories. Frame theory emphasizes the importance of building bridges between language and conceptual knowledge, stimulating the learner's existing cultural knowledge and thus enhancing the connections between new and old knowledge. Metaphor theory

emphasizes using one thing to explain another thing, using an idea or thing that learners are used to understanding to explain another thing that is more complex and abstract to understand, often when there is a strong connection or similarity between the two things. Applying cognitive linguistic theory to English teaching, cognitive linguistics emphasizes that the language environment should be created according to the characteristics of learners' thinking and cognitive rules, using contextual teaching methods and visual aids. Furthermore, it believes that the cultural connotations behind the language significantly impact language acquisition.

### **3. The Significance of Vocabulary Teaching in English Language Teaching**

In the 21st century, to cultivate comprehensive talents with a global perspective, society's demand for English language talents has changed dramatically, and English has become a critical language subject. If you do not know English, you cannot connect with the international community. We are in a period of accelerated globalization, and English is an international language and a necessary skill to become globally competent. Learning English not only broadens our horizons but also enhances our strengths. By learning English, it allows us to understand better the habits and customs of people in different countries, which is the most basic way to broaden our horizons and also to build a solid foundation for us to go abroad in the future, as well as giving us more knowledge without being familiar with a new environment. Whether it is for our development or the needs of our country, we must learn English well and have a good foundation in English culture to be more beneficial for our future development.

If you want to learn English well, you must overcome the difficult task of learning vocabulary. You cannot form a sentence without words, and you cannot form an essay without sentences. Using and mastering vocabulary is an essential means of improving students' language skills and English language ability. Vocabulary is the basis for learning and communicating in a foreign language and is an essential factor influencing language and cultural communication. The increasingly frequent interaction between China and the West and the increasing research on English language teaching have led to widespread interest in teaching English vocabulary. In order to learn English well, one must first acquire a large amount of English vocabulary, and the amount of vocabulary acquired and the degree of proficiency in using it will play an essential role in the communication of the language. In terms of learning phonetics, grammar and vocabulary, vocabulary is a complex area to learn, and most students spend much time learning English vocabulary but do not achieve good results. English cannot be expressed and communicated without vocabulary. Therefore, vocabulary is essential in developing students' English communication skills. The use and accumulation of vocabulary are essential for all skills in English, so vocabulary is a crucial aspect of English language teaching.

## **4. Problems in Teaching English Vocabulary in Primary and Middle Schools**

### **4.1. Teachers' Teaching Notions are Overly Outdated**

Most English teachers in primary and middle schools have a remarkable lack of conceptual updating and learning. Since introducing the New Curriculum Standards, only a few front-line teachers have a deep understanding of the new concepts of core literacy, English learning activities and curriculum content reform and can apply them to the practical teaching of English. Most English teachers stick to the conventional rules and are unwilling to spend time and energy on researching new teaching methods. Those who have not updated their teaching concepts only focus on teaching the meaning of words when teaching students vocabulary, without paying attention to the cultural connotations behind the words, so that students naturally do not relate the meaning of the words to real life. Such vocabulary learning only makes students lose interest in learning English, which is meaningless.

### **4.2. Teachers' Teaching Methods are too Inefficient**

Due to the lack of proper theoretical guidance, most English teachers in primary and middle schools use boring, single and repetitive teaching methods to teach vocabulary, such as copying words, reading words aloud mechanically, telling the meaning of words directly, and memorizing words letter by letter. Therefore, students' abilities in listening, speaking, reading and writing are deficient to a certain extent, not only because English teaching methods in primary and middle schools lack scientific and standardized understanding of language knowledge but also because they ignore the differences in students' fundamental levels. At the same time, the teachers' teaching methods are too homogeneous and mechanical, resulting in students not having access to English vocabulary and a great deal of another basic English knowledge. In such circumstances, primary and middle school students are more likely to suffer from problems such as low vocabulary, poor oral expression and inadequate grammatical knowledge.

### **4.3. Students Do not Appreciate the True Purpose of Vocabulary Learning**

Most students learn words through mechanized repetition, and this single, boring way of remembering words not only weakens students' interest in continuing to learn English but also increases their memory load. This traditional way of learning words will eventually kill the desire of learners to explore English, and the inefficient way of learning not only wastes students' precious time but also greatly consumes their energy.

### **4.4. Neither Teachers nor Students have Generated a Conception of Vocabulary Networks**

The concept of lexical networks is a pedagogical concept derived from the basic category theory in cognitive linguistics and applied to teaching English vocabulary. It emphasizes the establishment of solid links between words, thus forming a large vocabulary network structure in which learners learn

one word along with other related words, and other related words will naturally appear in their minds when they encounter a word in the network. In this way, learners' vocabulary is memorized more effectively than ever, but the current state of English vocabulary teaching in primary and middle schools is that teachers and students do not spend time and energy on the construction of vocabulary networks, and this is the main reason why students are prevented from using vocabulary in their daily lives.

## 5. The Implications of Basic Category Theory for Vocabulary Teaching

Basic category theory is the theory that supports the construction of cognitive linguistics, stating that everything in the world is related to something else deeply or superficially and that a thing that has some similarity to something else and is grouped into a category is also called a category. It describes the relationship between the various basic categories in language at a conceptual level. The formation and use of basic categories in language are closely related to the structure and memory of the human brain. In the brain's neurons, different types of neurons process the signals they receive and thus generate different types of meaning. [2] Therefore, studying the mechanisms of basic category formation is valuable for understanding human language acquisition and cognitive abilities.

Using basic category theory to build a connected vocabulary group has become a vital issue for theory to guide practice. The core vocabulary of junior high school, for example, is also known as a basic vocabulary, i.e., the vocabulary that students can master to be able to speak it in everyday English communication. Using the core vocabulary as a basic category, there are words in the core vocabulary that students are familiar with and words that they are not familiar with, and using the words that students are familiar with to guide them through the marginalized words in the category, i.e., the words that students are not familiar with. In this way, the connections between words are strengthened, and students' logical thinking and creative association skills are developed. After forming a connected vocabulary group, each group is organized into a vocabulary network by finding links, consolidating and internalizing English words in a progressive, grounded, qualitative learning process. Through this progressive learning, you will eventually have your own vocabulary knowledge base, turning word learning into application in your daily life; word learning is not simply memorizing words but communicating in English. Therefore, it is crucial to develop an awareness of using English in your revision to communicate and express yourself in English and gradually develop the ability to speak English.

After discussing how to build a vocabulary network, there is another critical point to focus on to experience a meaningful vocabulary learning journey: the meaning behind the words. After understanding the surface meaning of a word, it is vital to explore the true meaning of the word by understanding the

cultural context of the word in order to make learning more profound and more meaningful. For example, bat means "bianfu" and refers to all mammals of the pterodactyl family, whose front legs have become wings and who soar at night, feeding on insects such as mosquitoes and moths. This is the superficial meaning of bat, which in the West means death, virus, disaster and other things people fear and loathe. In China, however, bats mean "fu" (good fortune), and because they are hanging upside down, they are also "fudao" (good fortune comes): The word "dragon" means darkness and evil in Western culture, while in Chinese culture the dragon symbolizes power and dignity; and "petrel" means sea swallow, which in China symbolizes freedom and vitality, but in the West, it is mainly used in a derogatory sense, for example: "a stormy petrel" is a person who causes trouble and makes waves. By exploring the cultural meanings behind the words, the threads of the vocabulary network can become more assertive, providing a solid foundation for the steady expansion of the vocabulary network.

## 6. Summary

This essay explores the application and implications of the basic category theory in teaching English core vocabulary in middle schools through the analysis of the rules of English vocabulary learning from the perspective of this theory. The study reveals that: (1) Vocabulary teaching under the framework of basic category theory can enable students to understand the process of human thinking and cognitive rules in learning, thus enhancing students' interest and confidence in learning; (2) The use of cognitive linguistic principles and related principles in the process of vocabulary education can help students understand basic categories and their related relationships, thus improving students' ability to master basic categories and related concepts. Building a group of associated vocabulary and a vocabulary network is a method that learners must master to learn English words effectively.

## References

- [1] He Wei; Wang Lianzhu. The Historical Evolution of Linguistic Schools and Views of Language [J]. Foreign Languages Journal, 2020,(02):8-20.
- [2] Zhang Hanyan. The Enlightenment of cognitive linguistics Theory on Foreign Language teaching [J]. Teachers, 2022, (18): 42-44.
- [3] Li Xiaoqin. Applied Language and Culture Research of Cognitive Linguistics in College English Vocabulary Teaching, 202, 101-104.
- [4] Zhao Qian. College English Teaching from the Perspective of Cognitive Linguistics: A Review of the New Dimension of English Teaching from the Perspective of Cognitive Linguistics [J]. Chinese Journal of Education, 2022,(09):129.
- [5] Wang Yu. Implementation strategies of deep translation from the perspective of cognitive Linguistics [J]. Journal of Changchun Normal University, 2024, 41(11):90-93. (in Chinese).