



Vocabulary Teaching under the Guide of Cognitive Linguistics

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Abstract. Cognitive Linguistics plays an important role in studying language generation and development. This paper mainly discusses how to teach vocabulary with the guide of it. After studying the ways and the materials of vocabulary study, we propose some effective ways to learn, such as accumulation of the contact experience to study high frequency vocabulary, using theme-based material, paying special attention on the polysemous words: elaboration on the profile meanings of homonym, reiteration of prototypes in the homoionym and manifestation of the conceptual blending of phrases.

Keywords: Cognitive Linguistics, Vocabulary teaching, high frequency vocabulary, homonym, homoionym.

1 Introduction

Cognitive linguistics, which was built on the foundation of empiricist philosophy, explores the relationship between human cognition and language, provides general and cognitive explanations for numerous language phenomena, and offers reflections and insights which are different from the previous generative linguistics and systemic functional linguistics. The experiential view, the prominence view, and the attentional view are the three basic approaches to studying cognitive linguistics. ^[4](Ungerer & Schmid, 2008)Cognitive linguistics provides a reasonable description of language generation and has formed an indissoluble bond with many disciplines, including pragmatics, typology of languages, etc. Its value in language teaching is also increasingly recognized. Its application in teaching design and research is more and more popular.

This paper mainly studies the guiding significance of cognitive linguistics in vocabulary teaching. Cognitive Linguistics holds the view that the lexical meaning is derived from human experience. Since human experience is self-evidently multi-dimensional, cumulative and social, it treats meaning as conceptual and as encyclopedic. The first point means that we understand the word meanings according to the way how we experience the entity or a set of entities over time. For example, when we talk about “mother”, we can comprehend that it not only refers to a female parent, but also a

woman who is regarded as a creator, or the founder of something or origin of something. Encyclopedic meaning is the meaning that is culturally shaped since our experiences come within a certain culture. That is why the meanings of a word are not the same in different languages. Many words, such as “brother”, “dragon”, “red” etc. are good examples of carrying different encyclopedic meanings in English and Chinese. The characteristics of conceptual and encyclopedic meaning indicate that when teaching vocabulary, teachers should pay attention to the broad and overlapping perspectives of the vocabulary meaning.

2 Accumulation of the Contact Experience to Study High Frequency Vocabulary

Cognitive linguistics holds the view that language ability is a part of human cognitive ability, and meaning is the product of cognition which comes from human life experience. Language is the expression of cognition, reflecting the ways of humans' cognition of the world. The cognitive experiences include a variety of physical and social aspects. The increase of human knowledge to the world promotes the ability of individual language, which means that the more language experience the learners have, undoubtedly the better the vocabulary ability there will be. Therefore, in the language study, teachers should pay special attention to the accumulation of the experience and focus on how to provide opportunities to increase students' contact with vocabulary. Those experience includes the input and output of vocabulary which in forms of listening, speaking, reading and writing etc.. Therefore, in vocabulary learning, students can improve their contact with vocabulary through the active use of eyes, ears, mouth and hands by fulfilling the various listening, speaking, reading and writing tasks. In another words, it is also feasible to assign dialogues, interviews, observation diaries and other assignments so that learners can have more social experience in using the target language. When assigning tasks, teachers should pay attention to the applicability of vocabularies, which mainly decided by the frequency of vocabulary and the level of the learners.

According to the research of the famous scholars Paul Nation and Peter Youngqi Gu(2019), high frequency vocabulary consists of approximately 3000 words, including 175 function words and 2825 content words.^[5]These high frequency vocabulary accounts for 85% - 95% in each page of various articles. There are around 6000 mid-frequency words, which account for about 9% in all kinds of articles. Words beyond these nine thousand are called the low frequency vocabulary. The learning and master of high frequency vocabulary directly contribute to understanding of the sentence meaning and serve as the foundation for language acquisition. Furthermore, these high frequency words exist in real life and are relatively easy to come into contact with, which is beneficial for learners to quickly grasp them.

Paul Nation and Peter Youngqi Gu (2019) also pointed out in their book that, for the second language learners who is going to English-speaking countries for further study, it is necessary to master 5000-6000 words for undergraduate students and around 9000 words for doctoral students.^[5]The popular Cambridge English Qualifications test is graded into five levels and the students from primary school to university and even

adults can take part in according to personal ability and interests. It develops and publishes a vocabulary list for each level of the test based on the Common European Framework of Reference for Languages (CEFR).^[9] The above research and fact reveal a truth that in vocabulary teaching, it is necessary to choose vocabulary according to the purpose and level of different learning objects. To realize this goal, we can learn well from the online practice system on the Cambridge English Language Assessment website. On this public system, learners can choose different topics at different levels to practice language skills. Not only the content is hierarchical, but also the training forms are various which include listening, speaking, reading, writing and other aspects within the same level. Learners can better grasp the word meaning after deliberately increasing the exposure and the use of these words.

3 Using Theme-based Material to Trigger the Relative Frame

In the Frame Semantics, the concept of "frame" is similar in meaning to other terms in cognitive linguistics such as schema, script, scenario, ideational scaffolding, cognitive model, folk theory and so on. ^[7](Wang L.R.,2011) Although these terms may differ in their expressions, they share a common underlying connotation.

Fillmore (1982) defines a frame as "a system composed of concepts"^[2], which can be comprehended as the knowledge system and conceptual tool formed in the life of human beings. It bears the function of understanding and interpreting the truth experience, just like the sayings Fillmore and Atkins put forward in 1992, "(a frame) is presupposed for the concepts encoded by the words".^[3] (Fillmore and Atkins, 1992) The elements in a frame can be divided into two types: conceptual frame elements and imagery frame elements ^[7](Wang L.R.,2011). Each concept is interconnected, and understanding any one of them must be based on the understanding of the whole structure, the frame.

Suppose that a two-year-old baby first learn the concept of "leaving for a work", if they are told that "the parents are going out to realize their social or personal values," they will look confused and don't know what do you mean, even left alone to judge their parents' leaving is good or bad for them. They know nothing about the frame of "value," therefore, they cannot understand the concept of "leaving for a work". But if the baby is told that, "Mom and Dad are going to work so that we can earn money to buy food for the baby to eat!" The situation would be different. Since children have already acquired the concept of "eating" when they were just a few months old. Therefore, such life experience can stimulate the concept elements of "earning money" and "buying food" in the frame of "leaving for a work", and form the cognitive understanding of this new concept.

The study of frame has important reference and value in the foreign language teaching.^[1](Chen Zh.P & Bai J. H,2012) In the process of vocabulary learning, using materials within the same topic can enable students to recognize the frame activated by word already known , so as to strengthen the understanding and the use of the new vocabulary.

In the unit 3, book 1 of the college textbook *New Horizon College English Reading and Writing* (2023), it tells a story of *The Father of Hybrid Rice*, Yuan Longping.^[8] The theme word “hybrid” activate the conceptual system of “How the animals or plants are produced”, making it easy to understand the conceptual elements in same frame such as “crossbreed, grade, breed, self-polarizer”. In the teaching, selecting materials from the same topic as a unit can help students grasp the relative concepts and expand their vocabulary with the help of frames, effectively improving the efficiency of vocabulary learning.

4 Elaboration on the Profile Meanings of Homonym

Among the many elements of a frame system or frame network, “profile” refers to the part of the concept represented and highlighted. “Profile” means to highlight one of the elements in the frame, which helps to understand why there are different semantic meanings of a word within the same frame.

There are many polysemous words in English, which is are a common phenomenon. On the other hand, the vocabulary list in textbooks often just gives out the meaning of words in the text. This approach is beneficial for understanding the meaning of the text, but not necessarily for vocabulary learning. In the teaching of vocabulary, it is important to distinguish and focus on explaining the words with numerous meanings. There are two different relationships of the various meanings of the English polysemous words. If there is no connection between each meanings and they are belonged to different categories, this type of word is called homonym.

The following sentence comes from the text of *The Father of Hybrid Rice* mentioned above.

Example sentence:

The hybrid rice had all the vigor of the wild strain that the researchers had found in Hainan in 1970 and had crossbred with the domesticated variety.^[8]

The word “strain” in this sentence can be used as both a noun and a verb, both of which have many meanings. The train in the sentence is clearly used as a noun, and when used as a noun, it can have the following five different meanings belonging to five different frames: first, it means “pressure, worry, anxiety”, which belong to the frame of emotion; second, it is a physical force that stretches, pushes, pulls something; Third, it is an injury, which is caused by using too much or twisting; Fourth, it can refer to a particular type or variety of plant, animal or disease; Fifth, this word can also be used in the character frame to indicate the personality traits of a character. It is difficult to determine which meaning the word “strain” profiles without the PLANT frame triggered by the word in “rice”. But once the concept system of PLANT is activated, we can immediately catch the profile meaning of it. Similarly, with the help of the concept system of “wild strain”, the implied meaning of the word “domesticated” becomes clear. It refers to “grow plants or crops for human use”, rather than “making somebody good at cooking, caring for a house.”

How to exactly understand homonyms have posed high requirements on students' vocabulary ability. Only when the profile meaning is correctly understood, so do the

sentence. During the teaching, teachers should tell students how to reasonably guess the meaning of a word through the frame information given by the context, and then accurately understand the profile meaning of the word. Then, after some exercises such as comparing and making sentences, the students can grasp the important meanings of the word.

5 Reiteration of Prototypes in the Homoionym

Another situation of polysemous words is that there is clear connections among the multiple meanings. They are synonyms to each other and belong to the same category. The most basic meaning of these synonyms is call prototype in cognitive linguistics, to which other meanings of the homoionym are similar.

Human beings understand the world through categorization. Randal Holme (2008) once proposed that "language learning is category learning."^[6] The prototype is the cognitive reference point of the category and it is the formal member of the category, reflecting the general attributes of each member in the same category.

In the process of vocabulary learning, the reiteration of prototypes helps understand the elements of categories. For example, the word "cement", whose prototype is "a gray powder used in building to stick bricks together ". After mastering the meaning of this prototype it is not difficult to understand its further meaning of "a glue or a soft substance that becomes hard when dry and is used for sticking things together ", and more abstract meaning "something that unites people in a common interest". This verb can be meant as "to join, fasten things" and "to strengthen relationship, an agreement ", which are also similar to the prototype and reflect the family similarity of a category. To memorize the meaning of the word "cement", it is necessary to remember its prototype "a gray powder", the core of all the other meanings.

Teachers should emphasize and highlight the concept of prototypes when teaching homoionym words. It can help students easily, accurately, and comprehensively grasp the meaning of words. Interestingly, the prototype of many words, such as "moment, switch, spark, curl, and polish", come from real-life stuff, and the family similarity is often related to their usage and functions. Teachers should reinforce the prototypes of these vocabulary with pictures to vividly display their appearance, purpose, performance etc.. With the help of prototypes impression, it would be easier for students to master these homoionym words.

6 Manifestation of the Conceptual Blending of Phrases

Metaphors and metonymies are powerful cognitive tools for our conceptualization of the world. They are common in language, especially for the basic category words. When learning vocabulary, learners often come cross the richly metaphorical words which are combined to form relatively fixed sentence patterns and often cause misunderstanding. At that time, teachers should explain more details on those fixed expressions, paying special attention to the conceptual blending.

According to the introduction of Ungerer and Schmid(2008), Conceptual blending refers to cross-space mapping between two or more input spaces to form a complete and new concept in a new mental space, blended space.^[4]The relevance between concepts is the driving force behind conceptual blending. The blending processes involves composition, completion and elaboration. And the new concept contains or retains information from the input spaces. For example, in the concept of "catch one's eyes", the word "catch" form an input space, in which there are different meanings, such as "hold, capture, see". And the word "eyes" with various meanings such as "part of the body, ability to see, way of seeing" also form another input space. Those two input spaces are blending in a new psychological space and form a new meaning "arouse the attention of someone". Such action the two input spaces undergo is a process of conceptual structure simplification, and is called compression.

Because of the openness of the concept itself, let alone the the uncertainty to vocabulary in the second language learning, there may be inaccuracies in conceptual blending. It is effective for the teachers to clarify the usage of metaphors, metonymy, etc. in the each input space in the teaching process. For example, in the phrase "Miss the key window of something" , the input space "key window" is used as a metaphor, meaning "an important opportunity to do something." As for the phrase "Pick one's brains," teachers can tell students that "brains" is a metonymy, referring to "an intelligent person." With the help of those explanation or manifestation, the students can understand the meaning of these phrases more quickly and accurately, which means "failing to catch the significant opportunity" and "obtaining information by questioning someone" respectively.

In vocabulary learning, teachers' appropriate guidance can accelerate the speed of conceptual blending so as to help students grasp the meaning correctly and strengthen their memory.

7 Conclusion

Vocabulary is the foundation of language expression. It is significant for second language learners to learn vocabulary effectively and efficiently. Cognitive linguistics can lead the the basic direction of vocabulary learning as well as improve the understanding and mastery of various vocabulary. Some of the proposals discussed above, such as "accumulation of the contact experience to study high frequency vocabulary", "using theme-based material", are beneficial to increase the quantities of vocabularies, and some techniques, such as "elaboration on the profile meaning of homonym", and "reiteration of prototypes in homoionym" can help to improve the quality of the vocabulary learning. Applying the knowledge and achievements of cognitive linguistics to the words learning process is beneficial not only to vocabulary development , but also the overall language improvement.

References

1. Chen, Z. P. & Bai J. H. 2012, Explanation of Fillmore's Frame Semantics [J]. *Contemporary Foreign Language Studies*. (7), 14- 17.
2. Fillmore, C. 1982. Frame semantics [C]// In The Linguistics Society of Korea (ed.). *Linguistics in the Morning Calm*. Seoul: Hanshin Publishing Co. 111-37.
3. Fillmore, Charles C. & Beryl T. Atkins. 1992. Toward a frame-based lexicon: the semantics of RISK and its neighbors [C]// Adrienne Lehrer and Eva Kittay, *Frames, Fields and Contrasts*, Hillsdale, NJ: Lawrence Erlbaum Assoc., 75-102.
4. F. Ungerer, & H.J.Schmid, 2008. An Introduction to Cognitive Linguistics [M]. Foreign Language Teaching and Research Press, 219.
5. Paul Nation and Peter Youngqi Gu. 2019. Teaching and Learning Vocabulary in EFL[M]. *Foreign Language Teaching and Research Press*, 3-7.
6. Randal Holme. 2008. Cognitive Linguistics and Language Teaching[M]. *Foreign Language Teaching and Research Press*, 21.
7. Wang, L. R. 2011. The Enlightenment of Frame Semantics to Second Language Vocabulary Teaching [J].*Foreign Language Research*. (3), 49-56.
8. Zheng, S. T. 2023. New Horizon College English- Reading and Writing [M] *oreign Language Teaching and Research Press*, (2)56-58.
9. Address of Cambridge English Language Assessment website: <https://www.cambridgeenglish.org/>.

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