Cognitive Linguistics and Its Implications for English Vocabulary Learning in University

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Abstract: Cognitive linguistics is extremely useful for vocabulary memory, especially the category theory and metaphorical system. Category theory has been applied to the learning of English vocabulary, emphasizing that there are inevitable causal links and kinds of similarities between different words after human conscious induction, i.e., there are relationships between words and words, words and contexts, words and the general meaning of texts, and words and the intention of expressions. In addition, cognitive linguistics believes that metaphors exist in any language. If conceptual metaphors are used well, they could make great progression on English vocabulary learning and for long-lasting patterns of thinking.

Keywords: Cognitive linguistics, Category theory, Metaphorical system, Vocabulary learning.

1. Introduction

Vocabulary is the essential support of language while phonetics, vocabulary and grammar are the three elements of language learning. The famous British linguist D. A. Wilkins once said, “Without grammar, people can say very little; without vocabulary, they can’t say a word”. The importance of vocabulary is overwhelming. Although teachers are more flexible in teaching vocabulary in universities, some students are still using formulaic rote memorization. This not only makes the learning of vocabulary ineffective, but also does not guarantee the depth of vocabulary learning. Cognitive linguistics, as a marginal discipline combining cognitive science and linguistics, is formed on the basis of certain cognitive theories and human-being’s experiences. It has important guiding significance for English vocabulary learning.

2. Cognitive Analysis of English Vocabulary

A word contains three elements: sound, form and meaning\cite{1}. The cognitive analysis of vocabulary is useful to enhance students’ understanding of vocabulary and to improve the way, means and depth of students’ memorization.

2.1. Perception of Speech Sounds

There are four aspects of phonology, timbre, length, pitch, and intensity\cite{2,3}: (a) timbre refers to the difference between vowels and consonants; length refers to the length of pronunciation; pitch refers to the height of pronunciation; and intensity refers to the strength of sound (b) these characteristics of phonology in language enable English learners to distinguish words from each other in the beginning of phonological training, such as ‘sheep and ship’, ‘people and purple’, ‘boot and book’, etc. English words are composed of relatively free phonemes, so many words in English are monosyllabic, but there are also many diphthongs and polysyllabic words in English, and this difference can pose a phonological cognitive barrier to Chinese students. The phonological variation caused by stress, alliteration, and unreleased stop after word strings is arguably the most important issue in phonological awareness. As a result of phonological variation, words that students originally knew may become unfamiliar to them, thus affecting their understanding of the words. The main problem is that the word is not heard between two words in the same cluster, which are adjacent to each other with a consonant, and the preceding word is usually a blast sound. In speech, because of the speed of speech flow, resulting in the adjacent two words must be read together, so that the former consonant pronunciation is easy to be ‘swallowed’. (c) This is called ‘swallowing phenomenon’ such as, birthday word /\text{th}/ due to the /d/ squeeze.

2.2. Word Morphological Recognition

The morphological complexity of words can affect the recognition of words. In the listening test, some scholars have studied this phenomenon and concluded that it is mainly caused by the following two points\cite{4}: in the mental lexicon, some roots and affixes exist separately, or there are only some combination rules in the root entries, and when extracting them, they need to be temporarily combined, so the response is slower; secondly, some affixes and roots often appear together and are used frequently, and are stored in the mental lexicon as The second is that some affixes and roots often appear together, are used frequently, and are stored as one word in the mental lexicon, so the response is faster. These patterns form the cognitive laws of word shape, and by understanding the laws of word shape summarized in cognitive linguistics, we can greatly improve the efficiency of word memory.

2.3. Word Sense Cognition

The cognition of word meaning is the focus of vocabulary learning. The cognition of word meaning involves three main aspects: the composition of word meaning, the evolution of word meaning, and the cognitive rationale of word meaning.

2.3.1. Composition of Word Meaning

The word refers to the general, encompassing meaning of the word, which is a big concept of the word. The characteristic meaning refers to the specific, factual meaning of the word, which is a small concept of the word. Generally speaking, the other senses are all characteristic senses and are
directly influenced by this basic sense. In other words, there is a logical relationship between the characteristic meaning and the basic meaning.

2.3.2. Evolution of the Meaning of Words

According to the influence of social factors on the meaning of words, the change of meaning can be reflected in the following points: (a) The expansion of the meaning of words is a reflection of the frequent interaction between different nationalities, such as French leave and Dutch courage, which are foreign words with strong emotional content. (b) The expansion of the meaning of words is a reflection of social development and technological progress, for example, the original meaning of straw was ‘straw’, but now it means ‘straw’. (c) The change in the meaning of words is also the result of the principle of development that people constantly follow in the process of using language, such as the word English originally meant ‘British’, but later, with the economic, cultural, and political development of the United Kingdom, the scope of the word was expanded and the meaning of the word was extended to "English", ‘nation-British’, and ‘language-English’. (3) The meaning of the word ‘English’ is the result of the development of the British economy, culture and politics. (4) The change of word meanings is a reflection of the change of values. There are many euphemisms in the language, which reflect the civilization and progress of human beings. For example, people would like the expressing "death" by using euphemisms such as to pass away, to be gone, to be deceased, etc.

2.3.3. Cognitive Rationale of Word Meaning

According to cognitive linguistics, the extension of word meanings is based on evidence and is not accidental. Many cognitive theories, such as the semantic relation model, prototype theory, and schema theory, have studied word meaning and deepened people’s knowledge of word meaning. However, metaphor theory is arguably the theory that provides the most plausible explanation for the evolution of word meaning. Metaphor is an important factor in the evolution of word meaning. Once a word is created, language users often take metaphor to extend the basic meaning of the word. The basic meaning of a word is usually concrete and related to common people’s life experience, while the metaphorical meaning is abstract, but there is a similarity between the basic meaning and the abstract meaning.

3. Basic Concepts of Cognitive Linguistics

Cognitive linguistics is an important part of linguistics. Cognitive linguistics has a philosophical foundation, linguistic foundation, psychological foundation and educational foundation, and is an emerging linguistic theory\(^5\). Cognitive linguistics has a broader body of knowledge that includes basic linguistic principles and psychology, among others, and it is constantly being supplemented and improved as modernization progresses. Cognitive linguistics is based on a human-centered approach, which provides the most reasonable explanation of human learning and cognitive laws based on human cognitive laws and cognitive levels, etc., combined with multiple stages of human cognitive development and related principles. Cognitive linguistics is a broader and more esoteric linguistic category, and it is a more practical linguistic theory that provides a new way of thinking about the research and development of linguistics and provides more useful attempts for students’ learning.

3.1. Category Theory

Category theory is a fundamental theory in cognitive linguistics. From the ‘container theory’ and ‘family similarity theory’ to the ‘prototype theory’ which has been verified by reasoning, the development of category theory has gone through a long process and repeated derivations\(^6\), and finally formed. The development of category theory has gone through a long process and iterations, and finally two basic theories of category theory have been formed: the prototype category theory and the basic level categories theory\(^7\)\(^-\)\(^8\).

The ‘categories’ emphasized by cognitive linguistics are organized around typical, familial similarities, and subjective relationships among the members of the categories. In contrast, in the learning of English vocabulary, some inevitable causal connections and kinds of similarities take shape through human conscious induction, which provide categories for the relationships that exist between words and words, between words and contexts, between words and the general meaning of texts, and between words and the intention of expressions. From the root, English learners can refer to the theoretical principles of cognitive linguistics in vocabulary learning, not leaving learning at the superficial level of vocabulary meaning and letter composition, and not memorizing vocabulary by rote. Cognitive linguistics emphasizes and focuses on learners’ inquiry into the deeper meaning of vocabulary, advocates combining vocabulary with context and other contents, exploring the reasons and historical background behind the meaning of vocabulary, and obtaining deep level vocabulary learning effects through diversified learning styles, so as to strengthen the memory and depth of vocabulary learning. In short, cognitive linguistics expects students to make practical connections between words and words, between words and contexts, between words and the histories to figure out the true meaning of words. Rather than getting the mere meaning of each word in isolation and mechanically. Cognitive linguistics truly takes a practical approach to student learning and provides an edible theory for the intake of knowledge.

Prototype theory, one of the category theories, holds that the cognitive category boundaries are indeterminate, and its central members as the most familial as the most familial member, should have a larger scope than other peripheral members, and the peripheral members should be subordinate to the central members. Category, and that the peripheral members should be subordinate to the central members, and that there are linguistically recognized similarities between them. All members of the same conceptual category need to have the prototype of the central member, the typical member, although they can represent each other in the category. Although they are not equally represented in the category, this prototype is undoubtedly the most easily remembered. In daily English vocabulary learning, categorizing and differentiating these words in one category on purpose facilitates systematic memorization of a particular category of words, rather than staying at the level of separate fragmented memorization.

3.2. Overview of Cognitive Linguistic Metaphors

When most people think of ‘metaphor’, the first thing that comes to mind is a rhetorical technique used by literary scholars in literary composition. However, the ‘metaphor
system’ in cognitive linguistics has a completely different cognitive concept from the traditional one. The ‘metaphor system’ in cognitive linguistics believes that ‘metaphor’ itself is not a rhetorical device in literature, but a subtle linguistic habit formed through human behavior and cognitive accumulation over a long period of time. It is an unconscious existence, which is different from the ‘metaphor’ emphasized by literary scholars. It is an unconscious existence, as opposed to the ‘metaphor’ emphasized by literary scholars, and is not a deliberate rhetorical device. According to linguists, ‘metaphor’ is a universal being, which is simultaneously universal, systematic and conceptual. It is never an isolated existence, it is connected, and it is not just a universal. It is not only a linguistic problem, but also a way of thinking. In terms of its common types, conceptual metaphors include structural metaphors, orientation metaphors, and ontological metaphors[9].

According to cognitive linguistics, metaphors exist in all languages, and they not only contain rich potential meanings, but also euphemistically convey language connotations that are not easily expressed in a straightforward manner. In English learning, if students use conceptual metaphors well, they can enhance their memory for English vocabulary learning and form a long-lasting pattern of thinking. For example, ‘shoestring’ originally means ‘shoelace’, but in some metaphorical syntax of English, it no longer means that. A fixed phrase ‘on a shoestring’, here the meaning becomes a metaphor for someone’s financial situation, which is equivalent to ‘having a hard time, not having enough to eat’, and sometimes it is also translated as ‘not having enough to eat’. Sometimes it is also translated as ‘the next meal is not enough’, which is used to describe a business operation on the verge of bankruptcy. Obviously, ‘shoelace’ is used as a synonym for ‘pitiful funds’, but why it is used in this way remains inconclusive, perhaps because of the weak and slender shape of the shoelace, or perhaps because of some long-standing British rumors about shoelaces. In any case, metaphors are often present and can even be derived in the learning of English as other words derived from different transformations of a word. For example, if you add prefixes to words, you will find that some fixed prefixes often express similar meanings. For example, ‘post’ means postponed in English, and ‘post’ can also be used as a prefix to give new life to different words, such as postpone for postponed, postmodern for post-modern, and post-war for post-war, postpone means postponed, postmodern means post-modern, and post-war means post-war. With the addition of the prefix ‘post’, different words evolve into new words. What is the same is that the words have a derivation similar to ‘postponed, delayed’. Likewise, suffixes can be added to words, or fixed combinations can be formed, or introduce a slang usage. All of these practices breathe new life into different English words, and when used properly, it will naturally play a positive role in the learning of English vocabulary, which can directly express the role of conceptual ‘metaphors’[11] in English learning.

4. Application of Vocabulary Learning

The above category theories and metaphors provide a referable methodological theory for vocabulary learning. Therefore, in the process of vocabulary learning, vocabulary learning can be categorized on a certain basis. Second, the real moral meaning of vocabulary is considered in certain discourse, culture and history.

4.1. Learning by Contrast

Prototype theory can be understood in vocabulary learning by one word with multiple meanings, homophones, homonyms and other words that confuse students aurally and visually. It can be used to distinguish some words according to a kind of kinship and similarity and then form a systematic cross-reference memory. Not only helps college students to expand their ways of thinking but to increase their vocabulary.

E.g.1. affect, effect

The two words sound no different aurally, and their meanings are very close. Analyze the two words in parallel, it is concluded that affect is a verb (and object), mainly referring to a momentary effect, focusing on the action of the effect, which can refer to the general sense of the effect (regardless of good or bad), and can also refer to the adverse effect. Effect is a noun (countable or uncountable). The relationship between the two is roughly: affect=have an effect on.

Example sentences:
- To affect a policy is to have an effect on it.
- The news did not affect her at all.
- Effect is sometimes used as a verb (and object), but not to ‘affect’ but to ‘achieve’ or ‘produce’.

Example sentences:
- They effected their escape in the middle of the night.
- He effected great changes in the company.

E.g.2. abide, adhere, conform, comply

Synonyms are words that can enrich students’ expressions. Their ‘prototype’ is a common meaning. Taking the ‘prototype’ as the centerpiece and firmly grasping the usage of allomorphic words is nothing less than adding to the learning of English.

Example sentences:
- I will abide by the director’s decision.
- Car drivers must adhere to the rules of driving.

All individuals are required to conform to the laws made by their governments.

Our company complies with governmental regulations on paying taxes.

E.g.3. arm-n. a human limb; technically the part of the superior limb between the shoulder and the elbow but commonly used to refer to the whole superior limb; v. prepare oneself for a military confrontation

Example sentences:
- Lay down your arms or we’ll fire!
- Police say the man is armed with guns and very dangerous.

4.2. Learning in Concrete Contexts

Context is the environment in which language is used and understood[12]. Context can have an impact on vocabulary learning and use. Facilitating and improve learners’ understanding and accurate grasp of vocabulary is the ultimate role of context in cognitive environments. No language learning, including the basic vocabulary learning stage, is possible without a certain language environment. Otherwise, the process of cognition of a single word will be rigid and inflexible because of the absence of mutual communication between speakers. [13]

E.g.1. If the sky, and the share price, is falling, outside directors should be able to give advice based on having weathered their own crises.

First of all, learners should understand the exact meaning of sky is falling, because sky is falling and the share prices are parallel subjects, then the understanding of falling should
be more cautious. Literally, the sky is changing and the share prices are falling, but according to the sentence that follows, it should be 'when unfavorable conditions arise ....'. This sentence uses weather (withstand), which leaves a deep impression on learners.

Myrtle, also known as Aegis, is an evergreen plant. Its flowers are white and then red, red and white, very showy. It is the It is a sacred relic of Venus, the goddess of love in Roman mythology. Venus was born in the waves of the sea and was blown to the coast by the god of the west wind. She was crowned with the myrtle flower at 'dawn'. Myrtle’s graceful flowers and fragrant scent were seen as a symbol of youthful beauty, and because of its association with Venus, the goddess of love. Myrtle’s beautiful flowers and fragrant scent were seen as a symbol of youthful beauty, and because of its association with Venus, myrtle symbolizes love, passion, and the joy of youth. The myrtle corolla also became a reward for the poet of love. The myrtle crown also became a reward for the poet of love. The famous love poem The Passionate Shepherd to His Love by the English poet Christopher Marlowe contains the image of myrtle[14], which symbolizes the passionate love of a shepherd for his beloved.

E.g.2.
There w ill I make thee beds of roses,
And a thousand frag rant posies,
A cap o f flowers, and a kirtle,
Embroidered all with leaves o f myrtle.3

Myrtle (myrtle) is a symbol of love, Myrtle's leaves are evergreen, so the poem 'leaves of Myrtle (myrtle's leaves)' symbolizes the longevity of love. The shepherd desires to be with his loved one for a long time and to enjoy The shepherd desires to be with his beloved for a long time and to enjoy a beautiful life. It reflects the simple shepherd’s sincere desire for a beautiful love. It reflects the simple shepherd’s sincere desire for beautiful love.

5. Conclusion

Cognitive linguistics, as an emerging and practically oriented discipline, facilitates the learning of vocabulary. By learning easy-to-understand theoretical knowledge such as prototype category theory and conceptual metaphor, college students can effectively take a plantation for vocabulary learning and build a solid foundation for improving vocabulary, expression, and reading comprehension. Besides, the close contextual connection allows students to understand not only the words, but also the cultural connotations behind them.

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References