

ISSN 1798-4769

Journal of Language Teaching and Research, Vol. 11, No. 3, pp. 427-434, May 2020

DOI: <http://dx.doi.org/10.17507/jltr.1103.11>

A Study of English Vocabulary Learning in China—From the Perspective of Conceptual Metaphor Theory*

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Abstract—Vocabulary plays an essential role in foreign language learning, and it is the same with Chinese students' learning English. However, in China traditional ways of English vocabulary learning focuses on the recitation and analysis of the sound, spelling and meaning of English words without considering their cognitive motivations and thus makes understanding and memorization of them invalid and boring, which directly affects Chinese students' English level of listening, speaking, reading and writing. Therefore, some effective methods of English vocabulary learning must be found so as to arouse students' interests and facilitate their learning of English words. Conceptual metaphor theory reveals that metaphor is not only a universal cognitive phenomenon but also a cognitive tool of human beings, which can shed some lights onto English words learning, a kind of cognitive activity. Conceptual metaphor theory also depicts cross-domain mapping as its working mechanism by saying that cross-domain mapping is a kind of thinking link from source domain to target domain. And this thinking link is of great help to the memorizing processes of words and understanding of words' connotation and can make English vocabulary learning systematic and flexible. This paper explores the application of conceptual metaphor theory into college English vocabulary learning from three aspects, namely, polysemous words, idiomatic expressions and word connections, aiming at cultivating students' metaphorical awareness and improving their metaphorical competence in vocabulary learning.

Index Terms—vocabulary learning, similarity, cross-domain mapping, conceptual metaphor theory

I. INTRODUCTION

Just as basic building materials are essential to a building, vocabulary is essential to a language. “Without English grammar very little can be conveyed but without English vocabulary nothing can be conveyed.” (Wilkins, 1972, p. 111) Indeed, vocabulary is one of the most essential elements in a foreign language. If a learner has not got sufficient vocabulary, no matter how well he grasps the grammar and how idiomatic his pronunciation and tone may sound, it is hard for him or her to communicate efficiently and freely with others. Just as Mc Carthy asserted that no matter how well the student learns English grammar, no matter how successfully the sounds of second language are mastered, without words to express a wider range of meanings, communication in the second language just cannot happen in any meaningful way. These remarks clearly show the role vocabulary plays in English learning, which directly affects students' listening, speaking, reading, writing and translating.

However, nowadays not enough attention has been paid to English vocabulary learning in China. Investigations have shown that a poor command of English vocabulary is still one of the serious problems facing Chinese students during their English learning. That is to say, on the one hand most Chinese students lack effective vocabulary learning methods and strategies, on the other hand their teachers are still using traditional ways of vocabulary teaching without taking cognitive factors into consideration. Therefore, how to learn English vocabulary well concerns a lot for students and meanwhile they are in badly need of a scientific and systemic method of English vocabulary learning. Since vocabulary learning itself is a kind of cognitive activity, it is justified to make a research into this learning activity using cognitive theories, for example, conceptual metaphor theory, a core theory in cognitive linguistics, to provide a new strategy to college English vocabulary learning. This paper is just out of this concern and aims to apply conceptual metaphor theory into college English vocabulary learning, hoping that by doing this can it help students improve their English vocabulary proficiency, better their learning attitude, and enhance their learning autonomy.

II. GENERAL KNOWLEDGE ABOUT VOCABULARY

A. A Brief Explanation of Vocabulary

Fishwick once said that words make us human and that when you are out of words you are out of life. Obviously, vocabulary is of great significance in foreign language learning, for which Harmer makes such a vivid analogy: “If we

* Fund: This research is funded by Backbone Teacher Programme of Zhongyuan University of Technology (2019) and Postgraduates Education Project of Henan Province (2019).

compare language structure with the sketch of language, vocabulary is the thing that provides the most important organs as well as blood and flesh.” Therefore, at the beginning of our discussion, it is of great necessity to have a general understanding of what vocabulary is.

Vocabulary is the set of words within a language that is familiar to that person.(Wiki—encyclopedia,2011)In a broad sense, vocabulary can also be defined as knowledge of words and word meanings; however, in actual learning activities ,

Vocabulary is more complex compared to its definition and can be defined and classified differently, for which there are two reasons. First, according to the two forms, oral form and print form, in which words usually appear in actual use, vocabulary can be divided into two kinds: oral vocabulary and print vocabulary. To be more specific, oral vocabulary refers to words that we recognize and use in listening and speaking, while print vocabulary refers to words that we recognize and use in reading and writing. Second, according to the two channels through which word knowledge comes from, that is, receptive channel and productive channel, vocabulary can also be divided into receptive vocabulary and productive vocabulary. Receptive vocabulary includes words that people recognize when they hear or see them; productive vocabulary includes words that people use when they speak or write.

B. Vocabulary Meaning

Words have no practical significance without meaning, and the first step of vocabulary learning is learning its meaning. So it is necessary for us to have a look at the two aspects of vocabulary meaning. The first is about the link between meaning and the world that words refer to, and the second concerns the sense relations that exist among words.

1. Denotative meaning and connotative meaning

As for the first aspect of vocabulary meaning, that is, the link between meaning and the world that words refer to, there are two terms concerned, namely denotative meaning and connotative meaning. Denotative meaning is the literal meaning of a word or the “dictionary definition”. For instance, if you look up the word “fox” in a dictionary, you will find that one of its denotative meanings is “a wild animal which looks like a dog and has reddish-brown fur, a pointed face and ears, and a thick tail.”(from Cobuild English-Chinese Dictionary) Connotative meaning refers to the associations that are aroused about or linked to a certain word or the ideas, qualities, places, etc which you think of about a certain word. For example, the word “fox” could make you associate it with “slyness” or “dishonesty”, and here “slyness” and “dishonesty” could be regarded as connotations of the word “fox”. But it should be noted that the connotative meanings of a word cannot arise without its denotative meanings.

Connotative meanings are not objective representations of things but new usages or associative meanings invented by language groups. For example, the denotation of “red rose” is a kind of flower with a green stem, while its connotation is a symbol of passion and love, which is what a red rose represents. There are other examples, say, the connotation of “the brown cross” symbolizes religion or, to be more specific, Christianity, and the connotation of “a cartoon heart” represents love and affection. According to semiotics, connotative meaning comes into being when the denotative relationship between a signifier and its signified is not adequate enough to meet the community’s needs.

2. Sense relation

Generally speaking, sense is the meaning of “meaning” and denotes the relationship between language and its reference.

Sense relation refers to relation that exists among words and is a feature of meaning. The dimension in which sense relation exists is also called “axis” by linguists. There are two dimensions or axes in which sense relation exhibits, namely horizontal axis and vertical axis .The former is about the relation existing between items in a sentence, which is called syntagmatic relation. For instance, we usually say “His new car was seriously damaged in the accident” rather than “His new car was seriously injured in the accident”, which is because in terms of horizontal axis there is only one verb “damage” that can collocate with the noun “car”. The latter is about the relation existing between items in the whole lexical system, which is called paradigmatic relation. For instance, understanding a word’s meaning involves knowing how that meaning is defined in relation to other similar or opposite words. So English vocabulary learning can also be seen as a process of acquiring knowledge of synonyms, antonyms, and other relations in its semantic structure. Now an elaborated discussion will be given on syntagmatic relations and paradigmatic relations.

Syntagmatic relations

Syntagmatic relations refer to relations between words when they occur in sequence. In English, there are a lot of words co-occurring with high frequency, for example, “a beautiful girl”, “a ripe watermelon”, “a large elephant”, and these co-occurring words are usually called collocations. Apart from “noun+adjective” collocations, there are also a lot of “noun+verb” collocations , such as “the dog barked” (not ‘roared’), “the wind blew (not ‘shone’)”, “verb+noun” collocations, such as “Tom is picking roses” , “the boy is collecting stamps”, and “noun+present participle” collocations in compounds, such as “pocket-picking” , “brain-storming”, etc.

Paradigmatic relations

Words not only occur in sequential relationship but also in complex relationship with other words in the network of language meanings, and this complex relationship is called paradigmatic relation. Although there has not reached a consensus upon the categorization and naming of the categories in paradigmatic relations, there are some sense relations frequently mentioned by researchers when they are discussing about paradigmatic relations. And these sense relations are synonymy, antonymy, and hyponymy.

Synonymy

Synonymy refers to the state of being synonyms. Synonyms refer to words with almost identical or similar meanings and are said to be synonymous. For example, the words “motorbike” and “automobile” are synonyms, “poor area” and “poverty-stricken area” are synonyms. In a figurative sense, two words are often said to be synonymous if they have the same connotation. Synonyms can be words in any part of speech, say, nouns, verbs, adjectives, adverbs or prepositions, so long as both members of the pair are in the same part of speech. Here are some examples of English synonyms:

Adjective: “poor” and “needy”; “wild” and “savage”

Noun: “students” and “pupil”; “tactics” and “strategy”

Verb: “fade” and “wither”; “wait” and “await”

Adverb: “quickly” and “speedily”; “consequently” and “accordingly”

Preposition: “on” and “upon”; “over” and “above”

However, it should be pointed out that synonyms are relatively similar. That is to say, they are just similar to a certain extent. Or we can also say that synonyms are defined with respect to certain rather than all the senses of words. For example, although “pupil” and “student” are synonyms, one sense of “pupil” which means “aperture in the iris of the eye” is different from that of “student”. Similarly, while words “expire” and “die” can be regarded as synonyms in the sentence “he expired”, they cannot be equal and replaced by each other in the sentence “my passport has expired”. So from this we can see that synonymous meaning of words rely heavily on context.

Antonymy

Antonymy refers to the relationship of being opposite, and its linguistic realizations are called antonyms. Antonymy has been commonly used as a term that is synonymous with opposition. Explicitly speaking, antonyms are words that lie in an inherently incompatible binary relationship, just like the opposite pairs. Here are some examples of antonymy: “male” and “female”, “long” and “short”, “up” and “down”, “precede” and “follow”.

Antonymy has the property of “incompatibility”, and one word in an opposite pair entails that it is not the other pair member. For example, something that is long entails that it is not short. Antonymy is also regarded as a binary relationship because there are two members in a set of opposites, and the relationship between the two members that are opposite to each other is called “opposition”. Therefore, by asking the question “What is the opposite of X?” we can by and large determine a member of a pair of opposites.

Hyponymy

Hyponymy refers to the phenomenon that a word or phrase whose semantic field is included within that of another word. Here “a word or phrase” is regarded as a hyponym, and “another word” is regarded as hypernym. Simply speaking, hyponymy is a type—of sense relationship between a hyponym and its hypernym. For example, desk, chair, sofa and bed are all hyponyms of their hypernym “furniture”, and “furniture” is a hyponym of “thing”.

III. REVIEW OF VOCABULARY LEARNING HOME AND ABROAD

A. Vocabulary Learning Abroad

Vocabulary learning and vocabulary acquisition can be employed interchangeably since Ellis (1995) states that second language acquisition means that people learn a foreign language in a subconscious or conscious process.

Historically speaking, vocabulary learning has not been the focus in English learning and teaching, instead grammar and phonology have been. This is because, compared with grammar and phonology, vocabulary is less amenable than those two closed systems. So psycholinguists are against vocabulary learning and put the priority of grammar over vocabulary (Laufer, 1997). Apart from this, most teachers and students always think that vocabulary learning is a superficial activity that is not worthwhile to get their full attention, which in turn brings about the situation that even if students want to lay more emphasis on vocabulary, teachers will ask them to pay more attention to grammar first.

It was not until the middle 1980s that there have been great shifts in the role of English vocabulary in the second language acquisition and an increasing number of empirical studies in vocabulary learning have been conducted. These empirical studies on vocabulary learning show that students and teachers have been aware of the importance of vocabulary gradually. Vocabulary learning therefore has become the focus in any language acquisition (Schmitt, 1997). There are some foreign language acquisition researchers who even openly remark that vocabulary learning is an essential part of second language learning and lays a solid foundation in understanding a language, either native or non-native. Besides, grammatical knowledge cannot solve all the problems of language and also cannot make for linguistic proficiency. So now most scholars have begun to realize the significance of vocabulary learning in second language learning and done a lot of studies on it.

Although many researchers have pointed to the importance of vocabulary learning for second language learners (Laufer, 1997), they also noted that vocabulary learning has been something of a “poor relation” as far as linguists and language teachers have been concerned. Despite the fact that the amount of empirical research on vocabulary learning is increasing, there has not reached a consensus over issues such as the conceptualization process in which vocabulary learning occurs, the importance of context for vocabulary learning, and the extent to which students develop specific strategies for vocabulary learning during their language studies.

B. Vocabulary Learning in China

It is no doubt that vocabulary is the most basic component in foreign language learning. However, English vocabulary learning is still the primary problem facing Chinese teachers and students and there are a lot of drawbacks in college English vocabulary learning in china. Just as Chinese scholar Li Fuyin (2004) stated that Chinese learners are limited in vocabulary size, unfamiliar with contemporary word usage and generally short of idiomatic expressions.

As for Chinese college students, since they are lack of effective learning methods and strategies, it is difficult for them to achieve satisfactory results in English vocabulary learning despite great efforts they have made. And these students also find it hard to communicate well in English. As for teachers, they usually follow traditional teaching methods. That is to say, their teaching of vocabulary mainly focus on word pronunciation, formation, literal meanings ,usages and memorization strategies, failing to touch on associative meanings of words. Apart from these, teachers ignore cognitive factors when explaining words' usages, let alone applications of cognitive theories in vocabulary teaching. Therefore, how to teach and learn English vocabulary concerns a lot for both teachers and students, and there exists urgent need for a scientific and systemic theory to guide English vocabulary teaching and learning.

The popularity of cognitive linguistics provides a good chance to improve the situation of English vocabulary teaching and learning in china. Since vocabulary learning is a kind of cognitive task, it is justified to apply cognitive theories into it. Some researches in cognitive linguistics studies have shown that an enhanced awareness of conceptual metaphors will help language learners comprehend and remember figurative lexis (Frank & Demecheleer, 1998). Recently more and more researchers also have found the correlation between metaphorical concepts and English vocabulary learning, saying that a lot of English words can be learned through metaphors. Besides, college students have formed cognition ability and can make good use of their cognitive resources in learning English vocabulary. Therefore, there exist great feasibilities in the application of conceptual metaphor theory into college English vocabulary learning.

IV. ENGLISH VOCABULARY LEARNING AGAINST THE BACKGROUND OF CONCEPTUAL METAPHOR THEORY

A. *General Knowledge about Conceptual Metaphor Theory*

The study of metaphor can be traced back to the period of Aristotle. In his treatise on Poetics and the Rhetoric, Aristotle pointed out that metaphor is referring to the object as the name of another object and that the function of metaphor is rhetoric and beautification of language (Aristotle, 1954). In 1980, the book of *Metaphors We Live By* was published. In this book, Conceptual Metaphor theory was first put forward by Lakoff and Johnson, which means metaphor's being incorporated into in the field of cognitive linguistics. This theory states that metaphor is not only a linguistic phenomenon but also a cognitive means of human thinking and that metaphor is a tool that people use to experience and understand abstract and complex things in terms of specific and simple things. Now some of the key concepts in conceptual metaphor theory will be introduced in order to make the argument of this paper more clear and reasonable.

Universality

Conceptual metaphor is deeply imbedded in our daily life, not only in the language, but also in human being's thinking and action. Even out of different cultures, conceptual metaphors can sometimes display similar experiences of human beings in thinking ways and in actions such as emotions, activities, states, etc, which is called the universality of conceptual metaphor.

Metaphor can be divided into two kinds: conventional metaphor and novel metaphor (Lakoff & Johnson, 1980). The former refers to metaphors that are used by a particular group of people in a language community, while the latter refers to metaphors that are created by any ordinary speaker who may make use of conceptual metaphor in their life. And the former has more to do with the universality of conceptual metaphor.

How does conceptual metaphor's universality come about? This can be explained by the central view of cognitive linguistics that the basis of meaning is human being's metaphorical way of thinking rather than logic concepts, making it possible that some metaphorical expressions in English and Chinese may share the same conceptual metaphor. Please look at the following examples.

Metaphorical expressions in the language of English:

- (1)The woman's voice was as soft and sweet as a young girl's.
- (2)She knew it wasn't worth complaining from bitter experience.
- (3)There is something for everyone in this bitter-sweet tale.

Metaphorical expressions in the language of Chinese:

- (4) Bao chang xin suan (taste to full the bitterness of life)
- (5) Suan tian ku la (sour, sweet, bitter and hot---joys and sorrows of life)
- (6) Chi cu (be jealous usually of a rival of love)

From the above examples, it can be seen that there is a similar conceptual metaphor lying behind these metaphorical expressions. (Su Lichang, 2009, p. 90)

Systematicity

Systematicity refers to the feature of metaphor's source domain and target domain's being joined in a systemic way, which enables conceptual metaphor to be extended or have its own internal logic and serves as the reason why people can use metaphor vocabulary in a systematic way. Due to this systematicity, people are permitted to comprehend one

aspect of concepts of a conceptual metaphor and meanwhile to keep focusing on other aspects of concepts of it. For example, when we pay much attention to attacking the opposite view and defending for our own view, there still exists the cooperative perspective of this argument. Another example: although someone is arguing with you, he is still giving you some time for you two to understand each other. "Conceptual metaphor is potential and inherent in the conceptual level, and the metaphorical expressions or language metaphor is the realisation of conceptual metaphor in language" (Wen & Ye, 2003). Thus by means of metaphorical expressions, we can see the systematicity of conceptual metaphor. Now look at the following examples:

(7) We are at a crossroad on journey of our love.

(8) We got married in the end. And it still had been a long way.

(9) We still have to go separate ways when our love has come to the end of the journey.

The above examples show that both LIFE and LOVE domains can be considered from the perspective of JOURNEY domain in some contexts, so we can get metaphors such as JOURNEY OF LIFE and LOVE IS JOURNEY. And JOURNEY OF LIFE and LOVE IS JOURNEY are in a systemic relationship with each other, which is the clear illustration of systematicity of conceptual metaphor.

To some extent, systematicity of conceptual metaphor makes it possible that conceptual metaphor can be extended to a range of ordinary means of thinking, which makes human thinking colorful and fanciful. Therefore, while we use a metaphor to structure a concept, it also means that this metaphor can be extended in different ways and situations, which can benefit vocabulary teaching and learning.

Similarity

Conceptual metaphor's similarity means that there exist similarities between categories in our conceptual system and our own experiences in the world. To be more specific, similarity refers to the state of two objects' or concepts' being similar psychologically and physically and can be divided into psychological similarity and physical similarity (Shu Dingfang, 2000). Psychological similarity refers to two objects' or concepts' being similar caused by some psychological factors such as cultures and religions, whereas physical similarity, as its name suggests, means two physical objects' being similar in forms, functions, characteristics and so on. It should be pointed out that metaphor's similarity is not hypothesized in advance and doesn't inevitably exist. Instead, it is created. Conceptual metaphor's similarity can facilitate college students' learning of English words since it is the tendency of human's cognition to perceive two similar things easily.

The working mechanism of conceptual metaphor

The working mechanism of conceptual metaphor is a cross-domain mapping from the source domain to the target domain. Source domain is a relatively familiar, specific and simple concept that is mapped, while target domain is a strange, abstract and complicated concept that is the recipient of mapping. The achievement of metaphorical lexical meaning is in the process of the mapping from source domain to target domain, and conceptual metaphor makes the mapping between these two domains happen in a systematic way. That is to say, due to conceptual metaphor, one conceptual domain maps systemically and correspondingly onto another conceptual domain through human beings' cognition and reasoning, which explains why people can understand new metaphorical expressions at once. Conceptual metaphorical mapping, to be more specific, is a corresponding relationship between entities in two domains. Once the corresponding relationship is stimulated, the reasoning mode of the source domain will map on to the target domain, and then cognitive correspondence occurs. For instance:

(10) They fight furiously in the argument.

The metaphorical expression in example (10) is the linguistic realization of the conceptual metaphor ARGUMENT IS WAR and its mapping is from the known source domain WAR to the unknown target domain ARGUMENT. As for the cognitive correspondences in this example, there is the corresponding relationship between the soldier and the debater, the victory of war and victory of debate, the bomb and strong point, etc, which helps us obtain the meaning of this metaphorical expression. From this, it can also be seen that mappings across domains underline the production and understanding of metaphorical utterances and serves as the mechanism of metaphorical meaning making.

However, mapping is not arbitrary and obeys some principle. The principle that governs mapping is the in-variance principle, for which Lakoff gives the following explanation: "metaphorical mappings preserve the cognitive typology (that is, the image schematic structure) of the source domain in a way consistent with the inherent structure of the target domain". (Lakoff, 1993, p.215)

To sum up, cross-domain mapping is the working mechanism of conceptual metaphor, which is helpful for our understanding of abstract concept and in turn will benefit English vocabulary learning of Chinese students.

B. Application of Conceptual Metaphor Theory into College English Vocabulary Learning

With the development of cognitive linguistics, researches into metaphor can shed some new lights onto college English vocabulary learning. Sweetser argued that metaphor is an indispensable but ignored resource in terms of polysemy (Sweetser, 1990). Lazar emphasized that "the ability to identify and use the metaphorical extension of words is a critical skill for English learners to enlarge their vocabulary" (Lazar, 1996, p.43). Besides, metaphorical expressions are ubiquitous in current college English textbooks, which is a no-deny fact. Therefore, it is of great necessity to apply conceptual metaphor theory into college English vocabulary learning so that students can foster their own cognitive

styles and improve their vocabulary learning efficiency in a more systematic way during their English vocabulary learning. The following part will discuss how key concepts of conceptual metaphor theory are applied into college English vocabulary learning and the discussion is conducted from three aspects: polysemous words, idiomatic expressions and word connections.

1. Metaphorical analysis of polysemous words

Polysemy is “the phenomenon whereby a single word has many meanings that are systematically related” (Mark Johnson, 1987, p. xii), which is quite common in every kind of language. Just imagine what it is like if there is no polysemy? Maybe the vocabulary would expand voluminously since every object or thing in the world needs to be linguistically represented by means of a linguistic unit, which goes against the economy principle of language activities. Judging from this, it is justified for polysemy to exist widely. But its wide existence does cause a lot of difficulties for Chinese students’ English learning. These students complain that they are always confused about why some English words have so many different meanings and doubt whether there are any rules behind the seemingly chaotic words and their meanings. Besides, following Saussure’s view that all the signs are arbitrary (Saussure, 1966), they assume polysemy as arbitrary and a hard peanut which no right tool can crack except rote memorization.

However, far from the above assumption, conceptual metaphor theory argues that a lot of polysemy in our language are not created at random and instead are brought about due to human being’s metaphorical thinking. It is clear to us that in everyday communication the more frequently a word is used, the more items it will have. And some of the items result from metaphorization. Metaphorization refers to the process of the habitual use of metaphorical meanings of words, which gradually results in the so-called dead metaphors, such as the neck of the bottle and the waist of the mountain, etc, and it is an important factor that leads to changes in language. Once metaphorization is admitted and used widely, a word is more likely to have a new metaphorical meaning and thus become a polysemy. So from this, it can be seen that polysemy is about the relations that hold between the prototype meaning and other family resemblance meaning of words and that there exists similarities between these two kinds of meanings. According to the experientialist view of cognitive linguistics that meaning is embodied, the prototype meaning of a polysemous word, to a large extent, comes from our physical and concrete experience, and other meanings of it are derived from and similar to its prototype meaning. It can also be said that the understanding of other meanings of a word can be done by means of its prototype meaning. This is in accordance with metaphor’s essence of similarity and its cross-domain mapping mechanism which involves the understanding and experiencing of non-physical or abstract things in terms of physical or concrete things. Starting from this, it can be suggested that if teachers can explain the metaphorical connections between different meanings of the same word in vocabulary teaching, it might facilitate students’ better understanding of the word to a large extent and help them foster long-term memory of polysemous meaning of the word. Now let’s look at how conceptual metaphor theory is applied in polysemy learning.

We will begin with several human organ words which are typical polysemous words. First, look at the word “head”. The prototype meaning of “head” is “the upper part of the body or the front part of the body in animals; contains the face and brains”, from which derives many secondary meanings like “people who are in charge of a company or an organization” (for example, the head of a school, the head of a government, etc), “your mind or your mental activities” (for example, he is not good at doing sums in head), “the beginning or source of a river or stream” (for example, the head of the Thames) and “the top or most important end of something” (a pin-head), etc. But how are these sub-branch meanings of “head” related to its prototype meaning metaphorically? “Head” has the following properties: being positioned at the top of human’s body, containing brain which is the source of human’s intellect, organizing our behavior, etc. Therefore, by mapping those properties of head to abstract unfamiliar domains, relevant sub-meanings of it can be derived. Apart from the word “brain”, there are a lot of other human body words which are polysemous, for example:

Face: “face of a mountain, face of a watch, face of the earth”.

Eye: “eye of a needle, eye of hurricane”.

Mouth: “mouth of a river, mouth of a hole, mouth of a tunnel”.

Arm: “arms of a chair, arms of a sea, arms of a tree”.

Hands: “hands of a watch, hands of a speedometer”.

Foot: “foot of a mountain, foot of a wall, footnote” (Cambridge Dictionary, 2001)

From the above analyses, it can be seen that the principle that underlines meaning-change is metaphor; that is to say, systematic metaphorical mapping from one domain to another is the cognitive motivation of the production and interpretation of polysemous words. Metaphor’s property of being systematic enables the sub-branch meanings of polysemy to be related in a systematic way, which can improve students’ vocabulary learning efficiency greatly. Besides, according to the view point that metaphors are experience based, so are polysemous words, and this will also makes polysemy learning much easier for Chinese college students.

Therefore, during the process of vocabulary learning, students should first develop the awareness of the pervasive existence of conceptual metaphors and then try to understand the prototype meanings of polysemous words in college English texts and their sub-meanings from the perspective of conceptual metaphor so as to grasp how multiple meanings of these polysemous words are logically connected. Besides, teachers should also help students create opportunities in class in order to practice analyzing polysemes in terms of conceptual metaphors, which can consolidate

students' vocabulary retention as well as deepen their understanding of the sub-meanings of these polysemous words.

2. Metaphorical analysis of idiomatic expressions

Idiomatic expressions are composed of more than two constituents and each constituent is a semantic unity. These expressions come from linguistic practice of human beings and appear in phrases or sentences. Although every idiomatic expression has its own respective literal meanings, in terms of idioms its literal meanings will be lost and metaphorical meanings will arise instead.

Apart from proposing the view point that "Language is structured metaphorically." (Lakoff & Johnson, 1980, p.5), Lakoff & Johnson also gives their opinion on the relationships between conceptual metaphors and idioms by saying that meanings of idioms are not arbitrarily formed but metaphorically structured. In their book "Metaphors We Live By", they take plenty of idioms as examples to explain how these idioms are comprehended under conceptual metaphor theory. For example, the idiom "spin one's wheels" is motivated by a conceptual metaphor LOVE IS A JOURNEY. Literally "spin one's wheels" means that during a journey the wheels of a car are stuck in the mud and thus spinning but the car still does not move. In fact, there is a conceptual metaphor LOVE IS A JOURNEY involved in the idiom "spin one's wheels". That is to say, the source domain JOURNEY is mapped to the target domain LOVE and thus arises the epistemological correspondence that two lovers meet with difficulties and try to solve their difficulties.

3. Metaphorical analysis of word connection

According to lexicon-semantic theory, humans acquire words first and then as the number of words increases, the mind is forced to set up systems which keep the words well-organized for retrieval (McCarthy & Carter, 1990). So from this, it can be seen that human lexicon is regarded as a network or associations, a web-like structure or interconnected links. In order to improve the efficiency of vocabulary learning, students should try to establish links between words and the words' associations from the cognitive perspective, for example, by applying conceptual metaphor into vocabulary learning.

Based on the internal system of conceptual metaphor, the relations among the metaphorical expressions in the target domain mimic expressions in the source domains to a large extent so that the expressions in the target domains are generated from the expressions of the source domains (Cooper, 1999). Take the structural metaphor THEORIES ARE BUILDINGS for example. It is known to us all that every building has its internal structures such as foundation, support, material, room, window, etc. And every building also has the property of being built, collapsing and then being rebuilt as well as the property of being strong or shaky. Since it is people's cognitive tendency to use a highly structured and clearly delineated and familiar concept to structure a less clearly delineated and unfamiliar one, the structures and the properties of BUILDINGS can be mapped onto the background of THEORIES by cross domain mappings. By doing so, students may find it effortless and safe to choose relatively easy expressions such as "lay the foundation", "construct", "rebuilt", "collapse" etc from BUILDINGS domain which is relatively easy and simple to talk about the more abstract and complex THEORIES domain. Conceptual metaphor theory states that mappings or correspondences between the source domain and the target domain is a systemic system rather than a number of isolated and random cases, so in the actual practice of applying conceptual metaphor into vocabulary learning students can learn words in a semantic network of all contexts. Just as Verspoor said that vocabulary presented in thematic group is retained more effectively than vocabulary presented in unrelated group. But it should also be pointed out that systemic mapping doesn't mean that there is a completely one-to-one correspondence between source domain and target domain. So in the early stage of applying conceptual metaphor into vocabulary learning students should be advised not to turn out some problematic phrases or expressions like "The theory has no windows". Once students made such mistakes, teachers should help put them right in time. Anyhow, teachers' guidance and instruction could make the metaphor approach of vocabulary learning more effective and beneficial since it kindles the imagination of students in memorization as much as possible.

V. SUMMARY

In a word, cultivating the habit of vocabulary learning by means of conceptual metaphor is of great value to students. A good application of metaphorical modes in vocabulary learning can not only reduce students' cognitive efforts but also activate their motivation in learning new words since it is much easier to learn words that are of the same thematic group than learn them as complete units. Lazar (1996) points out that students should be motivated to classify vocabulary into thematic groups according to conceptual metaphors and that this can improve students' skill of enlarging vocabulary. He also adds that this learning skill cannot be got instantly got and has to be acquired only through repeated practice and with the guidance of the teacher. So teachers shoulder great responsibilities to foster students' metaphorical thinking. On the whole, teaching vocabulary by means of metaphor may become the trend of applied linguistics in the near future. Teachers and students should pay attention to this area.

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