

Emancipation of Lexical Motivation and Second Language Teaching under the Framework of Cognitive Linguistics

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Abstract—Unlike formal linguistic paradigm which starts from the assumption that language is basically arbitrary. Cognitive linguistics holds that motivation in language is both primary and pervasive. This paper intends to justify the necessity of explicit lexical instruction and an instruction methodology that is made possible by cognitive linguistics, namely, emancipation of lexical motivations which can facilitate the understanding and memorization of multi-words expressions and in-depth lexical knowledge and points out the challenges teachers may face in the conduction of the new language teaching approach.

Index Terms—lexical approach, cognitive linguistics, lexical motivation

I. INTRODUCTION

As an open system, the vocabulary is very extensive, which has been thought by the scholars of the past dynasties having no rules to follow, and the vocabulary research is figuratively compared to “Cinderella” in the family of applied linguistics. However, as the importance of words in the language cannot be ignored, there has been no interruption in the calls for strengthening lexical research. As early as 1980, Paul Meara wrote that “second language teaching shouldn’t ignore the vocabulary”, and called on the academic community to attach importance to the study of vocabulary, and the rules of vocabulary learning, forming the theory of vocabulary acquisition. In 1986, Batia Laufer critically pointed out that grammar and phonetics are the closed systems; they are easier to generalize abstractly. But vocabulary is the open system and it can’t make assumptions and detection. So the study of applied linguistics is actually the “grammar” study, vocabulary is only supporting part. In 1997, Nation proposed that because vocabulary study (such as word frequency research based on the corpus, the study of vocabulary and the speed of vocabulary growth, knowledge detection of sub-item vocabulary) loss are outside the mainstream of the theory of second language acquisition, without connection on hot theory or hot domain. It’s not enough to pay attention to vocabulary research. He thought that vocabulary acquisition research should absorb the research results of traditional between vocabulary and grammar, and fully consider the inseparability between vocabulary and grammar. Recently, as the development of corpus linguistics and cognitive linguistics, the nature of vocabulary and their effects are relearnt, the research on the rule of the development of vocabulary knowledge and the rule of teaching have become the most popular research areas, which greatly supersedes the trend that grammar research occupied the center position of linguistics and applied linguistics. The second language teaching has long influenced by the formalism of language philosophy, second language teachers and students are generally accepted that vocabulary learning is the key to the second language level, but experts and scholars are controversial above the necessity of classroom vocabulary teaching and vocabulary teaching methods.

II. THEORETICAL PERSPECTIVE AND THE RESEARCH METHODOLOGY

For this study, domestic scholars mostly discussed the combination of cognitive linguistics theory and the second language teaching. For example, Wen Qiufang (2013) proposed that the contribution and limitation cognitive linguistics had to second language teaching. Wenxu (2014) explicated the four fundamental properties of cognitive linguistics, i.e., non-autonomy of language, centrality of meaning, constructionality of mental representation, and usage-based property, and then probe into their implications for foreign language teaching. As for motivation elucidation, Zhaohong (2013) contributed to the comparative study of vocabulary motivation between English and Chinese. And Feng Jianming (2014) thought that motivation was essentially a subjective thought, which was the fundamental property of language symbol.

Some scholars thought that there’s for need to the learners vocabulary in class. Vocabulary learning should be left to

the learners themselves (such as memorizing vocabulary lists or incidental learning in reading), and valuable time should be used to teach other important knowledge, such as grammar. Other scholars maintained that classroom vocabulary teaching is necessary, but scholars who believe classroom vocabulary teaching is necessary to have different opinions on how to teach. Some tend to explicit vocabulary teaching (teaching is carried out using vocabulary for a purpose), but others tend to implicit vocabulary teaching (let students learn vocabulary knowledge in the classroom teaching activities with content understanding as the main purpose).

The author thought that recognizing the essence and impact of “vocabulary” under the framework of cognitive linguistics contributes to solving above conflict. On the basis of the theory of cognitive linguistics, this paper interpreted the importance of deep vocabulary knowledge with multi-word units as the core in the language acquisition and language use, demonstrated the necessity of the dominant classroom vocabulary teaching, suggested that lexical motivation analysis is the best way to teach vocabulary in the second language and pointed out the challenges faced by second language teachers.

III. RECOGNITION “VOCABULARY”

As the important component in language, the definition of vocabulary has always been a difficult problem for linguists. Because different linguistic schools have different definitions of vocabulary based on their different understanding of the nature of language, there is a great influence on the second language teaching methods.

A. *The Lexical under the Framework of Formal Linguistics and Teaching Research Focused on Syntax Study*

Formal linguists thought that language is composed of grammar and vocabulary and lexical is affiliated to grammar and serves for grammar. If we compare language to a tall building, grammar is a framework of tall building and vocabulary is the brick of this tall building. Based on this philosophical concept, formal linguists suggested that the center for language research is grammar, and the exploration of syntactic rules. One more realistic reason of which they maintained grammar research is that grammar is a closed system, and has rules to follow. But lexical is an open system and difficult to summarize its rules. The study of the syntactic aspects of formalist linguistics is remarkable. Affected by it, the second language acquisition emerged as an independent subject in the 1960s, mainly studied the rules of second language acquisition under the framework of formalist linguistic research. The second language acquisition theories mostly related to the syntactic acquisition in second language. Krashen (1985) founded the natural order of grammatical morpheme in ESL, on the basis of it, he proposed Monitor theory; By the study of the attributive clause, Keenan & Comrie (1977) put forward the accessibility hierarchy of language acquisition. Milon (1974) proposed developmental sequences which are based on the studies of negative sentence acquisition in ESL. Meara (1980) proposed multidimensional model and teachability hypothesis which is based on the study of German syntactic acquisition. The study of the nature and rules of vocabulary was ignored entirely.

Under these circumstances, second language teaching mainly focuses on grammar teaching. For example, famous grammatical translation is explicit teaching method. But the communicative approach, task method and natural method are implicit grammar teaching methods. The main purpose of vocabulary teaching is to help students understand and master grammar rules. Vocabulary knowledge is carried by students through memorizing vocabulary lists outside the class or acquiring in the reading and listening.

B. *The Inseparability of Words and Grammar under the Framework of Cognitive Linguistics and the Teaching Research Focusing on Multi-word Units*

Starting in 1990, corpus linguistics fundamentally shake linguistic concept focusing on grammar, then shake the other linguistic research, the study of language acquisition and the core position of the second language teaching method. Through real and intuitive corpus, corpus linguistics proved that some words were always appearing together with other certain words in the natural language. The syntactic transformation generation theory cannot explain the co-existing words, and these often co-existing words are referred to as “multi-word units”.

Many foreign language teaching theorists concluded that: the center of language is neither grammar nor words, but the “multi-word units”, and successful learning is largely a matter of mastering and memorizing these multi-word units as much as possible. Studies have shown that the storage and extraction of multi-word units can help to reduce the cognitive load of language use.

In the cognitive linguistics, “multi-word units” generally were classified as the category of “construction”. Cognitive linguists think that vocabulary and grammar are not independent of each other, the two are the inseparable continuum, and the basis of language is construction. Each of them is a form-meaning combination. They could be large and small, smallest to a word, largest to a sentence, including idioms, phrases, fixed or semi-fixed collocation; language acquisition is the mastery of various constructions.

The second language teaching under the framework of cognitive linguistics advocated the teaching method focusing on “construction” or “multi-word units”, contrasting with the syntactic centered approach in the framework of formal linguistics. The expression of “lexical approach to second language teaching” was first proposed by Michael Lewis (1993), which means mastering second language through learning various multi-word units. He maintained that elements forming language are grammaticalized lexis, not lexicalized grammar. Word collocations and word meanings

have inherent disciplines.

Usage-based and cognitive brain theory-based cognitive linguistics interpreted the inherent discipline of word meaning and word collocation in theory. Corpus, conceptual images and etymological studies have made the elucidation of motivation possible. Through elucidating causes and effects of lexical construction and lexical meaning, not only can we know it, but we can also understand it. On the one hand, such teaching helps to mobilize the learner's deep cognitive processing and deepen the memory of the target words. On the other hand, it can improve learners' interest in learning. Because the learning process is no longer the boring memorization, but the knowledge network establishment related to linguistic knowledge, encyclopedic knowledge and cognitive conceptual system knowledge. It can be said that cognitive linguistics has opened up a new way for second language teaching, which can effectively improve the efficiency of classroom teaching by helping learners to understand and master the rules of vocabulary. The research is just starting.

IV. THE OUTLOOK OF ELUCIDATION OF LEXICAL MOTIVATION AND SECOND LANGUAGE TEACHING UNDER THE FRAMEWORK OF COGNITION

In the domain of applied linguistics, the word "motivated" is often used to describe learners' enthusiasm for learning or motivation for learning. For example, a highly motivated learner or the learners are not motivated. As the core term in cognitive linguistics, it has a very high frequency in the cognitive linguistics literature and is used to describe the language itself. For instance, the language is motivated or the word is motivated. It indicated that certain linguistic form or semantic expression is non-arbitrary, rational and explicable.

As for the questions about the nature of language symbols, academic has always two theories. They were the theory of arbitrariness and the theory of motivation. The theory of arbitrariness hold that there is no necessary connection between the signifier and the signified, and they cannot be argued. The word meaning of arbitrary is same as unpredictable, unexplainable or unmotivated. The theory of motivation maintained that there was certain connection between the signifier and the signified, and they can be argued. The meaning of motivated is same as predictable, explainable or systematic. Saussure, the father of modern linguistics, had established linguistic theory which was based on the theory of arbitrariness. It has always been dominant in linguistics and has far-reaching influence. But the theory of motivation has long been neglected and has rarely mentioned in linguistic textbooks.

Different with the arbitrariness of language emphasized by formalist linguistics, cognitive linguistics underlined the motivation of language. Cognitive linguistics thought that language is rooted in our perception of the external world and were part of the cognitive mechanism. Language formation and development relies heavily on metaphor, metonymy and imagery.

The current research of motivation was restricted to the level of vocabulary, such as internal structure of lexical category, relationship of word meaning, change of word meaning and word collocation and so on. They can be interpreted from the aspect of cognitive approach and knowledge structure. The motivation of vocabulary related to embodiment, iconicity, metaphor, construal and ideal cognitive model (ICM). The research of motivation mainly aims at the polysemy of words, the internal structure of lexical category and the word collocation (idioms, fixed or semi-fixed collocation). For example, the semantic extension of polysemes from core senses to peripheral senses can be explained by image schema and its transformation, conceptualization, archetypal category radiation, metaphor and metonymy mechanism, ICM, ECM and other cognitive approaches. Internal structure of lexical category was analyzed through family iconicity, archetypal category, and category of radiation networks. Vocabulary of same category can be divided into the hypernymy level word, the basic level word and the hyponymy level word. They form a network of interrelated words through iconicity relations, schema-illustration relations and part-whole relations to help people deal with new information and store old information.

Cognitive linguists use the large corpus to dig and display the motivation of words, phrases, and idioms making the elucidation of motivation more intuitive, more convincing, objectively provide the possibility for explicit classroom vocabulary teaching based on the elucidation of motivation.

Laufer and Nation(1986) proposed that the necessity of vocabulary teaching based on the elucidation of motivation. There are some reasons: (1) The incidental acquisition of vocabulary in the process of reading or communication or other implicit learning methods, was limited in both quality and quantity, while explicit vocabulary teaching contributes to the mastery of deep vocabulary knowledge. (2) It is necessary to improve your language level and master the low frequency words, phrases, idioms and so on. While low-frequency words can't be learned due to its low-frequency in the communication activities and learning tasks. Therefore, to improve the language level of learners, the explicit teaching must be carried out for low frequency words. (3) The explicit vocabulary teaching helps the students master deep vocabulary knowledge, such as denotation, connotation of a word, aggregation and composition relations, the range and domain. Grasping deep cognitive processing needed in the deep vocabulary knowledge is advantageous to the long-term memory of vocabulary. (4) The knowledge of productive vocabulary needs to be learned in productive tasks. However, in the limited classroom teaching environment, it is not enough to form the output knowledge through the communicative teaching method. Therefore, under the classroom teaching environment, communicative teaching method is not an ideal method to help students master a large amount of knowledge of output vocabulary. (5) If there is no explicit vocabulary teaching, some vocabulary knowledge will probably never be mastered by students.

Based on the analysis of the existing teaching methods, Boers & Lindstromberg (2008) noted: Under the foreign language environment, the cognitive analysis of the target language is helpful to improve the teaching efficiency of vocabulary through cultivating the thinking mode of the target language, making the limited class teaching big significance. Such research has achieved initial success. For example, in the traditional English teaching methods, the structure and semantic of word collocation was referred as arbitrariness, making no sense to tell. Learners were required to exercise in rote memorization. For instance, “strong” and “powerful” are similar in property and meaning, while learners are told that modifying the noun tea will use strong, and modifying the noun car will use powerful, the teacher usually does not explain why they should be matched. Through corpus research, Liu founded that “the seemingly arbitrary combination “wasn’t really arbitrary. We could use strong car, powerful tea under the specific situation rather than use strong tea, powerful car. Because the connotations between strong and powerful are different, the meaning of strong tea and powerful car are disparate. The former refers to the taste of tea when tea was a drink; the latter refers to the effect of tea when tea was medical herbs. It is the same as strong car and powerful car. The former refers to the durability of the car, while the latter refers to the high horsepower of the car. The research indicated that the meaning explanation of synonyms based on corpus study contributes to the learners’ realization that English word combinations are non-arbitrary and rational. So learners needn’t do exercise in rote memorization and they can flexibly use word collocations from deep understanding of them.

Marta Berendi (2009) studied the application of conceptual metaphor and conceptual metonymy analysis in polysemes and idiom teaching. The traditional viewpoint holds that the collocation of English idiom and its meaning are arbitrary, fixed, non-structural and conventional. The whole meaning of an idiom is not a combination of its word meaning, which requires mechanical memory, so it is difficult to learn the second language. What has shown in this experiment learners realized that the meanings of idioms largely have rules to follow through parsing the cognitive model of idioms. The meaning of the idioms can be inferred through different cognitive constructs. For example, in this experiment, the target idioms about “anger” (such as burst out, simmer down, add fuel to the fire, keep smoldering) are divided into four cognitive models, these are Anger is fire, anger is hot fluid in a container, anger is insanity, an anger person is a dangerous animal. Using concrete examples, we interpreted each cognitive model in the classroom, which would help students master the rules of this kind of idiom and largely improve the efficiency of learning English idioms.

The meaning of the English verb phrases is often thought to be obscure, arbitrary and mechanical memorized. However, Nora Condon’s (2009) experiment proved that the meaning of the English verb phrases could be analyzed and could have rules to follow. She studied the effect of classroom cognitive analysis on verb phrases that were made up of different notional verbs and functional words. It shows that after the teacher has parsed over the structural mechanism of over, out, up, the learners can easily understand these phrases that were made up of different functional words.

Boers and Lindstromberg (2008) founded that using pictures to analyze the basic concepts of polysemes or multi-word units can help learners understand and memorize the extended meaning of these phrases. What concluded by the above researches, if classroom teaching would help learners realize that the relationship between symbol and meaning in the second language system is not arbitrary, but motivated, learners will learn vocabulary through using their brains flexibly and a more effective way to remember rather than exercising in mechanical memorization. If learners are aware of the rules of vocabulary, their confidence for learning vocabulary will be stronger and they will be more able to enjoy the vocabulary learning. Through the cognitive analysis of target lexical motivation, learners could master a new thinking mode and use it as a key to open the door of target lexical knowledge.

Radden and Panther (2004) made the elucidation of vocabulary motivation divide into the synchronic analysis, diachronic analysis and comparative analysis. Among them, the synchronic analysis is the most important one. It can be understood through three aspects: (1) It brought the meanings into contact with the sounds. That is inferring meaning of the word through the pronunciation of the word. (2) It brought the meanings into contact with the form of the word. That is inferring meaning of the word through the spelling of the word. (3) It brought the other meanings into contact with the original meanings. That is inferring the other meanings through one meaning of the polysemes. Generally, it is pervasive that bringing the other meanings into contact with the original meaning. Because most words in English are polysemous. The polysemous teaching included that letting students realize the core meaning of the polysemes, and interpret the semantic extension between polysemous words can be literal meaning and can be realized through metaphor and metonymy.

The diachronic elucidation of motivation, which is the etymological exploration, mainly analyzed the structural characteristics and formation mechanism of vocabulary through explaining similarity rules between lexical evolution and human cognition from the internal linguistics.

Comparative analysis is one of the diachronic analysis. It made the original knowledge and new knowledge build meaningful connection with each other by parsing the relationship between the target words and the other words, and greatly improving the memory and use of acquired knowledge. The study found that this teaching method is especially suitable for English learners in China.

The classroom vocabulary teaching based on the elucidation of motivation is largely superior to the incidental method of vocabulary or the definition learning method, which has to be improved. But compared with the traditional vocabulary learning method, elucidation of motivation is more helpful for mastering and memorizing of vocabulary knowledge. The conclusion was supported by dual coding theory, trace theory and levels-of-processing theory.

Since the validity of elucidation of vocabulary motivation has been proved, the most challenging part is how to show the motivation of target vocabulary. We expected that second language teachers will creatively elucidate vocabulary motivation in combination with the practice of class. On the one hand, teachers will carefully select and organize the materials and design teaching tools (such as pictures) before class. On the other hand, they will utilize appropriate expressions to suit for different levels of students. The language of the teacher is referred to as the “technical operational procedure” or “materialization process” of the elucidation of motivation. Due to the individual differences of teachers, such as age, character and so on, will to some extent affect the effect of elucidation of motivation. At the same time, teachers need to further improve their rational understanding of target language system.

V. CONCLUSION

The second language teaching under the framework of formalist linguistics focused on grammar. Vocabulary teaching serves as the grammar teaching. As the collocation of words, the lexical was memorized mechanically by learners by the dictionary definition. For the target vocabulary, students only know what they are but don't know why they are. The second language teaching under the framework of cognitive linguistics focused on “multi-word units”, elucidating lexical formation and the regularity and predictability of the word meaning. The second language teaching based on elucidation of motivation aims to cultivate a way of thinking and emphasize memorization based on mastering deep vocabulary knowledge. If the traditional teaching method can only give learners fish, the teaching method based on the elucidation of motivation will teach the learners fishing. The prevailing vocabulary textbooks are filled with the knowledge of sounds, meanings, word structures and so on, and almost haven't the motivation of words, which was largely on account of “the difficulty of motivation”. In the second language teaching, it is more difficult to “say” the motivation of the second language. The second language teachers should have a rational understanding of language system of target language, personal study it, sort out the motivation of target language, utilize the proper methods in classroom and the expressions suitable for learners to display the motivation of the target words, only in this way, can learners master the regularity and structure of the second language.

REFERENCES

- [1] Ausubel, D. (1968). *Educational Psychology: A Cognitive View*. New York: Rinehart and Winston.
- [2] Boers, F. & Lindstromberg, S. (2008). *Cognitive linguistic approaches to teaching vocabulary and phraseology*. Berlin: Mouton de Gruyter.
- [3] Carter, Ronald. & Michael, M. McCarthy. (1988) *Vocabulary and language teaching*. London/New York: Longman, London.
- [4] Condon, Nora. (2009). How cognitive linguistic motivations influence the learning of phrasal verbs. Berlin/New York: Mouton de Gruyter, 133-158.
- [5] Feng Jianming. (2014). A multi-perspective study of language motivation based on cognitive view. *Foreign Chinese*, 6, 86-92.
- [6] Keenan, E. L. & Comie, B. (1977). Noun phrase accessibility and universal grammar. *Linguistic Inquiry*, 8, 63-99.
- [7] Krashen, S. (1985). *The input hypothesis: Issues and implications*. Longman, London.
- [8] Laufer, B. (1986). Possible changes in attitude towards vocabulary acquisition research. *IRAL*, 24, 69-75.
- [9] Lewis, M. (1993). *The lexical Approach*. Hove, UK: LTP.
- [10] Marta, B. & Csabi, S. (2009). Using conceptual metaphors and metonymies in vocabulary teaching. Berlin/ New York: Mouton de Gruyter, 65-100.
- [11] Meara, P. (1980). Vocabulary acquisition: a neglected aspect of language learning. *Language teaching and linguistics: Abstracts*, 13, 221-247.
- [12] Milon, J. P. (1974). The development of negation in English by a second language learner. *TESOL Quarterly*, 8, 137-143.
- [13] Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge university press.
- [14] Radden, G. & Panther, K.U. (2004). Introduction: Reflection on motivation. In Radden and K.U. Panther(eds.). *Studies in Linguistics Motivation*. Berlin/ New York: Mouton de Gruyter, 1-46.
- [15] Sinclair, J. (1991). *Corpus, Concordance, Collocation*. Oxford: Oxford University.
- [16] Wen Xu. (2014). Basic properties of cognitive linguistics and their implications for foreign language teaching: An exploration of applied cognitive linguistics. *Foreign language learning theory and practice*, 3, 16-22.
- [17] Wen Qiufang. (2013). *Cognitive linguistics and second language teaching*. Beijing: Foreign language teaching and research press.
- [18] Zhaohong. (2013). *Comparative study of vocabulary motivation between English and Chinese*. Shanghai: Shanghai foreign language education press, 14.

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