



A Cognitive Linguistic Approach to Classroom English Vocabulary Instruction for EFL Learners in Mainland China

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Abstract

Vocabulary learning and teaching has been one of the main issues in ESL/EFL learning and teaching research. EFL teachers in China, in particular, are grappling with the effective vocabulary teaching methods. This paper is doing part of this job in a different way. It discusses three principles based on Cognitive Linguistics (CL), namely the study of categorization, prototype, and metaphor, and implications of these principles in formal vocabulary instruction in a Chinese context of English learning in South-western mainland China.

Keywords: Cognitive linguistics, Prototype theory, Categorization, Metaphor, English vocabulary teaching

1. Introduction

Cognition is part of mental process, the behavior and ability through which we human being perceive and acquire knowledge. It involves such mental activities as emotion, motivation, and power. Cognitive linguistics is one important interdisciplinary branch of cognitive science, and is closely related to cognitive psychology and linguistics. It is also an approach to language, which views language as a kind of cognitive action, and studies the formation, the meaning, and the rules of language with cognition as its departure. In short, cognitive linguistics is an approach that is “based on our experience of the world and the way we perceive and conceptualize it” (Ungerer and Schmid, 2001, p. F36), an approach to the analysis of natural language that focuses on language as an instrument for organizing, processing, and conveying information and in the more restricted sense but one type of a cognitive science approach to language, to be distinguished from, for instance, generative grammar and many forms of linguistic research within the field of artificial intelligence (Geeraerts, 1997, pp. 7-8). Although cognitive linguistics is a new marginal discipline which has a history of twenty years or so, it does not only broaden our belief about the word ‘cognition’, but also has striking influence on the study of the process of second and foreign language learning and teaching. It is on this sense that this paper addresses the classroom teaching of English vocabulary from the perspective of cognitive linguistics.

2. Teaching English vocabulary

2.1 Significance of vocabulary

It has long been acknowledged in EFL teaching that vocabulary is essential, in China in particular, to English learning and teaching. It is also stressed by the linguist David Wilkins, who points out that ‘Without grammar very little can be conveyed, without vocabulary *nothing* can be conveyed (Wilkins, 1974).’ This best saying about the importance of vocabulary learning has been welcomed by teachers and learners for many years.

Most learners, too, acknowledge the importance of vocabulary acquisition. Here are some statements made by some non-major college English learners from south-western China:

- First, vocabulary is very important. It measures a man’s English level.
- My problem is that I forget the words soon after I have looked in the dictionary. And I cannot recognize them whenever I come across in reading English books.
- I want to enlarge my vocabulary. I have the feeling that I always use the same expressions to express different sort of things.

However, vocabulary teaching has not always been very responsive to such problems, and teachers have not fully recognized the tremendous communicative advantage in developing an extensive vocabulary. For a long time, teaching approaches such as Direct Method, which insists that only the target language should be used in class and meanings should be communicated ‘directly’ by associating speech forms with actions, objects, mime, gestures, and situations,

but overemphasizes and distorts “ the similarities between naturalistic first language learning and classroom foreign language learning and failed to consider the practical realities of the classroom” (Richards, 1986,p.10), and audiolingualism gave greater priority to the teaching of grammatical structures. In order not to distract from the learning of these structures, the number of words taught were often chosen either because they were easily demonstrated, or because they fitted neatly into the ‘structure of the day.

The advent of the communicative approach in the 1970s set the stage for a major re-think of the role of vocabulary. The communicative value of a core vocabulary has always been recognized, particularly by tourists. A phrase book or dictionary provides more communicative mileage than a grammar-in the short term at least. Recognition of the meaning-making potential of words meant that vocabulary became a learning objective in its own right. In 1984, for example, in the introduction to their *Cambridge English Course*, Swan and Walter wrote that ‘vocabulary acquisition is the largest and most important task facing the language learner; Course books began to include activities that specially targeted vocabulary’.

Nevertheless, most English language courses in China were (and still are) organized around grammar syllabuses. There are good grounds for retaining a grammatical organization. While vocabulary is largely a collection of items, grammar is a system of rules. Since one rule can generate a great many sentences, the teaching of grammar is considered to be more productive. Grammar multiplies, while vocabulary merely adds. However, two key developments were to challenge the hegemony of grammar. One was the lexical syllabus, that is, a syllabus based on those words that appear with a high degree of frequency in spoken and written English. The other was recognition of the role of lexical chunks in the acquisition of language and achieving fluency. Both these developments were fuelled by discoveries arising from the new science of corpus linguistics both at home and abroad, and of cognitive linguistic-based exploration of lexicography in China by Zhao Yanchun and Wangyan (Zhao, 2003; Li and Wang, 2005).

The effect of these developments has been to raise awareness as to the key role that vocabulary development plays in language learning. Even if most course books still adopt a grammatical syllabus, especially those designed for distance learning and adult learning, vocabulary is no longer treated as an ‘add-on’. Much more attention is given to the grammar of words, to collocation and to word frequency. This is reflected in the way course books are now promoted. For example, the explanations of some widely-used course books claim:

Well emphasis on cognitive vocabulary, with a particular focus on high frequency, useful words and phrases. (from *A Modern English Course*)

2.2 Some underlying causes for problems in vocabulary learning

Knowing a word is one thing—but how is that knowledge acquired? In learning their first language the first words that children learn are typically those used for labeling—that is, mapping words on to concepts—so that the concept, for example, of dog has a name, *dog*. Or *doggie*. But not all four-legged animals are dogs: some may be cats, so the child then has to learn how far to extend the concept of *dog*, so as not to include cats, but to include other people’s dogs, toy dogs, and even pictures of dogs. In other words, acquiring a vocabulary requires not only labeling but categorizing skills.

Finally, the child needs to realize that common words like *apple* and *dog* can be replaced by superordinate terms like *fruit* and *animal*. And that *animal* can accommodate other lower order words such as *cats*, *horse* and *elephant*. This involves a process of network building—constructing a complex web of words, so that items like *black* and *white*, or *fingers* and *toes*, or *family* and *brother* are interconnected. Network building serves to link all the labels and packages, and lays the groundwork for a process that continues for as long as we are exposed to new words (and new meanings for old words)—that is, for the rest of our lives.

Consider the Chinese college English learners, the problems they face when learning English kinship terms such as grandparents, cousin, aunt, uncle, so few in English, but so many different terms in Chinese. For most language learners, however, there will be much more that is shared than is foreign in conceptual system. The fact that the adult learners’ conceptual system is already installed and up-and-running, means that he or she is saved a lot of the over- and under-generalising associated with first language learning. An adult learner like college students is unlikely to confuse a dog with a cat, for example.

However, there is a downside to having a ready-made conceptual system with its associated lexicon. Faced with learning a new word, the second language learner is likely to short-cut the process of constructing a network of associations—and simply map the word directly onto the mother tongue equivalent. Thus, if a German-speaking learner learns the English word *table*, rather than creating a direct link from *table* to the concept of table, they are more likely to create a link to their L1 equivalent (*Tisch*). The L1 word acts as a stepping stone to the target concept.

Many cross-language errors are due to what are known as false friends. False friends are words that may appear to be equivalent, but whose meanings do not in fact correspond. Examples of false English friends for speakers of Polish, for example, are:

actually (*aktualnie* in Polish means ‘at present’, ‘currently’)

apartment (*apartment* in Polish is a ‘hotel suite’)

chef (*szef* is Polish for ‘chief’ or ‘boss’)

history (*historia* in Polish means ‘story’)

lunatic (*lunatyk* in Polish is a ‘sleepwalker’)

pupil (*pupil* in Polish is a ‘pet’ or ‘favourite’)

(Thorbury, 2003, p.19)

Over-reliance on transfer from L1 could, conceivably, result in a misplacement of some words and even misleading or misunderstanding.

Generally speaking, however, languages that share words with similar forms (called cognates) have many more real friends than false friends. A French learner of English, for instance, need not feel suspicious of the English word *table* (*table* in French), nor *restaurant* (the same in French except the pronunciation)—among thousands of others.

As well as false friends and real friends, there are strangers: words that have no equivalent in the L1 at all, since the very concept does not exist in the learner’s lexicon. Supposedly, Chinese has no equivalent for the English words *privacy* or *community*. In this case, the Chinese learner of English is in a position not dissimilar to a child learning his or her L1; they are learning the concept and the word in tandem. The way colour terms are distributed in different cultures is also a possible source of conceptual strangeness.

By analogy with false friends, real friends, and strangers, it may be the case that, for a good many second language learners, most of the words in their L2 lexicon are simply acquaintances. They have met them, they know them by name, they even understand them, but they will never be quite as familiar to them as their mother tongue equivalents. This is because the associative links in the second language lexicon are usually less firmly established than mother tongue links. To extend the metaphor: learning a second language is like moving to a new town—it takes time to establish connections and turn acquaintances into friends.

3. Implications of cognitive linguistics for classroom English vocabulary instruction

Zhao Yanfang (2003), a well-known scholar specialized in the study of Cognitive Linguistics (CL) in China, proposed that at least three principles based on CL can be used to direct our teaching of vocabulary, that is, the study of categorization, prototype, and metaphor.

3.1 Focusing on the teaching and learning of basic level categories of vocabulary

According to Zhao (2003), categorization is the classification of things in the cognitive process, which is essentially mental. Correspondingly, the process that the subject interacts with the object and classifies is a process of categorizing. And it is on this basis that we can conceptualize and make sense of the world around us. More important, ‘categories and categorizations are existing everywhere, and are ways we perceive the world, otherwise we cannot know it in appropriate way’ (Glass & Holyoak, 1986; cited in Zhao, 2003). Our experience tells us that one object can at the same time belong to some multi-categories. For example, a wolf-dog can be listed under the categories of animals, dogs, puppy dogs, etc., and constitute the different levels of categories. But how can we define it? Cognitive science takes the term ‘basic level category’ to answer this question scientifically. In CL, human mind gets to know things at the middle level, on which we know objects most easily, and the categories in this level is thus called basic level category. And vocabulary that comes into existence on the basis of the basic categories goes to basic level vocabulary. These vocabularies share a most distinctive attribute bundles that help to distinguish them from other vocabularies: less time to recognize, high frequency of use, and the most widely used items in everyday communication.

Consequently, in our present teaching of English vocabulary, enough attention and great importance should be given to the acquisition and instruction of basic vocabularies. And we should put vocabulary teaching in a prominent place, because basic lexicon is the basis for teaching other vocabulary categories, and it is only through which can the teaching of others be extended and fulfilled. This is a cut-way we learn English, and also an important principle for modern language teaching, course books compiling, and even dictionary compiling. It is well known that English words are extremely tremendous and large. For instance, in *Oxford Concise Dictionary*, 140,000 words are collected. It is, obviously, very difficult to remember them one by one in sequence. However, if we focus on basic level vocabularies, not only can we remember more effectively and more efficiently, but also can save more time to spend on some other learning activities.

Linguistic categorization is the major focus of CL, because ‘Cognitive linguistics is not a single theory of language, but rather a cluster of theoretically and methodologically compatible approaches’ (Zhao, 2000). The general research strategy of cognitive linguistics, in fact, is characterized by two major features. First, the study of categorization processes in the lexicon is taken as a methodological point of departure for the study of categorization processes in the

grammar at large. If linguistic categorization is the major focus of cognitive linguistics, then studying the lexicon first is a plausible step to take: the categorizing function of the lexicon has received much attention in the linguistics, as lexicon is conceived of as an inventory of meaningful units.

3.2 Prototypes and polysemies

3.2.1 Prototype theory

In 1970s, Rosch made experiments of the category BIRD, thereby she identified that, to be a bird, it should share 13 common attributes, which involve a) laying eggs, b) having a beak, c) having two wings and two legs, d) having feathers, e) being able to fly, f) being small and lightweight, g) chirps/sings, h) legs are thin/short, j) kept in a cage, k) has long neck, l) has decorative feathers, and m) has exotic colours (Ungerer & Schmid, 2001, p.27). She found that ROBIN shares the most attributes resemble to the other family members, which she classified as the prototype of the category BIRD. All the family members have similar features with the prototype. So when we think of BIRD, we will first think of robin, but not OSTRICH or PENGUIN, just because ROBIN have the largest number of attributes of BIRDS, and as a prototypical member of BIRD, robin is maximally distinct from the prototypical members of other categories.

Basically, there are two ways to understand the notion of prototype. It can be deduced from categorization experiments. For instance, some members of a category first come to mind in association experiments and are recognized more quickly as category members in verification tasks. If one takes these members as prototypes of the respective categories, this leads to definitions like ‘best example of a category’, ‘salient examples’, ‘clearest cases of category membership’, ‘most representative of things included in a class’ of ‘central and typical members’ (see Rosch 1978; Lakoff 1986; Brown 1990; Tversky 1990).

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However, if one takes the cognitive view of categories seriously, one is justified in defining the prototype as a mental representation, as some sort of cognitive reference point. From this perspective, four characteristics that are frequently mentioned as typical of prototypicality are:

- (i) Prototypical categories exhibit degrees of typicality, not every member is equally representative for a category.
- (ii) Prototypical categories exhibit a family resemblance structure, or more generally, their semantic structure takes the form of a radial set of clustered and overlapping readings.
- (iii) Prototypical categories are blurred at the edges.
- (iv) Prototypical categories cannot be defined by means of a single set of criteria (necessary and sufficient) attributes.

(Lin, 2003, p.17)

Thus we can apply the prototype theory to the understanding of polysemy of words. In other words, among the bundles of meaning of a certain vocabulary, there must be a core meaning that can be served as the prototype of the others. Or all the other meanings are based on the extension or radiation of this prototypical meaning. For instance, for the word ‘down’, its core meaning is that ‘of motion from a higher level to a lower level’—the prototype. Then following this prototype, we can have expressions like ‘of a motion from upright position to horizontal position, from a more important place to a less important place’, and so on. As a result, the different meanings given in a dictionary is relatively limited, and we can, in effect, use the prototype and extend to many other meanings. Then, in our teaching of English vocabulary, the teacher should try to make her students aware that the meaning of a word is not fixed and unchanged, but that using human cognitive imagination, we can have some more correlated categories based on the prototypical meaning. Accordingly, core words are devised. And they are likely to be more useful than non-core words. Core words are typically those words used when defining other words. In doing so, students can benefit a lot. It can save them from memorizing each meaning listed in the dictionary blindly. Instead, they are encouraged to learn vocabulary in a more scientific way by making full use of prototypical sense of the given semantic meaning.

3.2.2 The effect of prototype theory on polysemy

Semantic category is both the tool and result of cognition. It has to supply the needs required by the development of cognition. Geeraerts (1985) pointed out that “cognition should have a tendency towards structural stability; the categorical system can only work efficiently if it does not change drastically any time new data crop up. But at the same time, it should be flexible enough to adapt itself to changing circumstances. To prevent it from being chaotic, it should “have a built-in tendency towards structural stability, but this stability should not become rigidity, lest the system stop being able to adapt itself to the ever-changing circumstances of the outside world” (p.141). It is obvious that semantic categories meet the requirements of both stability and flexibility.

It is well-known that very many words in English have different but overlapping meanings. Take *hold*, for example. It is a good example of a polysemous word:

I *held* the picture up to the light.
 I was *held* overnight in a cell.
 You need to *hold* a work permit.
 Mrs. Smith is *holding* a parting next week.
 Marxists *hold* that people are all naturally creative.
 He was finding it a strain to *hold* his students' attention.
 They'll probably *hold* the London train if we're late in.
 The theatre itself can *hold* only a limited number of people.
 (Thornbury, 2003, p.9)

Dictionary writers (lexicographers) classify words like *hold* as being polysemous— that is, of having multiple but related meanings, each of which is called a polyseme. If the polysemous nature of English provides a challenge to dictionary compilers, it is a complete headache for learners. It is difficult to decide at what point when we know the different shades of meaning represented by all its polysemes.

The studies on polysemy have proved that most semantic categories are complex networks formed by a series of interdependent values fixed on prototypes. More and more research findings have shown that those networks are not arbitrarily formed, but developed from prototypes by specific mechanisms of semantic extensions (e.g. metaphor, formulation and transferring of semantic scope, etc.)(Shen, 1991, pp. 2-3).

3.2 *Metaphor and vocabulary teaching and learning*

Metaphor is not just a figure of speech, but a way we perceive the world. "Language is essentially metaphoric", because metaphor is widely used in our daily life, lives in our language, and above all, is in our thought and behavior. As Johnson and Lakoff (1980) note, the conceptual system that our thought and behavior rely on is metaphoric in nature. In the same sense, metaphor is an important way of language change and development. We can feel metaphor everywhere, at any time, since it is a way of thinking. So it will be a good try to teach English vocabulary by making use of metaphors. They are powerful cognitive tools for our conceptualization of abstract vocabulary categories. The most important feature of metaphor is that its relatedness between things and categories. For example, the word 'leg' can be used to refer to legs of human beings, legs of a chair, a bed, a table, and so on, which basically means 'the support of things'.

In brief, the research findings of metaphor based on man's cognition can provide some motivations for our accounting for semantic change and development. Therefore, we should not only lay emphasis on basic vocabulary and interpret polysemy by means of metaphor but also pay special attention to the diversity and similarity of cultures and ideology. In vocabulary teaching and learning, we should try every possible means to develop metaphorical awareness, make full use of the cognitive function of metaphor and reveal the metaphorical relationship between word meanings.

4. Conclusion

Although most of the issues of cognitive linguistics addressed are not altogether new and most of what cognitive linguistics offers seem to be the essential questions that linguistics and people interested in language have always been asking, we still believe that it is a promising new perspective on vocabulary teaching and learning. In addition, the traditional methods of vocabulary teaching do and will still play an important part in teaching, but if we make an active use of this new perspective of vocabulary teaching, our efforts will be expectedly fruitful.

Vocabulary teaching and learning is a cycle of semantization and internalization, which is closely linked to and to a large extent dependent on the way a word is presented. To reduce students' learning load and make sure that the students can enlarge vocabulary quickly and efficiently, a cognitive approach that is based on prototypes, family resemblance, or basic level categories is a worthwhile attempt for us to try out in both elementary and intermediate level of English learning for EFL learners in mainland China.

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