

## Semantics and Vocabulary Acquisition and Teaching

DUAN Jing<sup>[a],\*</sup>; DA Hongqi<sup>[b]</sup>

<sup>[a]</sup>Lecturer, Agricultural and Animal Husbandry College of Tibet University, Nyingchi, China.

<sup>[b]</sup>Associate Professor, Agricultural and Animal Husbandry College of Tibet University, Nyingchi, China.

\*Corresponding author.

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### Abstract

Vocabulary teaching is an important and difficult part of language acquisition and teaching. The appearance of different semantic theories has helped people to know the words better than ever before and thus are put forward to the words acquisition and learning. This paper introduces the semantic feature, prototype theory, relational models, semantic space across languages and schema semantics and their application in vocabulary acquisition and teaching. The paper also gives a description of general vocabulary learning and learner strategies and vocabulary pedagogy and teaching strategies.

**Key words:** Semantics; Vocabulary acquisition / learning; Vocabulary teaching

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### INTRODUCTION

Although vocabulary teaching is a very important part of language teaching, it has been neglected for a long time under the traditional teaching methodology. Language teachers have sometimes tended to overlook the importance of the lexical system by overemphasizing grammatical systems. Not being able to find the words you need to express yourself is the most frustrating

experience in speaking another language. However, this situation has changed greatly to the development of the semantics since the 1960s. The different approaches in semantics and lexicology led to heat discussion of vocabulary learning and teaching and made great contributions to that.

For Chinese English learners, the improvement of their language competence largely depends on the enlargement and familiarity with vocabulary after they have mastered the basic knowledge of phonology and grammar. Actually the limitation in vocabulary forms the major obstacle in English as Foreign Learning (EFL). Most English learners agree that the most difficult and important thing is learning vocabulary. It plays an indispensable part in the development of all the four skills—listening, speaking, reading and writing and serves all the other syllabuses. Wilkins, a famous British linguist, once claimed that “without grammar, very little can be conveyed; without vocabulary, nothing can be conveyed”.

There has been an increasing appeal to pay more attention to vocabulary in China with the new research in semantics and lexicology. Various important and useful theories put forward by linguists, applied linguists and teachers appear and the teaching of vocabulary will definitely be improved with these approaches.

### 1. SEMANTIC THEORIES OF VOCABULARY MEANING

According to Evelyn Hatch and Cheryl Brown (2001), the term semantics refers to the study of meaning and the systematic ways those meanings are expressed in language. The appearance of different semantic theories such as semantic feature, prototype theory, relational models, semantic space across languages, schema semantics have helped people to know the words better than ever before and thus are put forward to the words acquisition and learning.

## 2. SEMANTIC FEATURE ANALYSIS

Semantic feature analysis is based on the similarities among sets of word. Feature means the components that you can tell one thing from another. For example, “a shirt covers the upper part of the body, it has sleeves, it usually buttons down the front...”. All these descriptions are the components of the shirt, and these features help us to index the meaning of shirt, separate it from the trousers, the skirt and also help us to analyze the relationship between the clothes. Features are helpful in two ways. General perceptual features help us distinguish among related sets of terms. For example, dog is excluded from the following list of words: desk, chair, sofa, dog, because the other three words have a “furniture” feature but the dog has an “animal” feature. Other features are more grammatically based (such as count vs. mass). There is evidence of the importance of features in the acquisition of words. Itard (1962, cited in Evelyn Hatch & Cheryl Brown, 2001) described his attempts to teach Victor, a wild child found at age 11 or 12 in the forests of Aveyron, France, such lexical words as book, key, pen, knife by associating word cards with the objects. Victor can match the cards with the corresponding objects in the room. After a period, the door was locked to the room where the test items were kept. When gave a card with the word *book* on it, Victor ignored the books in the room and tried to get into the locked room to find out the book used in the teaching. Gradually Victor realized that the word *book* referred to a class of items, books in general, but he faced another problem—overextending the meanings of words according to the features of shape and use. This experiment shows considerable developmental evidence that learners do attend to semantic features in analyzing the meanings of words and assigning words to referents. Therefore, when teaching vocabulary, language teachers should follow the steps of language acquisition and carefully designed the tasks. For example, when teaching the word dog, in the first stage, the teacher shows a picture and a real dog which are familiar to the learners and then shows different types of dogs in other places. In the last stage, the teacher can find out pictures of dogs, cats, horses and other animals to check whether the learners have mastered the semantic features of the dog. In the process of the learning the word dog, the teachers should not correct the mistakes immediately and allow learners go through the necessary acquisition stages.

Semantic features analysis is also found helpful in understanding the acquisition of synonyms and antonyms. Synonyms are words that share meanings. Dictionaries traditionally provide a list word that is more or less synonymous for each entry. We assume that synonyms refer to the same entity. If all features are the same, the words should be interchangeable. Of course, synonyms do not usually share all of their features. This is also the reason why the synonyms can survive in the language for

if they share all the features we can just keep one left for the use of convenience. We often use synonyms to make our lexical choices more precise. Although dictionaries list synonyms as words with similar meanings, the fact that X is a synonym for Y does not mean that Y is necessarily a synonym for X. For example, murder is a synonym of kill but kill is not a synonym of murder. However, synonyms are used to make text to hold together. For example, when we talk about the school life, we might use school, university, campus, college or other synonyms. This tells us a good method to teach words: Schema theory, which will be discussed later. Antonyms refer to words which have the opposite meanings. The research shows that one member of a pair of antonyms is more basic and easier to learn. The easier term in the pair is *unmarked* and the more difficult *marke*. Positive terms are generally easier to learn than negatives. So happy is usually acquired before unhappy. This also indicates the teaching of the antonyms. That is, we should teach the negative or unmarked words first and then show the marked words. Besides, when we say “how unhappy is he”, we assume the person is unhappy, whereas “how happy is he” makes no assumption.

## 3. CORE SEMANTICS AND PROTOTYPE MODELS

Besides semantic features, cognitive psychologists and linguistics use core and prototype to study meanings. Core relates to meanings of a particular word which are most central, primary or invariant. For example, the core meaning of the break is that of breaking a cup, not the breaking of waves on the shore. A prototype is a best instance example of a concept. Thus, robin might be a prototype best instance of the concept of bird. However, the prototype or the core meaning of a word in different languages does not refer to the same thing. Many of the dimensions that have been identified have to do with natural experience, in particular with perceptual dimensions such as shape and size. For example, in Tibetan, the prototype of a dog is Tibetan mastiff which is larger than the average dog and more ferocious. It has been suggested that learners acquire general basic-level first. This has been contested for child first language acquisition. It is true that children learn the word dog, cat before animal. But children also often learn the more specific sub-basic terms before the basic or the more general superordinate terms. Prior to leaning dog, they may learn the name of their particular family dog. Hatch and Hawkins’ (1991, cited in Hatch & Brown, 2001) data show that it is easy to get young bilingual children to use less general, more specific noun choices. There are also examples of second language learners who have acquired highly sophisticated, sub-basic level terms for some concepts but who do not know very common,

superordinate level vocabulary items even though they may be used every day. In studies of second language lexical development, there are examples of children learning specific level vocabulary very quickly if the terms cover an area of interest to them. For example, Miki, according to Yoshida (1978), was fascinated by vehicles, wild animals, outdoor objects, and names of food and drinks. He used fence, bridge, and ladder but was unable to name ring, lamp, skirt which was common objects in his life. The evidence also shows that if learners acquired basic level vocabulary first and highly specific vocabulary or superordinate terms later, they might forget more quickly the highly specific and also the superordinate terms and retain basic level words longer. However, there is still not clear whether the word loss is related to any of the preceding models. Olshtain (1986, cited in Hatch & Brown, 2001) suggests, the kinds of vocabulary a learner acquires or forgets must depend on age, the learner's interests, methods of teaching, the amount of reading the learner does, and the amount and type of social interaction experience. As EFL teachers, we should try to connect the target words with the learners living experience. For example, when we teach spaghetti, we can tell them it is similar to Beijing fried bean sauce noodles, but the noodles are round, and the sauce is made of tomato or cream or something else. This will ease the difficulty of the vocabulary learning. Besides, we should also pay more attention to learners' interests. If the learner is a football lover, the teacher should prepare materials on football which includes the word ready to be learned.

#### 4. RELATIONAL MODELS

The goal of relational semantics is to identify the semantic relations between words. The relational approach has evolved primarily out of the work of Russian and Polish theoreticians; they believe that semantic theories must be encyclopedic. Different types of relations have been grouped to investigate the words meanings: converse relation, hyponym relations and many other relations. The words teach and learn have a converse relation. Strictly, it is assumed that the converse relations are centered in verbs; one member of the pair implies the other; the converse actions take place at the same time or moment. Hyponym relation is "a kind of" relation. For example, dog is a kind of animal, so the animal has a hyponym relation with dog. The hyponym relation is an important relation in writing semantic descriptions as well as in terms of memory of words. MacLeod (1976, cited in Hatch & Brown, 2001) asked students to learn number-word pairs, such as 56-car. Later when students were asked to recall the pairs, some were forgotten. New words were then substituted for those that had been forgotten. If the new words related to the forgotten word, there was some residual memory of the first word. The strongest

savings were found when hyponyms were used. So if the original pair was 56-car, the students remembered the new pairs if they were 56-vehicle. Little recall was found for antonyms or synonyms or associates. This experiment tells us that it is a good way to use hyponym relations to help learners to remember vocabulary. Applying relational models to the data would give new life to research on bilingual word associations. Word association research has a long history in psychology and it has been an area of interest in bilingualism where researchers wish to understand how the lexicon of two languages might be represented in the brain. Most of these studies use the storage metaphor. One expectation in this research is that if words in two languages for the same concept are stored together, then all the data about the concept would also be shared by both languages.

#### 5. SEMANTIC SPACE ACROSS LANGUAGES

Because all humans have the same basic perceptual apparatus, deal with the same spatial orientation to our environments, and share many other experiences, we expect that there would be strong similarities in the structuring of semantic space across languages. For example, all languages have words for family groups, food classes, work groups, plants and animal. And there should be universal categories of perception sensation and emotion. Yet, cultural differences are strong and the ways we divide up the world are often culturally specific. Although all languages have prototypic meanings for the central concept in polysemes, the range of correspondence in polysemes does not correspond across languages. However, language learners must be able to deal not only with elementary meanings in the first language but also with differences in semantic organization across two languages. McLaughlin (1984) proposes a three-stage model. At stage 1 the bilingual child works with an undifferentiated system where the lexicon is not separated for the two languages. At stage 2, the child differentiates the two systems but may mix lexical items occasionally. And at the last stage, the two systems are differentiated. Mixing might occur, but the learner would know that the term is from the other language. Using contrastive analysis and error analysis, linguists and teachers have made predictions about the difficulty of learning. It may present teachers with information about what will be the easiest or most difficult types of correspondences in learning. Thus, words similar to the L1 in form and meaning would facilitate learning while those similar to L1 form with difference in meaning would induce difficulty. If all the meanings of the words used for a concept are the same, learning should be facilitated. If the form in the first language becomes two or more forms in the second, there may be problems.

## 6. SCHEMA SEMANTICS

Linguists, cognitive psychologists, and psycholinguists have used the concept of schema or script to understand the interaction of key factors affecting the comprehension process. It is one of the central concepts of cognitive psychology. Simply put, a schema is a generalized description or a conceptual system for understanding knowledge, how knowledge is represented and how it is used.

Our past experiences make up our pre-existing knowledge in our mind. According to Bartlett, past experience cannot be accumulation of successive individual events and experiences. It must be organized and made manageable. The past operates as an organized mass rather than as a group of arrangements each of which retains its specific character. Schema is organized past experience in memory. Its structure is hierarchical. Any schema is composed of several subschemata. A schema is a hierarchy of schema embedded with schemata. The representation at the top of the hierarchy is sufficiently general to capture the essential aspects of all members of the class. For example, if the conceptual class represented by a schema is “a room”, its top level representation will include such information as that a room is a part of a building enclosed by walls or partitions, and with a floor and ceiling. At the level beneath this global characterization are more specific schemata, e.g. living room, classroom, reading-room. In general, as one moves down the hierarchy, the number of subschemata multiplies while the scope of each narrows, until, at the bottom most level, the schemata are unique perceptual events. Each schema at each level in the hierarchy consists of descriptions of the important components of its meaning and their interrelationships, where these descriptions are themselves schemata. Once any element in the hierarchy is specified, it can be understood in the proper context. If a table is mentioned within the classroom schema, it will be recognized as a desk used by students or teachers rather than as a dining table. So the schema stored in the mind is hierarchically or at least structurally organized from the most general to the most specific rather than in lists without any structure.

There are many areas of schema theory that have direct counterparts in language teaching. For example, students training in hotel or restaurant management have specific purposes in mind for studying languages. If they hope to attract Korean tourists, then it is important to know the Korean script for hotels or for restaurants. Besides, special courses for nurses, doctors, and other medical personnel highlight schema learning and the vocabulary necessary for medical purposes. The acquisition of vocabulary in medicine can also be related to schema theory. In language assessment the vocabulary of domains is often tested. The domain includes all the vocabulary that is used by persons playing specific

roles and using specific props in the home situation, for example. The vocabulary of this domain could be subdivided into kinship terms, eating utensils, cooking terms, furniture terms and so forth.

## 7. GENERAL VOCABULARY LEARNING AND LEARNER STRATEGIES

Discussion of vocabulary learning is divided between intentional learning and incidental learning. Intentional learning is designed, planned for, or intended by teacher or student while incidental learning is a byproduct of doing or learning something else. Saragi, Nation, and Meister (1978, cited in Evelyn Hatch & Cheryl Brown, 2001) looked at the learning of vocabulary by adults who read Burgess's *A Clockwork Orange*, and the results suggested that the adults had learned about 70 words incidentally with just one reading of the book. Yun's (1989, cited in Evelyn Hatch & Cheryl Brown, 2001) study shows that students incidentally approximately 16 percent of all unknown words with just one reading of a book. This incidental learning of words from reading in particular is apparently quite powerful also in the foreign language environment. Teachers have always been interested in how learners go about learning vocabulary. Brown and Payne (1994, cited in Evelyn Hatch & Cheryl Brown, 2001) did an analysis that resulted in a very clear model where the strategies fall into five essential steps. (a) encountering new words, (b) getting the word form, (c) getting the word meaning, (d) consolidating word form and meaning in memory, (e) using the word.

## 8. VOCABULARY PEDAGOGY AND TEACHING STRATEGIES

Vocabulary teaching can be divided into planned and unplanned instruction. Unplanned vocabulary teaching happens when the student requests a meaning for a vocabulary item during a lesson or when the teacher realizes that a word that has just come up with needs to be clarified. Seal suggests a method he calls the three C's for use in such situations. First, the teacher conveys the meaning, perhaps via mime, synonyms. Second, the teacher checks that the meaning is understood by a series of questions. Third, the teacher consolidates the information by trying to get the students to relate the word to another context or personal experience.

Planned vocabulary teaching is intentional instruction. The principles for judging methods are (a) time-effectiveness, (b) content. The most common method is using word lists. The basic technique is to give students a list of words to be learned. Such lists have not been as strong a component of communicative language approaches as they were of audiolingual and grammar translation methods. The time-effectiveness of the word

list method can be enhanced depending on how we handle several variables. A more likely way to get words lists that match learners' desires and needs is to have the learners make their own lists from materials they use. As mentioned in core semantics and prototype models, students will learn the vocabulary of fields that interest them. However, word lists by themselves are not particularly good for helping learners learn other content features of words such as semantic networks or fields, figurative potential or morphology. Contexts larger than single sentences are usually more helpful. Having words in such contexts can also help learners increase their abilities to use the process of guessing meanings from context cues. The second method to teach vocabulary is the semantic domains. With this method, words in the same semantic field, such as words for cooking, or waling and so forth, are taught together. Most of the instruction with the domains approaches consist of giving information about the differences between words. Just as with word lists, there are no specific ways for consolidating word form and meaning in memory in the domain approach, although many of the possible exercises for the word list approach could serve this purpose with the domain approach. Flashcards and matching games are also possible in this approach although they are more difficult because differences between words are smaller within a particular domain. Using words, the final necessary acquisition step, come naturally in the domain approach. If contexts are given in which different words appear, it is natural to ask written

or oral questions about the subject matter of the context, leading to natural use of the words.

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## CONCLUSION

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In this paper, we looked at a variety of ways in which linguists and teachers describe the vocabulary systems. Each method gives us one way of thinking about how words and meanings are related and how they are used in our everyday activities. The study of the vocabulary meaning also put forth the development of vocabulary acquisition and teaching.

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