NGÔN NGỮ HỌC TRI NHẬN VÀ ỨNG DỤNG TRONG DẠY TIẾNG ANH

Bùi Phú Hưng*

Dạy ngoại ngữ là một lĩnh vực khá phức tạp và gây ra nhiều tranh luận. Một số nhà nghiên cứu cho rằng việc học ngôn ngữ thứ hai hay ngoại ngữ không khác biệt với học tiếng mẹ đẻ (L1 = L2). Tuy nhiên, một số khác cho rằng tiếng mẹ đẻ luôn có ảnh hưởng đến việc học ngôn ngữ thứ hai hay ngoại ngữ (L1 interference). Ngôn ngữ học tri nhận đã làm sáng tỏ một số vấn đề trong việc tiếp thu ngôn ngữ thứ hai hay ngoại ngữ; và đã đưa ra những khuyến cáo mà giáo viên cần lưu ý khi dạy tiếng Anh như ngoại ngữ. Bằng những ví dụ và mô hình minh họa cho các quan điểm của ngôn ngữ học tri nhận và trình bày các nghiên cứu trên thế giới, tác giả bài viết này đã phác họa và giải thích các hiện tượng ngôn ngữ và rút ra kết luận về việc ứng dụng ngôn ngữ học tri nhận trong dạy tiếng Anh.

Từ khoá: *ngôn ngữ học tri nhận, dạy tiếng Anh, giản đồ hình ảnh.*

English language teaching is a relatively complicated and controversial area. Some researchers postulate that there is no difference in one's acquisition of a second or foreign language and that of the first language (L1 = L2). However, other linguists believe that one's native language always interferes with his or her learning of a second or foreign language (L1 interference). Cognitive linguistics has shed light on some issues of second or foreign language acquisition English language teaching, and then made implications for teaching English as a foreign language. With examples and models demonstrating perspectives of cognitive linguistics and reviews of international studies, the author outlines and explains language phenomena and draws conclusion on applying Cognitive linguistics to English language teaching.

Key words: *Cognitive Linguistics, English Language Teaching, image schema.*

COGNITIVE LINGUISTICS AND ITS IMPLICATIONS FOR ENGLISH LANGUAGE TEACHING

1. INTRODUCTION

Like other schools of linguistics, cognitive linguistics makes attempts in describing the systemization, structure and functions of language. Nonetheless, one of the main differences between this linguistic approach and others derives from perceptions that cognitive patterns are included in language via which conceptualization is reflected. Accordingly, language serves two main functions called symbolic function and interactive function.

One basic assumption which lays the background for cognitive linguistics is that human thoughts are encoded in

*** ThS., Khoa Ngôn ngữ và Văn hóa nước ngoài, Trường Đại học Văn Hiến**

language in forms of symbols (Langacker, [1]). The symbolic assembly, as a term used in this approach, consists of sounds, alphabetical spelling (orthographic representation) and meaning. The explanation is that humans convey their idea of a particular referent which they have experienced and this is associated with the properties this referent or image, such as sounds, color and taste perceived by different parts of the brain in a mental process. Therefore, when people write or speak out a word which refers to the image experienced, the corresponding symbol appears in their mind.

Another significant assumption in this school of linguistics is that language serves an interactive function. In addition to form and meanings, language also transmits people's ideas through some means of communication. This communicative process involves the encoding process by the speaker or writer and the decoding process by the hearer or reader, which requires both users to experience the same thing so that the hearer or reader can make sense of what the speaker or writer means (Shepard, [2] & Kosslyn, [3]).

Both the symbolic and interactive functions of language involve the mental process in which people experience, convey their own opinions and interpret things read or heard about. The encoding and decoding are related to cognitive accounts of language, which places the foundation of cognitive linguistics, which states students' cognitive engagement in learning is pivotal to learning outcomes. Scientists have concluded that learners' attention or noticing is prerequisite for language acquisition and learning (Thornbury, [4:16-27]; Radden & Panther [5]; and Tyler & Evans [6]).

It is crucial to state that cognitive linguistics has made a number of hypotheses for English language teaching as it is for meaningful learning.

1) Cognitive linguistics facilitates language learning.
2) Teachers can use abstract images in instructing language.
3) Teacher-fronted time is significant before communicative tasks.
4) Mental process is important in learning a second or foreign language.

This paper is to shed light on fundamental perspectives of cognitive linguistics and how it can be applied to English language teaching in hope to provide teachers with more options of giving instructions in language items.

2. THEORETICAL BACKGROUND

Cognitive linguists have made attempts to identify and discover inherent connections between language and cognition and concluded that language is an integral part of cognition (Langacker [1]; Ellis [7] & Evans [8]). Accordingly, language reflects human cognitive

capabilities, such as memory, perception, categorization, knowledge and experience which are interrelated and are expressed in forms of human patterns of thoughts in language (Langacker, [9:34-85). For example, humans obtain what they have experienced via hearing, vision and other senses and then shape their experience and knowledge and then use language to express them by means of verbal or non-verbal language. The storage of experience and knowledge requires a cognitive process. Nuyts [10] and Radden [11] explicitly assert that language is ultimately inseparably interlinked to cognition. In other words, cognition contributes to the shaping language; thus, it can be used in analyzing and explaining language phenomena.

This approach also believes that language is symbolic in nature (Langacker, [1:12]). This theory regards both lexical items and grammatical elements (assumed as meaningless phenomena in traditional linguistics) as meaningful units (Langacker, [12:18] & Collins & Hollo, [13-10]). For instance, prepositions are considered 'empty' markers of grammar (Chomsky, [14:50]) but they are considered meaningful units in cognitive linguistics (Langacker, [12:74-76]). This can be illustrated in the following examples.

a) *the singing of the bird*

b) *the spoon of coffee*

c) *a man of honesty*

d) *a woman of punctuality*

e) *the width of the room*

f) *the City of New York*

The preposition *of* conveys different inherent relationships between the two elements of each of the expressions. It designates the intrinsic relationship between the process *the singing* and the participant *the bird* in a) and the measurement units *the spoon* and its content *coffee* in b). In the examples c) and d), this preposition appears to demonstrate the relationship between the whole (the former part) and its integral part (the latter part), which may be the prototypical meaning of this preposition. In e) *the width* designates a characteristic or quality of *the room*. In the final example, the head noun *the City* refers to the designated entity and its complement *New York* specifies what it is in schematization. By and large, the preposition *of* is often regarded as a semantically empty unit of language by traditional linguists, but convincingly displays its inherent meaning as a symbolic unit in cognitive linguistics.

The symbolic nature of language is then reflected within the image schema which recurs in a mental or cognitive process forming patterns of reasoning and understanding (Fig. 1) which is considered a source of domain for different target domains. In Fig. 2, *out* is the trajector (TR) which leaves the circle as a landmark (LM) in the spatial domain.

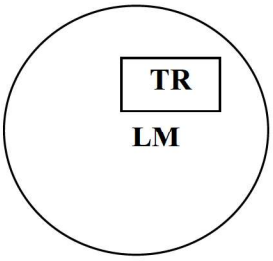

Fig. 1 Containment Image Schema

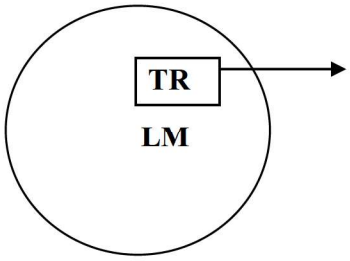

Fig. 2 Image Schema of *out*

(Adapted from Johnson, [15:23-32])

Human ability to conceptualize an action or spatial scene is an aspect of embodied meaning which allows the manipulation of their views of a scene. Tyler and Evans [6] postulate that this ability makes different people have different concepts of the same event or state. Also, it creates differences between languages. Talmy [16] believes it is the reason why communities with distinct languages have different patterns of framing information. In the sentence *The child jumped into the river*, English people package a manner of incorporating into the motion verb *jumped* and the trajector moving into the landmark *river*; therefore, the preposition *into* is used. However, Vietnamese people may express the same event as in the sentence *Đứa bé nhảy xuống sông*, literally translated as *The child jumped down the river*, which highlights Vietnamese people's conceptualization of the scene as Vietnamese language users feel that the child moves from a higher to a lower level (Slobin, [17]). In summary, cross-linguistic studies have shown discourse communities have specific ways of construing spatial scenes which are then reflected in language in a diverse ways.

Like the spatial schemas in Fig. 1 and Fig. 2, image schemas in conceptual metaphors are the prototypical and non-autonomous natures of meaning in abstract domains which are mapped via some form of sensory or motor experience (Lakoff and Johnson, [18]). To put differently, metaphor is believed to exist first in the source domain through human cognitive process of thinking and understanding of events, activities and entities in the physical world and then transform into abstract concepts in the target (abstract) domain. An instance of conceptual metaphor is found in the statement *Warmth is affection.* Lakoff and Johnson [18] also argue that infants may feel the warmth from the mother's body while being held and then form cognitive mood or spiritual feeling of warmth in mind which is later expressed in such examples of metaphor as *a warm look* and *a warm relationship*.

Humans are cognitively adept at categorizing; that is, they can perceive similarities and differences between entities or events. For example, *chairs* can appear different in shape, color and material, but humans can classify them as *chairs* due to their function and then

people of the same community are able to recognize what *chairs* refers to. This ability is a core concept in the cognitive linguistic approach as linguistic elements such as lexicons, phonemes, morphemes and syntactic units subsume a range of different but associated meanings constructed with respect to a central meaning (Taylor, [19] & Verspoor & Tyler, [20:170]).

Categorization is active in that it relies on the function and context. Chinese native speakers, for instance, use different classifiers for the same noun in different contexts. Accordingly, entities can be categorized differently depending on the function they have within a particular culture. Consequently, people from different cultural backgrounds may have different perceptions of categorization (Amoroso, [21]).

It is significant to examine the place of cognitive linguistics in English language teaching. It is said that the basics of this approach has revealed implications for second language learning rather than second language acquisition as it focuses on form-based or usage-based instruction; that is, the teacher-centered approach should be applied to a certain extent. In order to make learners make sense and learn a target item, the teacher should spend some time giving instruction. In order words, teacher-fronted instruction should be applied to facilitate the learning of a particular target language item (Pawlak, [22]; Larsen-Freeman & Ellis, [23]; and Ellis, [7:6]).

The view of cognitive linguistics on meaningful learning gives prompts that explicit learning is essential in that the teacher needs to make learners metalinguistically aware of the target item and material required as no learning is entirely implicit (Ellis, [7:439] & Schmidt, [24]). For instance, some English structures are too complex to teach implicitly; thus, learners' unconscious acquisition of these structures may take a large amount of time and may be inefficient as a consequence of implicit teaching (Pawlak, [22:204]). Not only explicitly instructed learners learn faster and more efficiently, but they may also progress considerably through the learning process, especially in case there is a limited exposure to the target language outside the class.

Pedagogists inspired cognitive linguistics (CL) have noticed the essence of prior experience. The symbol hypothesis of this approach means that the teacher should use abstract symbols which represent all the things of the same kind referred to in teacher-fronted instruction as these symbols have more feasible generalization than vivid pictures. More specifically, the teacher can integrate learners' prior experience and the symbols used via imagination (Schmidt, [24]; and Evans & Green, [25:110-115]).

Another point which deserves the teacher's awareness is learners need to integrate images received from different senses (Fig. 2). At the onset, learners need to get information from a number of

sources, including texts, images and sounds via two basic senses, namely hearing and vision. These sources of information are then accumulated separately in the short-term memory. Finally, in order to accommodate the long-term memory, the teacher needs to assist learners in integrating all of the images. This can also explain why some learners can make conceptual metaphors after acquiring a language. In summary, the integration of images obtained is essential in second or foreign language teaching and learning (Schnotz, [26]).

Last but not least, the interactive function of language and the Integrative Model of Text and Picture would suggest that communication plays a vital role in English language teaching (ELT) and learning. That is to say exposure to specific instances of the target language use had better be allowed after teacher-fronted instruction. A vast amount of research on applying CL-inspired approach to ELT has given learners communicative tasks and most of these studies have been considered successful (Verspoor & Huong, [27]; Boers, [28]; Abbuhl, [29] & Tyler, Muller & Ho, [30]).

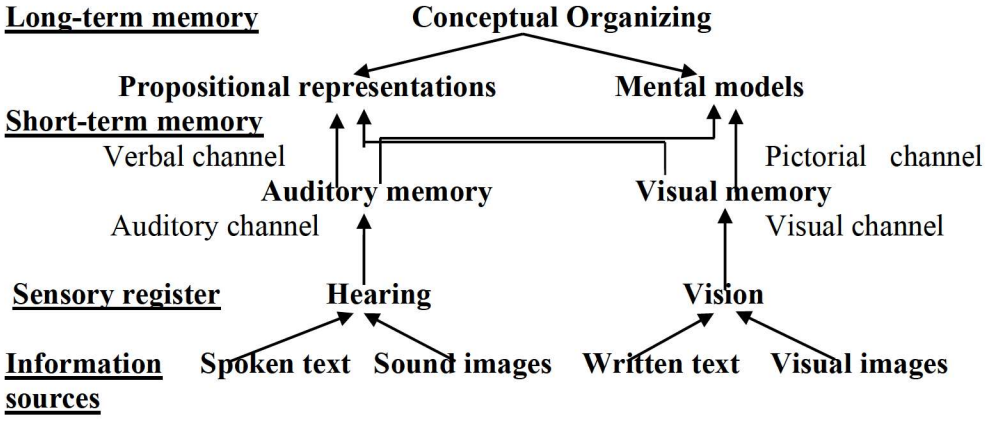

Fig. 1 Integrative Model of Text and Picture Comprehension (ITPC)
(Adapted from Schnotz, [26:233])

3. RELATED STUDIES

Bielak and Pawlak [31] did an empirical study on applying cognitive linguistics to teaching English tenses. They made an in-depth analysis of how cognitive grammar explains English tenses. Explicit instruction on the use of tenses was applied to three groups involved to measure accuracy and appropriateness in the use of tenses over three tests. On the pretest, the mean scores which the cognitive group, traditional group and control group achieved were 30.80, 26.86 and 28.57 respectively. On the posttest 1, the cognitive group and traditional showed significant rises in test scores. However, on the posttest 2, delivered later, the control group did not show much improvement in their scores as this group received no grammar instruction during the study. The scores which the three groups achieved were, in

particular, 42.66, 37.53 and 31.50 respectively. There was a slight fall in the traditional group's mean scores between the posttest 1 and posttest 2. On contrary, the cognitive group demonstrated their steady growth in their scores.

Tyler, Mueller and Ho [30] applied cognitive linguistics to teaching prepositions to Italian native speakers who had learned English for 10 years. In this quasi-experimental study, in spite of their advanced English level, the pretest revealed their weakness in their knowledge of extended meanings of the three prepositions *to, for* and *at*. They had the best knowledge of *for* (72%) and the weakest knowledge of *at* (17.9%) and an average score of 49.2% for *to*. At the onset, students first experienced 50-minute teacher-fronted instruction in the meanings of *to* which was accompanied by PowerPoint presentation with visuals, followed by two communicative tasks which required the participants to work in pairs. On the second day, the same treatment was applied with the presentation on *for* and *at*. The findings of the statistical tests indicate that the participants illustrated significant gains in their understanding of the network of the meanings of the prepositions (Table 1).

Preposition	Pretest	Posttest	Gain
to	49.2%	66.8%	17.6%
for	72%	75%	3.3%
at	17.9%	32.1%	14.2%

Table 1. Comparison of mean scores of individual preposition

In conclusion, the researchers argued that cognitive linguistics provided a great number of advantages for grammar teaching as the semantic system of prepositions and reduces arbitrariness as the base for rote learning. The posttest scores (Table 2) indicated that participants in the cognitive group achieved 9.2 points on the average, but those in the traditional group achieved only 6.8 points on average.

	Pretest (mean score)	Posttest (mean score)	Gain (mean score)
Cognitive group	14.48	23.74	9.2
Traditional group	14.66	21.31	6.8

Table 2. Comparison of Pretest-Posttest Mean scores

Huong [32] conducted a series of investigations of the English article system as the study drew on the concept of construal in two significant ways: articles used as the signal of the speaker's or writer's construal of the discourse and conceptualization of an entity as particular or unique. Interestingly, her analysis asserted that the notion of article as definite or indefinite was unclear enough to learners. Obviously, in any discourse, the entities which are unknown to the

participants are regarded as indefinite. Huong also provided an in-depth analysis as a base for her study on applying cognitive linguistics to teaching English articles. In her empirical study, the experimental group, receiving cognitive instruction, illustrated improvements on the immediate posttest in comparison to the control group, receiving traditional instruction. Nevertheless, when the posttest was delivered some time later, the two groups did not show sharp differences in their gains.

In another study conducted on 64 Vietnamese English-major students (Huong & Verspoor, [27]), the cognitive group and traditional group both did not show sharp difference in their scores on the pretest; however, on both the immediate posttest and delayed posttest, the cognitive group gained their advantage over the other group in accuracy of article use.

Boers [28] clarified the notion of conceptual metaphor and conducted a quasi-experimental study, the experimental group (under cognitive linguistic treatment) considerably outgained on three posttests of conceptually metaphorical meanings of vocabulary in comparison with the control group. In particular, the posttests focused on accuracy rather than fluency in terms of using idioms. The findings showed that the experimental group systematically gained significantly higher scores when being alerted of conceptual metaphors in the use of idioms, which promoted long-term retention of idioms of English as a second or foreign language. More specifically, the cognitive group demonstrated their significant gains in the immediate posttest, one-day-later posttest and five-month-later posttest.

4. HOW TO APPLY COGNITIVE LINGUISTICS TO ENGLISH LANGUAGE TEACHING

It can be said that cognitive linguistics has a large number of implications for English language teaching. With explanations of embodied meaning, domains as a base of human cognition, usage-based learning, conceptualization as a factor to form metaphor, image schema and cultural contexts as a source of distinctions in vocabulary use and categorization in different languages around the world, cognitive linguistics has been supported by a vast number of linguists throughout centuries (Langacker, [1] & Ellis, [7]).

Cognitive linguistics, to be specific, can explain frequency of input of phonological and phonetic processing, semantic chunks and other language elements, which is in line with current perspectives of English language teaching and learning that learner engagement greatly contributes to learning outcome (Ellis, [7:93] & Thornbury, [4:21-27]).

Cognitive linguistics has been applied by language educators and researchers throughout the world (Geeraerts, Dirven & Tayler, [33]; Tyler, [34]; and Boers &

Lindstromberg, [35]) and these studies have generally been led to positive findings and implications for the use of this approach in English language teaching. To be specific, studies have revealed that cognitive linguistics can be applied to teaching vocabulary (including both content and function words), idioms, metaphors, grammar and other language phenomena.

One point which researchers or teachers should bear in mind is this approach is usage-based; that is, it directly accommodates language learning as the base for later gradual language acquisition. Secondly, it requires prior experience as a prerequisite for the application of symbols and image schema, which assists students' imagination when integrating images from different channels to form a long-term memory (Schmidt, 2006 & Schnotz, [26:233]). Also, explicit instruction should be used to foster meaningful learning (Ellis, [7:439]).

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