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FRAME SEMANTICS FOR VOCABULARY TEACHING: A THEORETICAL REVIEW

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ABSTRACT

This paper reviews some of the basic tenets underlying the theory of Frame Semantics (Fillmore, 1982). From an extensive overview that looks at the definition of frame semantics and how cognitive domains may be identified, this paper explores the applicability of these tenets in the ESL classroom. The concept of profile-domain is then further explored by tackling locational and configurational profiles, the scope of predication, and the relationships between domains.From the analysis of different types of profiles and their specific features, a proposal is put forward for the development of cognitive domains to be used as vocabulary teaching techniques. This idea is then discussed and deemed as an innovative approach that takes its base Cognitive Linguistics underpinnings with the aim of offering a realistic image of how semantics functions in the human brain.

Key Words: Frame Semantics, Cognitive Domain, Vocabulary Teaching, Cognitive Linguistics, Second Language Acquisition.

1. INTRODUCTION

The purpose of this paper is to review some basic theoretical tenets from Frame Semantics with the aim of exploring their applications in second language acquisition. In particular, I have reviewed the concepts of frame/domain and levels of categorization.

Cognitive Linguistics emerged during the last quarter of the 20th century as a reaction to the postulates of Generativism, wherein language is envisaged as a system of arbitrary symbols governed by mathematical rules. Syntax is thus the primary object of study in Generative Linguistics, and semantics (or vocabulary) is merely tangential in the study of language (Ungerer & Schmid 1996; Ruiz de Mendoza 2001). This new approach takes meaning–and semantics- in its core and it is based on the experimental analysis of data instead of on raw logic and mathematical rules (Hilferty 2001).

Although the differences between Cognitivism and previous linguistic paradigmsare not within the scope of this paper, it is important to outline the main characteristics of Cognitive Linguistics in relation to Generativismso as to delimit their borders. One of the main traits of the Generative paradigm is the claim that the ability to learn and use languages is located in a specific module of our mind. Moreover, the Generative study of language focuses on syntax, which does not bear

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any dependence relationship with other semantic components of language. Thus, the syntactic principles governing language are meaning-independent. In Cognitive Linguistics, on the other hand, language is not separated from other human abilities; instead, it is just one out of humans' many cognitive abilities. Consequently, syntax is not detached from semantics, morphology, phonology or pragmatics. They are all intertwined so as to form a language as a whole (Ungerer & Schmid 1996; Heine 1997; Cuenca & Hilferty 1999; Lee 2001). Then, we have established that syntax and semantics are no longer independent poles apart; form and meaning are tightly connected in every linguistic unit (Langacker 1987); and meaning is a core element for communication and language that lies beneath language at every level (Janda 2000). What is important,thus, is that Cognitive Linguistics places more importance on the creation of meaning.In short, semantics has to do with human knowledge and how that knowledge is organized in human minds. One of the central notions used by Cognitive Linguistics to account for such knowledge organization is the notion of cognitive domain.This, in turn, needs some further exploration, as long as the ultimate aim is to apply these theories in the English as a Second Language Classroom. In particular, in this paper, the concept of frame semantics will be analyzed as a tool to teach new vocabulary.

2. FRAME SEMANTICS

In order to represent and understand a cognitive domain, it is important to deal first with frame semantics. In turn, to understand frame semantics, the first idea to take into account is that words denote units of meaning, or, in other words, they denote concepts. Several representations of these relationships may be established. Following Fillmore (1982) and Langacker (1987) lower-case is used to introduce the word form, and capitals introduce the concept. For instance, the word *chair* represents the concept CHAIR. On the contrary, in structural semantics, comparisons of words are introduced exploring the relationships between two words, such as hyponymy and antonymy (Croft & Cruse 2004). On the other hand, Schank and Abelson (1977) use a classic example as a reaction to structural semantics, associating concepts that exist in experience: FOOTBALL PITCH is not just a place, but is is related to other concepts like PLAYERS, AUDIENCE, CHANTS, TICKETS, etc. These concepts are not related to FOOTBALL PITCH by synonymy, antonymy, or hyponymy;instead, their relationship is purely based on human experience. As a result, the concept of FOOTBALL PITCH cannot be separated from the rest of concepts (Croft & Cruse 2004). Therefore, there is a need for another means for organizing concepts and new proposals arise; the most influential one within cognitive linguistics is the one developed by Fillmore (1982): frame semantics.

Frame semantics is defined by Fillmore(1982: 112) as a model to understand semantics:

> A speaker produces words and constructions in a text as tools for a particular activity, namely to evoke a particular understanding; the hearer's task is to figure out the activity those tools were intended for, namely to invoke that understanding. That is, words and constructions evoke an understanding, or more specifically a frame; a hearer invokes a frame upon hearing an utterance in order to understand it.

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Based on this approach, Croft and Cruse (2004:14) describe the frame "as a coherent region of human knowledge, or as a coherent region of conceptual space". These regions, then, are related and series of concepts arise as the main one is invoked. This is further illustrated by Langacker (1987) through the description of*radius*as a word with a particular meaning. Thus, *radius* (a word) expresses RADIUS as a concept. A*radius* refers to 'a line segment that joins the center of a circle with any point on its circumference'according to the American Heritage Dictionary.On the other hand, RADIUS is a line segment, but not any line segment: it is defined relative to the structure of the circle. A background is needed to fully comprehend RADIUS: CIRCLE as a concept.Against this backdrop, RADIUS and CIRCLE are related (concept profile against a base) or, as Langacker puts it, a'domain'. Fillmore, on the other hand, favors the use of the word 'frame' when referring to a base/domain. The terms 'base', 'domain' and 'frame' have been used to identify the same conceptin previous literature. Be that as it may, I will use 'domain' and 'frame' interchangeably here since those are the most recurrent.

Having said that, it is important to highlight, though, thata profile refers to the symbolized concept and the domain refers to the conceptual structure that is presupposed by the given conceptThese single bases, in turn, are part of a more complex conceptual structure. For instance, CIRCLE, triggers other concepts like RADIUS, ARC, CENTER, DIAMETER, CHORD, etc. (Croft & Cruse 2004). In this way, when a base supports multiple concept it becomes a domain (many concepts have it as a base). This semantic structure would be, as we argue, the departing point to teach vocabulary in a SLA classroom. Furthermore, possibilities are endless: as discussed by Taylor (2003) any initial configuration, regardless of their complexity, might become the departing cognitive domain. This profile-base relation can be further illustrated with concepts like ARM-BODY or DAUGHTER-PARENT.

Comparably,a profile cannot be understood without having some background knowledge on the base. For example, the concept WEEKEND requires previous knowledge on the cycles of day and night, a seven-day week cycle, the distinction between working days and holidays, etc. (Fillmore, 1985). Similarly, BUY needs the context of a culture where BUYING makes sense together with SELLING, PRICE, MONEY, etc.

In summary, Croft & Cruse (2004) define a frame as any coherent body of knowledge presupposed by a word concept. Schank and Abelson (1977) mention the fact that frames can also include dynamic concepts such as PURIFIED (which presupposes in itsframe a prior impure state) or RUN (which presupposes a sequence of events). They use the term script for frames/domains with a sequence of events.

Other aspects worth mentioning are the differences in the community or social domain of use of a word (Fillmore 1982); for example, concepts MURDER and INNOCENT in the community that engages in legal activity differ from those used outside that community. In fact, Clark claims that expertise is shared among the members of a given community, thus providing everyone with a specific specialized knowledge (Clark 1996). This becomes relevant in the description of levels of categorization and, in order to describe a specific cognitive domain that is shared by a group of people belonging to the same community (in our case, students in an ESL classroom).

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In addition, Fillmore (1982) also elaborates on frame-based contrasts across languages.In particular, he explores the differences in the triggered concepts across langauges and how meaning may change due to the activation of a specific cognitive domain or another.In this sense, the frame/domain theory also helps to explain why some words are almost impossible to translate or the belief that the perfect translation does not exist. For example Swedish *tura* means 'sitting on the boat going back and forth between Helsingborg and Helsingør'. Basically, *tura* profiles sitting, but the frame in which this concept is situated is very specific: staying on the boat means paying only one fare and drinking duty-free alcohol (Croft & Cruse 2004).

2.1 Extensions of the profile-domain/frame theory

The profile-domain/frame theory is basic when dealing with Semantics in cognitive linguistics; however, it has been proven to be insufficient when trying to capture some semantic phenomena. Croft and Cruse (2004) talk about the main extensions that this theory has had, which contribute to offering a wider spectrum of possibilities, including those for language teaching. Thus, in the next lines, three extensions are outlined: Distinction of locational and configurational profiles, Scope of predication, and Relationship between domains.

2.1.1. - Locational and configurational profiles

These two types of profiles can be explained using the example of the SPACE domain, which includes concepts such as RECTANGLE or HERE profiled against this domain. According to Cruse and Croft (2004:22), however, "HERE profiles a location in SPACE, one that is defined with respect to the position of the speaker. You cannot move the profiled location without changing the concept". The same would happen for instance with MOUNT EVEREST and MOUNTAIN. MOUNT EVEREST is a location in SPACE, and another mountain in another location is not.

This is what Langacker (1987) and Clausner and Croft (1997) call configurational and locational profiles. Thus, RECTANGLE or MOUNTAIN has a configurational profile, while HERE or MOUNT EVEREST has a locational profile. Some domains may support these two kinds of profiles, although some others cannot. For example, changes in the regions of a HUE scale imply changes in the concepts (like from BLUE to VIOLET) (Clausner and Croft, 1997).

2.1.2. - Scope of predication

The scope of predication may be explained using the example of NIECE (Langacker 1987). In order to understand NIECE some knowledge of the KINSHIP SYSTEM domain is needed. However speakers do not need to understand the whole KINSHIP SYSTEMbut only need a small part of it (one's relationship with a sibling –as sharing parents-, and such sibling and their daughter). The relevant part of the kinship system for defining NIECE is what Langacker (1987) calls 'scope of predication' or 'immediate scope' (Langacker 1999:49). Similarly, another classic

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example is used in the previous literatureto represent the scopes of predication: that of human body parts:

KNUCKLE < FINGER < HAND < ARM < BODY. In order to understand one, an understanding of its immediate successor is needed, thus establishing a scope of predication. According to Langacker (1987:119) if the scope of predication is transgressed, then, meaning is odd.

1. A body has two arms.
2. A hand has five fingers.
3. A finger has three knuckles and a fingernail.
4. *An arm has five fingers.
5. **A body has twenty-eight knuckles.

2.1.3. - Relationships between domains

The last extension of the domain theory that is worth mentioning is that of the relationships between domains:domains may form successive chains. Using again the case of RADIUS-CIRCLE, RADIUS profiles against its domain CIRCLE; but the concept CIRCLE can only be understood in terms of SPACE. This chain only ends when we reach directly embodied human experience (Croft & Cruse). Using Langacker's terms, these domains are rooted in directly embodied human experience. In this sense, he further distinguishes between 'basic domains' and'non-basic domains' or 'abstract domains' (Langacker 1987:148). Lakoff and Johnson go further and claim thatour human experience becomes the recipient of even our most abstract knowledge(Lakoff & Johnson 1980).

According to Langacker, the relations between abstract and basic domains are schematic. He also mentions that some domains involve more than one dimension. For example SPACE involves three, CIRCLE two and LINE one. COLOR, for instance, can be divided into HUE, BRIGHTNES and SATURATION. (Langacker 1987). What is more, a single concept such as HUMAN BEING can be profiled against several domains such as PHYSICAL OBJECT, LIVING THING or VOLITIONAL AGENT (Croft & Cruse 2004); this is what Langacker (1987:152) calls 'domain matrix'. He states that there is only one difference between dimensions of a domain and domains in a matrix: the term 'domain' implies a degree of cognitive independence not found in a dimension. Having these ideas into account, vast networks of interconnected may be established for any 'simple' concept. This demonstrates the relationship between concepts and our own experience, i.e. our most basic domains. In the sense, cognitive domains may be analyzed and practically implemented in target students.

3. DISCUSSION AND CONCLUSIONS

This paper has tackled some of the main underpinnings within the view of semantics in Cognitive Linguistics, namely, the concepts of frame semantics and cognitive domain.

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Essentially, domains refer to the series of concepts that are triggered by a third one due to associated human experience. In this regard, we argue that cognitive domains seem to be a natural way in which vocabulary occurs. Having this idea in mind, the analysis of cognitive domains for their future implementation as scaffolding and vocabulary-learning techniques in the ESL classroom is not so far-fetched. In fact, as shown in Bernad-Mechó (2012), the application of the frame semantics theory to the analysis of the cognitive domain 'music' prompts the creation of CLIL tasks derived from such analysis and with the aim to explicitly teach that particular vocabulary. All in all, and despite the many limitations that such an analysis would entail, the detailed exploration of cognitive domains as sources for vocabulary teaching in ESL classrooms is utterly required and worth exploring.

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