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How does Language Affect our World View?

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Resumen

El propósito de esta tesis es el de revelar cómo el lenguaje afecta nuestra visión del mundo con particular referencia a la lengua inglesa, así como el modo gracias al cual la relación entre lengua, pensamiento y cultura se vuelven evidentes entre los diversos hablantes.

Esta disertación primeramente presenta una breve introducción explicando los principales propósitos con respecto al campo de la lingüística cognitiva. Éstos muestran que actualmente hay corrientes de lingüística que tratan el modo mediante el cual la lengua define nuestra visión del mundo, quedando limitada por el lenguaje así como el consecuente análisis de esas limitaciones a su vez.

En un segundo plano, la tesis identifica varias definiciones acerca de la visión del mundo a través del curso de la historia de la lingüística, quedando definidas para consolidar las bases de Cognición y Lingüística, y resalta clasificaciones fundamentales de las principales ramas de la lingüística así como las propiedades del lenguaje humano para explicar la generación e interpretación del lenguaje.

En un plano central, la tesis aporta al lector diversas teorías e hipótesis que ayudan a comprender los modos a través de los cuales el lenguaje, pensamiento y cultura definen la visión del mundo. Aquí, la tesis se apoya en un número de fuentes procedentes de otras universidades y libros acerca de diversos temas relacionados con la lingüística, principalmente centrándose en la lingüística inglesa. Cada una de estas teorías está explicada con la ayuda de figuras y ejemplos extraídos de las fuentes anteriormente mencionadas.

En conclusión, la tesis argumenta que el lenguaje efectivamente afecta a la visión del mundo, que a pesar de poder diferir entre diversos grupos de parlantes, esta influencia no debe de ser interpretada en su totalidad como un medio gracias al cual la visión del mundo se percibe, dado que el lenguaje en sí mismo cuenta con limitaciones. Por lo tanto, esta disertación espera ofrecer claves útiles al lector para interpretar y comprender el funcionamiento del complejo sistema de comunicación humana así como el poder de la experiencia para considerar y comprender la realidad externa.

Abstract

The aim of this thesis is to reveal how language affects our vision of the world with particular reference to the English language, and to extract manners thanks to which the relationship between language, thought and culture becomes evident between different speakers.

This dissertation first presents a short introduction explaining the main purposes regarding the field of Cognitive Linguistics. These show that there are current linguistic theories dealing with the way language shapes our world view, which is limited by language and the consequent analysis of those limitations as well.

In a second stage, the thesis identifies several definitions of the vision of the world along the course of the history of linguistics, which are defined to consolidate the basis for Cognition and Linguistics, and further outlines fundamental classifications of the main branches of linguistics and properties of human language to explain the generation and interpretation of language.

In a detailed central section, the thesis then provides readers with various theories and hypothesis that help to understand manners through which language; thought and culture define the world view. Here, the thesis draws on a number of sources from other universities and books on different topics concerning linguistics, mainly focusing on English linguistics. Each of these theories is explained with the help of figures and examples extracted from the previously mentioned sources.

In conclusion, the thesis argues that language effectively affects the world view, which might differ among different groups of speakers, but that this influence should not be expected to be able to entirely justify manners thanks to which the world view is perceived since language itself counts with limitations. Thus, this dissertation hopes to offer all readers useful clues on interpreting and comprehending the functioning of the complex human system of human communication as well as the power of experience to consider and understand the external reality.

1. Introduction

This dissertation examines how language affects our world view. For this purpose, various concepts related to Cognitive Linguistics will be discussed. There is special emphasis in the terms of *categorization*, more specifically *Colour Categorization*, and *metaphor*, precisely the concepts developed by Reddy in the *Conduit Metaphor* (1979) and Lakoff and Johnson in *Metaphors We Live By* (1980). This basic cognitive ability of human beings is widely studied within the field of *linguistic semantics*. Another important theory is *Space Grammar*, more precisely, the field of *Cognitive Grammar*. Additionally, Reddy's *Conduit metaphor* will be used to explain how messages are extracted from words. Following these subjects, *the Functionalist Connection* (1987) will be tackled to observe connections between Syntax and Discourse (e.g., information structure). Moreover, verbs of movement and motion events deserve particular mention, especially the perspective defended by Teresa Fanego (2012). Finally, the concept of *Experiential Realism* will be addressed to study objectivist and subjectivist (e.g., post-modernists) accounts of meaning.

The fact that there are different visions of the world due to the specific language is a controversial subject in current Cognitive Linguistics theories. Can the speaker's mindset be limited or conditioned by his/her language? By examining this topic, my main purpose is to clarify processes through which different languages transform the vision of the world, that is, the way language effectively shapes the way the world is perceived. This dissertation deals with the interconnection between language, thought and culture. For this purpose, along the whole dissertation, I will make use of three main approaches to explain how language shapes our worldview: linguistic, cognitive and cultural.

- First, the procedure to develop my thesis starts with a review of the literature, which provides the theoretical basis for language, cognition and culture.
- Secondly, the influences as well as the limitations found within different languages, particularly emphasising the English language, will be discussed with the support of theories and experiments, which were scientifically developed and provided revealing results to confirm the degree of interrelation between language and its context in the world.
- Thirdly, I present some final conclusions regarding the effectiveness of the previously mentioned experiments and theories.

2. Literature Review

2.1. What is language?

Along the course of the history of linguistics, *language* has been widely defined by different linguists. Some examples of these suggested definitions in historical order appeared:

- In *Language: An Introduction to the Study of Speech* (1921), Edward Sapir defined language as –a purely human and non-instinctive method of communicating ideas, emotions and desires by means of voluntarily produced symbols‖.
- Later on, in 1942, Bloch and Trager added another definition based on –a system of arbitrary vocal symbols by means of which a social group cooperates‖.
- Twelve years later, Noam Chomsky (1957) considered that language was –a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements‖.

From these definitions, one can agree with Sapir, Bloch, Trager and Chomsky in a way that *language* is a human instrument to convey ideas, emotions and desires by means of arbitrary vocal symbols or sets of sentences. However, the contemporary definition for *language* has been studied in depth by Susan Dostert (2009) and this is precisely the selected definition for this dissertation, which defines language as –a variety of concepts / things, such as the particular form of words and speech used by the people of a country, area or social group‖, or –the method of human communication using spoken or written words‖ (Dostert, 2009: 2). Under these two definitions, Dostert particularly emphasises the sense of –community‖ within language, the need for this system to be used amongst –the people of a country, area or social group‖, which was mentioned by Bloch and Trager as well. Moreover, this term can be applied either to a specific language such as –e.g. English, German, Swahili etc.‖(Dostert, 2009: 2) or to language as such. In linguistics, the principal interest lies in these two senses; language applied to a precise language as well as language itself. However, General Linguistics tends to concentrate on language as such, whereas the study of individual language belongs to English linguistics.

From a different and evolutionary-like perspective, language may be seen as a form of human communication, which constitutes –a major attribute distinguishing us

from the rest of the animal kingdom. (Dostert, 2009: 2) Language is clearly a differential characteristic of human beings and thought helps to confirm its unicity since it is a fundamental human characteristic which allows the production of language. It follows that the existence of language proves there is a correlation between language and thought. At the same time, this combination of language and thought is related to cultural aspects because thought is conveyed differently in diverse cultures. The definition of language that proves more relevant for our topic in this essay deals with Dostert's (2009) tripartite consideration in which thought, culture and language itself are interrelated.

2.2. Cognitive Linguistics, Cognition, Cognitive Science, Cognitive Linguistics

According to Mott (2003: 15), language is operates through –different interactional levels, which are intimately related in spite of their differences. Figure 1 presents the division of language into different linguistic branches. In this scheme, there are three key aspects within language: pronunciation, grammar and semantics.

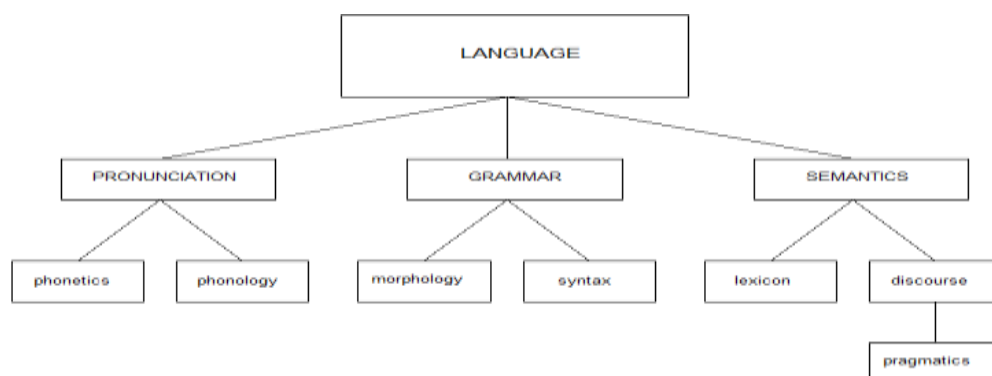


Figure 1. The levels of language (Mott, 2003: 15)

In this figure, the different levels of language (e.g., phonetics, phonology, morphology, syntax, lexicon, discourse and pragmatics) are specified. To convey messages, –[t]he sounds of speech need to be used to create words, which are assigned a –conventional meaning (Mott, 2003: 16). In turn, the combination of what we consider as –words, constitute –grammatical units, forms phrases, clauses and sentences. All these entities have a meaning as well. However, their meaning is not clearly deduced from the meaning of the individual words, which compose these so-called –large units (Mott, 2003: 16). For instance, in the following sentences, the meaning of words varies depending on the context.

(1) *He put his iron in the fire* (Mott, 2003: 16)

(2) *He has too many irons in the fire* (Mott, 2003: 16)

In (1), the meaning is literal, which can be extracted from the meaning of its individual words. However in (2), this is an expression which means the person is very busy. Thus, the meaning cannot be deduced from the individual words but rather from the context in which it is used. In this way, its analysis cannot be based on its components, since its meaning in Spanish would be something like *Tiene demasiados asuntos entre manos*. (Mott, 2003: 16)

It follows then that the meaning of a sentence or phrase depends on three main aspects:

- The meaning of its words.
- How they combine and how they are inflected: grammar and syntax (*dinner set* v. *set dinner*, etc.).
- Our knowledge of the world.

After having explained how meaning depends on grammar and syntax as well as in the knowledge of the world, it is very important to mention semantics and the relation between semantics and syntax as well. There is interaction between sense (intension), defining properties of a word, and reference (extension), entities referring to the real world, within language, which is lacking whilst dealing with the non-literal meaning of Metaphors and Idioms. Additionally, sentences might contain a different surface structure but the same meaning, as observed in the following example:

(3) *They awarded James the prize*

(4) *James was awarded the prize*

In (3), the sentence is written under the structure of an active voice whereas in (4), there is a passive voice. However, the meaning of both sentences is the same although the speaker is changing the emphatic element, which in (3) is *they* whereas in (4) is *James*, whilst changing the chosen structure. In the same way as sentences sometimes contain different surface structures but the same meaning, different meanings can be conveyed through the same surface structure.

Another model of language structure, slightly different from that of Figure 1, is proposed by Crystal (1987: 82). He considers that the different levels of language act simultaneously. Figure 2 presents his model of language structure, in which each level of language is positioned in one of the angles of a hexagon. Moreover, inside the hexagon,

different lines join the different angles in such a way that the geometrical figure accurately conveys the idea of interconnection between all levels of language. This Crystal's (1987) model tries to show that it is possible –to access all levels of language, once the entrance to one of these levels takes place. In other words, there must be a higher sort of interrelation between all of them, as Mott (2003: 16) stated.

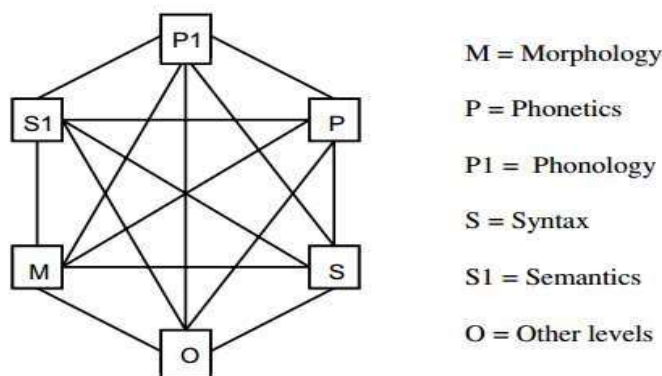


Figure 2. Model of Language Structure proposed by Crystal (1987)

Beside the different and interconnected levels of language, there is also a cognitive consideration of language. Hilferty (2003) suggests three definitions in relation with Cognition:

- *Cognition* can be interpreted as –thought processes (e.g., reasoning, broadly understood), consciousness, language, and perception. (Hilferty, 2003: 3)
- *Cognitive science* is –the set of disciplines that study cognition. These are: cognitive psychology, philosophy of the mind, certain branches of computer science and engineering (i.e., those dealing with artificial intelligence), cognitive neuroscience, and mentalist linguistic theories. (Hilferty, 2003: 3)
- *Cognitive linguistics* can be defined as –a school of linguistic thought that attempts to characterize language in relation to more general cognitive processes. Cognitive linguistics is not a specific theoretical framework, but a movement. (Hilferty, 2003: 3)

However, Hilferty specially emphasizes that this branch of linguistics should be differentiated from Ronald Langacker's cognitive grammar, which he considers as –a specific grammatical framework (Hilferty, 2003: 3). According to Geeraerts and Cuyckens (2012), this framework should be observed as –an approach to the analysis of natural language that originated in the late 1970s and early 1980s in the work of George

Lakoff, Ron Langacker, and Len Talmy, and that focuses on language as an instrument for organizing, processing, and conveying information.

On the basis of these cognitive concepts, it is clear that the relation between language and the brain is crucial to determine the constant existence of languages. As Dostert explains, language and the brain have evolutionary roots in a way both jointly evolved along the course of the history of linguistics:

Language is a cognitive skill and one therefore whose roots are situated in the evolution of the brain. We do not know exactly when our ancestors began to speak (estimates vary from 30,000 – 100,000 years ago), or even what triggered them to do so, but once they started, there was no stopping them. From such humble beginnings the 5,000 – 6,000 languages we assume to exist today have evolved. (Dostert, 2009: 3)

In spite of the unknown origin of language, the evolution of the brain has been steadily causing an evolution of languages since the first human beings started to develop its use. Thus, there is evidence for this evolution: approximately 5,000 to 6,000 evolved languages still exist.

2.3. The main branches of linguistics

Different linguistic levels are used in the act of communication.

1. Starting with Morphology, this discipline tackles the study of –word structure establishing a division of words into different types of morphemes (free & bound morphemes). For instance, a word may be composed of one single morpheme, like *manage*, or more, like *manag-ed* or *un-manage-able*. (Mott, 2003: 17)
2. Phonology is –a branch of linguistics that studies the linguistic use of sounds: the way different languages organise sounds to convey differences of meaning. (Mott, 2003: 17) It deals with the phonemes and sound systems of languages, –which sounds are most commonly used in the world’s languages. For instance, approximately all languages have a minimum of one nasal phoneme. If they have only one, then it is /n/. (Dorgeloh, 2009: 6) Phonetics is not, strictly speaking, a field of Linguistics due to the fact it is an –independent science which studies human speech in general without necessarily referring to any language in particular. (Mott, 2003: 17) However, it is intimately related with the generation of linguistic structures, since it deals with –the articulation of sounds, their transmission from speaker to hearer and the perception of these

sounds by the hearer. (Dorgeloh, 2009: 6) In fact, phonetics deals with general human speech –without necessarily referring to any particular language. (Dorgeloh, 2009: 6) One clear example of the function of phonology is found in these terms: *seat* and *sheet*. They are different words in English and they have contrastive initial sounds or phonemes /s/ and /ʃ/, respectively. Analysing this example, one can comprehend the importance of phonology as different phonemes may change the meaning of a word. In this way, there is a clear relation between semantics and phonology.

3. Syntax studies –the way words are combined to create larger units such as phrases, clauses and sentences. (Dorgeloh, 2009: 23) For example, word order is specific to each language, as Dostert proves:

The basic form of the English declarative sentence follows the canonical word order of subject - verb (- object), or SVO; this applies to main as well as to subordinate clauses. That is, in contrast to many other languages (such as German, Latin, or Persian, for example), the ordering of sentence elements in English is fixed and often makes up for case marking (in signalling syntactic roles)[...] This property of English, together with its low number of inflectional morphemes, leads to the classification of English as an analytic, or isolating, language. (Dostert, 2009 : 26)

4. Discourse is concerned with –inter-sentence connectivity. (Dorgeloh, 2009: 42).
It is the branch of linguistics which deals with –the study of larger patterns of meaning (stretches of speech or writing longer than the sentence, such as stories, conversations, jokes and letters). (Mott, 2003: 20) One example is found within the following expression:

(5) *We were told he was always punctual. Curiously enough, he did not even turn up.*

In (5), *curiously enough* is a –connecting device, whose function is to particularly join the two statements in a way –the second assertion should seem surprising in the light of the first one. (Mott, 2003: 20)

5. Pragmatics deals with –non-linguistic aspects of meaning extracted from the context of situation instead of the linguistic context. (Puschmann, 2009: 37)

(6)

A: *Who's driving?*

B: *I've been drinking.*

In (6), the function of pragmatics is crucial in relation with the –non-linguistic aspects of meaning|. Without explicitly explaining, A understands that B is too drunk to drive. Here, the –realm of pragmatics| is fundamentally observed since the meaning is extracted from –the context of the situation rather than from the linguistic system|. (Mott, 2003: 20)

2.4. Properties of human language

Human language can be attributed certain characteristics. According to Yule (2010), the main properties of human language are: reflexivity, displacement, arbitrariness, productivity, cultural transmission, duality and discreteness.

The particularity of human language resides in its –potential as a means of intentional communication|. (Yule, 2006: 9) All animal species establish communication in very specific ways.

However, human beings plainly reflect themselves –on language and its uses| (Yule, 2006: 11). This property is known as reflexivity or reflexiviness and it deals with the human capability to –use language to think and talk about language itself, making it one of the distinguishing features of human language|. Therefore, –without this general ability, we wouldn't be able to reflect on or identify any of the other distinct properties of human language|. (Yule, 2010: 11)

There is a temporal difference between human language and the language of other animals, since the first type admits past and future allusions, whereas animals mainly deal with a mentality based on the –here & now|. This Property is called *displacement* and, according to Yule, it is used to manage with situations different from the momentary circumstances that, for example, bees are not capable of express due to the lack of this property in their –dance language|:

[A]bility to use language to talk about times, places and people other than the ‘_here and now’. It also enables us to say things which we know to be false i.e. to lie. Bees are said to be able to convey some of this information in their ‘_dance’ which they employ to pass on information about food sources. (Yule, 2010: 11)

Yule explains displacement with the following example:

When your dog says GRRR, it means GRRR, right now, because dogs don't seem to be capable of communicating GRRR, last night, over in the park. In contrast, human language users are normally capable of producing messages equivalent to GRRR, last night, over in the park, and then going on to say In fact, I'll be going back tomorrow for some more. (Yule, 2010: 12)

In fact, the connection between a linguistic form and its meaning is not natural, but arbitrary connection, whence the name of the third property, arbitrariness. In this case, –there is generally no natural, inherent relationship between the signs (i.e. sounds or letters) we produce and their meaning‖. (Yule, 2010:12) The actual relationship between the signs produced and their meaning is established by means of a convention amongst speakers. One example of arbitrariness is found within the conventional meaning agreed between different groups of speakers:

We can't just look at the Arabic word كلب a كلبnd, from its shape, for example, determine that it has a natural and obvious meaning any more than we can with its English translation form dog. The linguistic form has no natural or –iconic‖ relationship with that hairy four-legged barking object out in the world. (Yule, 2010: 12)

The fourth property of human language is *productivity*, which has been defined as –a characteristic of human language allowing us to continuously create new utterances, combining the ‘building bricks’ of language in ever new ways, whether these are sounds, words or sentences.‖ As a consequence, human languages are living entities based on progressive evolution: –Human languages are therefore continually evolving‖ (Yule, 2010:13). Karl von Frisch conducted an experiment where –a hive of bees‖ was put at the base of a radio tower. At the top, there was food as source. Among all the bees, ten were positioned at the top, given part of the food and sent back where the rest of bees were so they could inform the rest about their discovery. Surprisingly, the message was transmitted through a bee dance and the –whole gang buzzed off‖ to take the rest of the food. However, they flew in different directions without locating the food. As a result,

The problem seems to be that bee communication has a fixed set of signals for communicating location and they all relate to horizontal distance. The bee cannot manipulate its communication system to create a –new‖ message indicating vertical distance. According to Karl von Frisch, who conducted the experiment, –the bees have no word for up in their language‖ and they can't invent one. (Yule, 2010: 14)

Cultural transmission is another property that has to do with –how languages are acquired by our children‖ since –there is no genetic component which would enable a child to simply start speaking‖. (Yule, 2010:12) In other words, children need to be exposed to a language to acquire it. Yule illustrates this in the following words:

[F]or example, that a child born in Korea to Korean parents but then adopted by French parents in France will tend to grow up speaking French as his/her first language and not Korean (unless the French parents make sure the child is also exposed to Korean). (2010:13)

Contrarily there are many animals capable of developing communication from the first instant –dogs will bark even if they have never heard another dog. (2010:13)

Additionally, *duality* (or ‘double articulation’) according to the French linguist André Martinet, refers to –two separate layers of language working together to provide us with a pool of sounds which we can combine to communicate with one another (Yule, 2010: 13). There are a –limited number of discrete sounds (e.g. the 44 phonemes of English) which individually have no inherent meaning, e.g., /b/, /i/, or /n/. However, there is an unlimited number of different meanings which can be created by combining these sounds in specific ways, e.g., *bin* or *nib*. In fact, many other combinations (e.g., *bni*) are not meaningful in English, but could be plausible in other languages.

Discreteness is another property which refers to the fact that –the sounds of a language differ sufficiently from one another for a (native) speaker to distinguish them. As a consequence, the connection of each meaning with each sign can be understood differently for each speaker, thus the connection might enormously differ (Yule, 2010:15). Yule exemplifies this property with the bark of a dog:

Although your dog may be able to produce woof (–I’m happy to see you), it does not seem to do so on the basis of a distinct level of production combining the separate elements of w + oo + f. If the dog was operating with the double level (i.e. duality), then we might expect to hear different combinations with different meanings, such as oowf (–I’m hungry) and foow (–I’m really bored). (Yule, 2010: 15)

Thus, there is a clear lack of connection between certain levels of production (barking) and their meaning. The same discreteness is applied to the way different speakers distinguish sounds of a language that differs from their mother tongue.

2.5. The generation and interpretation of language

The generation of language starts within different sections of the brain. In Figure 3, the four main areas implicated in the generation of language are shaded. They represent the starting point in the generation and interpretation of language, linguistic processes that are described in points 2.5.1. and 2.5.2.

Starting with the neurological explanation of language is essential since –the execution of an utterance is –a highly complex process involving elaborate neurological planning (Mott, 2003: 23). The brain of human beings possesses a mental dictionary consisting of a lexicon (words), their meanings, and a grammar or –set of rules which dictates the way the words must be combined in order to establish relations between

different concepts. In order to proceed with these linguistic processes, Yule (2010:158-159) differentiates the four involved areas in the brain, as may be seen in picture 3:

- In (1), *Broca's area* is described as the –anterior speech cortex‖ marked due to its fundamental function in relation with the –production of speech‖. According to Mott, this area particularly deals with –grammatical processes like affixing and phonetic phenomena like intonation‖ (2003: 23).
- *Wernicke's area* is located in (2) and it is defined as the –posterior speech cortex‖ and its function is crucially within the –understanding of speech‖;
- The part in (3) corresponds with the motor *cortex*, which –generally controls movement of the muscles‖. In fact, this part –controls the articulatory muscles of the face, jaw, tongue and larynx‖. Thus, this area is highly involved in the –physical articulation of speech‖;
- In (4), this area's name is the *localization view*. Briefly explained, Yule describes the scientific production of speech as a collective act developed by the four previously mentioned areas of the brain, mainly focusing on Wernicke and Broca's areas:

[T]he brain activity involved in hearing a word, understanding it, then saying it, would follow a definite pattern. The word is heard and comprehended via Wernicke's area. This signal is then transferred via the articulate fasciculus to Broca's area where preparations are made to produce it. A signal is then sent to part of the motor cortex to physically articulate the word. (Yule, 2010: 159)

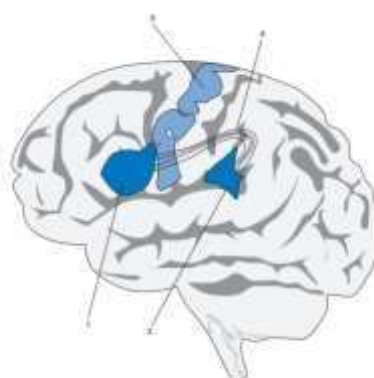


Figure 3. The brain and its main areas implicated in the generation of language: (1) *Broca's area*, (2) *Wernicke's area*, (3) the *motor cortex* and (4) the *localization view* (Yule, 2010: 158)

2.5.1. The generation of language

The act of speech consists of two different phases, which are generation and interpretation of language. In this first section, the focus is on the generation of language, which is divided into different steps graphically observed in Figure 4. The figure represents a vertical succession of steps that starts at the top (*Intention to communicate*).

- The first step within the generation of language is the speaker's intention to convey a message.
 - To express a message, this in the initial stage is a simple idea.
 - The idea needs to be conceptualized, which is indicated in the following step of the scheme (Conceptualization).
 - The number of concepts is what conform the *Lexicon*, whose function has to do with the formation of words. In general terms, both words and grammatical rules are accused in in the lexicon (such as the addition of -s to form the plural of nouns in English). This is the point where the *syntactic component* operates, by means of syntactic structures (*grammar*). It is through the *syntactic component* that, for example, subject-verb concords like *The boy is eating*, *The boys are eating* are created, suggesting questions and establishing the right output in terms of word and phrase order.
 - Then comes the *phonological component*, which creates *phonological structures*. The *phonological component* ensures –the precise phonological type for every word and for the expression/utterance as a whole|. (Mott, 2003: 25)
- This whole process is precisely the way mental concepts are put into speech.

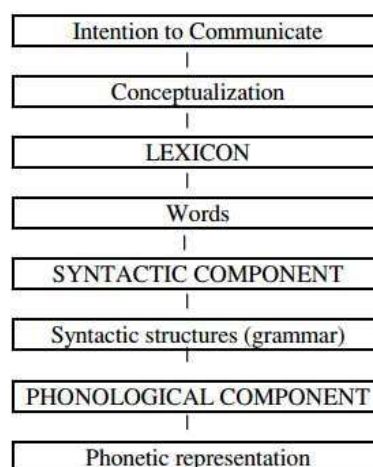


Figure 4. The way a speaker translates concepts into language (Mott, 2003: 23)

In spite of the existence of these steps it is important to consider that there is still a controversy about whether words are collected as wholes or whether their morphological components are stored individually and then, gathered. In this way, the fact that a word such as *undecidedly* is constructed from the elements *un+decide+ed+ly* is more likely to happen, for economic purposes as –the storage space for the English lexicon is immensely reduced, in the case of *un-*, meaning ‘not, negative, opposite’, is listed only once; the same is addressed to *-ly*, meaning ‘adverb’ (Mott, 2003: 24). Following this pattern, certain elements such as the prefix *un-* and the suffix *-ly* tend to be stored as morphological components and then, they are used to conform wholes once they are gathered with other particles, which in this case are *-decide-* and *-ed-*.

The generation of language ends up with the phonetic representation of concepts stored in the lexicon. However, language needs to be interpreted to develop a successful communicative act.

2.5.2. The interpretation of language

In the preceding paragraphs we have described the generation of language. However, now language needs to be interpreted so that the communicative process may continue. For this purpose, the second phase of this process is the *Interpretation* of the language which was generated in the previous phase. Interpretation involves a reversal of the generative process and consists of two main tasks:

1. Decoding the speech signals.
2. Attaching meaning to what is heard.

In language comprehension, the recognition of words is essential since the misinterpretation of messages might happen as a result of factors such as *structural ambiguity*, as in:

(7) *We have mimeographed drafts of the guidelines.*

This sentence is structurally ambiguous since *have mimeographed* could be interpreted as auxiliary plus main verb or as main verb (*have*= ‘possess’) plus adjectival participle. Each interpretation –has its own meaning (Stageberg, 29); *gardening path sentences*, which are those –lead[ing] people “down the garden path”. That is, a person seems to wrongly analyse a portion of the sentence and then, because of later evidence, must go back and reanalyse, or at least correct the misanalysis (Milne, 1982: 349). One example of a gardening path sentence would be:

(8) *The horse raced past the barn fell.*

As Milne explains:

In each sentence of this type, there is a point where two possible analyses are possible, i.e., at "raced". The need to backtrack is a result of selecting an analysis differing from that demanded by the rest of the sentence. For each garden path sentence there is a corresponding sentence that does not require backtracking, e.g., [2] *The horse raced past the barn.* or misanalysis of word ordering. (Milne, 1982: 350)

After settling these two matters, a couple of questions arise: Do we start with sounds first and then work upwards or do we start from the top, from the highest units of language (phrases, clauses, sentences), and work down? Both paths could be considered: a path towards a bottom-up processing or towards a top-down processing as well. Evidence –for at least partial top-down processing from a number of experiments‖ can be found according to Mott (2003): –To begin with, fewer identification errors occur if words are in context‖ (Mott, 2003:25). This seems to suggest that speakers use knowledge of syntactic structures together with –the acoustic input signal‖. This is true even whilst speakers deal with noise situations, for instance, when a segment is missed due to the replacement of a word by a cough. However, the omission may not hinder comprehension as long as the context is provided. In this respect, Mott explains that –interpretation does not proceed in a linear fashion from sound to phrase to sentence to paragraph to text. Instead, the hearer jumps ahead and makes an assumption about the content of the message before it has finished‖ (Mott, 2003:25).

3. Vision of the world

Formerly, Charlemagne believed that –to have another language is to possess a second soul. Hereinafter, Ludwig Wittgenstein affirmed that –if we spoke a different language, we would perceive a somewhat different world and just a few decades ago, Whorf considered the phenomena of language as:

[B]ackground phenomena, of which talkers are unaware or, at most dimly aware... There automatic, involuntary patterns of language are not the same for all men but are specific for each language and constitute the formalized side of the language, or its –grammar. [...] –[f]rom this fact proceeds what I have called the –linguistic relativity principle, which means, in informal terms, that users of markedly different grammars are pointed by their grammars toward different types of observations and different evaluations of externally similar acts of observation, and hence are not equivalent as observers, but must arrive at somewhat different views of the world. (1956:221)

The philosopher Max Weber defined the German term *worldview* (*Weltanschauung*) as –the overarching belief system of a particular social group (Collins Dictionary of Sociology, 3rd ed).

A more detailed definition is found in *The Great Soviet Encyclopedia* (1979). Here, the term *world view* is defined as:

[A] general conception of the world, of man, and of society that determines a man's socio-political, philosophical, religious, moral, aesthetic, and theoretical scientific orientation. Each of the three main types of world view—commonsensical (everyday), philosophical, and religious has a varied and contradictory content. Nonetheless, they demonstrate a unity in that they all encompass a certain range of problems, such as the relationship between spirit and matter, the definition of man and of his place in the universal interconnection of the phenomena of the world, man's knowledge of reality, the nature of good and evil, and the laws according to which human society develops. The epistemological structure of a world view is formed as a result of the generalization of natural scientific, sociohistorical, technological, and philosophical knowledge. (The Great Soviet Encyclopedia 3rd Edition (1970-1979))

3.1. Introduction

After different considerations about the vision of the world were established, the issue was widely discussed by different well-known linguists, such as Whorf and Sapir, throughout the history of language. Whorf's convention about language and the vision of the world has been considered to be intimately related to the spoken language, to the extent of suggesting contemporary hypothesis such as the *Linguistic Relativity Principle*. The principle defends the existence of clear different views of the world. However, other contemporary theories tend to focus on the cultural element. In fact, cultural transmission

helps to create a sense of categorization of the world based on personal experience. Linguists such as Yule (2006) support this idea, which should be taken into account in order to define a broader sense of our vision of the world in relation with languages:

We use the term culture to refer to all the ideas and assumptions about the nature of things and people that we learn when we become members of social groups. It can be defined as –socially acquired knowledge. This is the kind of knowledge that, like our first language, we initially acquire without conscious awareness. We develop awareness of our knowledge, and hence of our culture, only after having developed language. The particular language we learn through the process of cultural transmission provides us, at least initially, with a ready-made system of categorizing the world around us and our experience of it. (Yule, 2006: 271)

3.2. How does language affect our world view?

The way the world is organized in our mind is based on mental representations. Knowledge needs to be structured for the meaning of an utterance to be understood. In this way, the comprehension of the meaning of an utterance involves the activation of one or more –coherent spheres of knowledge, that is, –mental representations of the way the world is organized. (Hilferty, 2003: 8) This knowledge structures may also be *cognitive domains, frames, schemas or scripts*, among other terms and include –a whole array of information, ranging from empirical certainties and axiomatic background assumptions to crass errors, flights of fancy, and superstitions. (Hilferty, 2003: 8) Therefore, the importance within the strictly encyclopaedic nature of linguistic semantics is essential to determine the vision of the world through cognition. (Hilferty, 2003: 8)

Once the structure of the world through cognitive domains is understood, the agreement with Jackendoff's affirmation –language helps us think becomes then plausible. However, in the absence of language, it is still possible to think. This means thought and language go separately although language permits the existence of more complex varieties of thought, which are available to non-linguistic organisms, that is, other species of animals. Jackendoff differentiates three ways through which language helps us think:

- Linguistic communication, mainly based on the –accumulation of collective knowledge. (Jackendoff, 1996: 27)

- Making thought available for attention since –language is the only modality of consciousness that makes perceptible the relational form of thought and the abstract elements of thought. (Jackendoff, 1996: 27)
- The valuation of conscious precepts as –language brings valuations of precepts to awareness as independent elements, permitting them to be focused on and questioned. (Jackendoff, 1996: 28)

As a consequence of this distinction, Jackendoff develops two ideas: –the illusion that language is thought (Jackendoff, 1996: 28) and the fact that even though language oppresses thought; –thought itself is a separate brain phenomenon due to the fact that –language is conscious, thought is not. (Jackendoff, 1996: 28) More specifically, the shapes of thought cannot be available to consciousness by themselves and –linguistic forms are available to awareness. (Jackendoff, 1996: 9-10) Thus, there is evidence which proves that –language is not thought, and vice versa. (Jackendoff, 1996: 6) In fact, thought can be considered as –inner speech, which is understood as a different kind of brain phenomenon. This idea leads to consider the variety of languages which can express the same thought, considering that the purpose of translation is –to preserve the thought behind the expression. (Jackendoff, 1996: 6)

In addition, there is a problem of vision. To answer the question —How do we see things and know what we are seeing? Jackendoff (1996: 3) claims that the brain is –a sort of biological computer whose program we have to discover. (Jackendoff, 1996: 3) He argues that there exists a clear distinction between the neuronal basis of mental functioning and current neuroscience. However this distinction is far from explaining how language helps us think, for three main reasons:

- Firstly, through –animal research, brain imaging techniques, and studies of brain damage, we know what many areas of the brain do as a whole;
- Secondly, –neurotransmitters affect brain function in a global way, which does not help to know how information is stored in the brain. (Jackendoff, 1996: 3)
- Thirdly, –including neurons and small systems of neurons work, still the way how neurons encode words of speech sounds is unknown, although they must do it somehow.

These three reasons summarize the current situation of the problem of vision of the world.

Thus, for the moment, the most pragmatically useful way of studying how language helps us think and how it defines the speakers' vision of the world is to use a *computer analogy*. This is based on considering the brain as a computer and thought as its software. According to Jackendoff, this analogy is –one of the best tools for understanding the brain at the level of functioning relevant to language and thought. Along with computer analogy, cognitive science states that –some phenomena in the brain are never present to awareness, no matter how much we try. (Jackendoff, 1996: 4) He explains this concept with Bregman's example (1990): –[W]e can't catch our auditory system in the process of performing a frequency analysis of sounds; we just hear a sound. In this way, it effectively –seems plausible that all peripheral sensory processes in the brain are totally inaccessible to awareness. (Jackendoff, 1996: 4)

3.3. Categorization

The classical idea of categorization affirms that categories are defined by precise conditions (necessary and sufficient) as well as the same status of all elements of one particular category. However, this term has evolved since the classical definition of categorization, especially due to the contribution of prototypical categorization by Eleanor Rosch.

In 2010, Yule defined a category as:

[A] group [of concepts] with certain features in common and we can think of the vocabulary we learn as an inherited set of category labels. These are the words for referring to concepts that people in our social world have typically needed to talk about. (Yule, 2010: 267)

The above definition leads to consider categories as a sort of strategy to structure the perceived world, the –external reality. As a consequence, categories help speakers to classify concepts in groups according to their common characteristics. In this way, category labels were developed thanks to the experience learned. For example, Berlin et al. (1973) developed an experiment based on plant categorization of the Tzeltal, a Mayan speaking group located in the south of Mexico. For this community, the level of genus represented the most basic part in terms of a taxonomic hierarchy. Thus, the terms for naming given concepts in the social circle were created to explain aspects of the reality which needed to be comprehended: if they are given a category label, they will be easily recognised and understood among speakers of a given language. Nevertheless, the consideration of unique and absolute categories, rather than the wide subjective categories of each speaker seems to be fairly limited in the spoken language.

As Yule explains, in spite of the widely-spread belief in a fixed relationship between learned categories and the organization of external reality, there is evidence derived from the world's languages, which considers the variation of the external reality regarding the spoken language. He explains this evidence thanks to the organization of the external reality, which varies depending on the spoken language:

It is tempting to believe that there is a fixed relationship between the set of words we have learned (our categories) and the way external reality is organized. However, evidence from the world's languages would suggest that the organization of external reality actually varies to some extent according to the language being used to talk about it. (Yule, 2010: 267)

A clear example of the variation of categories regarding the spoken and used language can be found within an experiment carried out with three different cultural groups: the Dani of New Guinea, the Inuit of Greenland and the English. The participants were asked to enumerate colours of the spectrum. The results showed that the Dani of New Guinea can detect all the colours of the spectrum, although they have names for only two of them, their equivalents of -white and black. The Inuit of Greenland have words for those two, plus for -red, -green and -yellow. Finally, English has names for those five colours, plus -blue, -brown, -purple, -pink, -orange and -grey (Yule, 2010: 267). The observed conclusion of these differences considers a variation between the number of basic colour terms in languages, i.e.; -there are conceptual distinctions that are lexicalized (-expressed as a single word) in one language and not in another. (Yule, 2010:267) In fact, this experiment showed clear differences between those cultural groups of speakers and their technology: "It seems that languages used by groups with more technology have more colour terms. (Yule, 2010: 267) Thus, the whole experiment proves the existence of concepts which can be meaningfully expressed in one language but not in others. In this way, the relevance of category is found within the role of perception human beings develop whilst there is a gradual assumption of awareness: words are acquired because speakers recognise -the types of category distinctions that are relevant in [their] social world [...] in a way that they can be easily learned after being properly identified. To use certain terms, such as -dog or horse, rain or snow, father or uncle, week or weekend, we must have a conceptual system that includes these people, things and ideas as distinct and identifiable categories. (Yule, 2010: 267)

Another example of categorization, more specifically, *Prototype Categorization*, was carried out in 1973 by Eleanor Rosch, a psychologist at the University of California at Berkeley: "This study has to do with what we have in mind when we

use words which refer to categories'. (Aitchison, 2003: 54-55) Her experiment with 200 psychology students was conducted –to test the idea that people regard some types of bird as ‘birdier’ than others, or some vegetables as more vegetable-like or some tools more tool-like. (Aitchison, 2003: 54-55)

Her instructions were the following:

Let's take the word red as an example. Close your eyes and imagine a true red. Now imagine an orangish red . . . imagine a purple red. Although you might still name the orange red or the purple red with the term red, they are not as good examples of red . . . as the clear ‘true’ red. In short, some reds are redder than others. The same is true for other kinds of categories. Think of dogs. You all have some notion of what a ‘real dog’, a ‘doggy dog’ is. To me a retriever or a German shepherd is a very doggy dog while a Pekinese is a less doggy dog. Notice that this kind of judgment has nothing to do with how well you like the thing; you can like a purple red better than a true red but still recognize that the color you like is not a true red. You may prefer to own a Pekinese without thinking that it is the breed that best represents what people mean by dogginess. (Aitchison, 2003: 54-55)

She used a questionnaire, presented on ten pages; one for each category name (e.g., ‘Furniture’, ‘Fruit’, ‘Vegetable’, ‘Bird’, ‘Carpenter’s Tool’, ‘Clothing’ etc.). There was a list of approximately 50 examples of each category (orange, lemon, apple, peach, pear, melon...). The order of words in the list differed between different students to make sure that the order of presentation would not interfere in the final results. Then, the students were asked to –rate how good an example of the category each member was on a seven-point scale. For example, –1 could mean –an excellent example; –4 could indicate –a moderate fit; –7 could be considered as –a very poor example (that is, it should not be part of the category at all). The final results were quite surprising and revealing since there was general agreement particularly as regards the terms of –items rated as very good examples of the categories since almost everybody thought about a robin as the –best example of a bird and about –pea was –the best example of a vegetable, whereas –chair was the best one of furniture. On the list of birds, sparrow, canary, blackbird, dove and lark were the most prototypical ones after robin. However, Parrot, pheasant, albatross, toucan and owl were not so representative of this category. Then, flamingo, duck and peacock were even less prototypical. Then came ostrich, emu and penguin, the seven-point rating, whilst the last one was bat, which, with almost all certainty, should not be taken as a bird at all. In Figure 5, the representation of this birdiness ranking is expressed by means of different circles of prototypicality. The robin is the most

category. However, she considered the fact that people do not think about all the entities of a category as equal in terms of status. (Hilferty, 2003: 1)

It is now necessary to analyse the internal structure of Categories needs to be answered. As the above experiments proved, the internal structure of categories is a graduation of cases ranging from –central to –peripheral. This means that there are highly representative or prototypical members (prototypes), which possess a precise conceptual highlight over less prototypical members. For instance, –chairs and sofas are unquestionably felt to be more central to the category *furniture* than are lamps, stools, or magazine racks (Rosch 1975b). Armstrong et al. (1983) and Gleitman et al. (1983) too add that –even categories that are completely definable by necessary and sufficient conditions, such as odd number, display graded internal structures, e.g., the numeral 3 is more representative of an odd number than 501. In this way, the speaker’s mind tends to prioritize prototypical concepts in terms of their classification in different categories.

Another crucial point about categorization has to do with –the clarity of taxonomic hierarchies (Hilferty, 2003: 8), which essentially depends on the –amount of knowledge that speakers have about a given domain. One example of this phenomenon was reported by Rosch (1977). Rosch used the term –aeroplane to verify basic levels. For most participants it was a basic level term –(i.e., the most inclusive level at which many attributes and motor movements were listed in common, etc.), but for a former aeroplane mechanic, who was also a participant in the test, the taxonomy was quite different. According to Rosch, – [t]he list of attributes common to aeroplanes produced by most subjects were paltry compared to the lengthy lists of additional attributes which he could produce in common for different types of aeroplanes. (Rosch, 1977: 42-43) This proves how specialist knowledge can change the mental structure of a certain hierarchy, –making the basic level drop down a notch (Hilferty, 2003: 9).

A graphic representation of both considerations of categorization (prototype-based and basic-level categories) is shown in Fig. 6. They consider the same term, but differently applied: The Prototypical model has horizontal circular spheres, the most central ones being the most prototypical categories and the most peripheral ones being the least prototypical of the category is. In the case of basic-level concepts, there is a vertical classification of terms at three different levels: basic, superordinate and subordinate.

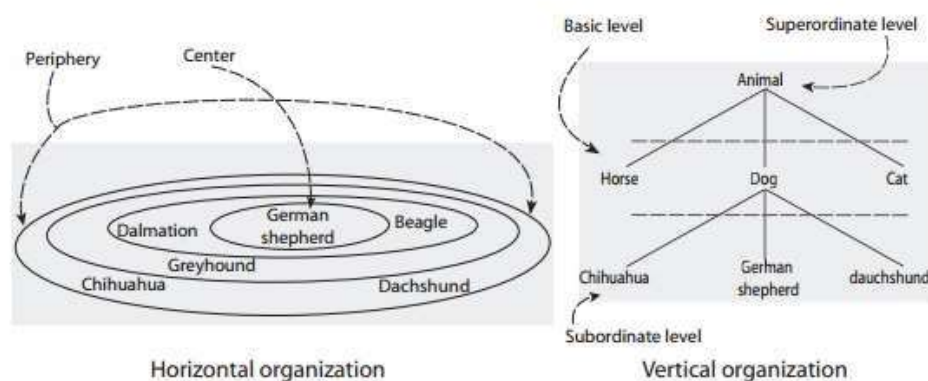


Figure 6. Prototypical Categorization model and Level-Based Categorization model (Hilferty, 2003: 9)

Summing up, the term *category* connects acquired words with reality through the personal and human process of experience. This connection is based on very particular interpretations of the social world that may vary depending on the culture of the speakers. As has been in different experiments, speakers tend to associate certain properties or features with specific types within different categories. This being a recurrent pattern of response, it is possible to claim that there exists an interrelation between these mental associations and the way information is stored after being learned by speakers. Thus, experiences are clearly influential factors on how information is classified according to precise and different ways to perceive the world.

3.4. The Sapir-Whorf Hypothesis: Linguistic Relativity and Linguistic Determinism

The Sapir-Whorf Hypothesis (1956) affirms that language depends on thought in the same way as semantics does depend on encyclopedic knowledge. To define this hypothesis, Whorf explained that our world view was dependent on language in a nontrivial way. Within this hypothesis, Whorf and Sapir differentiated two versions: a weak version or *Linguistic Relativity* and a strong version or *Linguistic Determinism*.

The weak version deals with –convey[ing] different manners of addressing external reality|. Linguistic Relativity is often defined as the –weak version| of Whorf and Sapir’s hypothesis, which mainly defends the fact that the spoken language influences the way the speaker perceives and comprehends the world. Whorf defines it as:

The phenomena of language are background phenomena, of which the talkers are unaware or, at most dimly aware...These utomatic, involuntary patterns of language are not the same for all men

but are specific for each language and constitute the formalized side of the language, or its –grammar‖...

From this fact proceeds what I have called the –linguistic relativity principle‖, which means, in informal terms, that users of markedly different grammars are pointed by their grammars toward different types of observations and different evaluations of externally similar acts of observation, and hence are not equivalent as observers, but must arrive at somewhat different views of the world. (Whorf, 1956: 221)

Nowadays, the most widely accepted version is this one which claims that language has some effect on thought. This version states the fact that there is a connection with the –world of experience‖ as long as categories in our language are utilized: “Our first language seems to have a definite role in shaping –habitual thought,‖ that is, in shaping the way we think about things as we go about our daily lives, without analysing how we’re thinking‖. (Yule, 2010: 269)

On the other hand, the strong version, known as *Linguistic Determinism*, contends that –language determines thought‖. In other words, language shapes the perception and understanding of the world, which means each speaker has their own concepts of reality since each human being speaks differently: –If language does indeed determine thought, then we will only be able to think in the categories provided by our language‖ (Yule, 2010: 269). To explain this theory, the word *snow* was analysed within different groups of speakers. For English speakers, there was only one word to name this concept. In fact, they could simply see it as one entity: white material. However, when Eskimos from Alaska were asked to name the same concept, instead of one unique entity, they perceived it as different realities precisely because their set of words for snow is wider. This proves the hypothesis of Linguistic Determinism, namely, that –the category system inherent in the language determines how the speaker interprets and articulates experience‖. (Yule, 2010: 269)

Additionally, linguistic relativity, Kay & Kempton (1984) displayed a colour conducted an experiment about colours proving that Sapir-Whorf effects effectively exist. This experiment proved that colour-term opposition might help to –reason about categorizing related nonfocal colours‖. Other Whorfian effects were studied by Dan Slobin (1996). His results proved that thought is needed to speak since depending on the used language, speakers will focus on –different aspects of events‖:

The language or languages that we learn in childhood are not neutral coding systems of an objective reality. Rather, each one is a subjective orientation to the world of human experience, and this orientation affects the way in which we think while we are speaking. (Slobin 1996: 91)

In the case of a given language which differentiates between punctual events and durative events, speakers will focus on the –events they are reporting on. In this way, this does not mean that experience differs according to the spoken language but that this theory is ruled out by embodiment rules, i.e., the way our bodies constrain interactions with the world (our experiences). These rules clearly stand out for categorization, such as the constraint of colour categorization that the visual system perceives based on the bodily experience.

Hence, Whorfian effects prove the partial efficacy of the Whorf and Sapir hypothesis as it is not merely based on Linguistic Relativism and Determinism but embodiment rules. For this purpose, Linguistic Relativism and Linguistic Determinism need to tackle other considerations such as the fact that linguistic conventions are shared by speech communities, i.e., the relevance of the social and cultural level, and of course, the importance of categorization and embodiment, which helps to explain the vision of the world speakers perceive regarding the way perceived reality is classified.

3.5. Langacker's Space Grammar

In 3.4. Whorf and Sapir's hypothesis explained the way the spoken language (mother tongue) influences in the worldview (personal experience). However, other theories such as Ronald Langacker's Theory about *Space Grammar* (first articulated in the late 1970s and early 1980s), also known as *Cognitive Grammar*, claims that –semantics is encyclopedic. This means that semantics is based on a functional assembly of relations extracted from experience, from the known part of reality. In this way, the meaning of words is based on experience and since experience is a very subject matter, each speaker develops a different worldview. This theory partially agrees with the Whorf and Sapir's idea of language influencing thought but Langacker's Space Grammar especially focuses on the importance of grammar within language, which is based on the speaker's experience (encyclopedic knowledge). Hence, each speaker has a particular vision of the world based on the developed grammar through precise and personal experiences.

Langacker explains the concept of *encyclopedic knowledge* with the example of the term orphan:

[The concept *orphan*] tells a whole story in a single word, a story based on a functional assembly [=encyclopedic knowledge] of kin relations of the life cycle. [...] This is an established functional assembly because people know that death occurs and often [sic] reaches both while their offspring is relatively young. The word *orphan* designates an entity that plays a particular role in this conceptual complex [...] Not only is its designation restricted to the person in the offspring role, but it is further restricted to that person in a particular time frame, subsequent to the death of the parents but prior (say) to maturity. (Langacker 1979:95)

Thus, designation, the manner in which we name things in semantics can be considered as a –matter of focusing|| on the important part of our encyclopedic knowledge, the (i.e.; child vs parent, wheel vs tyre). Additionally, language rests upon networks of units, which are –conventionalized|| or –entrenched|| by means of usage. The importance of these units is that they are unlimited as long as they make some reference to meaning, sound or both (a potential relationship between meaning and sound). This aspect is known as *content requirement*. (Hilferty, 2003: 10)

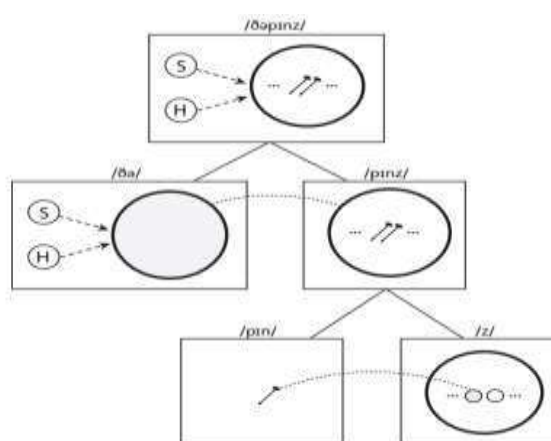


Figure 7. A Langacker-style analysis of the examples /pin/ and /pins/ (Hilferty, 2003: 10)

Following the idea of *content requirement*, major syntactic categories (e.g., nouns and verbs) are exposed to semantic characterizations. In the same way, grammatical morphemes can be taken as meaningful, yet semantically schematic as they need to be conventionalized or entrenched through usage. These elements should refer to meaning, sound or the relationship between both in order to make sense. For instance, as shown in Figure 7, in *pin-* *pins*, the morpheme which determines the plural number in the word *pins* implicitly carries the schematic image of plurality, since the particle *pin* conveys a different schematic image precisely due to the lack of this morpheme, which is essentially meaningful.

The same phenomenon occurs with syntax since it is based on schematic imagery and is –symbolic‖ due to the pairing of sound and meaning. One example of this aspect can be analysed when comparing:

(9) *I gave Noam a book* (SVOO) Vs (10) *I gave a book to Noam* (SVOObl)

(Hilferty, 2003: 11).

In (9), the verb is the same, –to give‖. However, in this case, grammar operates differently. As the verb is ditransitive, it admits two objects. The first sentence contains two objects (ditransitive), whereas the second one includes one object and a prepositional particle (Oblique). This grammatical change causes differences in terms of semantic roles, since the consequence of varying the grammar is that the schematic imagery changes as well. In the first sentence of (9), the importance lies on the first object, *Noam*, but in the second one, the emphasis is placed on *a book*, which is a different object. In this way, there is evidence for the way Morphology, the Lexicon and Syntax form a continuum as they are not autonomous components of language (Hilferty, 2003: 11). Thus, Langacker's Space Grammar works as evidence for the repercussion of grammar when considering different manners of perception of the world. As language finds support in –networks of units‖, there is then a need for conventions when using language, which is found within speakers of a given language. This fact proves the changeable nature of the vision of the world due to the way in which different grammars present reality. In fact, this reality is subjective as experience changes among different speakers. In this case, the world view is a much more personal and particular idea than what it was considered in previous theories.

3.6. Reddy's Conduit Metaphor

In 1979, Michael Reddy published –The Conduit Metaphor‖, which meant his –farewell-to-academics‖. Following this model, George Lakoff and Mark Johnson wrote *Metaphors We Live By* in 1980. Both works helped to establish a reconsideration of the importance of metaphors in everyday language.

The Conduit Metaphor considers a folk model of communication, in which words, sentences, etc. are considered to be –containers for concepts‖ (Hilferty, 2003: 11). This means that words and sentences have meanings that are independent from other speakers or contexts. For instance, *That sentence is impenetrable* is an expression whose meaning itself is empty as it is difficult to extract the message from the words alone.

The key points of The Conduit metaphor are three:

1. Meanings are placed into words/ Expressions are containers for concepts.
2. Words are transferred from the speaker to the hearer.
3. The space between interlocutors is a path (conduit).

Moreover, in this model of communication, concepts are transferred between speakers. As a consequence of this transference, the space between interlocutors is a path or *conduit*.

(11) *She gave me that idea.*

(12) *She got the idea from somebody's paper.*

In (11) and (12), there is a transfer in both acts of communication since words are transferred differently from the speaker to the hearer. In (11), the idea is given by her, *she*, who is the subject, and it is transferred to *me*, the receiver. However, in (12), the *idea* is transferred from *somebody's paper* to her, *she*.

The Conduit Metaphor model was followed by Lakoff and Johnson's 1980 work *Metaphors We Live By*. This work determined the function of metaphors in language and their relevance to the creation of different visions of the world. Their main arguments were based on the concepts of *metaphor* and *meaning*. They consider *metaphors* to be conceptual while *meaning* is grounded on experience. Since metaphors are correct as long as context differences do not matter and all participants in the conversation understand sentences, then, the meaning is within words, which automatically regards objectivist theories of semantics as fundamentally mistaken.

According to *the Conduit Metaphor*, any sentence can be considered as meaningful when the meaning is extracted from its words. Nevertheless, in many cases, context is relevant. Sentences with no meaning without context represent cases where a single sentence means different ideas to different people. Reddy's Conduit Metaphor as well as Lakoff and Johnson's *Metaphors We Live By* helped to prove that metaphors are influential on a daily basis. Not as regards language, but also as regards thought and actions, our conceptual system is essentially metaphorical in nature, especially in terms of what we think and act.

In spite of the concepts that rule our thought, a metaphor is mostly a strategy of the poetic function of language. We should bear in mind that metaphors are present in our most mundane details as well. Because perception is structured by our concepts, the way we get around in the world as well as the way we think what we experience, it is then

possible to affirm that what we do every day has to do with metaphors. However, there is usually not a natural awareness of the conceptual system: there is an automatic tendency to act along given lines. The hidden phenomenon within these lines is what should be extracted by analysing language due to the fact that communication deals with the same conceptual system used in thought and actions. Thus, language gives evidence for the way this systems looks like. Lakoff and Johnson considered the idea that metaphors structure our perceptions and comprehension of the world, and make our thoughts more lively and interesting. Hence, metaphors shape our view of life in the present and introduce the expectations that influence what life will represent for each speaker in the future.

3.7. The Functionalist Connection

According to the *Encyclopaedia Britannica*, *Functionalism* within linguistics is defined as:

[T]he approach to language study that is concerned with the functions performed by language, primarily in terms of cognition (relating information), expression (indicating mood), and conation (exerting influence). Especially associated with the Prague school of linguists prominent since the 1930s, the approach centres on how elements in various languages accomplish these functions, both grammatically and phonologically. Some linguists have applied the findings to work on stylistics and literary criticism. (n.a.:s. v. *functionalism*)

Dealing with this new literature in linguistics, the definition of functionalism was redefined as “a branch of Grammar whose main purpose is the discovery of correspondences between Syntax and Discourse (e.g., information structure)”. For this purpose, some of its main characteristics were found to be the search for statistical regularities instead of exceptionless rules. This means functionalism was essentially based on regularities within both fields of knowledge: Syntax and Discourse. Moreover, Functionalism dealt with linguistic typology and discourse influences on grammar. In this way, the interrelation between syntactic forms and discursive functions was studied. A third characteristic was the low degree of formalization on its agenda as it was mainly focused on structures themselves instead of on any degree of register.

After having defined this innovative concept based on connections through a functionalist approach, the result defended the existence of correspondences between both, syntactic form and the discursive function of language, which means the way information is structured is clearly influenced by its linguistic typology. Connecting these

conclusions with the linguistic typology derived from different languages, then, the same interrelation between the syntactic component and the interpretation of events is proved to be true. In fact, The functionalist connection permits to connect the two previous concepts with the function of grammar itself, which clearly varies from one language to a different one. Thus, if syntactic and discursive correspondences can be identified, then, it is plausible to consider its relevance with the way reality is perceived in different visions of the world.

3.8. Verbs of Movement and Motion Events

Leonard Talmy has published extensively on cross-linguistic typology of lexicalization patterns, especially in relation with motion events (Talmy 1975, 1985, 1991, 2000, 2007). According to Talmy (2000: II, 25–67, in Fanego, 2012:30), a motion event is composed of four elements:

- (a) a figure moving with respect to another entity
- (b) the reference entity, or ground
- (c) the path followed by the figure with respect to the ground
- (d) the motion.

English represents a prototypical example of what has been called in Talmy (1985: 200) a Satellite-framed language. This means that English characteristically locates the manner of motion in the main verb and the path in a satellite.

(13) *John ran into the house.* (Fanego, 2012:29)

In (13), the satellite-framed character of the sentence can be observed paying attention to the two particles that conform the action. The verb is *ran* and it expresses the manner of motion which is a main verb in which the manner of motion is located since it specifies the precise sort of movement. The preposition *into* indicates the path, the direction or destination of the moving object, that is, *the house*. This sentence proves how English constructs sentences following a satellite-framed schema, but not all languages follow the same pattern. Spanish, for example, is not a satellite-framed language, but a verb-framed language instead.

Talmy (1985, 1991, 2000, 2007) affirmed that languages are divided into –two primary typological categories: satellite-framed languages (S-framed languages) such as English, German, Swedish, Russian and Chinese, which prototypically consider manner in the

main verb and path in a satellite and, on the other hand, –verb-framed languages (V-framed languages) such as Spanish, French, Turkish and Semitic, whose path is in the verb root (cf. Spanish *entrar* ‘enter’, *salir* ‘exit’, *llegar* ‘arrive’, *cruzar* ‘cross’, *acercarse* ‘approach’, etc.)‖. Additionally, Talmy considered that the expression of manner is independently located, normally adverbial or gerundive type constituent, which is optional within the clause, and is frequently not explicitly indicated at all, as in the following examples (taken from Fanego, 2012: 30):

(14) La botella salió de la cueva (flotando).

(15) The bottle moved-out from the cave (floating).

(16) ‘The bottle floated out of the cave’.

These examples allow us to compare a framed-satellite language (English) and a verb-framed language (Spanish). As may be observed, Spanish formulates the sentence with a single word indicating movement, which happens to be a verb and it lacks satellite particles since it is a verb-framed language. Thus, the motion event is explicitly indicated in the type of verb used, which, in this case, is *salió*. However, English uses a satellite-framed verb, *move-out*. English places the motion event in the main verb, *moved*, while the path is located within the satellite, *out*. The third example shows that the main verb, *floated*, contains the motion sense and although the satellite is the same and thus, the path does not change the sort of movement is even further specified.

This example shows that in the English, a manner-verb language, the pattern with a manner verb represents –[the] most characteristic expression of motion‖ (Talmy 2000: II, 27), because –it occurs frequently rather than occasionally in speech‖ and secondly, that –a wide range of semantic notions are expressed in this type‖ (Talmy 2000: II, 27).

Speakers of manner-verb languages usually describe motion with manner verbs, while speakers of Path languages use mainly path verbs. As a consequence, –speakers of Manner languages mention manner of motion more frequently and with greater lexical diversity‖. Taking these results into account, Slobin developed the idea that –such linguistic differences are in turn likely to have effects both on the organization of mental representations and on the lexicon of the language in question‖. (Fanego, 2012: 33)

After checking the *Oxford English Dictionary* observing the use of manner verbs in English, Slobin (2006a: 72) collected the results shown in Figure 8. In this table, the first column indicates the time period from 1500 to 1899 divided into five different

centuries starting from the 16th century and finishing with the 19th century. The second column shows the number of innovated manner verbs of self- movement that were created in each of those centuries. In 1500 there were 48 innovated manner verbs in use. The number of new such verbs strongly decreased in the 17th and in the 18th centuries, but such verbs continued being created, no matter their number. Slobin's (2006 a) results corroborate the hypothesis that manner of motion is –a domain of continuing, and increasing interest to English speakers. (Fanego, 2012: 33-34)

Time period	Number of innovated manner verbs
> 1500	48
1500–1599	30
1600–1699	17
1700–1799	11
1800–1899	32

Figure 8. English manner verbs of human self-movement (Slobin 2006a: 72, in Fanego, 2012: 34)

3.9. Experiential Realism

According to Lakoff and Johnson (1980), Experiential Realism or experientialism is –a kind of internal realism which aims to provide an account of meaning, truth, knowledge, understanding, and a reason. In fact, Experiential Realism does not deal with the existence of reality, but the way in which reality can be described, since –truth is defined relative to human experience and to the extent that human experience is varied, points of view also vary. (Marmaridou, 2000: 47) Therefore, we may ask whether there is a real world or whether everything is merely some sort of social construct. There are a couple of theories which deal with this topic: Objectivism and Subjectivism. However, according to Lakoff and Johnson (1980), both theories, Objectivist and Subjectivist, are wrong. For Objectivists, there exists a correlation between reality and meaning, so that metaphors would be false. In other words, meaning is based on the correspondence between a linguistic expression and the potential world considered to be the real world. This theory admits the truth-value of an expression: the meaning of the utterance consists of whether an expression is made to correspond to a given situation in the real world. For instance, the following sentences are judged according to their true or false meaning from an Objectivist perspective:

(17) The cat is on the mat

(18)

- a. *Presently, there is a King of France.* (False)
- b. *Presently there is not a King of France.* (True)

(19)

- a. *The present King of France is bald.* (False)
- b. *The present King of France is not bald.* (False)

All these examples (17, 18, 19) can be judged according to their true/false meaning. The Objectivist perspective considers –objective truth, which means it needs to be true at the moment the expression is uttered to consider its true meaning. In this case, the sentence (17) can be both, since there is no specific reference for –the cat, whereas in the examples (18) and (19), the distinction is not so clear. In (18), the assumption of the existence of a current French King is false, since France is ruled by a President. In this way, (a) is false and (b) is true, since it denies the stated truth (since it is not true but it is denied by the verb –is not, then, the whole statement is true). In (19), that there is a current King of France is false for the same reason as argued before. Additionally, because there is no current King of France his being bald is false as well. Following the objective perspective, both sentences are false expressions: the whole statement is false then.

Nevertheless, Lakoff and Johnson realised that in spite of the literal falsity of the following conventional expressions, they are, in fact, judged to be true. For example, sentences (20a) and (20b) can only be interpreted in their metaphorical sense, since prices cannot literally –rise, nor can the price of gasoline move down. In both cases, the only way to understand the truth-value meaning is by interpreting their metaphorical sense.

(20)

- a. *Prices have risen a lot lately.*
- b. *The price of gasoline goes down only very occasionally.*

To sum up, Subjectivists believe that meaning is unconstrained and that truth is a social construct. However, as the philosopher John Searle observed, this is not entirely true since *gravity*, for example, is not a social construct. On the other way, Lakoff and Johnson's hypothesis is an in-between position in which there is, as objectivists defended, a real world: Consequently for them, meaning does not have to do with truth-values, as subjectivists stated. Hence, meaning is based on experience, which is the main

precept of the Experiential Realism theory. The essence of this theory considers the preservation of the real world eliminating the equal relation between meaning and truth. Instead, meaning is grounded in experience, avoiding in this way radical subjectivism.

One key point whilst dealing with experiential realism is the evident tendency of metaphors to think abstract domains up regarding more specific/concrete domains of experience. The inherent consequence of experiential realism is *embodiment of meaning*; that is, our bodies establish our interactions with our experiences.

One example illustrating the embodiment of meaning may be observed within the human retina, which has cells called *cones*. These cones are specialised in detecting hues and brightness, which conforms the focal attraction. This means that the visual system is better at managing certain cone mixtures than others. The same phenomenon takes place when applying embodiment to figure and ground, which is a basic property of the attention system based on the consideration of figure as the –focus of attention‖ and the ground as –non focused aspects of a scene‖. Its main manifestations are found in vision (e.g., Necker cube, the faces-goblet illusion, etc.), hearing, etc. In figure 9, there are three representations of figure and ground illusions: the Face-Goblet illusion, the Necker cube and the Modified Necker Cube (Atlas 1998). In all of them, the brain processes all facets of the scene, but it can only attend to figure, which means –the ground –recedes‖ into the background‖ as it is –the point of reference for the figure‖.

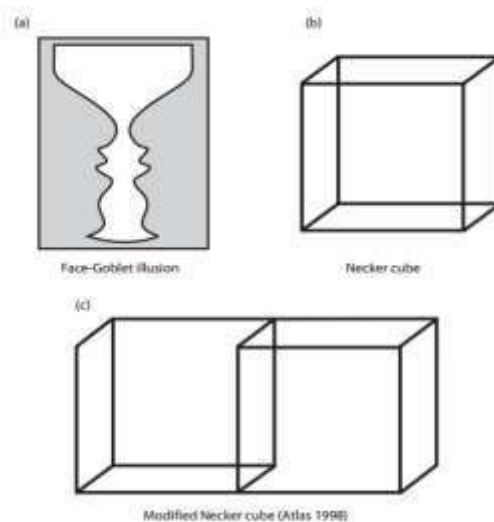


Figure 9. Figure and ground illusions (Hilferty, 2003: 3)

Figure and ground alignment have some bearing on linguistic semantics. The same phenomenon happens with the interpretation of ambiguous sentences as well. The figure and ground relation can be found in the following sentence:

(21) *The children ran around the house.*

The action can be understood –inside the house‖ or –outside the house‖. What is clear is that the two actions cannot have happened at the same time. There is an analogy with the vision of the goblet or the faces at one time Fig. 9 (a), where it is also impossible to –see‖ both images (the face and the goblet) simultaneously.

There are image schemas as well, which represent spatial or kinaesthetic patterns of embodied experience. It is very important to clarify these schema are not –mental pictures‖, but rather representations of: change, force, locatedness, etc. The most essential aspect is that they derive from –our embodied experience with the world‖.

To sum up, *embodiment* is a –skeletal‖ mental representation of recurrent patterns of experiential embodiment, which are called –image-schema‖. These are not rich nor concrete images. Rather, they represent highly schematic perceptual grounded experience and certainly they become visible from our embodied interactions with the world:

–Let us consider briefly an ordinary instance of image-schematic structure emerging from our experience of physical containment. Our encounter with containment and boundedness is one of the most pervasive features of our bodily experience. We are intimately aware of our bodies as three-dimensional containers into which we put certain things (food, water, air) and out of which other things emerge (food and water wastes, air, blood, etc.). From the beginning, we experience constant physical containment in our surroundings (those things that envelop us). We move in and out of rooms clothes, vehicles, and numerous kinds of bounded spaces. We manipulate objects, placing them in containers (cups, boxes, cans, bags, etc.). In each of these cases there are repeatable spatial and temporal organizations. In other words, there are typical schemata for physical containment‖. (Johnson 1987:21)

Whilst dealing with image-schemas, the clarification of their consideration as hypothetical constructs is essential. In addition, experiential evidence is needed to explain they are real in terms of cognition.

Hence, the consequence of experiential realism is that the human being is seen as –the agent of purposeful activity which forms the conditions of truth and belief‖ (Marmaridou, 2000:47) in a way in which the importance of the personal experience of the world is crucial to understand and comprehend different perceptions of the external reality

different	speakers	carry	out.
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4. Conclusion

The present study was set out to explore the way language helps to shape our vision of the world; the limitations and influences within different languages, with a special emphasis in the English language and the interrelation between thought, language and culture through diverse cognitive linguistics theories. This study has sought to know whether the speaker's mindset is limited or conditioned by his/her language as well. The general theoretical literature on this subject and specifically in the context of the English-speaking world is inconclusive on several questions concerning limitations of language within the fields of Cognitive linguistics and Linguistics Semantics. The study sought to answer these three questions:

1. How does language shape our world view?
2. How do influences and limitations within language affect our vision of the world?
3. Are thought, language and culture effectively interrelated?

The main empirical findings are chapter specific and were summarized within the respective empirical chapters: 3. Vision of the world; 3.2. How does language affect our world view? , 3.3. Categorization; 3.4. The Sapir-Whorf Hypothesis: Linguistic Relativity and Linguistic Determinism, 3.5. Langacker's Space Grammar; 3.6. Reddy's Conduit Metaphor; 3.7., The Functionalist Connection, 3.8. Verbs of Movement and Motion Events, 3.9. The Experiential Realism. This section will synthesize the empirical findings to answer the study's three questions.

First, the world is structured thanks to cognitive domains and it is possible to think in the absence of language, which derives into the separated consideration of thought and language. The extracted findings to answer this question belong to studies carried out by Jackendoff, who describes the tendency to establish blurry boundaries within thought as it should be considered as a separated brain phenomenon. However nowadays, three groups of findings give evidence of the problem related to the manners through which language shape our world view:

- First, animal research, brain imaging techniques and studies of brain damage lead to understand that many areas of the brain act as a whole.

- Secondly, the function of neurotransmitters has global effects on the brain. This aspect does not give answers to know how information is stored in the brain.
- Thirdly, neurons and small systems of neurons work does not give evidence of the way neurons encode words of speech sounds, which is an unknown matter.

In definitive, these three unknown answers suppose a problem to justify our question matter. The selected solution supports the idea of computer analogy as well as the acceptance of the fact that some brain phenomena cannot be fully aware.

Secondly, in contrast with the gap left by the previous consideration regarding how language is stored in the brain, Eleanor Rosch's studies on categorization explain manners through which category connects words with reality by means of personal experience. Experiments based on plant and colour categorization as well as the birdiness ranking show an evolution from the classical idea of categorization towards modern considerations based on prototypical and basic-level categorization. The extracted results prove there is a variation between the number of categories and certain cultural groups. In fact, the social world varies regarding different cultures. Thus, there is a clear interrelation between mental associations and the way information is stored after this is learned through personal and human perceived experiences.

Thirdly, in relation to categorization, the Sapir-Whorf hypothesis provides useful evidence to affirm that language partially depends on thought. Colour experiments developed by Kay and Kempton as well as Dan Slobin's Whorfian effects show how category system is inherent in language, explaining how speakers interpret experience. Linguistic Relativity and Linguistic Determinism consider the importance of manners of addressing external reality since the spoken language influences the way the world is perceived and understood. Thus, language has some effect on thought; there is a connection with the world of experience depending on the way categories are used as well, since this determines the perception of reality. Additionally, mother tongues have a clear influence in shaping -habitual thought. In definitive, Sapir-Whorf's Hypothesis has a partial efficacy. Not only Linguistic Relativity and Determinism should be considered but embodiment rules as well. Hence, the crucial factors to explain the vision of the world regarding the way reality is classified are the social and cultural level, categorization and embodiment.

Fourthly, in spite of the influence of mother tongues to define perspectives, Langacker's Space Grammar mainly focuses on relations extracted from experiences

since semantics are considered to be encyclopedic. Not only the meaning of words is based on experience but each speaker develops a different worldview at the same time. This theory similarly considers Whorf and Sapir's interrelation between language and thought. Nevertheless, Langacker meticulously deals with grammar within language, from where he defines content requirement and Langacker's style analysis. In this way, language works as –networks of unit|. Hence, conventions in language are needed among speakers and the vision of the world is perceived as changeable in nature.

Fifthly, considering language in terms of cognition, expression and conation, the Functionalist Connection helps to understand regularities and correspondences between syntax and discourse. This theory deals with discourse influences on grammar since syntactic forms and discursive functions are intimately related. Moreover, there is a low degree of formalization in linguistic typology, which guarantees connections through a functionalist approach. The results extracted from these connections explain the relevance of linguistic typology in the way information is structured, which differs among different languages; diverse syntactic components and different interpretations of events. In definitive, the function of grammar varies between different languages and the previously mentioned correspondences represent a fundamental importance in relation to how reality is perceived in different visions of the world.

Sixthly, Talmy's cross-linguistic studies on typology of lexicalization patterns in relation with motion events conforms the basis for a contrastive analysis between a satellite-framed language, such as English, and a verb-framed language, such as Spanish. This analysis provides revealing results proving that speakers of motion-verb languages describe motion with manner verbs and speakers of path languages describe motion mainly with path verbs. Moreover, there is evidence for the fact that innovated manner verbs of self-movement continued being created. Thus, manner of motion is a domain of increasing interest to English speakers and it is very useful to understand the particular vision of the world derived from the nature of verbs in different languages.

Lastly, Experiential Realism offers an in-between position regarding Objectivist and Subjectivist theories. In this way, meaning is no longer based on correspondences between reality and meaning but experience. Therefore, there is a real world and meaning does not deal with truth-values. This theory finds limitations concerning the metaphor abstract domain since it eliminates any sort of correspondences between meaning and truth and substitutes them with embodiment of meaning. This supposes the existence of a mental representation of recurrent patterns of experiential embodiment (i.e., image-

schema). As a consequence, perceptual grounded experience emerges from our embodied interactions with the world. Thus, personal experience of the world is one of the most noteworthy issues to be considered regarding the comprehension of different perceptions of external reality.

The manner thanks to which language affects the world view has been shown to be neither entirely based on correspondences between thought, language and culture nor do its limitations suggest a full explanation of the developed system. I have here been considering language as a cognitive entity; speakers as users of such cognitive tools and the brain as the computer that facilitates communication. For all we know, partial correspondences between these elements are possible. The cognitive abilities of human beings cause us to develop further searching unanswered questions about the limitations and boundaries within language. Thus, I consider, help to promote our scientific perspectives through the increasing development of the Cognitive Linguistic community throughout the 21st century will facilitate the answers to the identified boundaries within language as well as the contribution to a much more complete comprehension of our worldview.

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