

TRANSLATION AND COGNITION: METAPHORS IN SPECIALIZED TEXTS

Guzzo Kevin Patrick¹;

Naranjo Ruiz Mónica²;

Suárez de la Torre María Mercedes³;

Research Group CITERM – Research Group Neuroaprendizaje
Universidad Autónoma de Manizales

Palabras clave: Metáfora, Nivel de especialidad, Textos especializados, Corpus paralelo, Traducción y cognición.

Keywords: metaphor, level of specialty, specialized texts, Parallel Corpus, Translation and Cognition.

ABSTRACT

For Aristotle, the metaphor is more than just a rhetorical resource, it is a transposition of meaning from one to that of another. This should not be understood as a simple name change or simple change in meaning either, but an integration or transfer in the meaning of a term, from one meaning to another by means of an image. On the other hand, Lakoff and Johnson (2003) assert that metaphor impregnates everyday life, not only language, but also thought and action. From this perspective, our ordinary conceptual system is fundamentally metaphorical in nature.

The objective of this article is to illustrate the way in which specialists use metaphor as a discursive resource, to simplify and explain concepts, allowing them to be understood in a more concrete way. This also approximates concepts to the experience of the reader as well as, expressing them so that they become

1 Licenciado en Ciencias de la Interpretación Musical, Licenciado en Literatura, Candidato a Magíster, Maestría en Traducción.

2 Docente-Investigadora Universidad Autónoma de Manizales, Candidata a Magíster, Maestría en Traducción.

3 Doctora en Lingüística Aplicada. Directora del Instituto de Idiomas- Universidad Autónoma de Manizales, Coordinadora Maestría en Traducción, Universidad Autónoma de Manizales

Recibido: Febrero 10 de 2010

Aprobado: Abril 20 de 2010



accessible for the majority of people. (Suárez, 2004) Furthermore, demonstrate how this linguistic phenomenon, in a discourse, is transferred from the original text to the translated text.

This work began with the selection of a corpus of parallel texts from the field of psycholinguistics. The selection of the corpus took place under the following criteria: parallelism, singularity of domain and the level of specialty. The data analyzed will yield results of both a qualitative and quantitative nature regarding the changes that take place when translating metaphors. These results significantly support the master's thesis under development within the research line of *cognitive processes in translation* in the Universidad Autónoma of Manizales in Colombia. Equally, this descriptive work will provide important input to develop the experimental tests that is part of the master's project previously mentioned.

RESUMEN

Para Aristóteles, la metáfora, más que un recurso retórico, es una "transposición" del significado de una cosa a otra, que no debe entenderse como su simple cambio de nombre. No es un simple cambio de significante, sino la integración, o transporte, en el significado de un término, de una parte del significado de otro por medio de una imagen. De otra parte, Lakoff y Johnson (2003) señalan que la metáfora impregna la vida cotidiana, no solamente el lenguaje, sino también el pensamiento y la acción. Según estos autores, nuestro sistema conceptual ordinario es fundamentalmente de naturaleza metafórica.

El objetivo de este artículo es doble: de un lado se pretende mostrar la manera como los especialistas recurren al uso de la metáfora para simplificar o explicar los conceptos y darlos a comprender de forma más concreta, de tal modo que se aproximen a la experiencia de los destinatarios; es decir, de una forma que tenga sentido para la mayoría de la gente (Suárez, 2004). De otro lado, mostrar lo que ocurre con este fenómeno lingüístico-discursivo en el paso del texto original al texto meta.

Para llevar a cabo este trabajo, hemos seleccionado un corpus de textos paralelos del dominio de la psicolingüística cognitiva. Dichos textos han sido seleccionados bajo los criterios de paralelismo, unicidad del dominio y nivel de

especialidad. Los datos analizados arrojarán resultados no sólo de índole cualitativo, sino cuantitativo en cuanto a los cambios que ocurren en el momento de traducir la metáfora. Dichos resultados aportarán de manera significativa a la tesis de maestría que se desarrolla en torno a la línea de investigación *procesos cognitivos y traducción* en el Programa de Maestría en traducción de la Universidad Autónoma de Manizales. Igualmente, a partir de este trabajo descriptivo, se espera obtener insumos para desarrollar la prueba experimental que formará parte de la investigación.

1. Introduction

Although metaphors are often considered to be mere acts of rhetoric, recent research in cognitive theory has suggested that metaphors are much more fundamental in the normal act of comprehension. This theoretical perspective regards metaphors as a basic tool from which more abstract concepts are constructed from others which are more concrete. Moreover, this article places the expert's use of metaphor to communicate deep scientific knowledge that laymen would not normally understand related to this theory of metaphor.

It can be argued translation and speech acts share many of the same general characteristics; both are acts of communication which take place within a certain socio-cultural context. For the most part this principally consists of linguistic aspects and based on an underlying cognitive frame work. The cognitive theories of metaphor (Lakoff & Johnson, 2003) have demonstrated that metaphors are much more than a cultural symbol or ornamental within a discourse, but a cognitive phenomenon that takes place in order to categorize and understand experience. Therefore, this article reflects upon metaphorical language as a tool to aid the comprehension of specialized knowledge by non-experts and because of this insight the translation of metaphors within a source text (ST) is essential to the adequate translation of a specialized discourse.

This descriptive analysis, aims first to explore how the Canadian physiologist, Steven Pinker, author of the "*Language Instinct*" uses metaphor to explain specialized concepts to a non-scientific audience. Secondly, analyze from a cognitive translation perspective how a translator copes with this linguistic phenomenon within the discourse. How this feature effects the translation of the ST and the possible implications of this within the translated discourse.



2. Theoretical Framework

2.1 Different perspectives of Metaphor

Aristotle, in his works meditated on metaphor and its emotional affect in humans talks of metaphor from two perspectives: first, within literature specifically poetry, and secondly from its persuasive nature in specific contexts of judicial and political communication. This latter perspective one can see how this resource had already been used and considered within specialized discourse. His analysis of linguistic expression centers around the study of a fundamental lexical unit, names. He proposes to classify based on characteristics of morphology, style and conventionality. In his classification of style appears the designation metaphor, which he differentiates between types of names current or strange, dialectal, ornamental, newly coined or lengthened, contracted or altered. He states that names in and of themselves are not metaphors but are converted in metaphors when a name that designates one thing is transferred to another. The principal of his definition of metaphor is a lexical necessity and within his classification he considers analogy and the simile.

The advent of cognitive science the study of metaphor has taken a new and distinct perspective. These theories consider metaphor as a cognitive phenomenon, not a purely linguistic or rhetorical resource, which is fundamental to the construction of concepts. Brugman (1988) considered metaphor as a tool to help linguistic mechanisms such as lexical polysemy while Sweetser (1990) studied the phenomenon in terms of explaining constructional polysemy as well as the historical changes.

In contrast Lakoff and Johnson (2003) consider the fundamentals of our conceptual system in terms of which we both think and act are essentially metaphorical in nature. They propose that the underlying process of comprehension is automatic and without conscious effort. Furthermore, they state that metaphors are used to construct new concepts from those that already exist. This linguistic resource forms a hierarchy which is characterized in a coherent system of metaphorical concepts and a correspondent system of metaphorical expressions of this basic concept.

Metaphors conceptualize experience in terms of a cognitive mechanism which maps one domain of experience on top of another. This is to say, that the second

domain is understood, at least partially, in terms of the first. The second domain receives its conceptual structure from the first and allows the listener or reader to understand the meaning in more specific and concrete terms. (Lakoff & Johnson, 2003) The target domains are for the most part more abstract and therefore more difficult to conceptualize whereas the source domains are typically more concrete and physical. Within this perspective metaphors are not only a stylistic resource used to embellish a discourse, they become essential elements in the process of understanding, creating, and categorizing reality.

The cognitive theory states that the majority of meanings are metaphorical and the adequate interpretation is reached by conceptualization, instead of reinterpretation. Therefore, this article considers in agreement with this theory the assertion that experts use metaphors in a specialized discourse as a way to form and explain new concepts and deep scientific understanding that would be otherwise inaccessible.

2.2 Classification of metaphors from a cognitive perspective

Lakoff and Johnson (2003) have classified metaphors in 4 types: ontological, personification, structural and orientational metaphors.

2.2.1 Ontological metaphors

The principal characteristic of this first type of metaphor is the objectification of an abstract concept or phenomenon. Through this, the ontological metaphors make the understanding of abstract features of experience more easily referenced and quantified. This type also serves as a way to attribute qualities and establish motivations by means of the new physical nature of an abstract concept.

2.2.2 Personification metaphors

This type of metaphor refers to the attribution of human qualities to objects and concepts. By this, the reader will be able to construct a familiar mental representation which will help them to understand the concept being explained.

2.2.3 Structural metaphors

Structural metaphors are those in which a concept is structured in terms of another. This characteristically takes one domain, usually more abstract, and

maps it to another, there by the first receiving structure from the second. This structuralization allows a reader to understand certain aspects of a concept better via the more accessible physical domain.

2.2.4 Orientational metaphors

This type comes directly from our experience of the world around us. These new spatial relationships intend to make concepts clearer, by referencing easy to understand concepts like up and down for concepts related to emotion (happy is up, down is sad), quantity and quality (more is up, down is less).

2.3 Cognitive Translation process

Amparo Hurtado (2007:40) states “There are three features that characterize translation: it's an act of communication, an operation between texts (and not language), and a mental process”.

In the light of this, the translator should consider three important aspects: translation as an act of communication, translation as a median of communication between the ST and target text (TT) and lastly translation as a cognitive process which aims at communicating a message adequately in a different socio-cultural context. This complex process of communication requires both linguistic and cultural knowledge in order to achieve this objective (Shreve et al 1997).

The process of translation involves two principal stages one external and one internal. The former establishes two parallel interactive relationships one between the translator and the ST and the other between the translator and receptors of the TT. While the latter stage consists of the comprehension processes regarding the ST, the translation and production of the TT (Neubert, 1997), the capacity of the translator to interpret and infer relevant information in the ST and his linguistic ability, both semantic and pragmatic, to produce said discourse in a new socio-cultural context. The ST comprehension requires activation of memory, perception, attention and decision making in the translator's mind.

During this process, the translator becomes the first ST receptor immersed in a cognitive medium, which will provide him with the necessary key elements to produce the mental representations of the ST, and through this find the

adequate language resources to construct a textual reality. In the light of this, he will be capable of verbalizing, by means of a speech act, within a specific context of communication a linguistically and culturally adequate message to a new receptor. The previous idea represents a shared knowledge which on one hand regulates a specific speech act, fortunate or unfortunate, and on the other hand is responsible for the contextual effects (Evans and Green 2006).

When reflecting on the theme of translation, it is important to be aware of three important aspects: the intentionality of the source text, historical and cultural context, and the cognitive process of translation. With this in mind, the intentionality of the source text, it seems appropriate to mention that the corpus of analysis emerged from the metaphors identified in the first two chapters of the book "the language instinct", by Pinker. The author approaches the theme of the acquisition of language in psycholinguistics. Since this may be a specialized topic, not easy to understand by the general public, he resorts to this linguistic phenomenon, the metaphor, to make some specialized concepts be understood by general readers.

2.4 Metaphors in translation

Finally, to arrive at the significance of metaphors in the process of translation and discourse, it is essential to begin with the conceptualization of said process. The cognitive process becomes an important aspect with enormous relevance in the translation process because the translator, by means of these mental processes, establishes appropriate linguistic relationships within the historical and cultural context of the text, and re expresses it in the target language and culture.

The metaphor as a linguistic discursive phenomenon should be understood, interpreted and translated adequately from its source language and culture to its target language and culture. For this reason we consider important to refer to the proposal of Sperber and Wilson (1995) based on the previous work of Grice (1975) and Fodor (1983) around the pragmatic and the relevance of language in specific situations of communication.

If we start from this theoretical proposal, the translator should understand not only the meaning of the metaphor, but decode the intentionality of its use in the

source language with an end to find a metaphor or expression in the target language that transmits the same message and the same intentionality. The three aspects of translation mentioned above are compounded when the translator encounters the presence of metaphorical language. First, there is the necessity to identify the domains of the metaphor, and the relationship between these domains within context. This relationship between domains is the key to the meaning and intentionality of any given metaphor based on the cultural significance of the domains, and the intentionality of the domains chosen by the author. Secondly, the translator must be aware of the significance of the domains themselves and furthermore of the relationship between these domains in the target language and culture. If the domains of the metaphor and the relationship between them are not recognized in the target language and culture, it is of the utmost importance that the translator shifts these domains to a culturally appropriate symbols and relationship in order to achieve the same effect in the target language and culture.

The materialization of the translation process is the product or text, which is made possible through this complex act of communication. Within this flow a number of cognitive processes that require both linguistic and cultural knowledge to complete the adequate transfer of a speech act from an original language in a specific situation of communication. The translation of metaphors is no different, only more complicated because the form of communicating concepts requires a process of analysis, comprehension, interpretation of a specific situation of communication in one language and socio-cultural context and express them in another.

Therefore, the translator has a double responsibility with the author of the text and the readers (of the translation) to re-express an adequate discourse, that satisfactorily communicates all the aspects mentioned above. This agrees with the observation of Martínez, 2004:16

"The pragmatic elements appear in the act of communication and affect translation; equally it is necessary to consider the discursive elements and the form in which they operate in the corresponding textuality, as well as the origin as a result of product."

It is essential to the labor of the translator to identify the intentionality behind the act of communication with an end to establish a strong relationship

between language, context and text. Furthermore, the multi-dimensional relationship between the three elements is just as important as the three elements themselves because this relationship bears heavily on the negotiation of meaning. This is how it is expressed in (Hurtado, 2007: 543)

"This is how the meaning of the text is always a negotiation between the producer and the receptor. This negotiation of meaning is also produced in the translation and follows Hatim and Mason as a key functional element."

When we speak of meaning in translation there needs to be a careful consideration of the inferential process that a well formed translator realizes to unveil the significance of a speech act. Therefore, the translator confronts two visions of the world, the first from the source culture and language and those of the target culture and language. With this in mind, a skillful translator possesses both declarative and procedural knowledge which together with creativity and resourcefulness permits the production of a contextual adequate text.

3. Methodology

For this article a parallel corpus was chosen consisting of the English version of the *language instinct*, by Steven Pinker and its Spanish version translated by José Manuel Igoa González. The English original was the ST and the Spanish the TT. These texts were selected under the following criteria

- A text written by an expert on the area of psycholinguistics.
- A text written for a general public.
- A text that had a Spanish version.

The analysis consisted of the identification and classification of the metaphors under the criteria of Lakoff and Johnson's cognitive proposal (2003). These metaphors once identified and categorized constitute our corpus of analysis.

4. Results and Analysis

The metaphors were classified as follows:

4.1 Type 1 metaphors

The following examples illustrates metaphors that have been classified in type one.

Example 1:

"For you and I belong to a species with a remarkable ability: we can shape events in each other's brains with exquisite precision". (E1)

In this context, the metaphor identified is: shape events in each other's brains; this metaphor makes an implicit reference to language and its associated effects on perception and reality. Additionally this metaphor refers to conscious experience and gives form to reality and allows a metaphorical visualization of a substance or an entity for the concept of events. This concept converted into a substance permits the concept to be quantified, referred to, identified, seen as an effect, classified and categorized. The preceding permits to reference an abstract part of experience and give form to reality. Secondly, giving form to this concept takes place within a container, in this case, the brain.

This specific case the author of the original text explains how psycholinguists view an abstract concept from everyday experience by means of converting it into a substance through the resource of metaphor. This statement possesses a double intentionality by the author, first to make language theory better understood by the reader, and secondly try to make the reader marvel at a daily occurrence which he might not have previously reflected upon.

Example 2

"The kivunjo construction fits entirely inside the verb, which has seven prefixes and suffixes, two moods, and fourteen tenses; the verb agrees with its subject, its object, and its benefactive nouns, each of which comes in sixteen genders. (E14-15)"

In this example, we analyze the metaphor fits entirely inside the verb, which makes reference to Kivunjo Construction like an entity that is within a container, the verb. This metaphor allows the reader to visualize the grammatical constructions, the conjugation of verbs in a foreign language, a difficult topic of

discussion for those of us unfamiliar with the dimensions of language (syntactic, semantics, pragmatics). With this metaphor, the author tries on one hand to illustrate in accessible terms exactly how a foreign language functions. While on the other hand, demonstrate in a simple way the contrast between how this grammatical mechanism works in Kivunjo with the same in English, which has a very different system of conjugation.

These descriptions allow one to speculate that the metaphor type one corresponds to ontological metaphors (OM) denominated by Lakoff & Johnson (2003).

ONTOLOGICAL METAPHORS (OM)	
"Something abstract becomes a substance or entity, in such a way it can be identified, quantified, referred	"For you and I belong to a species with a remarkable ability: we can shape events in each other's brains with exquisite precision". (E1)
	"The kivunjo construction fits entirely inside the verb , which has seven prefixes and suffixes, two moods, and fourteen tenses; the verb agrees with its subject, its object, and its benefactive nouns, each of which comes in sixteen genders.

4.2 Type 2 metaphors

The following example demonstrates what is considered as type 2 metaphors.

Example 1

"Some thirty-five years ago a new science was born." (E3)

In this context the author refers to the origin of a new science, cognitive science, by means of the verb was born. This metaphor functions as a characterization and a description of the events that surrounded the emergence of this new science. This metaphorical meaning of the verb suggests that one considers this in more human terms in hopes of facilitating the understanding of the event. This image of science does not only reside in the start or birth of this new science but also infers other aspects and dimensions: development, contributions, assigning worth. In this context the author of the original text, using a simple verb personifies a science.

Example 2

"The corresponding Kivunjo construction is called the APPLICATIVE, whose resemblance to the English dative, Brensen notes, "can be likened to that of the game chess to checkers. (E14-15)"

The following example the author uses a metaphor of personification to explain and contrast grammatical structures between English and Kivunjo, a language spoken en Tanzania and Kenya. The metaphor whose resemblance personifies a grammatical structure found in Kivunjo, denoted by the term applicative, with the intention of comparing it with its correspondent construction in English. The presence of the relative pronoun whose which literally denotes people and which is followed by the noun "resemblance" places the comparison of two types of grammar out of the domain of a pure theoretical discussion of grammar and places it in the simple context of comparing two people, or two peoples faces.

This metaphor is used by the author to leave the discussion of grammatical intricacies and make the comparison in concrete terms that a non-expert and quantify and qualify. It is important to note, that personification is not an all encompassing form of metaphorization, which is to say that because a person or thing is personified in one way does not imply that the personification is continued to other characteristics of human beings. This personification, in terms of Lakoff & Johnson (2003), corresponds to what they denote as personification, which from here forward will be regarded and represented as PM

PERSONIFICATION METAPHORS (PM)	
What is not considered human becomes human by giving certain features which associate human likeness. This allows a better understanding of specific phenomena.	<p>"Some thirty-five years ago a new science was born." (E3)</p> <p>"The corresponding Kivunjo construction is called the APPLICATIVE, whose resemblance to the English dative, Brensen notes, "can be likened to that of the game chess to checkers". (E14-15).</p>



4.3 Type 3 metaphors

Examples 1 and 2 demonstrate the use of type 3 metaphors. These have been used by the ST author to make receptors more easily understand the scientific meaning he intends to convey.

Example 1

"In part this is because Chomsky attacks what is still one of the foundations of twentieth-century intellectual life-- the "standard social science model," according to which the human psyche is molded by surrounding culture." (E11)

This example refers to the concept of debate or argument by using the verb attacks which take on a metaphorical meaning. This meaning of the word emerges on many occasions and passes unnoticed because of how accustom to this usage one is. Here attacks acquires a metaphorical meaning because the author is not speaking of a violent physical attack, or the start of a battle. The author is resorting to the use of metaphor by speaking of the concept of scientific argument in terms of war and battle.

Also found in this example is the lexical item foundations used metaphorically within this context. This term literal used in reference to the base of a structure or building, but in this case denominates the fundamental elements that still are part of the intellectual life (debate) in the twentieth century.

Example 2

"Therefore, he argued, children must innately be equipped with a plan common to the grammars of all languages, a universal grammar, that tells them how to distill the syntactic patterns out of the speech of their parents." (E9).

In this example, the author explains the observations that lead Chomsky to develop his theory of universal grammar. The metaphor be equipped with a plan, refers to the genetic disposition of human beings that allows and facilitates the acquisition of language like a system of a machine. The implicit concept of machine illustrates the systematic organization of the human mind and tries to characterize the language faculty like a system that is part of a machine. The author approaches language and Chomsky's theory as if it were a component, or plan, which is part of a machine: children.



In this context we also find the verb distill, accompanied by the propositions out of which in this case take on a metaphorical meaning referring to an act of speech. In this case, the meaning is presented as a substance, which is separated, or distilled, from a container, the speech act. This metaphor speaks of the process of understanding in terms of the separation of two substances.

The discreet metaphors in example one and two of type 3 metaphors, or Structural metaphors, denominated by Lakoff & Johnson (2003).

STRUCTURAL METAPHORS (SM)	
A concept is, partially or totally, structured in terms of another.	"In part this is because Chomsky attacks _what is still one of the foundations of twentieth-century intellectual life-- the "standard social science model," according to which the human psyche is molded by surrounding culture. " (E11)
	"Therefore, he argued, children must innately be equipped with a plan common to the grammars of all languages, a universal grammar, that tells them how to distill _the syntactic patterns out of the speech of their parents." (E9).

4.4 Type 4

Example 1

"They know that grammatical sophistication used to be nurtured in the schools, but sagging educational standards and the debasements of popular culture have left a frightening decline in the ability of the average person to construct a grammatical sentence." (E4)

In this example there are two metaphors of equal types, both are orientation metaphors and conceptual metaphors. They are orientation because both are rooted in the concept of verticality which is cognitively linked to the conceptual metaphor more is up, less is down. On one hand, the spacial relation up-down in which sagging indicates a worsening or a decrease of educational standards. This agrees with Lakoff and Johnson (2003) in that the concept of down refers to less.

"Such orientational metaphors are not arbitrary. They have a basis in our physical and cultural experience" Lakoff & Johnson (2003:14)

On the other hand, we identify decline which also falls within the spacial concept of up-down, in referring to ability, with the meaningless is bad. Moreover, they are good examples how a very basic and simple conceptual metaphors, aided by semantics can be a very descriptive and precise. The fact that educational standards are "sagging" and not "plunging" leads to a very specific understanding of how the author wants the reader to understand a particular phenomena.

Example 2

"Though I happen to agree with many of his arguments, I think a conclusion about the mind is convincing only if many kinds of evidence converge on it. (E11)

This context uses the concept of movement as a metaphor by means of the lexical item converges which refers to the development and progression of scientific understanding. This metaphor depicts the progression of scientific knowledge as a path that leads to a specific place "understanding". This movement to a specific place establishes an orientational relationship, and for this, this metaphor corresponds to metaphors 4.

This type of metaphor in which the author establishes a spacial relationship, weather that be up-down, inside-outside, deep-shallow demonstrates some important aspect of a concept by means of our physical experience in which we live. In Lakoff & Johnson (2003) this type is called Orientational metaphors .

ORIENTATIONAL METAPHORS (EM)	
This type of metaphor establishes a spatial relationship indicating in-out, behind-in front of, up-down, deep-superficial, to show how the physical medium we live in works.	"They know that grammatical sophistication used to be nurtured in the schools, but sagging educational standards and the debasements of popular culture have left a frightening decline in the ability of the average person to construct a grammatical sentence." (E4) "Though I happen to agree with many of his arguments, I think a conclusion about the mind is convincing only if many kinds of evidence converge on it. (E11)



TYPE OF METAPHOR IN ST AND THE CORRISPONDING TO		
ONTOLOGICAL	17	26%
PERSONIFICATION	6	4%
ORIENTATIONAL	15	23%
STRUCTURAL	32	47%

Table: 1 Summary of the number and percentage of metaphors.

4.5 Contrastive Analysis

This contrastive analysis considers three cases of metaphors found in the corpus of analysis. This analysis will lead to the formation of some hypothesis about the process of translation, in which the comprehension, and translation of metaphors to be an integral part of the comprehension of the text and also the translation of that text to another culture.

4.5.1 Case 1: Preservation of the metaphor from the ST to the TT.

Example 1

ST context

"In our social relations, the race is not to the swift but to the verbal-- the spellbinding orator, the silver tongued seducer, the persuasive child who wins that battle of wills against a brawnier parent." (E3)

TT context

"En nuestras relaciones sociales no se admira la rapidez sino la rabia: el orador que nos hechiza con sus palabras, el seductor que nos conquista con su verbo, o el niño persuasivo que convence a su testarudo padre".(S17)

In this small excerpt the author of the original text speaks of the importance of language in everyday life. In the first metaphor that we find in the ST the author compares life to a race, and affirms that this race is not speaking of speeds in a literal sense but skill with words. For this reason we have classified this metaphor as a type 4, or structural metaphor. The translator preserves the

metaphor referring to life in terms of a race. Notwithstanding, there is a difference in the TT that the translator has left the implicit metaphor in turn to use a more explicit comparison by means of a small lexical change.

The metaphor has been preserved in terms of the fundamental observation that within the meaning it is not speed but verbal virtuosity. Keeping in mind the implicit in the TT, we can suppose from this that the reader of the translation needs to pay a lot of attention to understand the specifics of this implicit comparison.

The second metaphor found in the ST is an image evoked by battle of wills between a father and a son. This metaphor in the TT corresponds to a conceptual metaphor and also a structural metaphor as put forth by Lakoff and Johnson (2003). In the translation of this passage the translator omits this metaphor and uses the term persuasive. The effect of this change on the translation is minimal in that the term used by the translator and the situation described are familiar and literal terms easily understood by the second reader, as the metaphor is by the first.

4.5.2 Case 2: Partial preservation of the metaphor

ST context

"They know that grammatical sophistication used to be nurtured in the schools, but sagging educational standards and the debasements of popular culture have left a frightening decline in the ability of the average person to construct a grammatical sentence". (E4).

TT context

"Sabe que antiguamente se fomentaba en la escuela el uso de gramáticas más sofisticadas, pero que unos sistemas educativos cada vez más raquínicos, unidos a las aberraciones de la cultura popular han llevado a un preocupante empobrecimiento de la capacidad del ciudadano medio de construir correctamente las frases de su idioma." (S17).

In this example the author is speaking about what he calls the false belief held by many in the intellectual and middle classes that those from the working and lower class use a language that is riddled with errors and less refined and simplistic. He picks out two common aspects of the belief that characterizes this false idea.

In the ST the metaphors we have identified are derived from the conceptual metaphor down is less, one refers to the cause while the other in the same refers to the effect. In the example he identifies two common perceived causes for this misconception, and its effect on the average person. In the original the metaphors that concern us are both derived from the down is less conceptual metaphor one taking place in the name of the cause while the other taking place in the description of the effect. In the English the use of sagging educational standards denotes a not a rapid fall, but a deep hanging line, a trend. This is followed by the effect of the decline in the ability which agrees with the first metaphor in both cognitive content and character.

The translator chooses a decidedly different metaphor to describe the same two phenomena in the discourse: personification. Like the agreement observed in the English, the Spanish employs two images of a similar domain. The correlation between the semantic term raquílicos, in place of sagging and decline translated as empobrecimiento changes the representation of the relationship between the cause and the effect from the vertical dimension to a domain of poverty.

4.5.3 Case 3 Omission of the metaphor from the ST to the TT

Example 1

ST context

"Injuries in adulthood are not the only way that the circuitry underlying language can be compromised". (E37)

TT Context

"Los daños neuronales que se presentan en la edad adulta no son el único medio por el que los tejidos neurales responsables del lenguaje se pueden ver alterados." (S49).

Pinker in this context is explaining to the reader the scientific importance of studying the many conditions and disorders that may develop and how scientists interpret and use them to draw broader conclusions about the physiology of language. In the original Pinker stays within a very commonly recurring structural metaphor from the text, the brain is a machine, by referring



to the circuitry of the brain. Here the translator chooses to delete the metaphor entirely and instead refer to the same item with the literal lexical term tejido tied, or woven.

This deletion may have been chosen for a number of reasons, but does not seem to have much effect in context because in this particular instance in the discourse the author is describing a physical injury to tissue and not the physical mechanics of language. Moreover the metaphor is for the most part considered and emphasized throughout the discourse, which leads one to believe that this particular example where the metaphor is replaced by the literal lexical item while referring to physical injury has a minimal effect on discourse.

5. Presentation of General Statistics

Of the 67 metaphors that appeared in the first two chapters of Pinker's book, the vast majority are structural metaphors making up 45% of the total number. The second highest percentage, in terms of total number of metaphors, is ontological with 18% and Orientational with 16% in third.

Within the translated text of the 67 metaphors, 29 were either deleted or went under a conceptual change making up 43% of the total number. Total metaphorical preservation accounted for 61% of the total or 41 one examples. ST metaphors are unique in that they undergo no change in type and few deletions in relation to total number. While in all the others there are observable deletions and changes at higher frequencies to the relation of the total number.

5.1 Analysis of Statistics

From these general statistics and analysis of the conceptual and linguistic preservation and change in the metaphors permits the following conclusions to be made.

First, from the obvious unbalance in the number of occurrences between the types of metaphor it may be inferred that structural metaphors are the most relevant to the basic understanding and expression of concepts. This is supported by the fact that they are the most widely used and frequently

preserved type of metaphor within the original text and its translation. Moreover, the modulations observed in the structural metaphors are only of domain, not type further suggesting the strong conceptual relationship in both languages of structural metaphors.

Although Orientational metaphors when first considered within the two languages and cultures seem to be the most readily shared and therefore easily translated. The statistics suggest a weak or an arbitrary relationship between the concept and the linguistic expression. This is supported by their frequent deletion and modulation of type. This has implications for what is considered the translatability of a metaphor.

These first two observations if considered to be like a continuum for the strength of the relationship between the concept and linguistic expression, ST metaphors at one extreme possessing strongest and EM the weakest. Therefore the two types that remain, PM an OM, exist somewhere in the middle of this continuum with OM closer to the top and ST. This can be counter intuitive when considering that both the EM and the OM metaphors share a commonality of their deep roots in experience. But the evidence observed here strongly suggests that OM and PM metaphors are more based on the shared cultural values than conceptual integration and allows for these changes in the translation without a sacrifice of meaning or intentionality by the author. This is based on the observation of the frequency of deletion and conceptual changes that both types undergo within the analyzed corpus.

Type of metaphor	Total number in ST	Change of the type of metaphor in TT	# of occurrences in TT de
OM	17	Preservation	12
		Elimination	5
SM	32	Preservation	24
		Elimination	8
EM	15	Preservation	4
		Elimination	7
		Personification	2
		Structural	2
PM	6	Preservation	3
		Elimination	2
		Structural	1

Table 2 Summary of the contrastive analysis of metaphor.



6. CONCLUSION

The analyzed data suggests the translator needs a multi-dimensional comprehension in order to carry out an adequate process in which linguistic, cultural and textual knowledge aid in the understanding and translation of a text. The observable majority of preservation in the TT infers the understanding on the part of the translator in regards to the importance of metaphor in relation to the intentionality of the author. Further evidence of this rests in the translator obvious effort to find a cultural acceptable metaphor when total preservation is not possible and a domain must be shifted.

The evidence supports that the translatability is not only related to the two particular cultures, but also intimately tied to the strength of the relationship between the metaphor and the concept. In the light of the intentionality of the author the metaphorical imagery is secondary to the concrete presentation of concepts to the reader. In other words, meaning and intentionality more closely govern the translation of a metaphor while cultural imagery and specific metaphorical type is accounted for only after satisfying the author's intentionality and the conceptual significance.

Finally, the elimination of a metaphor indicates a greater responsibility on the part of the reader requiring deeper knowledge of the area or strategies that lead to the understanding of the scientific concepts expressed in the text. These deletions may generate a change in style or loss of intentionality to varying degrees. This further stresses the importance of the process and decision-making of the translator on all linguistic and cultural aspects of the text. This follows the theory of the negation of functional elements within the text as expressed by Hurtado (2007)

Works Cited

BRUGMAN, C. (1988) The story of over: Polysemy, Semantics, and the Structure of the Lexicon. N.Y:Garland.

EVANS, V. and GREEN, M. (2006) Cognitive Linguistics. An Introduction. Edinburgh University Press.



FODOR, J. A. (1983). *The Modularity of Mind*. MIT Press, Cambridge, M.A.

GRICE, H.P (1975). "Meaning". *Philosophical review*. Reprinted in Steinberg and Jakobovits.

HURTADO, A. (2007) *Traducción y Traductología, introducción a la Traductología*. Madrid. Ediciones Cátedra.

LAKOFF, G. and Johnson, M. (2003) *Metaphors we live by*. Chicago: University of Chicago Press.

MARTÍNEZ, J. L, (2004). *Elementos Pragmáticos y Discursivos en los Procesos de Traducción*. en *Language Design*, Universidad de granada, 6 , 161-171.

NEUBERT, A. Cognitive Processes in Translation and Interpreting. Sage Publications

PINKER, S. *The language Instinct*. New York: HarperCollins Publishers, 2007.

PINKER, S. *El instinto del lenguaje*, Trans. Jose Manuel Igoa Gonzalez. Madrid: Alianza Editorial, 2007.

SHREVE, Gregory M. et al. (1997) *Cognitive Processes in Translation and Interpreting*. Sage Publications..

SUÁREZ, M.M. (2005). *Análisis contrastivo de la variación denominativa en textos especializados: del texto original al texto meta*. Tesis doctoral, Instituto Universitario de Lingüística Aplicada, Universitat Pompeu Fabra, Barcelona. Serie Tesis 10 [CD-ROM]. ISBN: 84-89782-06-7.

SWEETSER, (1990) *Cognition and perception linguistics*.

WILSON D. y SPERBER D. (1995). *Relevance, communication & Cognition*. Second edition. Blackwell publishing

