AN APPROACH TO THE TRANSLATION OF ORIGINAL METAPHOR IN SCIENTIFIC AND TECHNICAL TEXTS

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0. INTRODUCTION

It is the aim of this paper to provide some research in the relationship between original metaphor and the accomplishment of Gricean Cooperative Principle, and especially in how this principle is observed by the translator and reflected in the Target Language. We will maintain that it is necessary that the translator reflects this violation faithfully since it is inherent to the nature of original metaphor.

Firstly, we consider that it is necessary to find some basic theoretical features to accommodate a suitable framework for the analysis of this rhetorical figure. These needs will be summarized in two different points:

a) discussion of the need for a general theoretical approach as to the nature of this specific type of metaphor,

b) possible translational approach in which it may be handled conveniently.

For this paper's purposes, we will adopt R. Rabadán's classification of metaphor,[1] which observes three different categories:

— Those metaphors that violate in the highest grade the linguistic and literary rules of the synchronic polysystem.[2] This type of metaphor is part of the private system of a writer.

— Stock metaphor.[3] This category will gather those metaphorical expressions that are already established into the linguistic system and, therefore, related to a specific culture. Any user belonging to this culture can probably identify them in their specific context.

— Lexicalized metaphors. This category would include those metaphors that have become a part of the linguistic and cultural system of a language. They gradually have come from the literary private system to the semantic stock of the language. Dagut maintains that in these metaphors a shift takes place from "performance" to "competence", "from individual innovating creation to routine collective repetition".[4]

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[1] R. Rabadán: *Equivalencia y traducción. Problemática de la equivalencia translémica Inglés Español*, León, Univ. de León, 1991. p. 141.

[2] Even-Zohar. Quoted in Rabadán, o. cit., p. 141.

[3] P. Newmark: *A Book of Translation*, Prentice Hall, 1988, p. 95.

[4] Quoted by Rabadán , p. 142.

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This paper is basically concerned with original metaphor in written language within the framework of scientific and technical discourse. It will exclude therefore, lexicalized metaphor and stock metaphor, which will be considered as conventional lexical units.

1. APPROACH TO THE NATURE OF ORIGINAL METAPHOR

With respect to the nature of original metaphor, and rhetorical figures in general, there is a general belief that these are an inherently obscure part of linguistics, and, thus, it is difficult to approach them with the sort of rule used to describe the more manageable parts of a language.

Probably, a completely satisfactory theory of rhetorical figures will be only possible with an in-depth study of the human brain. Today, psycholinguistics cannot provide a full account of the mechanisms that our brain uses to communicate the speaker's inner thoughts and final intentions. Much of a theory of rhetoric in language is still out of reach. When a speaker uses a specific linguistic image, there is always a subjective aspect. Also, when a hearer receives this image, he/she may feel some emotions and form deductions determined by the inner life of his/her mind. Up to date, science cannot accommodate something as subjective as a complete theory of language that includes attitudes, thoughts, experiences, and internal mental processes.

Traditionally, metaphor, as well as other rhetorical figures of speech, has been approached as a problem related to literature or philosophy, but rarely as a purely linguistic issue, or as a scientific concern. Figures of speech were beyond the limits of science, since the latter depends on objectivity. Consequently, it could never explain uses of language as subjective as metaphor.

Since a scientific study of our mind is unfortunately still off- limits, this study proposes that the most appropriate way to approach a theory of metaphor be to analyze this figure within a pragmatic framework, considering them as linguistic expressions integrated in acts of communication which express logical relationships.

Hatim defines Pragmatics in terms of use of language and of the speaker or writer's purposes: "Pragmatics is the study of the purposes for which sentences are used, of the real world conditions under which a sentence may be appropriately used in an utterance".[5] Also Givon's definition of Pragmatics highlights the notion of context, and includes a new perspective to the view of linguistics as a cognitive process:

> Pragmatics is an approach to description, to information processing, thus to the construction, interpretation and communication experience. At its core lies the notion of context, and the axiom that reality and/or experience are not absolutely fixed entities, but rather frame-dependent, contingent upon the observer's perspective.[6]

On the basis of the preceding statements, we consider that a pragmatic theory of rhetorical figures can accommodate a series of psychological and cultural implications that are always to be taken into account in the explanation of metaphor. Therefore, we suggest

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[5] B. Hatim & I. Mason: *Discourse and the Translator,* London-New York, Longman, 1990, p. 59.

[6] T. Givon: *Mind, Code and Context. Essays in Pragmatics,* Hillsdale-New Jersey, Lawrence Erlbaum, 1989, p. xvii.

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that only a theory that observes the writer's communicative purpose and the reasons for the selection of specific words and expressions could satisfactorily shed some light on the explanation of this figure.

Consequently, and to establish a pragmatic framework, this study will explain metaphor as to the accomplishment of Grice's Cooperative Principles within a theory of indirectness. The two great advantages of this approach may be that: *a*) it may be possible to find a characteristic of original metaphor-; *b*) it considers the writer's intention of communicating the real meaning of his/her utterance.

First, however, it is necessary to establish some basic preliminaries concerning the Cooperative Principle. Grice's Maxims of Conversation (1975)[7] are based on the assumption that communication is only carried out successfully when speaker and hearer not only share a common linguistic code, but also share a common effort to make communication possible. This effort consists of the fulfillment of a series of rules, which he gathered in four Maxims:

— Quality. Try to make your contribution one that is true.
  Do not say what you believe to be false.
  Do not say that for which you lack evidence.
— Quantity.
  Make your contribution as informative as is required.
  Do not make your contribution more informative than is required.
— Relation. Be relevant.
— Manner. Be perspicuous.
  Avoid obscurity of expression.
  Avoid ambiguity.
  Be brief.
  Be orderly.

This paper, based on the study of a corpus taken from different scientific and technical texts, proposes that there must be necessarily some regularities that make it possible to identify a series of common features to original metaphor, and one of these regularities is the apparent violation of Grice's Quality Maxim. However, it is important to highlight that from our point of view no real violation takes place in this phenomenon. While different studies maintain that metaphor takes place by superficially breaking the Cooperative Principle, but ultimately upholding it, we maintain that original metaphor does not ultimately uphold this Principle, but it upholds it during the whole speech act, from its beginning to its last consequences, since there is not real but apparent violation of the Maxim. We consider, however, that lexicalized and stock metaphor require a different treatment.

This theory is based on an inferential model, since it presupposes that the audience will infer the communicator's intention from evidence provided for this precise purpose. The inferential model has an enormous importance to explain how the hearer can disambiguate

[7] Quoted by L. Horn: "Pragmatic Theory", in F. Newmeyer (ed.): *Linguistics: The Cambridge Survey*, vol. I, Cambridge, CUP, 1988, pp. 118-119.

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the speaker's real intention, and provides basic information to approach metaphorical expressions.

At this point, we shall put forward some problems which metaphorical expressions usually convey, and some conditions that are necessary to satisfy for metaphor to take place. To begin with, it is convenient to deal with one major problem concerning metaphor: the problem of disambiguation. First, it is necessary to observe that this figures is not only based on linguistic knowledge. A semantic structure cannot be separated from the whole psychological organization patterns of our mental experience. Sometimes speaker and hearer must share something much more complex than just a linguistic code; in some other cases, they only have to share a brief common experience.

This paper considers that a second condition that is necessary for metaphor to take place is the speaker's desire to communicate the real meaning of his utterance. Otherwise, he/she will only be obscure. In these cases the breach of the Cooperative Principle would not be apparent but real.

We propose that metaphor should be approached as a case of indirectness in which inference plays an important role. As Wilson and Sperber point out, "accounts of utterances interpretation tended to downplay the role of deductive reasoning in comprehension".[8] However, again, we have to face with the impossibility to establish the complex psychological mechanisms that may explain the deductive processes that take place in our minds. Concerning this question, Wilson & Sperber add that " hypothesis formation [...] is a creative process involving analogical reasoning about which virtually nothing is known".[9] Thus, their Relevance Theory may add some light into the importance of logical deductions in any approach to metaphor.

We suggest that a different consideration that gives a view of these figures in terms of the author's purposes be the one that explains linguistic metaphor to comply with the "Interest Principle".[10] The Interest Principle is based on the assumption that "conversation which is interesting, in the sense of having unpredictability or new value, is preferred to conversation which is boring and predictable. [...] There is thus a perpetual tug -of-war, in human conversation between the Maxim of Quality and the Interest Principle". We will leave, however, the aesthetic or literary implications.

Not everyone agrees with a theory based on the violation of Pragmatic Principles. The main objection to this approach is that a serious explanation of this linguistic expression cannot be based on a theory that violates principles. Thus, Barbe maintains the thesis that "pervasive concepts like irony or metaphors cannot be excluded as exceptional, inconvenient or irregular".[11] We totally agree with her on this point. In our interpretation of metaphor we do not find real violation of the Cooperative Principle. What's more, we consider that when using ironical expressions, the writer is observing another Pragmatic Principle: the previously mentioned Interest Principle.

Another point to consider is that the writer's intention is always to communicate the real meaning in an effective way. The " breach of cooperation" in original metaphor is not

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[8] D. Wilson & D. Sperber: "Inference and Implicature", in C. Travis (ed.): *Meaning and Interpretation*, Oxford, Basil Blackwell, reprinted in S. Davis (ed.), 1991, p. 377.

[9] Ib., p. 380.

[10] Leech, 1983, pp. 146-147.

[11] K. Barbe: *Irony in Context*, Amsterdam-Philadelphia, John Benjamins, 1995, p. 7.

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merely a device, but also an inherent property of this type of metaphor, to make clear the author's real intention. If we take Grice's Maxims fulfillment to an extreme, and speaker and hearer had to strictly follow Gricean Maxims of Conversation, indirect speech could not exist, since it would constantly violate these principles. Consequently, it can be deduced that the apparent violation of the Maxims of Conversation does not necessarily imply that there is a case of original metaphor in speech.

2. TRANSLATIONAL APPROACH TO ORIGINAL METAPHOR

In order to find a possible translational approach in which this analysis may be handled conveniently, we consider that it is necessary to establish an approach into the nature of translation itself. Translation may be approached in many different ways, for instance, as a psycholinguistic process, as an act of communication, or as case of cultural transfer. This work will adopt the communicative approach to translation, by communicative understanding a theory that integrates meaning, information, thoughts, emotions, and attitudes.

With respect to the dichotomy literal-versus-free translation, as far as original metaphor is concerned, we think that it is not possible to maintain that a particular theory of translation is always the right one. Thus, when asking which translation method is the most appropriate, probably the suitable answer is that every particular translational unit may require a particular treatment. We would suggest that favouring minimal change is useful whenever possible. Nevertheless, it is obvious that sometimes an excessively literal translation may produce a lack of cohesion, or a lack of fluency in the Target Language. On the other hand, original metaphorical expressions can difficultly fit into a framework of literal translation. It is generally agreed that the difficulty on the translatability of metaphor is in correlation with its simplicity as figure of thought, and depend not only on cultural factors or personal experiences, but also on semantic associations.

Since I have already pointed out that we cannot consider that there is an important cultural disparity in the translation of Scientific and Technical Texts, I propose that translation of rhetorical figures may be carried out favouring minimal change, whenever it is possible. On this respect, Vázquez Ayora argues that:

> [...] *si dadas dos oraciones, una en inglés y otra en español, existe entre ellas una correspondencia precisa de estructura y de "significación", y la equivalencia se cumple en ella monema por monema, se produce la traducción literal, y se la puede aplicar sin riesgo. El traductor no debe alterar ese proceso por el prurito de cambio o por el simple temor a la crítica de que su traducción es literal en el sentido peyorativo del término.*[12]

Nevertheless, some metaphorical expressions, especially those concerning metaphors that have acquired the status of conventional units, may present different and even complex difficulties, since they are cultural bounded. In these cases literal translation will not be possible.

[12] G. Vázquez Ayora: *Introducción a la Traductología. Curso Básico de Traducción*, Georgetown, Georgetown Univ., 1977, p. 257.

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Finally, and with respect to translational procedures, we include Newmark's proposal,[13] which includes seven main procedures for translating metaphor:

1. Reproducing the same image in the TL.
2. Replacing the image in the Sl with a standard TL image.
3. Translation of metaphor by simile, retaining the image.
4. Translation of metaphor by simile plus sense.
5. Conversion of metaphor to sense.
6. Deletion.
7. Same metaphor combined with sense.

Again, we consider that it is not possible to maintain that a particular procedure is always the right one, and suggest that every particular translation unit requires a particular procedure.

In conclusion, we will propose that the best solution in order to approach the translatability of the rhetorical figures may be not to maintain a rigid and equal approach to translation, but to study each example of metaphor as a particular case, and to select the most suitable approach for each of them, either literal translation or free translation. However, we consider that whatever approach and procedure the translator chooses, it is of crucial importance that the apparent violation of Grice's Maxims appear reflected in the Target Language, since this paper considers that it is an inherent feature of this rhetorical figure.

The point of violation of rules is raised by Rabadán in her study about the translation of metaphor when she argues that:

> [...] *podríamos pensar que si el TO viola las reglas sistémicas de la LO es legítimo hacer lo mismo en el polo meta. La cuestión es qué reglas se pueden contravenir: ¿ha de buscar el traductor la violación de las mismas reglas lingüísticas que ofrece el polo origen o simplemente reproducir literalmente la desviación* [...] *en el TM?*[14]

The possible answer to her question is that in the approach concerning the apparent violation of Grices Maxim's, we are not dealing with rules concerning a particular language, but with general principles of communication, and, therefore, the problem about the different linguistic systems does not exist. A second question in relation with the literal reproduction of these rules conveys different problems concerning literal translation as a whole.

3. ORIGINAL METAPHOR IN SCIENTIFIC AND TECHNICAL TEXTS

This paper focuses on the study of original metaphor in Scientific and Technical Texts. Consequently, this rhetorical element will acquire certain peculiarities or differences with respect to metaphor either in literature or in speech.

The main characteristic of these texts is that their common aim is the explanation and description of scientific and technical issues. In these texts, the translator will presumably

[13] P. Newmark, o. cit., pp. 95-97.
[14] R. Rabadán., o. cit., p. 137.

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find a certain isomorphism between linguistic expressions and contents; he will not expect to find special difficulties in the translation of the terminology, and will be the transmitter of an area of knowledge that both writer and receptor share.

The use of rhetorical strategies is in correlation with both the writer's cultural education, and his/her personal preferences. However, when dealing with scientific and technical discourse, the problem of culture acquires a series of particular characteristics that will be enumerated subsequently.

The translation of a Text for Specific Purposes is likely to be more accurate than that of a literary text, since there is not such a wide cultural disparity in this area; however, I agree with Carmen Valero in that culture is so inherent in the writer that "*incluso en el campo de la ciencia, área en la que se tiende a una mayor uniformidad, y en la que se presupone su carácter universal, resulta inevitable escapar a la influencia de la cultura*".[15]

All these characteristics can also be applied to the metaphorical utterances contained in Scientific and Technical Texts. In spite of this fact, it is necessary not to forget that the use of metaphor is a feature that characterizes inherently literary works. The translator of Scientific Texts will have the advantage that, although metaphor is always centred on associations, symbols, and psychological factors, whenever it is concerned with scientific or technical issues, the disambiguation process will be easier, since writer and readers share an extralinguistic area of knowledge.

However, the translator will face two added problems in the process of translation: first, he should decode an informative message that transcends pure linguistic knowledge, i.e. the translator should have some previous knowledge on the field he/she is translating. Secondly, he should give a solution to the problem of terminology. In spite of the parallelism or similarities in the scientific and technical vocabulary among most languages, there is not a general agreement on the use of a common technical terminology in Spanish. In fact, often the translators of Texts for Specific Purposes cannot find specialized dictionaries, and even if they do, new terms appear constantly. On the other hand, there is an asymmetrical relationship between English and Spanish in the creation of Scientific and Technical terminology. The Spanish translator will always have to re-create a vocabulary that is sometimes not yet widely accepted in English.

Finally, in Scientific and Technical Texts, original metaphor enhances the merely informative function with other functions of language, such as the emotive, and establishes a closer relationship between writer and reader. Metaphorical expressions will probably make the reading more accessible to the receptors, procuring images and views that will enrich the text and will facilitate the transmission of the author's communicative purpose.

4. CONCLUSION

This concise study has tried to provide with a brief theoretical view at the role of the observance of Grice's Cooperative Principle in original metaphor, with the final purpose of facilitating its translation in Scientific and Technical Texts. It maintains that the translator must reflect faithfully the apparent violation of this principle in the Target Text, since

[15] Carmen Valero, 1995, p. 88.

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it is inherent to the nature of original metaphor. We argue that this position can account for the writer's final intention and for individual and emotional factors and attitudes that may be considered in the process of disambiguation of this rhetorical figure.

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