THE READER AND THE WRITER IN TECHNICAL TEXTS IN ENGLISH, SPANISH AND CATALAN

Begoña Montero Fleta
Anna I. Montesinos López
Carmen Pérez Sabater
Edmund Turney Taggart
Research Group DI-AAL
Universitat Politècnica de València

ABSTRACT. *This paper presents the results of an ongoing study of how writers involve the reader in technical texts in English, Spanish and Catalan. The traditional rhetorical devices used to involve the reader in Romance languages are rather different from those used in English. Thus, when translating from English, the translator has to decide between literal translation and modulations.*

We have analysed translations into Spanish and Catalan in two different genres, academic textbooks and semi-technical magazines to compare the translation strategies followed in each genre. Different translators adopt different strategies, however, they tend to be extremely coherent in the strategy used. In semi-technical magazines we have found that there is more overt reader address in translations than in academic textbooks. This is probably because they are written in a less formal style and because they are often oriented towards selling a product.

KEYWORDS: *translation, discourse analysis, informalization.*

RESUMEN. *Este artículo presenta los resultados de un estudio en curso de cómo el escritor implica al lector en textos técnicos ingleses, españoles y catalanes. Los mecanismos retóricos tradicionales empleados para implicar al lector en lenguas románicas son muy diferentes a los utilizados en inglés. Por tanto, al traducir del inglés, el traductor debe decidir entre traducción literal y modulaciones.*

Hemos analizado traducciones al español y al catalán en dos géneros, libros de texto académicos y revistas semitécnicas, para comparar las estrategias de traducción utilizadas en cada género. Los distintos traductores adoptan estrategias diferentes, sin embargo, tienden a ser muy coherentes en la estrategia elegida. En revistas semitécnicas hemos encontrado que existe más referencia directa al lector en traducciones que en libros de texto académicos. Probablemente esto se deba a que están escritos en un estilo menos formal y porque a menudo están orientados a vender un producto.

PALABRAS CLAVE: *traducción, análisis del discurso, informalización.*

1. INFORMALIZATION OF DISCOURSE IN ENGLISH

In the early days of ESP, much was made, understandably, of the difference between oral and written texts. The differences studied were basically limited to lexico-syntactic features in the sixties, semantico-pragmatic features in the seventies and eighties and discursive features in the late eighties and early nineties, the latter trend culminating in Swales' full-blown genre theory. In recent years, one of the key issues in the rather different area of communication studies has been the question of genre mixing and, within this blurring of genre types, the tension between orality and literacy has received a great deal of scholarly attention. The study of this basic distinction between the oral and literate dates back to Plato and in this century has drawn the attention of scholars such as Vygotsky and his follower Luria or Ong from the Toronto School of Communication Studies. In the nineties, this phenomenon has also received a great deal of attention in the field of Critical Discourse Analysis, where the general process of *informalization* in contemporary society has been identified as *conversationalization* on the level of discourse (Fairclough 1995).

Within this context, it is perhaps worth recalling that for the first time in history, most of the great thinkers, artists and scientists of the last seventy years or so have lived in a culture dominated by oral forms of mass communication, by what Ong (1982) called "secondary orality". A period which is extremely interesting is that comprising the years from the October Revolution to the end of World War II - a period which saw the instrumentalization of the modern communication technologies for a highly sophisticated form of language engineering, that of political and, later, commercial propaganda (Ong 1982: 41). It was also the period which witnessed the first attempts to develop a critical analysis of what came to be known as *mass communication*.

While the general response from Western humanists is summed up in Dewey's well-known complaint that the machine age was creating a public that was "largely inchoate and unorganized" (Dewey 1927: 109), the period also witnessed the birth of a "science" of communication, based on rigorous empirical studies, which were originally carried out within the framework of the behaviourist school of psychology, (Vázquez Montalbán 1997: 149-159). The immense amounts of money involved in the "persuasion industry", be it the editorial of a newspaper or an advertisement for a car, led to savage competition and the search for a scientifically grounded, communication technology.

In the period following the Second World War, in which the film industry was used as powerful propaganda weapon, the advent of the television gave persuasion practices a completely new turn. The television was systematically used to stimulate consumption and create false ideology, but it also became a part of the family. This is perhaps one of the main discursive differences between the television and the previous technology of mass "communication", the cinema: relatively few films make overt reference to the viewer but a number of television genres do so regularly.

In the sixties there were still, of course, discourse orders, such as the law, medicine, education or philosophy, which were resolutely based on the norms of the written

language. But even here change was taking place. On the one hand, there was change from within the disciplines. But change also came from the wider social forces. A good example is the Plain English Movement, which developed out of the attempts of consumer groups to force government and companies to use a language that was simple for consumers to understand. In English, this movement has profoundly influenced the way information presented to the public is written.

Though this movement has had a number of highly beneficial effects, for example in medical prospectus, it is important to remember that its theoretical underpinning is rather weak; it clearly accepts uncritically consumption discourse practices and is usually based on highly doubtful readability indices. The word processor being used to write this paper routinely informs us that sentences are too long or that a passive voice is being used: long sentences can be easier to use than short ones, the passive voice has evolved to facilitate communication by promoting the non-agent and demoting or deleting the agent (Palmer 1994: 136-138). Moreover, as Fairclough (1989: 217) points out, the informalization and conversationalization of discourse, to which the Plain English Movement has contributed, are themselves used manipulatively to give people the impression that they are being treated as equals, when, in fact, they are being sold a product or persuaded that they should participate in a manifestly unjust scheme.

The next technological innovation that concerns us is the development of the different branches of computer science. Here there are a number of important issues. Firstly, computer science is possibly the first science which developed, almost exclusively, in its early years, in the USA. The subsequent introduction of computers in the work place and the home took place in a society dominated by "secondary orality", the USA of the late sixties, the seventies and the eighties. The phenomenon of Internet and the use of e-mail introduced a new element of orality within the written language. Hypertext has brought with it a radically different global text structure with repercussions on the level of text, paragraph and sentence. The development of multimedia has redefined communication, integrating spoken language, written language and visuals. The allocution model of mass "communication" is slowly ceasing to be the only model possible: networks enable other *information traffic patterns* (Bordewijk and Van Kaam 1982, cited in van Dijk 1999: 12). Mass communication is becoming possible, allowing interaction between the individual and the mass communicator/persuader. For these reasons, the field of computer science has experienced a more spectacular process of informalization.

2. TECHNICAL ENGLISH AND ITS TRANSLATION INTO SPANISH AND CATALAN

Against this background of informalization, in certain scientific genres, such as research articles, language is used much more formally. Scientific language is used in research papers and in the exposition of hypotheses and theories. It is often described as very formal in style and tends towards abstractness. Scientific English can be approached from different angles taking into account its specific vocabulary and the

frameworks of the syntactic structures most commonly used. Its vocabulary is highly standardised, including rigorously defined words and words not usually found in the everyday word stock. It avoids emotional associations and seeks transparency, (Pinchuck 1979: 163). It also has certain grammatical features that are peculiar to itself or are more pronounced than in ordinary speech (Pinchuck 1979: 160). Technical English has often been assumed to present a number of characteristic features such as impersonal constructions, passives, nominal style, complex nominal groups, heavy premodification and long sentences (Lassen 1998: 669). Within the field of technical prose there are a number of sub-species, each with its own specific customs and conventions concerning what should be said and the way to say it. Peculiarities of vocabulary also exist, plus the occasional grammatical peculiarity.

Many studies of translation have centred on the grammatical, morphological and lexical levels. Our study, however, underlines some of the discursive problems faced by the translator of technical texts. There is never a complete parallelism between any two languages as there may be a lack of correspondence between categories. Each language is an individual and distinctive system that has a structure in which a degree of regularity and pattern in the organization of the language can be discerned. The range of every word category including pronouns in English does not always correspond with that of Spanish or Catalan.

A structure in the target language may sometimes appear to differ greatly from its source structure, but it is possible that the target language has alternative forms that are nearer to the source language one while still conveying the same message (Pinchuck 1979: 66). In technical literature, where conveying information is the main consideration, this point is highly relevant and therefore affects the criterion of adequacy.

Since 1950, there have been many studies of anglicisms in Spanish and more recently in Catalan, the most important being those of Pratt (1980), Lorenzo (1996) and Allué and Evans (1999). A number of articles and books on translation and translation theory also deal with anglicisms (García Yebra 1982), many style guides of newspapers also treat the subject and most studies of contemporary Spanish and Catalan in the media allude to the subject (Fontanillo and Riesco 1990). There have also been a number of studies of neologisms in the field of Computer Science. All of these studies deal basically with lexical calques or loan words and syntactic calques, especially the abuse of the passive voice in Spanish, for example Lorenzo (1996) and García Yebra (1982). There has been relatively little study of language imperialism on the level of pragmatics or discourse. Thus, we have considered that a study of how translators deal with the problem of reader and writer reference could be interesting.

In both Spanish and Catalan the pronominal system distinguishes between singular and plural and familiar and polite forms of second person pronouns. In Spanish the choice is between the familiar *tú/vosotros* and the formal *usted/ustedes*. The formal pronouns take verb forms associated with the third person. In Catalan the situation is slightly more complex: on the one hand, we find the familiar forms *tu/vosaltres*; as regards the formal second person pronouns, traditionally the polite form is *vós*, which

takes verb forms associated with the plural pronoun *vosaltres*. This use survives in formal written texts and in the spoken language in certain areas. We also find the formal pronouns *vostè/vostès*, which take third person verb forms. We should point out that in both languages it is usual to omit the pronoun and rely on the associated verb form to address an interlocutor.

This situation causes problems for the translation of *you* to make direct reader address. In advertising, for example, the advertiser will use familiar or polite forms depending, among other factors, on the age of the target public. In formal communication, the polite forms will obviously be preferred. But here too there are reasons for avoiding direct reader address. In the first place, direct reader address is not as usual in Spanish and Catalan written texts as in English. Besides, the fact that it is not usual to use the pronoun and, instead, rely on the verb forms can make reader reference ambiguous, as we only have the verb forms, which, in the case of *usted* and *vostè* are third person forms.

There are, then, a number of reasons that lead translators of formal texts to avoid direct reader address in Spanish and Catalan.

3. METHODOLOGY

The study has analysed the rhetorical devices used both in English and in Spanish to involve the reader in the text, which, as we have already mentioned in previous studies (Pérez *et al*. 2001a: 479), is very different in English, Spanish and Catalan. The texts analysed deal with the field of Computer Science where the phenomenon of "conversationalization" is broadly observed. Unlike the study mentioned above, this time we have focused on translations from English into Spanish in two different genres: academic textbooks and semi-technical magazines. However, as for Catalan, as we have not found translations of academic textbooks, we have had to limit the analysis to translation of semi-technical magazines.

The corpus of the study is made up of:

– 42 articles in English that appeared in the semi-technical computing magazine *Byte* (New York: McGraw-Hill) in 1997 and 1998 and their corresponding translations in the Spanish version of *Byte* (Barcelona: MC Ediciones).

– 15 chapters taken from the following academic textbooks and their Spanish translations, Nilsson (1980), Nilsson (1987); Hansen and Hansen (1996), Hansen and Hansen (1997); Russell and Norvig (1995), Russell and Norvig (1996); Hearn and Baker (1994), Hearn and Baker (1995).

– 26 articles in English, Spanish and Catalan that appeared in the semi-technical magazine *Revista de Mediambient, Tecnologia i Cultura* from October 1999 to January 2000 (numbers 24, 25 and 26). Barcelona: Departament de Mediambient de la Generalitat de Catalunya.

The variables analyzed were:

– cases of direct reader address in English (the pronoun *you* used as subject and non-subject, the possessive adjective *your*, and imperatives) and their translation into Spanish and Catalan;

– cases of first person singular and plural pronouns and their associated possessive adjectives and their translations.

4. RESULTS OF THE STUDY

The frequency of the second person and the first person plural pronouns in the two genres has been compared together with the translation strategies used. As far as *academic textbooks* are concerned, in English we observe a clear preference for the use of *we* as subject. The reflexive passive to translate the English first person plural is generalised in the translation into Spanish:

How do we know which of these circumstances has occurred? When we process the TLB miss, we will look for a page table entry to bring into the TLB;	¿Cómo se sabe cuál de estas circunstancias ha ocurrido? Cuando se procesa un fallo de TLB, se busca una entrada de la tabla de páginas para poner en el TLB;

In the texts analysed, we have observed that 83% of the sentences with a first person plural as the subject have a reflexive passive in the Spanish translation. This fact has confirmed our initial impression that translators tend to limit direct reference to the reader or writer in an *ad hoc* way at the sentence level. Translators simply avoid first person plural, as far as possible, by means of the reflexive passive. This desire to eliminate direct reference to the reader or writer involves the translation of *we* forms but also *you* forms into the reflexive passive:

By now, you've recognized that the different types of memory hierarchies share a great deal in common.	Hasta aquí, se puede ver que los diferentes tipos de jerarquía de memorias tienen muchas cosas en común.

On the other hand, we would like to point out that translators tend to be extremely coherent in their texts, that is, when the translator has chosen to maintain overt reference to the reader or writer, we can find that every *we* form is changed into a Spanish first person plural form. In one of the books studied, *Database Management*, the translator

exceptionally wants to keep the use of *we* in the Spanish translation using verb forms associated with *nosotros* as the standard in 97% of the examples. More significant is the fact that this translator uses the Spanish imperative first person plural form to translate 73% of the English imperative forms; other alternatives are rarely used:

Suppose that we have a blocking factor of 3, meaning that three logical records are stored in each block.	Supongamos que tenemos un factor de comparación de 3, esto significa que en cada bloque se almacenan tres registros lógicos.

The following example, where *you* is translated by the Spanish *nosotros*, shows how far this tendency of using the first person plural, due to coherence principles, is reflected in the translation of this academic textbook:

As you have seen, the static hash function is fairly simple.	Como hemos visto, la función estática hash es sumamente simple.

We should remember that the use of the first person plural is traditional in written Spanish: on the one hand, there is the editorial use of the first person plural and on the other, there is the use of the first person plural to indicate modesty, by means of which a writer seeks to "blend his/her own personality into a collective personality". Moreover, in colloquial Spanish, there is the so called "sociative" use of the first person plural form instead of the second person pronoun (*¿Cómo estamos?*, *¿Qué hacemos?*): this form is commonly used in greetings and seeks to establish a mood of friendly participation (Alcina Franch and Blecua 1975: 609-610).

As far as *semi-technical magazines* are concerned, the study has shown very different results. While the English academic textbooks used the first person plural to involve the reader outstandingly, in semi-technical magazines *you* is used most of the time, making up 71% of all reader/writer references. However, the translations avoid direct reader address by means of an important use of reflexive passives, 48%, which is significantly lower than the same translation strategy in academic textbooks. The Spanish polite second person and impersonal constructions are the other two main groups. It has been observed, thus, that translators usually remove the English second person and only retain direct reader address in sentences that account for 15% of the total amount of examples taken from these magazines. On the other hand, the use of *we* is mainly translated into the Spanish first person plural (75% of the examples).

As for Catalan, we have found a similar use of the first person plural to translate the English *we*, 75%. For the translation of the second person *you*, there is a clearer tendency to use impersonal forms (85% of the second person pronouns in subject

position into Catalan are translated by reflexive passives, as opposed to 48% in translations in Spanish semi-technical magazines):

As you can see, it shows a tendency to rise.	Com es pot veure la seva tendència és creixent.

In all the Spanish and Catalan translations the English object second person pronouns have been omitted in the translation:

... which will enable you to consider this law plausible.	... que permeten considerar plausible la llei formulada.

As in the translations into Spanish, the Catalan translations tend to avoid as far as possible possessive adjectives:

For my analysis I will use data from table 2...	Per a l'anàlisi utilitzaré les dades del quadre 2 ...

In the Catalan translation, we have also found a number of examples of direct reader address translated as first person plural forms:

Think of nuclear fission.	Pensem en la fissió nuclear.

In both the Spanish and Catalan translations, the translators have normally maintained the English first person pronouns in quotations for obvious reasons.

5. CONCLUSIONS

In English, direct reader address is more common in semi-technical journals than in academic textbooks. Whereas academic textbooks prefer the more traditional technique in formal writing of the first person plural to involve the reader in the text, semi-technical journals prefer direct reader address probably because such publications adopt the more orally oriented discourse in accordance with the informalization of discourse described in the introduction to this paper. As we have argued in a previous paper (Pérez *et al*. 2001b), the language of semi-technical journals incorporates a number of features associated with the popular press and advertising: two areas of discourse that have been profoundly affected by the process of informalization and conversationalization. In translations into Spanish, direct reader address is generally avoided both in academic textbooks and in semi-technical magazines, however despite this generalization we have also found that if a translator decides to maintain direct reader address s/he does so systematically.

The use of the first person plural is also generally translated into Spanish by impersonal forms in academic textbooks although here too, we have found examples of translators systematically maintaining the first person plural form in the translation to involve the reader in the text. In contrast, in the semi-technical magazines, we have found that 75% of the first person plural forms are maintained in the Spanish translation.

In the translations into Catalan we have found that direct reader address is generally avoided as in Spanish translation. In the light of our previous work in this area (Pérez *et al*. 2001a), this fact may seem surprising, as we found that instructional texts written in Catalan tend to use more direct reader reference than those written in Spanish. This apparent anomaly may be explained by the fact, mentioned earlier, that translators often solve the problems posed by direct reader reference at the sentence level, thereby failing to make use of the global discourse practices that are really used by people who produce texts in the target language. Although we should recall that the corpus in Catalan studied in the present paper was limited to a single publication.

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