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**Translating Pharmaceutical Texts
for Non - Specialist Readers**

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Abstract: The present paper intends to approach the pharmaceutical text as a genre of medical discourse, focusing especially on the translation of Patient Information Leaflets (PILs). The aim of this paper is to investigate the translation issues raised by these texts and to offer some translation strategies in order to facilitate their understanding by the non – specialist readers. One of the novelty elements of this article consists in an interdisciplinary approach of the pharmaceutical texts and their analysis from different perspectives: of translation studies, of linguistics, of pragmatics and of cultural studies. The translation of pharmaceutical texts represents a difficult process, due to the complexity of the language that encloses terms from all the medicine fields, as well as the necessity to respect the specific terminology and to integrate the translation in a certain text typology. The attempt of finding the optimum translation strategies in order to facilitate the understanding of these texts by the lay - receiver represents another new element of this approach, given that, there are not many studies in the field literature that focus on this topic.

Keywords: Patient Information Leaflets; medical translation; translation problems; genre analysis; text typology

1. Introduction

Medical texts to which we consider that pharmaceutical texts are affiliated, have a specific structure and are characterized by precision in the use of terminology, scientific objectivity, methodological precision and impartiality in the transmission of information. According to Montalt and Davies “medical language has been regarded in the same way as any other kind of scientific language: objective, neutral and non-rhetorical, whose only function was to transmit information, a so called “referential” function. As a consequence, they contain no cultural or ideological references, and have an uniform and impersonal style. Each concept is represented by one -and only- one term (univocal) and concepts are precise and remain stable and unchanging over time”. (2006, p. 50).

2. Patient Information Leaflet-Legislative Approach

Patient Information Leaflet (PIL) represents one of the most common used text genres belonging to medical discourse, in the sense that Ana Trosborg renders to the concept of genre. In the opinion of the Danish linguist “Genres are text categories readily distinguished by mature speakers of a language, and

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we may even talk about a “folk typology” of genres. Texts used in a particular situation for a particular purpose are referred to as genres.”(1977, p. 4).

The PIL became a legal requirement in 1992 with Council Directive 92/27/EEC requiring all medication packages to be accompanied by a PIL (Council of the European Communities, 1992), which means that the PIL is a so-called “legally regulated” genre. Therefore, it is governed by several regulations and standards, which influence both the structure and content of PILs, and also their translation. According to the European legislation, PILs must be “written and designed to be clear and understandable, enabling the users to act appropriately, when necessary with the help of health professionals”. Furthermore, this article states that PILs must be “clearly legible in the official language or languages of the Member State(s) in which the medicinal product is placed on the market”. (Article 59(1) of Directive 2001/83/EC). Studies have shown that Patient Information Leaflets (PILs), in direct contrast to the intention of the genre, are generally difficult to understand for ordinary people. (Rainor, 2007). Trying to explain the causality of this reality, the researchers from the medical translation field have reached the conclusion that one of the reasons could be linked to the misunderstanding of prescription instructions and limited education about the medication (Haynes et al., 2008, p. 21). Studies, based on textual analysis, have shown that translated PILs (English-Romanian) are more complex than their source texts. Analyzing the nature of this complexity in order to offer several explanations for this phenomenon it was remarked the fact that the PIL, being a mandatory, and therefore extremely regulated genre, there is a conflict between providing correct and lay-friendly patient information and respecting the imposed terminology.

According to its social function, the PIL is used “to bridge communication gaps between speakers of the same language that belong to different knowledge communities”. (Montalt & Davies, 2006, p. 59), patients need to understand clearly the details of their disease, causes, risks, and treatment.

3. Patient Information Leaflet -A Genre Analysis

In professional practice a translation is required and commissioned when there is a communicative niche-in our case, the need of a text-within a target communicative situation, and more specifically, within a text genre. Thus, when translating, target genre knowledge and skills are key elements, from both a communicative and a formal point of view. (Garcia & Montalt, 2002) As medical translators, we are especially interested in genres because our translation strategies, procedures and decisions may depend on four factors:

- a) *Comprehension*. Understanding the source text depends on the profile and the previous knowledge of the reader to whom the genre is typically addressed. Socializing with genres with which we are not familiar is vital for the adequate comprehension of specialized texts.
- b) *Translation process*. Knowing about structural elements in different genres enable us to anticipate the type of information we should be looking for as we read the source text and draft the target text.
- c) *Interlinguistic differences*. Even if the target text belongs to the same genre as the source text, there might be important differences in the way it is realized in the target culture.
- d) *Genre shifts*. Depending on the translation assignment, the target text may or may not belong to the same genre as the source text.

As we have seen, written medical communication in formal contexts is carried out through well-established genres. Researching medical genres and getting to know them well-their communicative

purpose, the situations where they are used, their participants' motivations and expectations, and their typical structure and form-is a key to successful medical translation. (Montalt & Davies, 2006, p. 61).

Classifying and analyzing different text typologies has been the object of study for many scholars such as Biber (1989), Hatim and Mason (1990), Adam (1992), but the model that has been imposed in translation studies was the one proposed by Katharina Reiss. As the German linguist suggests, there is a correlation between text type and translation method as it has been claimed that the type of text corresponds to the demands made on the translator. Consequently, text typology represents an important tool in the translator work, helping him to choose the most appropriate strategies in order to convey the aim, the function and the intention of the source text.

Patient Information Leaflet belongs to medical genre, sharing certain common features with this one but it is also highlighted by many particularities. From a linguistic point of view, medical leaflets generally and pharmaceutical ones especially are distinguished by strictly specialized terms, an inflow of neologisms, nominalization, heavy pre- and post-modification, long sentences, use of passives and third person, acronyms, eponyms, abbreviations, modern derivatives of Greek and Latin words and trade names.

Pragmatically, PILs are governed by several regulations and standards which influence both their structure and content and also their translation. Being one of the most common medical genres and encompassing information for the lay readers, package leaflet is the subject of research especially for its user-friendliness (Montalt & Davis, 2014). That requires structural and lexical simplification, determinologizing, synthesizing information, expanding relevant information, and adjusting tenor. (Ezepleta, 2012). From a sociocultural point of view the pharmaceutical leaflet is submitted to a number of regulations which should secure the rights of ethnic minorities and persons with disabilities, with different sexual orientations, and should respect the international system of units as a work of reference.

4. Dealing with Translation Problems

Translating is about thinking clearly and understanding a text before relaying it in another language. A translation *problem* can be defined as a (verbal or non-verbal) segment that can be present either in a text segment or in the text as a whole and that compels the translator to make a conscious decision to apply a motivated translation strategy, procedure and solution from amongst of options. A translation *strategy* links the goals of the translation assignment with the necessary procedures to attain these goals in a given translation context by means of a group of coordinating decisions: resourcing, classifying, selecting, accessing semantic fields, scanning published translations. Translation *procedures* are a range of specific techniques such as explicitation, cultural adaptations, paraphrasing, to re-express the source text in the most appropriate way. Finally a translator should be able to justify the translation *solution* chosen in accordance with the translation context and considering text, genre, discourse, function and assignment (Hatim & Mason, 1990).

PILs translation problems will be analyzed from a *functionalist perspective* which we consider the most suitable procedure in the translation of this textual genre. According to Christiane Nord, there are four main translation problems (i.e. *pragmatic, linguistic, cultural and text-specific*) which require specific transfer strategies and which should represent the starting point of the translation process. Therefore, the translator should identify these four issues before he/she starts working. (1997, p. 47).

4.1. Pragmatic Problems

As far as pragmatic problems are concerned, in Nord's view, they deal with the fact that the situations in the source culture and the ones in the target culture may differ in many aspects. These differences are always present within the translation process, irrespective of the direction of the translation or the languages involved in the process. Nord argues that, for the identification of the potential pragmatic problems, the translator should check the extra-textual factors, such as the profile and intention of the author, the target audience, the means of communication, background of the original (text type, function, purpose, adherence to canons and trends), intentions of the translator, economic factors (payment), contractual factors (deadline, stipulation of terminology) as well as the place and time involved in the production and reception of the respective text.

Owing to marketing strategies, multinational companies sometimes sell their products with different trade names in different countries. Therefore, we should check whether the medicine is commercialized with the same trade name in the target marketplace. Just to give a few examples, the pharmaceutical company GlaxoSmithKline commercialize the medicine containing *sumatriptan* as the active ingredient with the trade name *Imitrex* in the United States, and *Imigran* in the United Kingdom, Spain, Italy and other countries, *Sumacta* in Romania. Likewise, the Roche's bromazepam is called *Lexatin* in Spain, *Lexotan* in the United States and United Kingdom, *Lexomil* in France, *Bromazepam* in Romania. It is also important for medical translators to bear in mind that some countries prefer using national nomenclatures instead of the international one recommended by the World Health Organization, International Nonproprietary Names, INN. Therefore, the generic name used may vary from one country to another when naming active ingredients of the medicine in the name of the product section of the PIL. Labelling information is also subject to national regulatory requirements. In order to comply with regulations on the accessibility of PILs brought in recently in some countries, pharmaceutical companies are starting to offer PILs in Braille and other formats, such as large print and CD- Rom, that enable visually impaired people to access information about their treatment.

4.2. Linguistic Problems

The linguistic level is the level of the text itself, with all connected textual operations. Work at this level requires reading the original, analyzing syntactic and semantic relations, using the memory of past linguistic events, consulting dictionaries, glossaries, background and parallel texts, writing and revising the translation, etc. The linguistic level is the most conspicuous level in any translational operation and it is also at this level that the translator usually spends most of his time.

Linguistic problems arise from differences in structure concerning syntax and vocabulary, both in the source language and in the target language. The author argues that these problems could be caused by certain terms belonging to the "false friends" group, or by situations of equivalence, either one-to-many, or one-to-zero. (Nord, 1997, p. 47).

Abbreviations and Acronyms

One of the main difficulties faced by a medical translator is that many abbreviations and acronyms are used in this field. Acronyms and abbreviations are two of the most common elements in written pharmaceutical communication. Extremely long terms presenting names of diseases, names of chemical compounds or names of therapies hardly ever appear in the full form, because this would hinder efficient communication. The popularity of abbreviations is strongly related to the "time economy" they provide, so needed in most of medical emergencies. Moreover, abbreviations enable medical professionals to "encrypt" the true meaning of what is they denote, thus making the content somewhat inaccessible to the patient who might not have extensive or enough medical knowledge in order to understand the

respective text. Although, at times, this is advisable due to certain ethical reasons, the extensive use of abbreviations tend to obscure the meaning in many situations, as they might be the source of ambiguity, since even in highly specialized fields, one acronym or abbreviation may stand for several different terms, being a source of polysemy. According to Navarro (2005, p. 193), the abbreviation CF can have at least 15 meanings: cancer free, cardiac failure, Caucasian female, chemotactic factor, colony factor, coronary flow, cystic fibrosis etc. The acronym BAL can mean blood alcohol level, bronchoalveolar lavage and British anti-Lewisite.

Among other units of specialized knowledge of special interest for the translator of pharmaceutical texts are: abbreviations of medical terms, abbreviations of nucleic acids, abbreviations of chemical compounds, international system of symbols, mathematical symbols, statistics symbols, vitamin symbols, gene symbols, symbols of malign tumors, or medical abbreviations normally left in Latin when translating, e.g. *b.d./bis die/twice a day*, e.g. *p.o./per os/orally*.

Greek and Latin Terms

Having in view the fact that medical terminology abounds in words of Greek and Latin origin, not surprisingly, the latter are also subject to abridgement. Latin has been preserved largely in pharmacology, and especially in English prescription-writing. Latin prescription abbreviations are generally spelled in italicized letters, having dots in-between. Often, these abbreviations relate to the administration of medicines (“Translation Directory”). Regardless of the translation direction, these Latin abbreviations are left the way they are in the source text. Latin abbreviations are indeed a common source of translation difficulties, since finding their full form often proves to be problematic. The knowledge of the Latin roots helps professionals in the field of medicine understand medical texts in various languages. (Andriesen, 2006, pp. 157-158)

Eponyms

Eponyms constitute a considerable portion of medical terminology; they include names of anatomical parts, e.g. *Fallopian tubes*, *Adam’s apple*, names of diseases *Parkinson’s disease*, *Alzheimer’s disease*, signs and symptoms e.g. *Babinski sign*, fractures e.g. *Jefferson Fracture*, procedures e.g. *Heller myotomy*, medical devices e.g. *Bard-Parker scalpel* (cf. Meals 2007). Eponyms are frequently derived from the names of researchers, but may also be derived from the names of celebrity patients, e.g. *Lou Gehrig disease*, a common name for *amyotrophic lateral sclerosis* (cf. Walling, 1999), e.g. *Othello’s syndrome*, or geographical places, e.g. *Lyme disease*. Eponyms may be the source of translation problems - the correspondence between eponymous terms and their equivalents does not necessarily mean that both source and target terms will be eponymous. e.g. *Lyme disease /Boala Lyme/borelioză*.

Homonymy

Homonymy normally derives from the formal coincidence of Greek and Latin roots such as metr- (measure and uterus), cario- (becoming rotten and nucleus), hydr- (sweet and water), echo- (house and echo), branchy- (slow and short), acu- (needle and hearing), sex- (sex and six).

False friends

Among the most frequent challenges for the medical translator are false friends, that is terms that have a similar form in the source and target language and which may mislead the translator into thinking that their meaning is the same. False friends differ according to the pair of languages involved. However, there are some that are fairly widespread in many modern languages: e.g. *abortus* does not mean abortion but a fetus that is not viable, e.g. *disorder* does not mean lack of order but alliteration or disease, e.g. *drug* does not mean illegal drug, but also therapeutic substance.

Neologisms

Neologisms are new terms used to represent and transmit new concepts. They are the result of what we have referred to as the process of terminologizing new medical knowledge. They can be either newly formed words, or existing words to which new meanings are attached. In both cases, the words may originate in and be borrowed from another language, and then we can speak of loan terms. Sometimes, the new words are formed from existing components as in nutraceuticals (nutrition + pharmaceuticals), theranostics (therapy + diagnostics). Therefore most neologisms originate in English and are then translated into a wide range of languages. When coming across a neologism, medical translators have two types of challenge. On the one hand, understanding the meaning of the English term in the source text. On the other, finding an equivalent term in the target language. Nowadays, however communication in the pharmaceutical field is very rapid and translators are often required to deal either with the lack of terms in the target language or with the proliferation of alternatives for the same neologism due to the lack of terminological planning and control.

Updating nomenclatures

Even nomenclatures are not fixed entities. In fact, this would be impossible since research is constantly modifying the state of knowledge in all medical disciplines. For instance, the following bacteria have been renamed recently: *Campilobacter pyloris* has become *Helicobacter pyloris*, *Salmonella paratyphy* is now called *Salmonella enteriditis*. However, some nomenclatures vary more than others. For example, the international names of drugs are more variable than the international names used in other medicine fields.

Translating Metaphors

Metaphors are also very common in pharmaceutical texts, in which abstraction and fuzziness can be present. Despite aiming for an objective language to explain medical processes, free from what some consider to be obscure references, metaphors and even idioms can be found in many scientific texts. Research points to the fact that metaphorical thinking is inborn and makes it easier for us to interpret and filter the messages around us (Brown, 2003). The differentiation between denotative and connotative meaning can be a good starting point for exploring the question of medical metaphors. The challenge in translation comes when the translator has to determine whether the denotative and connotative meaning of a word is the same for the source and target communities or, if only partial or no equivalence can be established, whether the application of a given translation procedure is called for. Here follow some examples: *Stroke of Luck* (sudden illness that can cause partial paralysis), *coffee grounds* (hematemesis or vomiting of blood), *French pox* (syphilis), *Scarlet fever* (scarlatina), *White fingers* (Raynaud's disease).

4.3. Cultural Problems

The sociocultural level is present in any translation, and it requires dealing with factors such as ideology, social, cultural, and political trends, propaganda, philosophical issues, etc. According to David Katan, culture is the framework that helps the individual to be part of a given community; it is a system for orienting experience and forming a mental map of the community. (1999, p. 86) Basil Hatim, on the other hand, places cultural differences on a cline between sociocultural objects with which the social life of given linguistic communities are normally identified, and socio-textual practices, which are influenced by the former. (1997, p. 223). We would like to suggest the following operative definition of cultural reference adapted to translation purposes (Davies & Sott-Tennent, 2005, p. 166) "Any kind of expression (textual, verbal, non-verbal or audio-visual) denoting any material, ecological, social, religious, linguistic or emotional manifestation that can be attributed to a particular community

(geographic, socio-economic, professional, linguistic, religious, bilingual, etc.) and would be admitted as a trait of that community by those who consider themselves to be members of it. Such an expression may, on occasions create a comprehension or a translation problem.”

People suffering from certain diseases may be particularly sensitive to the language used to refer to them and their illnesses. We must beware of using biased language and unacceptable labels. Even certain euphemisms may fall out of favor and cause offence. Such labels change rapidly and we need to keep-up-to date with what is currently acceptable. In order to avoid biased language in the target text the following recommendation made to medical writers by Mathews et al (2000, pp. 151-154) can also be made to translators:

Specify only the differences that are relevant –Differences such as sexual orientation, marital status, age, ethnic identity or the fact that that person has a disability should be mentioned only when relevant.

Be sensitive to group labels-Labels such as “the schizophrenic” in the context of a PIL may stigmatize individuals with differences. In these cases we should avoid the label and use a more descriptive solution in the target text, such as” people diagnosed with schizophrenia” in the above example.

Guard against the perception of bias or prejudice –Racism and sexism are two of the most frequent types of prejudice. They may or may not be conscious or intentional. As translators we should find alternatives and avoid racist and sexist language whether it be unconscious and unintentional in a given culture, language or country.

4.4. Text-Specific Problems

One remark about this four level classification is that it is a matter of focus. Some issues are more clearly linguistic in nature, others are pragmatic, and yet others are sociocultural. This doesn't mean however that there is a neat separation between the three categories. Linguistic issues also have some pragmatic traces in them, pragmatic issues relate quite naturally to sociocultural or textual issues.

Another major translating problem is represented by content errors, “such as typographical errors, incorrect uses of terms, errors in writing, and ambiguities”. Simon Andriesen (2006, pp. 156-157). The most problematic problems for medical translators are, in Engels's opinion, noun stacking, ambiguities, decimals, abbreviations and vagueness (2011, p. 22). Regarding the first problem, Engels argues that noun stacking includes the range of nouns used to from a word with one meaning starting from as little as two nouns to having virtually no maximum amount of nouns. The problem with ambiguities lays in the context, or rather the omission of context, Engels writes; “for if the context allows no further indications as to what is meant the translator has little option but to maintain the ambiguity in his target text”. However, especially in the case of medicine, ambiguities must not exist. The translator has the responsibility to prevent errors from happening and to deliver a high quality translation. If a mistake is made in the translation of a prescription for medicinal intake, for example, if the translator accidentally places a decimal wrongly, therefore changing the intake, the consequences can be catastrophic.

This section is only a brief overview of certain features of pharmaceutical language, which is the focus of more detailed research papers published in *Medical Translation Step by Step* edited by Montalt and Davies (2012) devoted to medical language.

5. Conclusions

Medical translation is a complex and interesting phenomenon in which linguistic, sociocultural, scientific, economic and other factors are at play. That is probably why multidisciplinary approach is so useful in approaching medical translation in research. Translation theory was addressed from a flexible and inductive viewpoint with a special but not exclusive emphasis on the *functionalist* approach as presented by Nord (1997). This approach maintains that when translating it is not only the author or the source text that should be referents, but rather that the translation assignment and the client or the initiator of the translation process are central to the whole decision-making process. Therefore, the translator should be loyal to the function or purpose of the assignment, and equivalence, instead of referring to literal translation as has often been traditionally. Finally, we consider the issue of the alleged objectivity and stability of medical language. While it is true that medical language does not have many features that tend in this direction, it is also subject to changes and shifts in meaning throughout history, to emotional overtones and to subjective nuances. Exploring the metaphors, the cultural conventions and references, the synonyms in the same language, or the lack of equivalence and false friends that exist between languages, reveals gaps in the clarity, precision and conciseness traditionally associated with medical language.

6. References

- Adam, J.-M. (1992). *Les textes: types et prototypes: Récit, description, argumentation, explication et dialogue*. Paris: Nathan.
- Biber, D. (1989). A typology of English texts. *Linguistics*, (27), pp. 3-43.
- Directiva 2001/83/CE a Parlamentului European și a Consiliului din 6 noiembrie 2001 de instituire a unui cod comunitar cu privire la medicamentele de uz uman.
- García Izquierdo, I. (2006). The Concept of Text Type and Its Relevance to Translator Training. *Target*, 12(2), pp. 283-295.
- García Izquierdo, I. y Montalt i Resurrecció, V. (2013). Translating into Textual Genres. *Linguistica Antverpiensia, New Series. Themes in Translation Studies* (1).
- Hatim, B. & Mason, I. (1997). *The Translator as Communicator*. London/New York: Routledge.
- Haynes et al. (2008). *Interventions for enhancing medication adherence*. Ontario, Canada: John Wiley and Sons, Ltd. Hamilton.
- Katan, D. (1999/2004). *Translating Cultures. An Introduction for Translators, Interpreters and Mediators*. Manchester: St. Jerome.
- Montalt, Resurrecció V. & Gonzalez, Davies M. (2007). *Medical Translation Step by Step*. Manchester, USA: St. Jerome Publishing.
- Nord, C. (1991). *Text Analysis in Translation: Theory, Methodology and Didactic Application of a Model for Translation – Oriented Text Analysis*. Rodopy.
- Raynor, T. (2007). *The Importance of Medicines Information for Patients*. <http://onlinelibrary.wiley.com>.
- Reiss, K. & Vermeer, H.J. (2014). *Towards a General Theory of Translational Action*. Skopos Theory Explained. Routledge.
- Reiss, K. (1977/1989). *Text types, translation types and translation assessment*. En A. Chesterman. Readings in Translation Theory. Helsinki: Finn Lecturä, pp. 105-115.
- Trosborg, Anna (1997). *Text Typology and Translation*. John Benjamins Publishing Company Amsterdam/Philadelphia, Volume 26.
- Swales, J.M. (1990). *Genre Analysis-English in Academic and Research Settings*. Cambridge, UK: Cambridge University Press.
- Wright S.E. & Wright, Jr.L.D. (1993). *Scientific and Technical Translation*. John Benjamins Publishing Company, Philadelphia.