Explicitation in a Specialized Corpus Related to the Field of Environment:
An Analysis of Strategies in English-French Translations

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Abstract
This article aims to present some findings of a study\(^1\) on explicitation strategies in English-French translations of specialized texts related to the field of environment. The goal of the study is to identify the range of explicitation strategies, as well as analyzing and classifying them. For our research, we compiled a corpus of English-French environment texts. The texts were then aligned using the aligner LogiTerm Pro. Our work is based on that of Pápai (2004): her typology of explicitation strategies was used in our own analysis. We found that explicitation strategies occur at five levels. Our findings show that the number and variety of instances of explicitation are high in English-French translations of specialized texts in the field of the environment.

Keywords: explicitation strategies, aligned corpora, environment text, specialized text, translation

Introduction
This article focuses on the study of explicitation strategies in English-French translations of specialized texts related to the field of environment. We define explicitation as follows: a set of strategies used to convert implicit information in the source text and easily understood by readers of the source language into explicit information in the target text.

\(^1\) This study is the result of our master's research supervised by Marie-Claude L'Homme, Observatoire de linguistique Sens-Texte (OLST), Université de Montréal.
The following example (1) illustrates a form of explicitation on the textual and extra-linguistic level. More precisely, it is a lexical explanation. The translator has rendered the greener alternative of the English original by le choix le plus respectueux de l’environnement (probably because such lexical explanation is likely to be better understood by readers):

(1) Do we have the ‘right’ information or labels on the goods we are buying so we can opt for the greener alternative (chang_signals-2012.en)?

Les produits que nous achetons portent-ils les « bonnes » informations ou étiquettes afin de nous permettre de faire le choix le plus respectueux de l’environnement (chang_signals-2012.fr)?

Some authors (Blum-Kulka 1986, Pápai 2004) view explicitation as a translation universal; others have studied explicitation by comparing it with implicitation (Klaudy 2001, 2009, Becher 2011). Explicitation has been explored in terms of editing strategies applied by revisers (Séguinot 1988). Finally, a quantitative analysis of syntactic structures in comparable corpora in order to study explicitation was carried out (Olohan 2002).

The goal of this study is to identify the range of explicitation strategies observed in translations of specialized texts related to the field of environment, analyze them, classify these explicitation strategies and offer some explanations of possible causes of explicitation in translation.

In an article devoted to scientific and technical translation, Olohan writes that the processes of explicitation in translation is an important area of research that needs to be studied (Olohan 2009: 247). This statement suggests that our research topic is relevant.

After reviewing previous studies, we have formulated the hypothesis that English-French translations of specialized texts in the field of the environment contain explicitation strategies. In addition, we believe that several instances of different forms of explicitation strategies can be observed in these types of texts.


**Previous studies**

Explicitation has been the subject of several studies. We present previous studies based on corpora of general language (Vinay and Darbelnet 1958) and specialized corpora (Pápai 2004). A particularity of our own research is that it aims to carry out a detailed analysis in a specialized corpus of environmental texts.

The notion of "explicitation" was introduced by Vinay and Darbelnet (1958) and was defined as:

« Procédé qui consiste à introduire dans LA [langue d'arrivée] des précisions qui restent implicites dans LD [langue de départ], mais qui se dégagent du contexte ou de la situation » (Vinay et Darbelnet 1958, 1967: 9).

The authors use an example showing the explicitation of pronouns that are translated according to the context or situation. Translating *students* from English into French that is used with the context "St. Mary's School" or "Vassar College", the translator introduces the feminine form *les étudiantes* ; *elles*… because these institutions are reserved for women (Vinay and Darbelnet 1958, 1967: 117).

The research carried out by Pápai (2002, 2004) has served as the basis for our work. According to the author, explicitation is a difference that is created deliberately or instinctively between a source text (ST) and a target text (TT). The greater explicitness in the TT is the result of a translation process. This operation is implemented by translators in order to explain linguistic or non-linguistic information. This information is contained in the ST, but is vague or is not explicitated. The purpose of explicitation is to provide an easier and more reliable interpretation (Pápai 2002: 488, cited by Heltai 2005: 46).

The goal of Pápai’s (2004) research is to reveal the regularities of the translation process from the point of view of explicitation. The researcher has also examined explicitation as a feature of the translation product. This is explicitation in the translation process on which we are focusing.
Pápai studies explicitation in two corpora: an English - Hungarian parallel corpus and a comparable corpus of translated and non-translated Hungarian texts (Pápai 2004). Both corpora contain literary and non-literary texts.

The researcher uses the following example (2) to show a shift that occurs on the lexico-grammatical level and that presents a reconstruction of a substitution:

(2) As far as Kepler was concerned, elliptical orbits were merely an ad hoc hypothesis, and a rather repugnant one at that, because ellipses were clearly less perfect than circles.

Kepler az ellipszispályákat alkalmi hipotézisnek tekintette, méghozzá fölötte visszataszító hipotézisnek, mivel az ellipszis nyilvánvalóan tökéletlenebb a körnél.

*Back translation:* Kepler concerned elliptical orbits merely an ad hoc hypothesis, and a most repugnant hypothesis at that, because an ellipsis is clearly less perfect than a circle (Pápai 2004: 152).

**Methodology**

A corpus of environment texts pertaining to climate change was compiled. Five texts were collected by Le Serrec (2008) and are available in the textual database of the Observatoire de linguistique Sens-Texte (OLST). An additional, more recent text, the original and its translation, was added to the corpus. All these texts are reports: they were written by official organizations such as the Intergovernmental Panel on Climate Change (IPCC), Environment Canada, Europa and others who deal with environmental problems. The texts are available on the websites of the organizations and were produced between 1999 and 2012. The English-French corpus contains in total 60,290 words. Our corpus was aligned using the aligner LogiTerm Pro. A manual analysis was carried out to detect explicitation strategies.

In our research, the explicitation strategies identified and classified by Pápai (2004) were used to create our own typology. We adapted her strategies according to our needs. Some criteria proposed by authors and relevant to this study were also taken into consideration (Halliday et Hasan 1976, Kocourek 1991).
Results

The following table (1) presents the explicitation strategies that were found in our aligned parallel corpus of English-French environment texts.

Table 1: Explicitation strategies detected in the corpus

<table>
<thead>
<tr>
<th>Level</th>
<th>Shift</th>
<th>Quantity of detected explicitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Shifts on the level of logical and visual relations</td>
<td>1) Punctuation: addition and modification of punctuation marks</td>
<td>101</td>
</tr>
<tr>
<td></td>
<td>A. Addition of quotation marks (including)</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>2) Merger or segmentation of sentences</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>3) Addition of explanatory conjunctions: e.g. à savoir, c'est-à-dire, comme, etc.</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Excluded from the calculation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4) Other modifications</td>
<td>19</td>
</tr>
<tr>
<td>2) Shifts on the lexical and grammatical level</td>
<td>5) Lexical repetition</td>
<td>445</td>
</tr>
<tr>
<td></td>
<td>6) Grammatical parallel structures</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>7) Filling elliptical structures</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>8) Reconstruction of substitutions</td>
<td>229</td>
</tr>
<tr>
<td></td>
<td>9) Addition of participial forms: participe passé, participe présent, participe présent composé: e.g. émis, provenant, etc.</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>10) Addition of prepositions and prepositional phrases: e.g. parmi, selon, etc.</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>Excluded from the calculation</td>
<td>60</td>
</tr>
<tr>
<td>3) Shifts on the syntactic level I</td>
<td>9) Addition of participial forms: participe passé, participe présent, participe présent composé: e.g. émis, provenant, etc.</td>
<td>173</td>
</tr>
<tr>
<td></td>
<td>10) Addition of prepositions and prepositional phrases: e.g. parmi, selon, etc.</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>Excluded from the calculation</td>
<td>50</td>
</tr>
<tr>
<td>4) Shifts on the syntactic level II</td>
<td>11) Addition of connectives</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>12) Lexical explanation</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>13) Situational addition</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Excluded from the calculation</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>806</td>
</tr>
</tbody>
</table>

In this paper, we discuss the following explicitation strategies: an explicitation strategy on the level of logical and visual relations, namely the addition of quotation marks; a strategy on the lexical and grammatical level, that is the reconstruction of substitutions; a strategy on the syntactic level II, namely the addition of connectives.
Discussion

Shift on the level of logical and visual relations Punctuation Addition of quotation marks

According to Pápai (2004), translators deliberately use strategies occurring on the level of logical and visual relations. The translation style may also be inherent to a given language community.

When analyzing our corpus, we calculated 17 instances of addition of quotation marks in our corpus. We can say that, in most cases, translators have used quotation marks in order to attract the attention of readers of the translations to a lexical unit or a phrase. In example (3), the translator draws attention to the names of the directives « Habitats » and « Oiseaux sauvages » to emphasize their importance:

(3) The EU’s main tools are its Biodiversity Strategy, along with two binding pieces of legislation - the Habitats Directive and the wild birds directive - and funding to help advance all three (chang_1europaenv.en).

Les principaux outils de l'UE sont sa stratégie en faveur de la diversité biologique, deux textes législatifs contraints (la directive « Habitats » et la directive « Oiseaux sauvages »), ainsi que des moyens financiers pour la mise en œuvre de ces trois instruments (chang_1europaenv.fr).

In the following example (4), the translator repeats the lexical unit in English « a few » in the French translation: perhaps he/she is not entirely sure that quelques conveys the intended meaning:

(4) Most studies indicate that global mean annual temperature increases of a few °C or greater would prompt food prices to increase due to a slowing in the expansion of global food supply relative to growth in global food demand (established, but incomplete 6) (chang_3ipccconsequence.en).

La plupart des études indiquent qu'une élévation de quelques (« a few ») degrés Celsius ou plus de la température annuelle moyenne à la surface du globe entraînerait une hausse des prix des produits alimentaires par suite d'un ralentissement de la progression de l'offre alimentaire mondiale par rapport à l'accroissement de la demande (établi, mais incomplet 6) (chang_3ipccconsequence.fr).
Shift on the lexical and grammatical level Reconstruction of substitutions

One of the explicitation strategies described in our paper is the reconstruction of substitutions occurring on the lexical and grammatical level. Pápai (2004) writes that, generally, in the case of shifts on the lexical and grammatical level, we are talking about parallel structures in a source language and a target language.

Substitution is a process that occurs in a text and involves a replacement of one element by another. Substitution is a relation between linguistic elements as words or phrases (Halliday et Hasan 1976: 88-89). In our corpus, we observed 34 instances of reconstruction of substitutions.

Example (5) shows the reconstruction of a substitution where the element one in the English version is replaced by the noun solution in the French version:

(5) There is no single solution that will help us make a quick transition or one that fits all (chang_signals-2012.en).

Il n’y a pas de solution unique pour nous aider à réaliser une transition rapide, ni de solution applicable à tous (chang_signals-2012.fr).

Replacements of a pronoun in an original into a noun in a translation also present a reconstruction of substitutions and are often detected in the texts of our corpus.

In the following example (6), the translator adds the lexical unit émissions in the translation, whereas in the original, the pronoun those replaces the lexical unit emissions mentioned in the first part of the sentence:

(6) Hydrogen fuel would eliminate emissions of carbon dioxide from aircraft, but would increase those of water vapour (chang_1ipccaviation.en).

Un carburant à hydrogène élimineraient les émissions de dioxyde de carbone des aéronefs mais augmenterait les émissions de vapeur d’eau (chang_1ipccaviation.fr).
Shift on the syntactic level II Addition of connectives

Addition of connectives also presents an evidence of the explicitation. These additions are usually caused by differences in the economy of linguistic means in the SL and the TL and by a deliberate strategy of translators to make explicit what was implicit in a source text (Pápai (2004). Conjunctions, adverbs and phrases called connectives link the content of a sentence to the content of the previous or next one (Kocourek 1991). We detected 50 instances of addition of connectives in our corpus.

In the following example (7), the translator adds the adverb toujours in the TT in order to show the link with the preceding sentence and emphasize that these are the same projections, while in the ST, the authors do not attract the attention of readers to this fact:

(7) These projections indicate that the warming would vary by region, and be accompanied by increases and decreases in precipitation (chang_3ipccconsequence.en).

Toujours d'après ces projections, ce réchauffement varierait selon les régions et s'accompagnerait d'une augmentation ou d'une diminution de la pluviosité (chang_3ipccconsequence.fr).

Previous studies have shown contradictory results regarding the addition of connectives in different language pairs. According to Englund Dimitrova, less experienced participants do not make an extensive use of connectives during translation. This might be due to the fact that they are simply not aware of the possibility of adding connectives in translation, especially connectives between sentences. Conversely, experienced translators use more connectives in the translation (Englund Dimitrova 2005: 238). Sanz studied translations of touristic brochures from Spanish into English and discovered that connectives were more often used in Spanish original than in English translations. This might be caused by the fact that English touristic literature tends to be more implicit regarding logical relations (Sanz 2003: 302).

In our research, we observed several additions of connectives. Taking into account the results of previous research, this fact may have several causes. First,
French is characterized by higher level of explicitation compared with English. Second, the translations of our corpus are not made by non-professional translators.

**Exploration of some possible causes of explicitation**

If we compare the results obtained with regard to the explicitation strategies on the textual and extra-linguistic level in the texts in our research, we can see that the two texts `chang_5canadaicc.fr` (3) and `chang_Ipccaviation.fr` (2) contain the lowest number of explicitation strategies on this level. This fact can be explained by the difference in basic knowledge of the readers of the source and target languages. The text `chang_5canadaicc.fr` is written in the same country and despite the language and culture differences between the two national languages, these differences are probably not significant in the field of environment. The second text `chang_Ipccaviation.fr` that comes from an international organization and that is quite technical, is intended for specialists who are supposed to understand this text with few explicitations.

We can also mention another cause of explicitation. It is the role of technical writers and editors who correct and add additional information in translations of specialized texts (Pápai 2004). It happens because in official organizations, many professionals are involved in the translation process (Mossop 2006).

Some causes of explicitation are inherent to the translation of specialized texts and texts of general language. After analyzing the texts produced in Europe and Canada, we did not observe much difference in the number of explicitation strategies. In other words, the origin of translators may not have a significant impact on the explicitation.

It is also possible to observe that translators attempt to translate information to readers as precisely as possible. Thus, they often convert implicit information from a source text into explicit instances in a target text to minimize
the risk of misunderstanding this information (Pym 2005). The difference in basic knowledge of readers of an original and translation and even the personality of the translator (for example, work experience or knowledge) can play an important role with regard to use of explicitation strategies.

**Conclusion**

In this paper, we described a study of explicitation strategies found in English-French translations of specialized texts related to the field of environment. After identifying the range of the explicitation strategies, analyzing and classifying these strategies, we found that they occur at five levels: logical and visual relations, lexical and grammatical, syntactic I and II, textual and extralinguistic. The number of explicitation strategies that we have identified is 13. We identified 806 instances of explicitation strategies at five levels. We can conclude that the number and variety of instances of explicitation are high in English-French translations of specialized texts in the field of the environment.

We assumed that text type (specialized, literary, etc.) was a significant factor with regard to explicitation. In future work, different kinds of texts could be compared applying the same methodology to corpora of different language pairs. It would be interesting to compare the results obtained in this work with those obtained by other researchers.

**References**


