USING HOL-ATOMISTIC AND HOLISTIC LEXICAL AND GRAMMATICAL RELATIONS IN TRANSLATION

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1. Working with relations in texts

Part of my working hypothesis in my current research (Dejica, 2008a) is that understanding the relations between information universe (IU) elements (2008b) in texts is essential for source text understanding in translation in that it can help the translator take reliable decisions when it comes to preserving or changing particular structures, discourse style, lexical choice, etc., so as to create target texts consistent with the source texts or suit the needs of the client or of the target audience. In my research I focus on four types of relations (Dejica, 2008b), i.e., syntactic (Dejca, 2006a), semantic (Dejica, 2006b), lexical and grammatical, and cognitive (Dejica, 2008c). This paper presents my approach to the analysis of lexical and grammatical relations in a text applicable to the translation of pragmatic texts and comes to complete my previous research in this direction.

2. Theoretical foundations and method

In the current approach I use the IATRIA model [integrated approach for Theme-Rheme identification and analysis] (Dejica, 2006c, 2008c) and a translation method which has its roots in a three-phase multidimensional translation method (Gerzymisch-Arbogast, 2008: 12).

My approach to the analysis of lexical and grammatical relations for the translation of pragmatic texts is a multi-stage process combining pragmatic identification of information and hol-atomistic and holistic analysis (Dejica, 2006c, 2008c), and consists of the following stages:

a. Identification of information universe (IU) elements using the IATRIA model;
b. Establishment up hol-atomistic lexical and grammatical relations between IU elements in the source text in the reception phase of the translation process;
c. Identification of holistic relations between the lexical and grammatical information universe of the source text and the cultural system of the target language in the transfer phase; and
d. Reproduction of lexical and grammatical relations in the target text in the reproduction phase of the translation process.

3. Exemplification of the approach

For exemplification and analysis I chose the same text which I used to show other relations, i.e., cognitive, semantic, etc. in texts:

The project aims to develop techniques supporting heterogeneous modelling, including both formal "meta-models" and a software laboratory for experimenting with heterogeneous modelling. In this context, it will explore methods based on dataflow and process networks, discrete-event systems, synchronous/reactive languages, finite-state machines, and communicating sequential processes. It will make contributions ranging from fundamental semantics to synthesis of embedded software and custom hardware.

(Ptolemy Project)

The analysis follows the steps in 2:

a. An extended analysis of this text using the IATRIA model is available in Dejica (2008a). The analysis revealed the following IU constituents in terms of Themes and Rhemes:

Themes – given information, already mentioned in the title:

'the project'; the Theme in the first sentence is resumed in sentences 2 and 3;   ·
Rhemes – new information (i.e. the objectives proper):

'development of techniques supporting heterogeneous modelling, including both formal "meta-models" and a software laboratory for experimenting with heterogeneous modelling; exploration of methods based on dataflow and process networks, discrete-event systems, synchronous/reactive languages, finite-state machines, and communicating sequential processes; making contributions ranging from fundamental semantics to synthesis of embedded software and custom hardware.'

b. Next, the translator establishes hol-atomistic lexical and grammatical relations between IU elements; for instance, the hol-atomistic lexical analysis of the Themes in the text reveals the following relations:

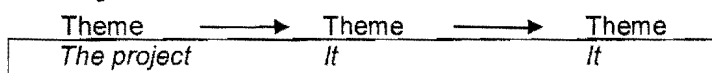| Theme ⟶	Theme ⟶	Theme
The project	It	It

Fig. 1 Exemplification of a Thematic lexical and grammatical holon

All the Themes of the text create a holon, i.e. a system which is a whole in itself as well as part of a larger system. In the text, the thematic lexical and grammatical holon (LGH) has the pattern noun – pronoun – pronoun, as in Fig.1, and in itself, it is part of a wider system represented in our approach by the lexical and grammatical information universe of the text.

Also in this reception phase of translation, the translator may extend the analysis to the rhematic information and create rhematic LGHs; there are two such rhematic LGHs in the text in the form of a hardware frame (networks, systems, machines) and of a software frame (modelling, dataflow, languages, processes, software). The frames have been identified based on a proposed cognitive analysis of the IU elements (Dejica 2008c).

c. Next, in the transfer phase, the translator identifies holistic relations between the thematic and rhematic holons of the lexical and grammatical information universe of the source text (ST-LGIU), which, for theoretical purposes we assume is particular to the cultural system of the source text, and the lexical and grammatical relations which form holons particular to the cultural system of the target language (TL-LGIU):
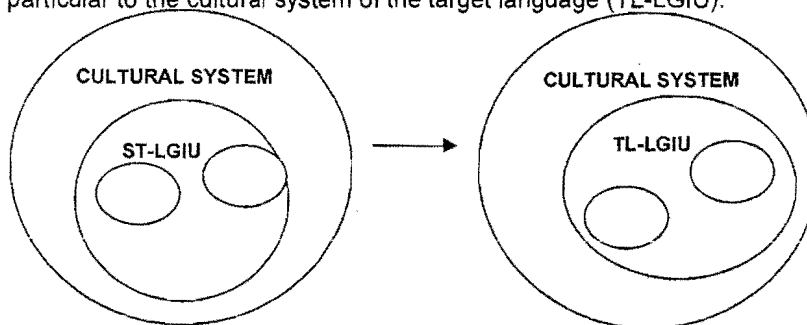

Fig. 2 Exemplification of holistic relation between lexical and grammatical information universes and cultural systems

Based on the cultural system of the target language, but also on its linguistic preferences or discourse style, in the *Ptolemy Project* text, the translator can identify the following holistic relations:

- One between a thematic lexical holon formed from the Themes in the source text and the client's preferences in the target text, e.g. the lexical relations between the Themes in our example could be preserved in terms of perfect synonymy, e.g., preserving the word *project* all through the target text, or of partial synonymy, changing it in the target language with words equivalent to *scheme, undertaking, task, etc.* Such examples are frequent in practice, for instance in the translation of official documents, a country refusing the 'help' from the EU and asking for 'support' instead, changing thus the balance of power and the relation of superiority/inferiority.
- Another one between the thematic grammatical holon of the source text and the target language preference for a certain grammatical class in theme position. For instance, a characteristic of the discourse style of pragmatic texts in English is to resume a Theme expressed by an abstract noun, using a personal pronoun, neutral form. However, Romanian does not display the same discourse preference: the same abstract nouns are always employed or they are replaced by demonstrative pronouns.

As shown in *Table 1*, the first possible Romanian version, the closest to the source text in terms of grammatical class selection, is in itself more specific than the English version, i.e. demonstrative versus personal-neutral pronouns. The translator has the possibility to create an even more specific holon in the target version, one which a greater argumentative power than the one in the source text by choosing only nouns for Themes in the second Romanian version.

English		Romanian (1)		Romanian (2)	
Theme	Grammatical class	Theme	Grammatical class	Theme	Grammatical class
The project	Noun	*Proiectul*	Noun	*Proiectul*	Noun
It	Personal pronoun, neutral	*Acesta*	Demonstrative pronoun	*Proiectul*	Noun
It	Personal pronoun, neural	*Acesta*	Demonstrative pronoun	*Proiectul*	Noun

Table 1. Possible thematic grammatical holons at text level in English and Romanian

- Last but not least, another holistic relation can be identified between the rhematic holons in the source text and the needs or classification of the audience in the target texts, e.g., the *hardware frame (networks, systems, machines)* and the *software frame (modelling, dataflow, languages, processes, software)* could be translated by using borrowings, by explaining the terms, etc.
- The analysis at this stage may be extended to the analysis of 'relators', i.e. in our conception, verbs which link thematic with rhematic information as shown in the graphic representation in 3.3. Even if relators are part of the IU, they are not carriers of information and we shall not analyze them in depth; however, studies

have shown that analyses of grammatical relations between verbs at the global level may display a genre's preference for a particular tense or mood, (Superceanu et al, 2006; Dejica, 2007), i.e. future tense of verbs in the section *Project Objectives* of *Project Proposals* in English (e.g. *will develop*) versus present tense with future connotation in Romanian ('*intenționează să dezvolte*' – *intends to develop*).

d. In the reproduction phase, from the multitude of choices and holistic relations derived from the analysis exemplified in c., the translator reproduces the most adequate lexical and grammatical relation to suit the translation order, the client's requirements or simply his/her own preferences. Thus, he/she can choose to create more or less specialized rhematic holons, or, as shown in Table 1, create different stylistic effects by changing the grammatical class in Theme position.

4. Conclusion

This approach is part of a wider translation method designed to help translators take reasonable and consistent decisions as to the relevance and reliability of source text features in the target text. It also accounts for the fact that a target text may have several versions, all 'correct', depending on the audience or discourse style of the target language, or client's preferences. It is meant to be used integrated with the cognitive, syntactic and semantic approaches to the analysis of the information universe in texts for translation.

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