On the Translation of Semantic Relations: an empirical study

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Nesse artigo, discute-se a transferência de relações semânticas entre proposições com base em um estudo piloto com objetivos didáticos realizado na *Copenhagen Business School*. As relações analisadas eram não marcadas no texto de partida (TP). Procura-se investigar até que ponto a tradução da coesão textual é objeto de processamento mental por tradutores quase profissionais durante o processo de tradução e até que ponto os tradutores quase profissionais optam por uma estratégia envolvendo a explicitação no texto de chegada (TC) das relações semânticas que podem ser deduzidas a partir do TP através de inferências.

In this article, the transfer of semantic relations between propositions is discussed based on a pilot study carried out for didactic purposes at the Copenhagen Business School. The relations studied were unmarked in the source text (ST) and the research aimed at investigating to what extent the translation of textual cohesion is the object of mental processing by semi-professional translators during the translation process and to what extent semi-professionals opt for a strategy involving the explicitation in the target text (TT) of semantic relations which can be deduced from the ST by means of inferences.

Introduction

This article discusses the transfer of semantic relations between propositions based on a pilot study carried out for didactic purposes at the Copenhagen Business School. The participants in the experiments were advanced Danish translation students who can be considered to be semi-professionals (Kussmaul 1995: 9). They were instructed to translate a number of Spanish texts into Danish. The relations studied were unmarked in the source text (ST), i.e. they were not made explicit by means of cohesive links and the main questions asked were the

following: (1) To what extent is the translation of textual cohesion the object of mental processing by semi-professional translators during the translation process? And (2) to what extent do semi-professionals opt for a strategy involving the explicitation in the target text (TT) of semantic relations which can be deduced from the ST by means of inferences? An analysis of the translation products alone does not give us an answer to these questions. Consequently, it has been supplemented by a study of the translation process.

As is well known, translations tend to be more explicit that the original (Chesterman: 71). Now, if implicit argumentative source text structures are not made explicit at least to some degree by means of cohesive links in the TT, we have no idea as to why this is so. Either the translator decides (consciously) to maintain the same level of implicitness in the TT or he may not consider the question of transfer of the argumentative structure of the ST (typical of novices in translation training).[1] The experiments designed to obtain empirical data on the process were carried out using the computer program *Translog*, which registers the whole translation process chronologically; in addition, some experiments with think-aloud protocols (TAPs) were carried out.[2]

Before proceeding to the formulation of hypotheses, the role played by cohesive links will be commented on and the concept of 'appropriateness' of translation strategies will be briefly discussed. The purpose of cohesive links has been studied by several linguists in the last decades, among them Martín Zorraquino (1988: 248), and more recently Flamenco García (2000: 3863). According to Flamenco García, in addition to securing the transparency of the argumentative structure, connectors are used to disambiguate semantic relations. Furthermore, they serve the pragmatic function of acting as a guide to readers, leading them to the intended reading of a text. Perhaps their overall communicative function could be summarised in this way: connectors serve the purpose of facilitating textual interpretation. Thus they contribute to the textual properties of clarity and readability. Of course, several variables have to be taken into consideration by the translator before deciding on a strategy aiming at clarity. Among them are genre and text type. For instance, a predominantly informative text would require a strategy favouring clarity. Equally important to the translator's choice of strategies are the linguistic

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[1] It is assumed that fully automatized mental processing is not possible for this group of translators.

[2] A description of Translog is given Jakobsen in Copenhagen Studies in Language 24.

norms of the target culture as regards linguistic explicitness in general (compared to those of the source culture). However, to my knowledge, no such data exist for either Danish or Spanish. For the present study, two decisions were made in an attempt to avoid a detailed study of these questions: (1) Four of the five texts chosen for the experiments belong to journalism, i.e. they had appeared in mayor Spanish newspapers, where the predominant textual function is informative. This selection was done in an attempt to ensure that an appropriate choice of translation strategy would be one whose main goal is clarity and readability. In our case, this would lead to the choice of a strategy aiming at (some degree of) explicitation of the textual cohesion of the ST, since the STs used in the experiments are characterised by an atypically high degree of implicitness in this respect.[3] And (2), for each translator not only the choice of strategy as such has been studied, but also the extent to which the translator can be said to have 'translational competence' as defined by Pym (quoted in Chesterman 1997: 119):

> (a) The ability to generate a series of possible translations for a given source text or item.
>> (b) The ability to select from this series, "quickly and with justified (ethical) confidence" (..), one version considered to be optimally appropriate.

As far as (a) is concerned, an analysis of the translation product, combined with the study of the translation process by means of *Translog* and TAPs, should give us the information required. A high level of explicitness in the TTs will in itself provide evidence that (a) is fulfilled. A high level of implicitness, on the other hand, will have to be supported by process data. If these show that the decision-making process has involved a consideration of textual cohesion as such, then (a) will be considered fulfilled, even though it is not necessarily the case for (b).

In (b), we face the requirement of an assessment, since (b) involves an evaluation not merely of the appropriateness of the strategy chosen, but of 'optimal appropriateness'. Such an evaluation would be most time-consuming. At this stage, no evaluation of the translation product by external professional translators was undertaken in the pilot study, nor did it include experiments with a control group, consisting of professional

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[3] The STs included in the experiments were manipulated in order to ensure a maximum level of implicitness as regards cohesive links between propositions, see section 1.

translators.[4] However, since the participants in the experiments are all students, we have at our disposal an assessment of their general linguistic and extra-linguistic competence made at the end of the course by three evaluators, including myself. This evaluation has been used in the pilot study where we wish to find out whether a correlation can be found between the students' strategies as regards explicitness/implicitness of textual cohesion in the TTs and the evaluation of the general linguistic and extra-linguistic competence.

Furthermore, in order to make sure that some degree of explicitation would be the 'appropriate' choice of strategy, the STs selected for the experiments were manipulated before presenting them to the students. The STs contained a minimum level of cohesive explicitness and could thus be characterised as being atypical of their text type in Spanish.[5] We argue that if the TTs produced by a translator reflect a tendency to cohesive change, then he/she can be said to be approximating or, if the tendency is marked, close to fulfilling requirement (b).

Our tentative hypothesis can now be formulated: it is assumed that there is a correlation between strategies aiming at cohesive changes - in our case explicitations in the TT of implicit semantic relations in the ST - and the general level of linguistic and extra-linguistic competence of the semi-professional translators. If the general competence is high, the number of cohesive changes made will also be high, and vice versa.

Manipulation of Source Texts

All the texts included in the experiments were manipulated by the researcher. The purpose was to produce a maximum level of implicitness as far as the semantic relations were concerned. Thus, in the STs presented to the students, cohesive links were deleted, wherever possible, to ensure a maximum level of asyndeton.[6] This was done in attempt to

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[4] This may prove necessary at a later stage in the investigation.

[5] As has been mentioned, no statistical data are available as regards linguistic norms of cohesive explicitness/implicitness in the two cultures. Nevertheless, some degree of cohesive explicitness in Danish journalism would be a reasonable expectation, more or less comparable to that of Spanish journalistic language.

[6] As a general rule, subordinate clauses were not analysed in this study, since here the use of a connector is obligatory in Spanish. However, where the relational inference made on the basis of the propositional content conflicted with the prototypical use of the connector, or more than one relation could be inferred, the solutions arrived at by some of the students suggested they should be included. Non-finit verb phrases have only been

encourage the students to reflect on the translation of the argumentative structure and to use, if not global, at least local strategies aiming at a higher level of explicitness in the TT. Example (1) shows the type of manipulation performed in the STs:

(1) **ST:**   *Parecería que este iluminismo descerebrado ha entrado en crisis, cosa que deben recordar los del PP para administrar con prudencia su mayoría absoluta:*
    (, porque) los votantes van a pedirles cuentas. (Pero) También deben recordarlo los socialistas.[7]
       (El País, 21st March 2000)
    'It seems as though this thoughtless *iluminismo* is now in crisis, which the right-wing *Partido Popular* should bear in mind in order to make good use of their absolute majority: (, because) the voters will call them to account. (But) the socialists should also bear it in mind.'

In (1) one causal and one adversative connector have been deleted from the ST. As for the first relation, the use of a colon to express causal relations is far less frequent in Danish than in
Spanish, so the translator would be wise to look for another way of expressing this relation. Twelve students participated in the experiment. Five produced an acceptable explicitation of the causal relation in the TT. Two students even emphasised the relation by strengthening it:

(1) **TT1:**   *(..) det bør PP huske på så de kan administrere deres flertal med ansvarlighed for til syvende og sidst står de til regnskab for vælgerne.*
    '(..) because eventually they will be answerable to the voters.'

(1) **TT2:**   *(..) for vælgerne vil nemlig kræve dem til regnskab.*
      '(..) because in fact the voters will call them to account.'

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included where a translation deviates from a standard strategy, e.g. a structural change from subordination to coordination.
[7] The bracketed words in bold represent markers of a given relation in the ST. These were the markers deleted in the STs before presenting them to the students.

However, in the case of the second relation - the adversative relation - only two students added an equivalent of the Spanish *pero*. And, in fact, the adversative relation does not seem to be quite as transparent or easily inferred as the causal relation. However the inferential basis is there, since the two major Spanish political parties competing for governmental power are the conservative and the socialist parties, PP and PSOE, respectively.

In (2), no manipulation of the ST was made. However, a contrast is inferred from the propositional content of two sentences linked by a prototypical temporal conjunction *cuando* in the ST:

(2) **ST:**   *¿Por qué, cuando los hombres son sexualmente promiscuos, se les puede considerar héroes temerarios, chicos juguetones, e incluso gloriosos seductores (..)?*.
              (El País Semanal, 18th February 2001)
              'Why is it that men, when they are sexually promiscuous, can be looked upon as brave heroes, playful boys and even glorious seducers?'

The predominantly adversative (or concessive) meaning of the relation could be transferred to the TT by means of a cohesive change or it could be emphasised by an amplification in the TT. Two of the three students translating this text made the correct inference and created a higher degree of transparency in the TT. One opted for an amplification, retaining the Danish equivalent to *cuando* ('when'), i.e. *når*, while the other made a cohesive change as well as an amplification:

(2) **TT1:** *Hvordan kan det være, at man anser mænd for at være dumdristige helte, legesyge drenge og endda strålende forførere, når de **i virkeligheden** er seksuelt dobbelttydige (..).*
              '(..) when <u>in reality</u> they are sexually ambivalent (..).'
(2) **TT2:** *Hvordan kan det være at mænd, **på trods af** deres sexuelle promiskuitet, **blot** bliver betegnet som letsindige helte, legebørn eller endda store forførere (..).*
              'How can it be that men, <u>in spite of</u> their sexual promiscuity, are <u>merely</u> considered (..).'

In one case I refrained from deleting the connector of the ST. This is the case of the additive connector *y*, since it is the semantically least marked conjunction in Spanish whose interpretation is consequently highly context-dependent. Thus *y* was kept in the ST, but only where the propositional content imposed an adversative reading of *y*, since the frequency of this use of the Danish additive equivalent *og* is very low. This decision was made, because *y* is considered especially apt to show whether the translator is capable of detaching himself from the ST in the translation process. Intuitively, I feel that changing an *explicit* source text connector to another connector with a different lexical meaning in the TT requires more mental processing than the explicitation of an implicit relation and therefore would prove less frequent. (3) is an example of an *y* with an adversative reading:

(3) **ST:** *La santa Iglesia católica prohíbe a sus fieles el control de la natalidad y el uso del preservativo **y** aconseja a las monjas misioneras que tomen anticonceptivos.*
(El País Semanal, 25th of february 2001)
'The Catholic Church forbids their believers birth control and the use of condoms <u>and</u> recommends the missionary nuns to use contraceptives.'

Two students co-operated in the translation of this text and they chose the following fully acceptable translation, since the use of the inherently temporal connector *samtidig med* ('at the same time as'/'while') in contexts imposing an adversative reading is in accordance with the linguistic norms of the target culture:

(3) **TT:** *Den katolske kirke forbyder de troende fødselskontrol og brug af kondom **samtidig med at** den råder sine nonner til at anvende svangerskabsforebyggende midler.*

Analysis of the translation products

The following table shows the results of the experiments with respect to the number and types of relations made explicit by the students in the TTs:[8]

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[8] For the classification of relations, see Flamenco García. The table includes two highly frequent relations, namely the adversative and the causal relations. Because of their

Explicit relations in the TTs (implicit relations in the STs have been shown in brackets):

	1. Contra-argumentative ST relations:		2. Causal ST relations:	
	Adversative	Adversative-Concessive	Causal	Consecutive
	(but)	*(nevertheless)*	*(because)*	*(therefore)*
ST 1 (2 SR in 14 TTs)[9]	5 (14)[10]		5 (14)	
ST 2 (4 SR in 12 TTs)	2 (12)		9 (24)	0 (12)
ST 3 (6 SR in 7 TTs)	1 (21)	1 (7)	3 (7)	0 (7)
ST 4 (8 SR in 3 TTs)	7 (18)		2 (6)	
ST 5 (10 SR in 1 TT)	6 (9)		1 (1)	
In total	21 (74)	1 (7)	20 (52)	0 (19)
Percentage	28%	14%	38%	0%

Table 1

The adversative and the causal relations - considered fundamental to all human communication - are expected to have a high frequency in most text types. The high frequency of the adversative relation in general is reflected in table 1 (a total of 20 in the 5 STs). The rather low frequency of the causal relation (a total of 7) can be explained by the fact that this relation is prototypically expressed by means of syntactic subordination, which was not included in this study. As far as explicitations are concerned, as is seen from the table, the adversative and the causal relations of the TTs have been made explicit in 28% and 38% of the cases, respectively. Since the frequency of the two remaining relations, the adversative-concessive and the consecutive, is low, the results of the experiments might be random and will not be commented on until further empirical data have been collected.

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close semantic relationship to the adversative-concessive and the consecutive relations, respectively, these have also been included. More empirical data on other less frequent types of relations have to be collected before it would serve any purpose commenting on them.

[9] ST1 (2 SR in 14 TTs) means that source text 1 contained 2 implicit semantic relations, and 14 translations of the ST were produced.

[10] 5 (14) means that out of 14 possible explicitations 5 explicitations were actually made in the TTs.

Table 1 only includes the data on the transfer of *implicit* source text relations. Consequently, The translation of *y* ('and') with an adversative reading has not been included in table 1, since the connector is explicit, not implicit in the ST. The empirical data on the translation of *y* show that, out of a total of 29 translations of *y*, *y* was translated by means of an acceptable conjunction, typically the adversative *men* ('but'), in 8 cases, that is, an explicitation percentage of 28%. On this basis it can be concluded that the supposition that semi-professional translators would be more liable to make an implicit relation explicit than to replace an explicit connector (in this case the additive *y*) by a connector with a different lexical meaning (in this case an adversative connector) in accordance with the linguistic conventions of the target culture, is *not* confirmed.

Of course, the deletions and other manipulations made in the STs may lead to translations where the relational pattern made explicit in the TT is not an exact reproduction of the cohesive links of the original, non-manipulated ST. Semantic relationships and clusters are revealed, and in some cases syntactic restructuring has been made by the translator. This can be seen in (4):

(4) **ST:** *(Aunque creemos hoy) Creyendo hoy que somos modernos y estamos por encima*
de todo eso, (la verdad es que,) por debajo de la superficie, la doble moral sigue
afectado profundamente a las relaciones.

(El País Semanal, 18th February 2001)

'(Although today we think) Thinking today that we are modern and are beyond all
this, (the truth is that,) below the surface, double standards are still deeply affecting the relations between man and woman.'

Of the three students who translated this text, two translated the gerund phrase by a subordinate concessive clause, which would be the prototypical translation. However, one student restructured the sequence using two co-ordinated sentences connected by the adversative *men* ('but'), thus emphasising the contrast inferred from the propositional content, in this case the adverbial phrase *por debajo de la superficie*.

In (5) the ST expresses two causes leading to one and the same effect, one cause being syntactically separated from the other by the following pattern: cause1 → effect ← cause2:

(5) **ST:**   *(César) llevaba una eternidad sin dormir como es debido. Para poder cerrar los ojos sobre sus miedos tenía que atiborrarse de píldoras. (**Y aún así**) Transcurrían horas antes de conquistar el sueño. (**Por eso**) Se levantaba tan tarde por las mañanas; (**por eso y porque**) no lograba encontrar una razón suficiente para ponerse en pie.*

 (Rosa Montero. 1998. *Amado amo*. Barcelona: Plaza & Janes)

'(César) had not been able to sleep as one should for a very long time. To be able to close his eyes and forget his fear, he had to fill himself with pills. (Nevertheless) It took him hours to fall asleep. (Therefore) He got up very late in the morning; (for this reason, but also because) he could find no sufficient reason to get out of bed.'

(5) **TT:**   *For at kunne lukke ojnene og glemme sin frygt, blev han nodt til at fylde sig med piller, **men alligevel** gik der timer for sovnen overmandede ham. Han stod meget sent op, **for** han kunne ikke finde nogen god grund til at stå op.*

'(..) To be able to close his eyes and forget his fear, he had to fill himself with pills, but nevertheless it took him hours to fall asleep. He got up very late in the morning, because he could find no good reason to get out of bed.'

A total of seven students translated this text. As can be seen in table 1, only one student makes the adversative-concessive relation explicit by means of *men alligevel* ('but nevertheless'). As for the two causal relations, no student makes both of them explicit. Furthermore, no student chooses to make the first causal relation explicit, while three choose to mark the last clause as causal by means of the connector *for/da* ('because/since'). In general, the translations of this particular text are characterised by a low degree of explicitation of the semantic relations. This could be due to the fact that this is a fictional text where form and style are the focus of attention (the poetic function). The syntax could be characterised as simple, with a predominantly paratactic style and rather short sentence units, perhaps a text which does not encourage the

translator to adopt a global strategy of explicitness in order to increase the readability of the text. Textual style could also explain the fact that the three students who actually chose to make one cause explicit coincided in choosing the postponed cause, since the order effect ← cause, here cause2, is characteristic of a simpler style, e.g. spoken language.[11]

Table 2 shows the total number of explicitations made by each translator for all texts translated:

Explicitations and disambiguations in the TTs
Percentage of *y* in the TTs (number of possible explicitations and disambiguations are shown in brackets)

Translator no. 1	16 (26)[12]	62%
Translator no. 2	8 (15)	53%
Translator no. 3	5 (11)	45%
Translator no. 4	11 (25)	44%
Translator no. 5	3 (15)	20%
Translator no. 6	3 (19)	16%
Translator no. 7 and 8	0 (10)	0%

Table 2

As opposed to table 1, table 2 includes the translations of *y*, but only in the case of *y* with an adversative reading, and further only if *y* was translated by means of a connector conventionally used to express contrast in the target language, i.e. *men* ('but'), *mens* ('while') or equivalents. No figures have been included if the TTs contain fewer than ten implicit semantic relations of the four types listed in table 1 (the numbers in parentheses). As is evident from table 2, the variation is

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[11] It should be noted that the double causal relation in (5) has been counted as one, not two relations in table 1.
[12] The numbers in brackets is not identical for all eight translators since none of them translated all five texts. For instance, translator no. 1 translated texts 1, 2, 4 and 5 with a total number of 26 implicit relations of which he made 16 explicitations. Translator no. 2 translated texts 1, 2 and 3 with a total number of 15 implicit relations of which he made 8 explicitations, etc. The total number of implicit relations for all five texts is 34, including the translation of *y* ('and') with an adversative reading, as opposed to table 1.

remarkable, from 0% to 62%. Even though the data of the pilot study are too limited to be reliable, it would be reasonable to assume that a more extensive study of the phenomenon would confirm this tendency of considerable individual variation.

Now the interesting question is whether these results seem to confirm the tentative hypothesis formulated in the introduction, namely that a high linguistic as well as extra-linguistic competence will favour the choice of explicitation strategies, and vice versa. This seems to be the case. In fact, the correlation hypothesis is confirmed *as a general tendency* by the empirical data. The evaluation made at the end of the course of the students' overall linguistic and extra-linguistic competence corresponds with the list shown in table 2, with one exception. According to the end-of-term evaluation, translators no. 6 - 8 are all students with a linguistic competence below average, whereas translators no. 1, 3 and 4 have a linguistic competence clearly above average. Translator no. 5 (with 20% explicitations) was evaluated as an average student at the end of the course. Translator no. 2, however, is a notable exception. In his case, no correlation at all can be said to be found between the general competence (evaluated as low) and the decision-making regarding explicitations (53%). Of course, reservations must be made concerning the validity of the results of this pilot study. However, these results have prepared the ground for further testing of the basic hypothesis.

Analysis of the translation process

One of the questions that cannot be answered by solely analysing the translation product is *why* some students make few or no explicitations. Of course, the correlation found between cohesive strategy and general competence would suggest an answer, but we do not know for certain. Did the translator at some point consider transferring the semantic relations, but eventually decided not to alter the degree of explicitness of the argumentative structure of the ST? Or did he/she give no thought whatsoever to the question of textual cohesion in the translation process?

In order to obtain an answer to this question, the computer program *Translog* developed by Jakobsen (1999) has been used in three of the five experiments. *Translog* registers the whole translation process, every movement on the keyboard, every correction and every pause made during the process. Thus the complete translation process can be replayed and printed for further study. The exact duration of the pauses is also

registered. The analysis of the *Translog* files is discussed in 3.1. However, if the mental processing going on during a pause does not result in keyboard activity, *Translog* gives us no clue as to what goes on in the translator's mind during the pause.

In order to find out more about the mental processing in the pauses, *Translog* was supplemented with TAPs. Two forms were tested: (1) Tape-recorded retrospection where the translator commented on the process and the researcher was present asking questions in order to secure a sufficient degree of verbalisation by the students, and (2) dialogic introspection between two students producing a translation together. As is well known, one of the advantages of the retrospective method is that it guarantees that there is no interference in the translation process as a result of verbalisation. The purpose of testing dialogue introspection was to stimulate the unaccustomed verbalisation of the process by creating the 'natural' communication situation desirable for optimal verbalisation during the process (Haastrup 1987: 201, Séguinot 1996: 88, Chesterman 1997: 137). The results of the two kinds of TAPs are commented on in 3.2.

Analysis of the *Translog* files

Ideally, translation process research enables us to find general procedural patterns adopted by different types of translators. The didactics of translator training would gain much if valid generalisations could be made about optimal translation procedures, in our case about the translation of semantic relations. This pilot study takes the first step towards that end.

The subjects whose procedural behaviour seems to concur, and are thus most easily categorised, are those who produced 'literal' translations, that is, those who provided no explicitations at all. In text 3, a syntactically rather simple text which was predominantly paratactic and contained relatively short sentence units, four students produced none out of eight implicit semantic relations in the ST. Two of these subjects had another thing in common. They tended not to pause at all before embarking on the translation of a new sentence unit.

Now, the object of this study was to investigate semantic relations between sentences and sentence units and we know from other studies that pauses often occur *between* sentences - the typographical sentence being used as the prototypical unit of comprehension (Séguinot 1996: 82).

Furthermore, we know that pauses made after full stop plus keyboard space tend to be markers of mental processing oriented towards the translation of the following sentence unit, and vice versa (Lorenzo 1999a: 26). What we do not know is what kind of unit (or units) causes the pause, and what kind of problem-solving is involved. Are we dealing with linguistic problem-solving, or problems of comprehension, including questions of textual cohesion? However, it is clear that, if the general pattern is not to pause between sentence units, and to provide few explicitations of the semantic relations, this indicates a low degree of reflection, or no reflection at all, about the transfer of textual cohesion to the TT. One of the students does not even revise his TT. These students would appear to behave as novices in translation (see, for instance, Jääskeläinen (1996: 62), who observes that novices problematise relatively little). Incidentally, the logfile showed that one student did decide on at least one cohesive change, but deleted it again in the revision phase.

(6) **ST:** *(Por eso) Se levantaba tan tarde por las mañanas; (por eso y porque) no lograba encontrar una razón suficiente para ponerse en pie.*
  (Rosa Montero. 1998. *Amado amo*. Barcelona: Plaza & Janes)
  '(Therefore) He got up very late in the morning; (for this reason, but also because) he could find no sufficient reason to get out of bed.'

(6) **TT:** *Han stod altid så sent op om morgenen, fordi han ikke kunne finde nogen ordentlig grund til at stå op.*
  'He always got up late in the morning, because he could find no sufficient reason to get out of bed.'

(6) **Revision:** *Han stod altid sent op om morgenen, han kunne ikke finde nogen ordentlig grund til at stå op.*
  'He always got up late in the morning, he could find no sufficient reason to get out of bed.'

The deletion of a fully acceptable connector suggests that the student opted for a 'playing-it-safe strategy', which can only be interpreted as resulting from a marked lack of confidence in his own competence, particularly if we bear in mind that he is translating into his mother tongue (Lorenzo 1999b: 123).

On the whole, it can be said that this text (text 3) does not seem to elicit a global strategy of cohesive explicitness in the TT. In any case, generally, rather few explicitations were made. Apart from the genre, this could be due to the characteristics already mentioned: syntactic simplicity and high readability. This could also explain why the general pattern is to make no long pauses (pauses are rarely longer than 30 seconds) before translating a sentence, even in cases where relational explicitations have been made. Thus, the need felt by the translator to make implicit relations explicit may depend not only on questions of genre and text type, but also on issues such as readability (comprehensional complexity) and style (formal vs. informal style).

Although the general complexity of text 3 is low, the opposite holds for text 5. Two highly competent students were given this text with low readability, hypotactic syntactic structures, in short, a text requiring high linguistic as well as cultural competence of the translator. The two students co-operated in the translation and chose a marked degree of cohesive explicitness, that is, seven out of ten implicit cohesive links were made explicit. What can be deduced from an analysis of their logfile is that considerable effort was made to address the question of text comprehension. An example of this can be seen in (7):

(7) **ST:**   *Gregorio Ordóñez, que era un demócrata ejemplar y un católico conservador y fervoroso, no debía (,***sin embargo,***) de ser uno de esos hijos que merecen el cariño pleno de la santa madre.*   (El País Semanal, 25th February 2001)
'(**However**,) Gregorio Ordóñez, who was a model democrat and an ardent and conservative catholic, would not be one of the children who deserves the full care of the catholic church.'

(7) **TT:**   *Gregorio Ordóñez, som var en eksemplarisk demokrat og en konservativ og hengiven katolik, er åbenbart ikke et af de børn som har fortjent kirkens omsorg.*

'Gregorio Ordóñez, who was a model democrat and an ardent and conservative

catholic, is <u>apparently</u> not one of the children (..).

(7) **Revision:** *Men* Gregorio Ordóñez, som var en eksemplarisk demokrat (..).

'But Gregorio Ordónez, who was a model democrat (..).

An explicitation of the adversative relation - perhaps not fully transparent in the excerpt - has been made. Furthermore, an appropriate interpretation of the modality expressed by *deber de*, in this case assumption, has been made resulting in a transposition by means of an adverbial phrase *åbenbart* ('apparently'). According to the *Translog* file, considerable mental processing has been invested in deciphering this sequence. Before translating the last paragraph, the students spend some time searching in the co-text. Then a long pause is registered - about one and a half minutes - before they write the name *Gregorio Ordoñez*, not having been mentioned before in the co-text.[13] They finish the translation of the whole sentence in question before going back to the beginning and inserting an adversative conjunction *men*. The total time spent on pauses amounts to almost five minutes. In their case, the process data seem to coincide with observations made by Jääskeläinen about *professional* translators (1996: 63 and 69): 1) Experienced translators do not necessarily spend less time and effort than less professional translators, and 2) much more time is spent by the professional on text comprehension (62%) than on linguistic analysis (38%), whereas the figures are more or less reversed in the case of the mediocre translator.

(8) is a perfect example of the precision offered by *Translog* as far as restructuring processes are concerned. It is most improbable that the results of introspective methods alone could reflect the same degree of precision of the procedural path followed by the translator:

(8) **ST:**   (..) *los hombres tienen mucha más libertad (..) (,****mientras que, si las mujeres se comportan del mismo modo y actúan libremente,****). Comportándose las mujeres del mismo modo, actuando libremente, a ellas se las juzga de forma mucho*

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[13] The TAP revealed that the pause before embarking on the translation of the sentence was used searching in the co-text for the name *Gregorio Ordoñez*. Being the subject and the theme of the sentence, they assumed that he had already been introduced. They simply did not know *who* he was.

> *más negativa, a veces se las expulsa de la sociedad, incluso se las asesina.*
> (El País Semanal, 18th February 2001)
> '(..) men have much more freedom (..) (, <u>whereas if women behave in the</u> <u>same way and act freely</u>,). Behaving women in the same way acting freely, they are judged much more negatively, sometimes they are excluded from the community, they may even be killed.'

(8) TT: *(..) Mænd har meget større frihed (..).* **Hvis kvinder på samme måde udviser sexuelt frisind** *bliver de anset for noget meget mere negativt (..).*

'(..) Men have much more freedom (..). <u>If women exhibit</u> <u>sexual liberalism in the same way</u> they are looked upon much more negatively (..).'

(8) Revision: *(..) Mænd har meget større frihed (..).* **Kvinder der udviser samme sexuelle frisind** *bliver set meget mere negativt på (..).*

'(..) Men have much more freedom (..). <u>Women who exhibit</u> <u>the same sexual liberalism</u> are looked upon much more negatively (..).'

In the first version, the syntactic structure of the ST is copied. However, the mental processing does not stop here. The translator decides on a structural change allowing the contrast *men* vs. *women* to be expressed be means of parallel syntactic structures giving the two contrastive noun phrases initial position and subject function in both sentences. Nevertheless, as has been mentioned, *Translog* leaves gaps in our knowledge of the mental processing during pauses, in which case introspective methods prove a useful tool.

Analysis of the data provided by TAPs

The purpose of the introspective experiments was partly to shed light on the mental processing going on during pauses, and partly to test different experimental designs and their appropriateness. Our expectations can be formulated as follows. If there was a low degree of cohesive change in the TTs, the introspective data were expected to contain few or no reflections about the transfer of textual cohesion, since the mental processing and the decision-making would concentrate on smaller units, i.e. units below

sentence level. This was hypothesised to be the case for translators with a low translational competence, since automatised processing would be limited and, consequently, the processing would mainly concern the solution of linguistic problems. On the other hand, a higher degree of automatised processing, characteristic of the competent translator, would leave him/her with more free processing capacity, which could be applied to higher-level text units and to the whole question of text comprehension, in our case textual cohesion (Jääskeläinen 1996: 67 and 69). This, of course, is the category of translators who are expected to reflect on the argumentative structure and its transfer to the TT.

This expectation seems to be confirmed by an analysis of the introspective data as far as the category of less competent translators is concerned, at least on the basis of the small number of introspective tests carried out in the pilot study. One experiment may serve as an illustration. One translation (text 4) was made by three students, two very competent and one below average. The percentage of explicitations was 55% (5 out of 9 relations), 44% (4 out of 9) and 33% (3 out of 9), respectively; in short, not a very marked difference. However, the verbalisation of the three students was noticeably different. The only case in which the degree of verbalisation corresponded totally to the expectation was that of the student with the highest percentage of explicitations. He was totally aware of the degree of explicitness chosen for his translation. Moreover, when we went through the translation process together, he became progressively explicit on the subject expressing at some point his global strategy when he characterised the ST in this way: "This is a very strange text. (..) It does not contain those... connectors. For instance, this sequence should contain 'because', or something, as far as I can see." However, the two other students, the competent and the less competent, had one thing in common: they did not verbalise much and, in general, their comments were sporadic, brief and rather vague, i.e.: "I think it would be better if I inserted 'because'". They used practically no metalanguage. This was not the degree (or quality) of verbalisation to be expected from a competent translator. Presumably, psychological factors may interfere in the communication situation, such as shyness on the part of the student, the teacher being present, etc. So apart from our preliminary conclusions, one thing seems to be clear, namely that more experiments must be conducted before any valid conclusions can be drawn on the mental processing during pauses.

Thus the use of the retrospective method in its present form has not been totally successful, inasmuch as the unnaturalness of the communication situation (with an 'authority' present) could constrain the verbalisation, at least as far as the more reticent and inhibited translators are concerned. Perhaps the use of the dialogue method with two students working together would be a better method in their case. On the other hand, retrospection proved very fruitful in the case of the competent student with a global strategy aiming at cohesive explicitness.[14] In his case, it appeared to be the ideal form. He also participated in the translation of text 5 with an equally competent student, the two of them being accustomed to working together (Haastrup: 202 and 209). Although this design proved successful, neither of them verbalised as richly, as freely or as eloquently as was the case in their retrospection. In short, the retrospection proved optimal in the case of the competent, eloquent and self-confident students, whereas the dialogue introspection remains to be tested further where more inhibited students are concerned, irrespective of their general linguistic and extra-linguistic competence.

Conclusions

The following preliminary conclusions can be drawn. An analysis of the translation products alone leads to the following conclusions. First, the level of explicitness chosen for implicit semantic relations is generally not very high, the highest percentage being 38% for causal relations and 28% for adversative relations. Secondly, there is a marked difference in the level of explicitness chosen by different translators, i.e. from 0% to 62%. A comparison of the individual level of relational explicitness/implicitness with the end-of-course evaluation of the general competence of the translators confirms the tentative hypothesis that postulates the existence of a correlation between a high general competence and the tendency to make cohesive changes, that is, explicitations in the TT of the implicit semantic relations of the ST, and vice versa. In one case, however, no such correlation is found. According to an analysis of the data provided by the *Translog* files as far as pauses before sentence units are concerned, a low degree of attention seems to be paid to the question of transfer of semantic relations by the less competent

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[14] It should be pointed out that the subjects were *not* asked questions directly relating to the translation of semantic relations in the interviews, since this could have interfered with strategies chosen in the next experiment.

translators of the semi-professional group. They seem to behave more like translation novices in this respect. This conclusion is drawn on the basis of the registration of short pauses between sentence units - in one text, very short or no pauses at all. This group cannot be said to fulfil the requirements to translational competence as defined in the introduction. Of the competent translators, two show a clear tendency to pause before a new sentence unit. They are resourceful, carrying out syntactic restructuring, returning to sentences already translated to make improvements, paying attention to larger text units, focussing more on problems related to text comprehension, choosing strategies accordingly, in our case making more implicit relations explicit to secure the readability. They seem to fulfil - or be well on their way of fulfilling - the requirements of translational competence. The empirical data provided by the TAPs generally corroborate the conclusions above. As for the results of the two kinds of introspection tested, the retrospective method proved very fruitful with the competent group, less so with the less competent translators whose verbalisation was vague and totally lacking in metalanguage, while the dialogue introspection with students working in pairs did not prove quite as fruitful as the retrospection in the case of the most competent translators.

References

CHESTERMANN, A. 1997. *Memes of Translation*. Amsterdam: Benjamins.

FLAMENCO GARCÌA, L. 2000. "Las construcciones concesivas y adversativas". In. Bosque, I, and V. Demonte (eds.). *Gramàtica Descriptiva de la Lengua Española*. Madrid: Real Academia Española. 3805-3878.

HAASTRUP, K. 1987. "Using thinking aloud and retrospection to uncover learners' lexical inferencing procedures". In. Faerch, C., and G. Kasper (eds.). *Introspection in Second Language Research*. Multilingual Matters 30. 197-212.

JAKOBSEN, A. L. 1999. "Logging target text production with *Translog*". *Probing the Process in Translation: Methods and Results*. Copenhagen Studies in Language 24. 9-20.

JÄÄSKELÄINEN, R. 1996. "Hard work will bear beautiful fruit. A comparison of two think-aloud protocol studies". In. *Meta* XLI, 1. 60-74.

KUSSMAUL, P. 1995. *Training the Translator.* Amsterdam: Benjamins.

LORENZO, Mª. P. 1999a. "Apuntes para una discusión sobre métodos de estudio del proceso de traducción". In. Hansen, G. (ed.) *Probing the Process in Translation: Methods and Results.* Copenhagen Studies in Language 24. 21-42.

LORENZO, Mª. P. 1999b. "La seguridad del traductor profesional en la traducción a una lengua extranjera". In. Hansen, G. (ed.) *Probing the Process in Translation: Methods and Results.* Copenhagen Studies in Language 24. 121-134.

MARTÍM ZORRAQUINO, M. A. y E. Montolío Durán. 1988. *Los marcadores del discurso. Teoría y análisis.* Madrid: Arco/Libros.

SÉGUINOT, C. 1996. "Some thoughts about think-aloud protocols". *Target* 8:1. 75-95.