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An Exploratory Study of Transediting in Students' Translation Processes

Abstract

Editing and translating are interconnecting concepts with fuzzy borderlines. In 1989, Stetting coined the term *transediting* to refer to the overlap of both activities in the translation task. This article reviews the existing literature on this topic. It also reports on an exploratory study of transediting in the translation processes of translation students with different degrees of declarative and procedural knowledge. Four MA translation students were asked to translate an American patient information leaflet (PIL) for a Dutch-speaking audience in accordance with the valid European Medicines Agency (EMA) directive. Of the four participants, two participants possessed only declarative knowledge of both the EMA standards and the text type. The other two participants also had some procedural knowledge, i.e. experience with translating patient information leaflets. Data on the translation processes were collected through think-aloud protocols and computer keystroke logging. By triangulating the data, we found not only a difference in the degree of transediting carried out by the participants, but also divergence in phase allocation of transediting in the translation processes. No clear link could be established between the use of transediting and the participants' declarative and procedural knowledge.

1.   Introduction

In the 1980s, translation-process research emerged as a new research paradigm within Translation Studies which placed the main research focus on the different mental steps that translators take to produce target texts (TTs). As a result of this new tradition of empirical process research, many insights have been gained into what takes place in the translator's 'black box'. With regards to the writing or drafting of TTs – in other words, the translator's text production –, aspects such as the use of translation strategies and the segmentation of the writing phase in the translation process have been examined (e.g. Englund Dimitrova 2005; Jakobsen 2003; Künzli 2003). However, a phenomenon which has received relatively little attention in translation-process research is transediting, the combination of translation and editing.

Transediting is a professional reality for translators and its study could shed a different light on text production within translation. To our knowledge, the study of transediting has been restricted to news translation (e.g. Hursti 2001; Vuorinen 1996), in which particularly forms of gatekeeping (i.e. the control and selection of news flow) have been examined.

In this article, we will review the existing literature on transediting and present the results of an exploratory study of the use of transediting by translation students in the translation of patient information leaflets. Process data were collected by means of think-aloud protocols (TAP) and computer keystroke logging.

2.   Transediting: literature review

Although translation may not be considered by some as writing per se, writing and/or text production do form central components of the translator's work: the translator composes the ST again in another language. That is why translation has sometimes been described as a form of rewriting. In

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various empirical process-oriented studies, the actual writing phase of the translation process has been examined with special attention devoted to segmentation, pause analysis, the use of translation strategies, units of translation and the working profiles of translators with different levels of expertise (e.g. Dragsted 2005; Asadi/Séguinot 2005; Künzli 2004; Jakobsen 2002; Lörscher 1993). However, the text production investigated in these studies primarily concerns the written "faithful" transfer of content and style of the ST (in language A) into a TT (in language B). Yet, on some occasions, translation goes beyond the mere reproduction of the ST in another language. Because of the translation commission, different text conventions, cultural divergence or even poor ST quality, translators are often forced to make minor and/or major textual changes. In this context, the term *rewriting* acquires a new meaning.

In the late 1980s, Stetting (1989: 374) introduced the term *transediting*, which she used as a composite term of *translating* and *editing* to refer to the "combination of both tasks". To illustrate the content of this term, Stetting (1989: 377) lists three forms of transediting: (1) cleaning-up transediting, (2) situational transediting and (3) cultural transediting. These forms of transediting all imply acts of ST rewriting, and sometimes of ST re-ordering, which is essentially both communication-oriented and receiver-oriented. According to Stetting (1989: 377), translators may opt to carry out transediting for three reasons: to adapt the ST to (1) a standard of efficiency in expression in the target language, (2) the intended function of the translated text in its new social context, and (3) the needs and conventions of the target culture. Stetting (1989: 379) does not enter into the discussion about free versus literal translation, but simply presents transediting on a spectrum "at one end [the free end] followed by dynamic translation" with literal translation at the other end. She also stresses that transediting will predominate in the translation of non-fictional, practical, everyday texts, for which adequacy is sought. Following this last line of thought, it can be reasoned that transediting is almost intrinsic to House's (1977, 1997) covert and Nord's (1997) instrumental translation, or even Gutt's (1991) indirect translation.

Despite its innovativeness, Stetting's concept of transediting poses a number of problems. First, it raises the question whether transediting can be distinguished from translating. Since Stetting does not provide a clear definition of the term transediting (in contrast with translation proper), the two concepts of translation and transediting remain fuzzy. This definitional vagueness is perhaps intrinsically characteristic of the concept of transediting since it can be argued that all translation tasks – and especially those in technical translation – involve translating,[1] writing[2] and forms of editing[3] (Risku, personal communication, 18 January 2010). One might argue that this is even more so in the case of covert or instrumental translations. Nevertheless, some clarification as to how transediting relates to translation is desirable. Nearly every act of translation - even "faithful" translation - includes some alteration or editing of the ST, since a one-to-one relationship between the ST and the TT is not always feasible due to syntactic and lexical constraints of the TL. However, that type of editing is not referred to when using the concept of transediting. Transediting refers to the *conscious* deviation from the ST when a linguistically correct literal equivalent exists in the TL, but cannot or should not be used in the TT due to the specifications of the translation commission. As such, transediting is part of what most scholars and practitioners consider to be translation. However, transediting can also be used with another purpose, viz. the amelioration or optimisation of the ST in the TL, which can be seen as more invasive or more extensive and thus exceeding the boundaries of translation proper. Not many translation commissioners are happy to accept ST improvements introduced in the TT by translators, despite the fact that they do

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1   In this publication, we consider translating to be the linguistic, cultural and content transfer of an ST into a TT.

2   In this publication, writing is understood to be the physical drafting of a text, without taking into consideration whether the unit being produced is transferred from a particular ST or whether the unit constitutes a 'new' item created by the person who is drafting the text.

3   Mossop (2001) defines editing as follows: "Finding problems in a text which is not a translation, and then correcting or improving it, with particular attention to making the text suitable for its future readers and for the use to which they will put it" (p. iii). In the context of translation, editing can be interpreted as the monolingual revision of the TT, without taking into account the ST.

expect to receive a good text in the TL. This second facet of transediting is likely to draw heavily on the translator's writing skills and, in this sense, links up with the (technical) writing activities proposed as added value services by the European norm for translation services EN:15038 (Normcommissie 380 138 "Vertaaldiensten" 2006: 19).

A second problem is that Stetting's article merely introduces the concept of transediting. It does not contain an in-depth exploration of the three forms of ST rewriting she suggests. Consequently, it leaves unresolved whether she views transediting as a method, strategy or shift. Since Stetting at one point states that she uses the term transediting "to think through and develop an alternative approach to certain types of translation tasks" (1989: 373) and presents it "on a spectrum, [...] at one end [the free end] followed by dynamic translation" (1989: 379), transediting could be viewed as a translation method. This appears to be how news transediting has generally been approached to study how fragments of several news sources are "reshaped" to fit the needs and expectations of the target readers and the target news organisation's values. This begs the question: how does transediting differ from the concept of transcreation? Transcreation is a term mainly used for the translation or localisation of marketing, advertising and media texts (see Stibbe 2009; Balemans 2010; Ray/Kelly 2010 for more information). The overall function of the TT might be what sets apart the two concepts: informative vs. persuasive function. There is an additional complicating factor in the conceptualisation of transediting: from Stetting's three-fold classification it can be deduced that she also views transediting as a strategy, i.e. a conscious approach or plan that is implemented in a given context to solve a translation and/or communicative problem. Her classification is based on the underlying motivation to "interfere", viz. a problem due to ST quality, TT situational or cultural aspects. Transediting is implemented by means of operations pertaining to three main classes: to change, remove or add (Stetting 1989: 378). In Stetting's article no reference is made to the textual result of this implementation. In other words, Stetting presents transediting as a method and a strategy, but not as a shift. However, this still leaves some issues unresolved. The multiple lists of translation production "strategies"[4] offered by translation scholars can generally be divided into the same three classes that Stetting uses. So, what is the difference then with transediting? Take, for instance, the omission of an ST element: in our view, this can be the implementation of a transediting strategy when used as a deliberate ST deviation to comply with a differing TT function, audience and/or conventions or to improve the ST (e.g. to avoid redundancy). However, it can also be used to solve a text production problem: e.g. when the translator does not succeed in finding the right equivalent in the TL and decides to omit the ST term altogether in the TT.

Let us get back to the three forms of ST rewriting proposed by Stetting, and its respective difficulties. The cleaning-up form of transediting is brought about by poor ST quality. It involves a streamlining of the ST, in wording and structuring: this rewriting seems to affect the ST's microtextual level (i.e. the phrase, clause and/or sentence level) as well as the macrotextual level (i.e. paragraph level). This suggests, on the microtextual level, a considerable overlap between transediting and various (mainly syntactic) translation "strategies" of Chesterman's 1997 proposal.

Situational transediting is defined rather vaguely: it adapts the ST to "the intended function of the translated text in its new social context" (Stetting 1989: 377). This can be interpreted as widely as that the TT fulfills a different function than the ST. However, assuming that the ST function will not be altered in the translation, transediting may be used as well to achieve the TT's function in a more effective manner. To give an example from the exploratory study we have conducted: instructions in patient information leaflets (PILs) are normally accompanied by statements as to why the patient has to act in a particular way. The ST which we used in our study contained a sentence in which first the reason was mentioned and subsequently the instruction. Two participants

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4 In Translation Studies, there is an ongoing debate about the concepts of strategies, techniques, procedures, shifts, solution-types etc. (see Chesterman 2005; Marco 2007). A detailed account of and reflection on this discussion is beyond the scope of this article. In this article, we have put the term strategy between inverted commas when it is not or not entirely used in the sense that we use it in this article.

changed the ST sentence order to make the instruction more direct and explicit. This "interference" was deliberate, since maintaining the original sentence order would not have gone against the syntactic rules nor common usage of the TL. The instructional function of the TT is reinforced by this microlevel restructuring, which makes this particular act of ST rewriting an example of situational transediting. Many of the situational transediting operations can also be conditioned culturally, which makes the distinction with cultural transediting almost impossible. This is also the case with the previous example: it is advocated in the Guideline on the readability of the labelling and package leaflet of medicinal products for human use to first give the instruction and then the explanation (European Commission 2009: 9). Therefore, the microlevel restructuring can also be labelled as cultural transediting since it is implemented to adapt the ST to textual conventions in the target culture.

Stetting's description of cultural transediting, viz. the adaptation of the ST to "the *needs* and *conventions* of the target culture" (1989: 377, our emphasis), leaves room for interpretation. One might even make a connection between Lefevere's definition of rewriting and this form of transediting. Lefevere (1992: vii) used the term rewriting to describe translation as the adaptation of an original text under the influence of patronage, ideology and poetics in the target system. However, since transediting is said to be predominant in everyday, practical texts, a connection to ideology and power is difficult to grasp in Stetting's view of cultural transediting. One can therefore assume that here rewriting refers to the adaptation of the ST to the target culture's textual conventions and expectancy norms as well as culture-specific references. But this inclusion of realia creates another difficulty: how to delimit transediting from cultural filtering? It appears that cultural filtering is only one of the operations which can be used to implement cultural transediting, specifically for the translation of realia.

Chesterman (1997) has made another distinction. He lists transediting in his classification of pragmatic translation "strategies" which he defines as "strategies which primarily have to do with the selection of information in the TT, […] governed by the translator's knowledge of the prospective readership of the translation" (1997: 107). In Chesterman's classification, transediting is described as "the sometimes radical re-editing that translators have to do on badly written original texts: it includes drastic re-ordering, rewriting, at a more general level than the kinds of changes covered by the other [pragmatic] strategies" (1997: 112). Unfortunately, Chesterman does not provide the reader with any examples of transediting to illustrate his description. When comparing Chesterman's description with Stetting's understanding of transediting, Chesterman's interpretation of transediting seems to focus on the ST quality. Thus, it mainly covers the cleaning-up form of transediting introduced by Stetting's. In Chesterman's classification, cultural filtering seems to partly comprise Stetting's cultural transediting.

At this point it is also warranted to look at the observations made by Mossop in his 2001 book *Revising and Editing for Translators*. Mossop (2001: 53-54, 61-62, 67) states that sometimes translators may need to engage in (mental) stylistic, structural and content editing, as well as copy-editing, as a means to tailor the TT to the target recipients. Whereas Mossop's stylistic tailoring can be considered part of the semantic and syntactic translation "strategies" proposed by Chesterman, his structural and content editing appears to correspond to Chesterman's view of transediting. Given Stetting's broad description of transediting, nearly all of Mossop's editing forms could be considered forms of transediting even though Mossop does not use or refer to this particular concept.

A more recent article by Mossop (2010) can also be linked to the concept of transediting. By analogy with Mason's (2006) description of a dialogue interpreter's moves in order to "repair miscommunication", Mossop discusses how translators translate what "might have been written" in the ST (2010: 95-96). It is important to note that he is solely interested in *conscious* (deliberate) mental acts of cleaning up the ST in order to repair a possible miscommunication (2010: 97). Mossop (2010: 100-101) describes translation as the reporting of a source discourse. In this re-

porting, the translator can be a Motivator or not; that is to say, the translator can express his own ideas in the translation by writing something in the TT that is not present in the ST, or not.

Based on this criterion and the notion of intent, Mossop proposes four kinds of reporting: plain, reconstructive, summary and fictive reporting. In plain reporting, the translator "tries to convey all and only the meaning he attributes to the source wording" (2010: 103). There is consequently no transediting taking place in this case. However, in reconstructive reporting, the translator is repairing ST wording that "strikes him as not representing the intention of the writer" (2010: 103). This can be considered the cleaning-up form of transediting, as the translator conveys "what *should* have been written" in the ST. In these two types of reporting, Mossop (2010: 104) advocates that the translator is no Motivator since he has the intention of conveying *not* his own ideas, but all and only someone else's ideas. The third type of reporting is called summary reporting, in which the translator "conveys only meaning which he attributes to the source, but not all of the meaning" (Mossop, 2010: 104). On the contrary, in fictive reporting the translator does not subtract, but adds to the ST. In both cases, the translator is believed to be a Motivator: he conveys his own or the commissioner's ideas on "what *might* have been written" in the ST. There is one condition: what he writes should be loyal to or compatible with the source. If not, the translator switches from reporting to adapting, writing something "that *would not* have been written" by the author of the ST (Mossop 2010: 107-108). The difference between reporting and adapting is based on the translator's attitude toward the ST. This makes it impossible for someone other than the translator to define a TT wording as reporting or adapting. In conjunction with transediting, one could argue that summary and fictive reporting may to a certain degree correspond with Stetting's situational and cultural transediting, as they both are conditioned by the translation commission and needs of the target audience. Figure 1 visualizes the relation between Mossop's (2010) views on reporting and adapting, Stetting's (1989) transediting, and transcreation. In the lower segment of the figure, the corresponding communicative processes between the ST author, translator and TT reader are visualized. The arrow on the right represents the correspondence between ST and TT: a dotted line between the ST author and the TT reader symbolizes that there are deviations in formal and content correspondence between the ST and the TT (i.e. there is a variance between what the TT reader receives and what the ST author has written). The left arrow represents the loyalty of the translator to the ST author: a dotted line between the ST author and the translator implies that in this communicative process, the translator has not been loyal to the ST author. If the translator has been loyal to the ST (author), a straight line is used.
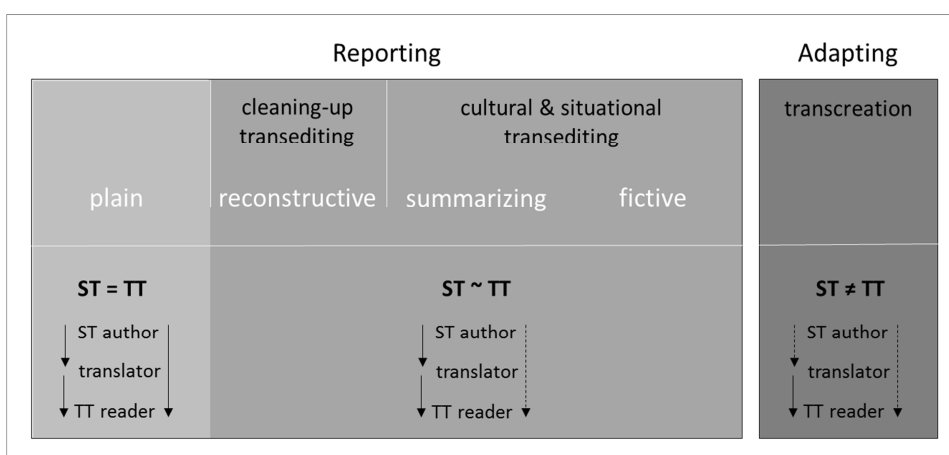

Figure 1. Relation between Mossop's (2010) views on reporting and adapting, Stetting's (1989) transediting, and transcreation (designed by Mariëlle Leijten)

To sum up, transediting can be looked at from two perspectives. On the one hand, a translator can resort to transediting due to ST quality issues. On the other hand, transediting can occur as a re-

sult of the translation commission: the ST must be (partly) rewritten because the function, audience conventions and/or norms of the TT differ. In our study, we will use the following operational definition of transediting: Transediting is the conscious or automatized cognitive route to solve a problem caused by either poor ST quality or differing function, audience, conventions and/or valid text norms in the target culture. Since it is very difficult to draw a sharp line between cultural and situational transediting, we use a two-fold classification of transediting based on the two perspectives stated above.

3.   Research questions

The experiment reported on in this article was drawn up as a pilot study in the larger framework of a more detailed PhD research project by Iris Schrijver on text production in the translation process[5].

   For this exploratory study, we addressed three research questions, which we formulated as follows:

1.   How do MA translation students use transediting in their translation processes? And which particular operations can be observed?

2.   In what phase of the participants' translation processes is transediting used?

3.   Does a difference in the participants' knowledge lead to a variance in the use of transediting as can be observed in the TAP and log data?

4.   Method

For this exploratory study of transediting, four Dutch-speaking MA translation students were asked to translate an American patient information leaflet (PIL) for a Dutch-speaking audience in accordance with valid European legislation. Process data were collected via TAP and computer keystroke logging.

4.1. Participants

The four participants were all native speakers of Dutch and studied English in the one-year master programme of translation. They had completed a three-year BA programme in applied language studies with a specialization in translation at our department. Moreover, they had taken the theoretical introductory course on technical and scientific translation, in which 4 hours were dedicated to detailed information about the EMA directive as well as on PIL readability and usability. By selecting participants who met these requirements, we were able to assume that they all shared important characteristics concerning language and translation competence: they had been enrolled in the same English and Dutch language courses (on grammar, text production, text analysis, speech and culture, reaching a C1-level in English and C2-level in Dutch) and translation seminars. More important, all of the four participants (called CB, SA, RN and KL) had gained declarative knowledge (understood in the sense of Anderson 1981) of the EMA standards and the PIL text type in the theoretical introductory course. However, two of the selected participants (CB and SA) also had some limited experience with translating Spanish and British PILs into Dutch. In the master programme, they were enrolled in a seminar of specialized translation Spanish-Dutch, as they studied Spanish as their second foreign language. In this practical translation course, CB and SA had received 8 hours of translation instruction on the translation of PILs: they had translated one Spanish PIL of 1500 words into Dutch in accordance with the EMA-directive. In addition, they had translated an excerpt of a Spanish information leaflet for healthcare professionals (SPC, sum-

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5   The working title of this PhD research project is "Writing and transediting in the translation process" (Artesis University College Antwerp/University of Antwerp; supervisors Prof. Dr. Leona Van Vaerenbergh and Prof. Dr. Luuk van Waes).

mary of product characteristics) into Dutch and had rewritten it for laypeople following the EMA-directive. Moreover, SA had translated a British PIL into Dutch as part of an individual translation assignment in the seminar on specialized translation English-Dutch. It could be argued that CB and SA had limited procedural knowledge, i.e. they had learned methods to translate PILs by means of deliberate practice in the translation of this text type (Anderson 1981).

4.2. Materials

We decided to use the text type of patient inserts for this experiment, because of its explicit communication and reader-orientation. Moreover, it can vary considerably across languages and cultures in terms of text conventions. In the European Union, PILs have to comply with strict regulations and guidelines, established by the European Medicines Agency (EMA)[6]. They must adhere to a certain structure and to standards of readability and usability. These standards are outlined in an official guideline[7] and in a template drafted by the Quality Review of Documents (QRD) group of the EMA[8]. Important features are standard phrases in each of the six sections of the PIL, as well as the active way of addressing the reader and the explanations of difficult medical terms.

In view of our interest in transediting, the translation of a British PIL into Dutch would not have been an option. Therefore, we chose to use patient information about a medicine not yet commercialized in the European Union. We selected the patient information of Geodon® and decided to shorten this text from 1512 words to approximately 900 words in order to reduce the duration of the translation task and minimize the negative effects of students' fatigue and cognitive overload on the TAP. For example, we deleted standard general information which can be found in any patient insert, such as "This summary contains important information about Geodon. […] Read this information carefully before you take Geodon" and "Only your doctor can know if Geodon is right for you". Repetitions of the same information and a number of absolute and relative contraindications were deleted for the same reason. In addition, we deleted some explanations of medical terms for laypeople. The ST layout was only changed slightly, for example, by removing bullet points to create an enumeration in one long phrase. The logic behind these manipulations was our interest in the translators' focus on TT readability, usability and the EMA-directive.

4.3. Procedure

Each participant did the experiment individually in an empty classroom. One of the authors of this article was present in the same room, but did not intervene unless the participant stopped verbalizing her thoughts for more than two minutes. The same laptop was provided for every session. All four participants were allowed to use dictionaries and the Internet. They also had at their disposal two electronic monolingual Dutch dictionaries (one generic, one medical) as well as two bilingual dictionaries English-Dutch/Dutch-English (one generic, one medical). Moreover, a paper copy of the Dutch QRD template was supplied. No time restrictions were imposed for the translation task.

The participants were asked to say everything that came to mind while translating, without trying to explain or justify these verbalizations. The verbalizations were audio-taped using a digital voice recorder. Since the participants were not familiar with this method of concurrent thinking

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6   Legislation concerning patient information leaflets are set out in Directive 2001/83/EC of the European Parliament and of the Council of 6 November 2001 on the Community code relating to medicinal products for human use, which was amended by Directive 2004/27/EC of the European Parliament and of the Council of 31 March 2004.

7   European Commission Enterprise and Industry Directorate-General 2009: Guideline on the readability of the labelling and package leaflet of medicinal products for human use http://ec.europa.eu/health/files/eudralex/vol-2/c/smpc_guideline_rev2_en.pdf. And European Commission Enterprise and Industry Directorate 2008: General Guideline on the packaging information of medicinal products for human use authorized by the community. http://ec.europa.eu/health/files/eudralex/vol-2/c/bluebox_02_2008_en.pdf

8   QRD 2010: Human Product Information Annotated Template (EN) v. 7.3.1. http://www.ema.europa.eu/docs/en_GB/document_library/Template_or_form/2009/10/WC500004368.pdf. It is important to note that the experiment presented in this publication had been carried out before the Dutch QRD template was revised in January 2010 and versions 7.3. and 7.3.1. were issued.

aloud, a practice session was organised for each participant individually before starting the pilot study. In addition, the participants' translation processes were registered by a computer keystroke logging tool. In the current study, we chose to use two keystroke logging programs, Translog (Jakobsen 1999; 2006) and Inputlog (Van Waes/Leijten 2006), to discover which program would be better suited for this kind of studies. The two participants working with Translog were shown the program beforehand to familiarize them with the computer software. The participants who were monitored using Inputlog were not familiarized with this program since they were simply asked to work in an MS Word environment.

4.4. Data collection and analysis

As indicated, data on the translation process were collected using two online methods: think-aloud protocols (TAPs) and computer keystroke logging. For a detailed discussion of the merits and limitations of these data-collection methods, we refer to Schrijver, Van Vaerenbergh & Van Waes (2011: 5-6). These methods provided us with a vast amount of qualitative and quantitative data. To ensure that triangulation would be implemented systematically at the moment of data analysis, we created a working document in which the TAP and log-data segments were placed next to each other.

First, all verbalizations, the lengths of pauses and paralinguistic signals were transcribed using a slightly adapted version of the GAT system (see Göpferich 2008: 72-77). Subsequently, the transcripts of both the verbal data and the logging data were divided into segments or so-called language bursts (Chenoweth/Hayes 2001: 83). These segments are strings of words, characters or mouse clicks preceded and followed by pauses longer than the defined threshold. Pauses in verbalizations are often considered as indicators of problems or cognitive processing. We used the minimal pause length of 2 seconds as a segmentation criterion. This threshold was formulated in accordance with features relevant to the study and on the basis of previous research conducted by other scholars (e.g. Englund Dimitrova 2005; Krings 2001; see also Wengelin 2006 for a review). For instance, Englund Dimitrova (2005: 96) states that "very short pauses, up to about 2 seconds, are often followed in the process by the correction of typographical errors, and thus seem to be used for monitoring processes that are not directly related to the process of translating as such". The research questions that we strived to answer in this study did not address the correction of typographical errors in fluent text production.

As a final step in the data analysis, we placed the segments of both data sources next to each other in an MS Excel file. Subsequently, each TAP segment was coded as a means to reconstruct the processes taking place in the participants' heads. The coding labels used were inspired by the classification proposed by Krings (2001: 515-525). This classification consisted of the main classes, which are illustrated below with examples of verbalizations – translated from Dutch into English - which were identified as instances of a particular category:

- NONTASK: non task-related processes, such as making a comment in general, speakings with the researcher, or miscellaneous
  "I have finished"

- GLOBTASK: global task-related processes, such as performing a physical action, making an incomprehensible remark, making a remark concerning task management, etc.
  "Now I will just reread the entire text again..."

- SOURCE: source text-related processes, such as ST reading, directing attention to a particular ST element, analyzing an ST element and reformulating an ST element in the SL
  "psy-ch-tro-pic"; "no idea what that (ST-word) means"

- TARGET/PROD: target text production-related processes, such as reading a TT element, directing attention to a particular TT element, producing a new TT element before or during writing, etc.

"how can I articulate that?"; "I think there is a fixed expression for that in Dutch but I don't know it"; "is a sort of psychotropic, psychological, psy, psychological effect comma uhm also known as"

- TARGET/TRED: transediting in target text production-related processes, such as making a plan to deviate deliberately from the ST in the TL and/or performing it by means of omission, addition, restructuring, etc. on the basis of ST quality or differing norms and expectations in the target culture
  "then according to the directives we should insert an index... uhm, which should be placed in the middle, so, in this patient information leaflet colon"

- TARGET/MON: target text monitoring or evaluation-related processes, such as making a positive or negative evaluation of TT element, making a comparative evaluation of different TT elements, making a final or provisional decision for a TT element, etc.
  "I will just keep herbs, I think... no"; "oh no, that doesn't sound right, uhm, feeling tired, yes, that sounds better"

- REFBOOK: reference work related-processes, such as beginning, ending or planning an instance of reference work use etc.
  "I am going to look that up on Wikipedia"; "Van Dale states medicine, drugs as the meaning of remedy"

These main coding classes were divided into several subcodes, also based on Krings' classification. In light of the formulated research questions, categories have been omitted and added to Krings' classification. For example, the coding classses WRITE and MACHINE were omitted because neither physical writing processes nor machine translation-related processes were investigated in the pilot study. The coding class TARGET/TRED is not featured in Krings' classification. It was introduced in this pilot study to focus on the primary research item of the study, that is, transediting, using the definition proposed in Section 2. This main coding class was divided into several subcodes to differentiate various processes related to transediting:

TARGET/TRED/CONTENT: express the need for and/or perform transediting of the
content, structure and style of the ST by means of or in reference to:
/STAND: introduction of standard phrases proposed by the EMA-directives and/or QRD-template
"so then a standard phrase, which I will copy (from the QRD template)... so, tell your"
/PATIENT: explanation of difficult medical terms in TT
"so I will put that between brackets as well, just to explain it... it is a condition in which the heart is incapable to pump sufficient blood"
/USAB: usability or direct nature of instructions in TL
"so it is...no, it is important... to be patient... no, be patient, it is better to put it more directly
/RESTR: restructuring the ST information in the TT
"here it says something about breast feeding, which doesn't belong to Possible side effects but to section 2... so we should go back"
/CONSIST: consistency in word use in TT which had not been present in the ST
"uhm... I feel that it is better to use the same word here as before"
/OMIT: omission of an element of the ST in the TT
"then it says something about going to the nearest emergency room, but I will just leave that out... because Dutch patient inserts... don't feature that, it can be expected that you should know what to do"

4. TARGET/TRED/TECH: express the need for transediting of the visual design of the ST in reference to the lay-out (frame, centre, justify, font size, bold, italic, underline, capital letters, bullet points) of TT
"hmm, that should be put in a frame"

"an enumeration in bullet points, because that improves readability, uhm"

5. TARGET/TRED/PPI: express a plan or a problem in the use of transediting
"in the English text they always put the medication in capitals but I don't think that... in the template it doesn't state explicitly how to do that"

Each segment could receive more than one coding label. We also analysed the log data to see if these confirmed our initial coding of the TAP segments or provided further information. In the event of additional information, we introduced another coding label although this was never necessary for any of the transediting processes. Table 1 shows a sample excerpt of the final working document that enabled us to compare the verbalizations with the log data easily and in a structured manner. It also demonstrates how the qualitative findings helped elaborate the quantitative results and vice versa. From the log data in Table 1, we could interpret that the participant made the correction of *ge-* (from the verb *gebruiken*, to use), which she replaces with *inneemt* (take), based on stylistic preferences. However, the TAP provides us with an explanation that the participant herself verbalized: since *Geodon* is a capsule, the verb *innemen* (take) would be a more logical choice than the verb *gebruiken* (use). The complementarity of the TAP and the logging data enable us in this case to interpret this more exactly.

Start	TAP[1]	End	Code	Code	Start	Inputlog[2]	End
05:44	2 wat u moet weten (----) voordat u (----) geodon capsules (----) in (--) gebruikt	05:57	TARGET/T RED/CON T/STAND		05:43	{3422}	05:46
					05:46	Wat·u·moet·weten·voordat·u· Geodon·capsules·ge	05:58
05:57	(2.0)	05:59					
05:59	hm (----) en het kan in- neemt zijn (----) omdat het een capsule is (----) hoe wordt	06:11	TARGET/ MON/EVA L/COMPA RE/TT-TT	TARGET/ MON/DEC ISION/DEF	05:58	{4407}	06:01
					06:01	[BS2]inneemt[ENTER]	06:06
					06:06	{3047}	06:09

Note 1. Translation of Dutch verbalization: 2 What you should know before you use Geodon capsules//Uh, and it can be to take, because it is a capsule. How does//
Note 2. Translation of keystroke log data: What you should know before you use Geodon capsules.[BS2] take[ENTER]

Table 1. Excerpt of triangulation file of coded TAP log-file segments

5. Results and discussion

This section reports the findings of the current study. Given the exploratory character of the data analysis, the results will be presented alongside critical reflections.

5.1. Transediting strategies used by the participants

After careful consideration of the ST quality, the translation commission and the TT norms, we hypothesized that the transediting carried out by the participants would mainly entail cultural/situational transediting. This hypothesis proved to be correct when we analysed and coded the TAP and log data. Little cleaning-up transediting was carried out. When analysing the use of transediting in the TAPs and log data, we could distinguish various operations such as restructuring, substitution and omission of ST units as well as addition of information in the TT. These four main classes were defined as follows:

- Restructuring: performing a restructuring of the ST in the TT which takes place above the level of the sentence or at the level of the phrase and the sentence (corresponding to coding

labels TARGET/TRED/CONTENT/RESTR and TARGET/TRED/TECH)

- Substitution: substituting particular ST elements to achieve consistency in word choice and instruction manner throughout the TT, which is not present in the ST (TARGET/TRED/ CONTENT/CONSIST, and TARGET/TRED/CONTENT/USAB)

- Addition: adding information to the TT which is not present in the ST (TARGET/TRED/ CONTENT/STAND, and /PATIENT)

- Omission: deleting one or more ST-units which are considered redundant, irrelevant, unsuitable or contrary to the TT intended readership and use (TARGET/TRED/CONTENT/ OMIT)

To give a few examples: in accordance with the EMA directive, the TT had to follow a specific structure consisting of six sections, each with a well-defined content. In contrast, the ST contained eight sections and the order in which specific information on the medicine was given did not completely correspond with the order established by the EMA directive. This forced all four participants to carry out macrolevel restructuring (i.e. restructuring above the level of the sentence), which mainly consisted of the reorganization of ST paragraphs in the TT. This can be considered cultural/situational transediting, as it clearly adapts the ST to the text norms valid in the target culture. Restructuring could also be observed at a microlevel, i.e. at the phrase and the sentence level, as illustrated by the example of the sentence-order change in Section 2. Another, more visual type of restructuring could also be observed at the microlevel: all four participants broke down long enumerations of diseases and possible side effects mentioned in the ST, by using bullet points. This particular transediting strategy is recommended in the Guideline on readability (European Commission 2009: 9) to foster TT readability. Consequently, it could be labelled as cultural/situational transediting.

A second transediting operation which we could observe in the participants' TAPs and log data was substitution of ST units. In the ST, synonyms such as medicines and medication are used. Three out of four participants paid special attention to consistency in word choice in the TT. This resulted in systematic substitution of particular ST units: e.g. the term *geneesmiddelen* (Dutch for *drugs*) was systematically used instead of *medicamenten* (medicines) en *medicatie* (medication). Another substitution operation was observed with regards to the manner in which the reader is instructed in the ST. Two participants, CB and NR, expressed the need to use the imperative form consistently throughout the TT, whereas in the ST instructions were also given by means of other forms, such as should be + past participle (e.g. *side effects should be discussed with your doctor if they occur*). Since these two types of ST manipulation have the objective to ameliorate the ST, this can be considered cleaning-up transediting.

For the translation of the medical terminology, all participants decided to maintain the specialized terms. However, the participants with both declarative and procedural knowledge also added a description for laypeople to foster text comprehension. The operation of adding information to the TT could also be observed in other instances. All four participants added an introductory table and index, section headers and standard phrases to the TT. These are obligatory features in European PILs and are mentioned in the QRD template. These additions can be labelled as cultural/ situational transediting.

A fourth transediting operation observable in the TAP and log data was the omission of ST units. Most of these omissions had the objective of avoiding redundancy and can be considered cleaning-up transediting. Some were by contrast culturally motivated: e.g. temperatures in Fahrenheit do not need to be included for the target culture if they are also mentioned in Celsius. Others had a stylistic motivation: the third ST paragraph about the risk of dangerous changes in heart rhythm had already been included in the fourth TT section which the participant had previously drafted. The decision to omit this ST paragraph was based on knowledge of TT norms: informa-

tion can be repeated in several sections of European PILs, but repetition of the same information must be avoided in one single section.

5.2. Use of transediting in different phases of the translation process

In order to discuss in which phases of the participants' translation process transediting took place and how the participants differed in this respect, we first briefly discuss the methods that can be used to divide the translation process into phases.

5.2.1. Methods of dividing the translation process into phases

In empirical translation-process studies (e.g. Englund Dimitrova 2005; Jääskeläinen 1999; Jakobsen 2002), the translation process has generally been divided into three major phases: (1) the pre-writing phase, (2) the writing phase and (3) the post-writing phase. Englund Dimitrova (2005: 86) provides the following definitions of the three phases:

1. Pre-writing phase: begins when the participant has received the ST and the oral information about the translation brief, and finishes when the participant starts to write down the TT as an integral text. Making notes about word meanings, etc. while reading the ST for the first time is thus not considered as a start of the writing phase.

2. Writing phase: begins when the participant starts to write down the TT and finishes when she has written down an integral version of it

3. Post-writing phase: begins immediately after the writing phase and finishes when the participant declares that she is finished with the translation task.

This method of dividing the translation process will be referred to as Method 1. Several observations have to be made about the delimitation of the three phases in view of the research questions posed in this study. First, the notion of an integral version of the TT has not been defined clearly. Does an integral version refer to a TT that consists of the target-language equivalents of *all* the ST units? Or of all the *necessary* ST units? Has an integral version been produced when the participant has stated that she has finished a draft translation and will subsequently look for missing parts? Or must these forgotten words and phrases be inserted into the TT to be able to speak of an integral version? Thus, a detailed definition of the integral version of the TT is fundamental for establishing the end point of the writing phase and, consequently, the starting point of the post-writing phase. Of course, these points may be easy to pinpoint in a straightforward translation task, but in case of text types which vary considerably among languages and/or cultures, no clear three-phase translation process may be discerned. Especially for *intergeneric* translation tasks (i.e. translation between genres; see Askehave/Zethsen 2002: 17), the translator will have to produce TTs that may not contain all ST units. Jakobsen (2002: 193) states that the end of the writing phase can be identified unambiguously by the typing of the final punctuation mark since this is "typically followed by a great deal of cursor movement … indicating that the target text is being monitored and reworked". However, in the data collected during the current study, this boundary was not clear-cut. This may have been the result of transediting, which required extensive restructuring and therefore a vast amount of cursor movement throughout the translation process. However, even in a normal translation situation, it can be challenging to pinpoint the end of the writing phase. For example, a translator can decide to leave a number of particularly difficult translation problems open and only come back to it after having revised all the already translated units.

In the current study, the translation task may lead to the use of transediting. The first TT word written down did not necessarily have to stem from the ST. To delimit the writing phase from instances of text generation not related to the ST, we decided to integrate this parameter into the definitions, which led to Method 2. The TAP data and log data also confirmed this need to differ-

entiate. Figure 2 visualizes the main characteristics of both methods. In this figure, the differences between both methods are underlined.

Method 1

| ST & translation brief received | Writing down the first word of the translation (**originating from ST or TT**) | | Integral version **of all TT elements** completed | Translation task finished |

pre-writing phase　　　writing phase　　　post-writing phase

Method 2

| ST & translation brief received | Writing down the first word of the translation (**originating from ST**) | | Integral version **of all ST elements** completed | Translation task finished |

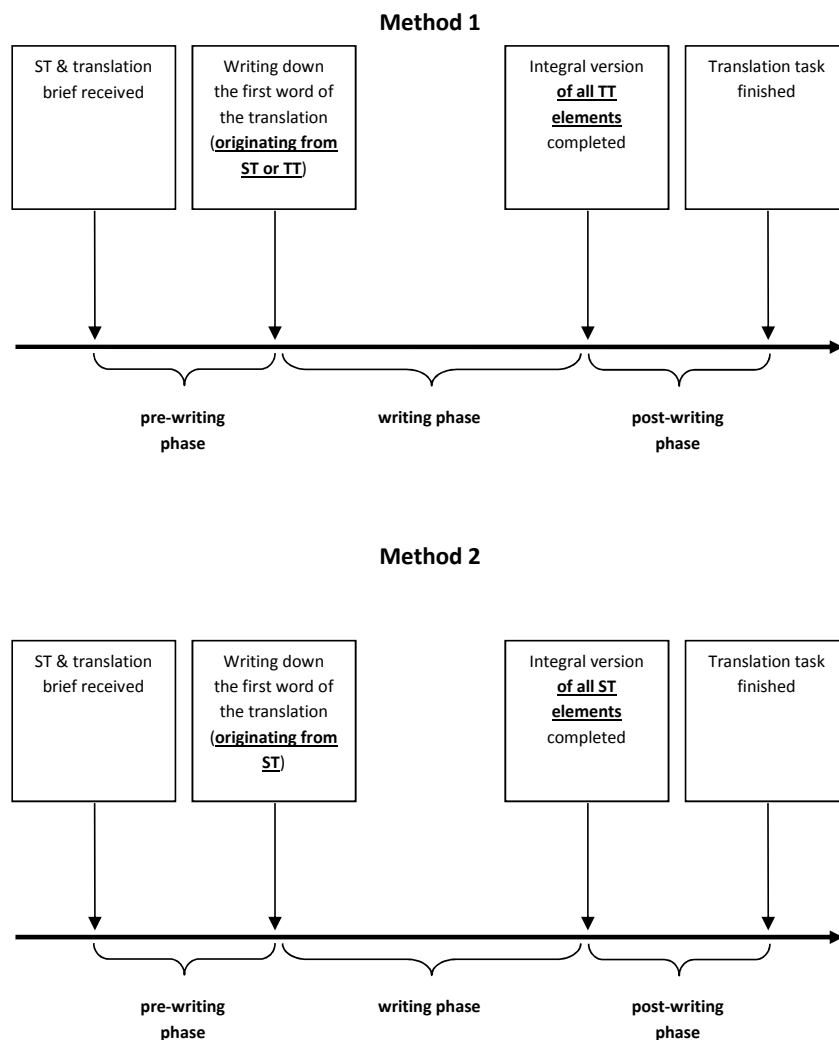pre-writing phase　　　writing phase　　　post-writing phase

Figure 2. Characteristics of Methods 1 and 2 (differences underlined)

For each method, we calculated how much time the four participants spent on each of the three phases. By comparing the time values provided by the two methods, we get a more differentiated insight into the use of transediting, particularly at the beginning and at the end of the translation process. The most flagrant nuances can be observed when looking at the results for RN and CB. When using method 2, RN's writing and post-writing phase becomes relatively shorter and longer respectively. So, when comparing the values of the two methods for RN, this means that she writes something down non-ST-related before she translates the first ST-sentence. Moreover, it indicates that she has finished translating every word of the ST before she completes an integral version of all necessary TT elements, thus implying use of transediting. This had not been visible by using only method 1. As for CB, the same can be said: by comparing the time values of method 1 and 2, we can now see that she already engages in text generation not related to the ST in the early stages of her translation process. In the case of KL and SA, the differentiation is less

distinct, but still more insight can be gained into the use of transediting in the pre-writing phase. Although method 1 seemed to imply that these two participants had spent relatively little time on their pre-writing phase, method 2 clearly demonstrates that they engage in text generation not related to the ST before starting to translate the ST. One could consequently argue that Method 2 provides a clearer view of non-ST-based text production, and subsequently of transediting in the pre-writing and post-writing phase (see Figure 3).
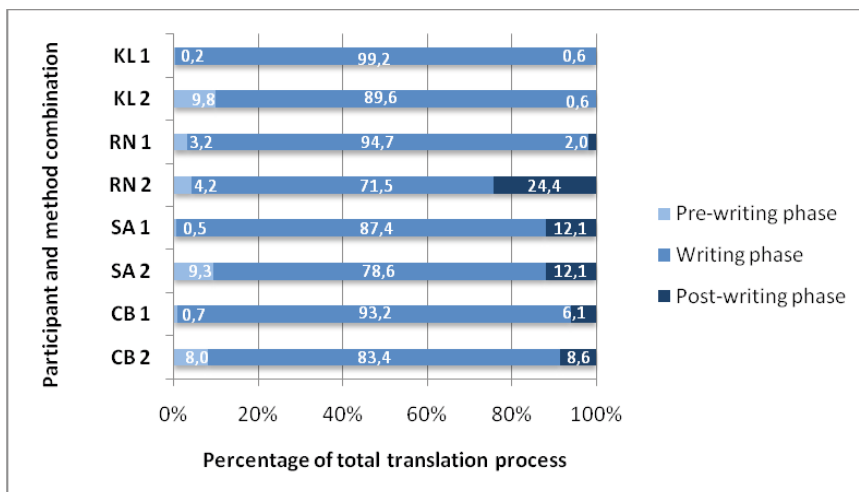

Figure 3. Division of translation process into three phases (according to Methods 1 and 2, with KL1 = participant KL according to Method 1, KL2 = participant KL according to Method 2, etc.)

5.2.2. Participants' use of transediting in the three phases of the translation process

The TAPs and log files provided us with valuable information on how, when and – in some cases even – why the participants used transediting. When looking specifically at when transediting operations were carried out, the phase allocation appears to be the result of the four participants' different working styles. Table 2 provides an overview of the participants' use of transediting in the three phases of the translation processes[9]. Three of the four main types (i.e. restructuring, substitution and addition operations) have been divided into subtypes since a difference could be observed as to when these strategies were used.

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9   For a more detailed account of the participants' working styles and acts of ST rewriting, we refer to Schrijver/Van Vaerenbergh/Van Waes (2011: 17-23).

transediting operation	participants			
	CB	**SA**	**RN**	**KL**
restructuring	W	PR+W	W+PO	W
macrolevel restructuring	W	PR+W	W+PO	W
microlevel restructuring	W	W	W	W
substitution	W		W+PO	W
synonyms	W		W	W
instruction manner	W		W+PO	
addition	PR+W	PR+W	PR+PO	PR+W
standard phrases	PR+W	PR+W	PR+PO	PR+W
explanation medical terms	W	W		
omission	W	W	W+PO	W

Table 2. Participants' use of transediting operations in pre-writing (PW), writing (W) and post-writing (PO) phase of the translation process

Table 2 shows that RN has a different working style than CB, SA and KL. The TAP and log data confirm this: RN first introduced one introductory sentence featured in the QRD template, then translated the ST without changing its structure and, as a final step, edited the translation in accordance with the EMA norms. During the writing phase, she carried out transediting by means of microlevel restructuring and substitution. RN only began restructuring the TT at a macrolevel when translating the last two sentences of the ST. In the post-writing phase, she also added the obligatory introductory table, index and standard phrases, and omitted redundant words and sentences. In addition, she made the way in which the instructions were presented to the reader more homogeneous. In contrast, CB, KL and especially SA already carried out many transediting activities before the actual translation of ST units. They seem to have similar working styles, although some differences can be observed. CB, for instance, started the translation process *not* by reading the ST, but by writing the introductory table and index obligatory in EMA PILs. Then, she proceeded with the translation of the ST and restructured it as she went along, carrying out all of the previously mentioned transediting operations. She used the post-writing phase to reread the TT and to introduce some small changes. KL took a similar approach, although she followed the TT structure in her translation process. Her pre-writing phase was in absolute terms very short, because she immediately translated the title of the ST. Subsequently, she took the QRD template as a starting point and filled in the TT sections with the translations of the corresponding ST paragraphs. KL spent very little time on the post-writing phase. This may seem surprising, but it is partly due to the definition used for the post-writing phase: KL transedited and revised while translating the ST. Participant SA started her translation process by drafting the introductory table. She also read through the entire ST, jotting down which TT section each ST paragraph belonged to. Subsequently, she started drafting the TT, by first typing the index and then translating the ST paragraphs that she had assigned to TT Sections 1 through 5. During the writing phase, she performed all transediting operations, except substitution, which she did not use at all in her translation. In the post-writing phase, SA read through the TT, correcting some orthographical errors and changing a few words without manipulating the ST.

5.3. Difference in use of transediting among participants with different knowledge

Overall, the use of transediting was observed in all of the four participants' TAP and log data, albeit to a different extent (see Table 3). When we look at the data in absolute terms, the participants with both declarative and procedural knowledge (CB and SA) seem to implement transediting more frequently than the participants with only declarative knowledge (RN and KL).

transediting operation	participants			
	CB	SA	RN	KL
restructuring				
macrolevel	17	16	17	9
microlevel	3	0	3	0
substitution				
synonyms	3	0	3	2
instruction manner	3	0	3	0
addition				
standard phrases	61	46	40	25
explanation medical terms	8	10	0	0
omission	4	3	5	2
total	96	75	71	38

Table 3. Types and numbers of transediting operations

These absolute numbers shed some light on the difference in focus among the participants. The most striking results are those of CB and KL. CB carried out a variety of transediting operations, with a frequency clearly above the average. She analyzed each ST segment and evaluated if its wording and structure would be appropriate in the target culture in terms of textual norms and target readers' expectations. Moreover, she elaborated a great deal on why and how ST units should be changed in the TT, frequently contemplating a number of alternatives. On the contrary, KL was less thorough in analyzing the ST and, consequently, seemed to be less attentive to items that might require transediting. In addition, her comments about the need for transediting were succinct. It is nevertheless difficult to corroborate whether the difference in the participants' knowledge leads to a difference in the use of transediting. Among all participants, the awareness to introduce the obligatory standard phrases into the TT and to restructure the ST is prominent in the TAP and log data. Furthermore, no clear-cut differences between the two participant groups can be seen with regard to microlevel restructuring. It is interesting to see that the participants with only declarative knowledge of PILs did not pay any attention to explaining difficult medical terms – not in the TAP nor in the log data –, which suggests that they did not take into account the knowledge level of the TT recipients and thus did not see nor feel the need for cultural transediting.

Nevertheless, these absolute numbers may – for various reasons – give a slightly distorted picture. The numbers presented in Table 3 reflect only the degree of transediting in the TAP and log data. These data do not state whether the transediting operations were carried out correctly or not. The analysis of the quality of the transediting – as well as the quality of the overall TT – was beyond the scope of this study. However, this certainly ought to be taken into consideration in further research.

6.   Conclusion

In the first part of this article, we reviewed and discussed the existing literature on transediting. The concept of transediting has great potential to rethink translation as a form of text production and to examine the writing competence of translators. However, further theoretical reflection is needed in order to define transediting in more detail and to distinguish it from other concepts and translation strategies.

The second part of this article reported on an exploratory study of transediting in the translation process of four Dutch-speaking MA translation students. In this study it was primarily the translation commission and the clear differences between the ST and TT norms which gave rise to the need for ST rewriting. The situational and cultural transediting was implemented by macrolevel and microlevel restructuring, addition and omission operations. Cleaning-up transediting was only used by means of substitution operations. The phase allocation of transediting operations appeared to be the result of the participants' working styles. The awareness of the need for transediting varied considerably among participants, as well as the use of transediting as demonstrated by the TAPs and log data. However, no clear link could be established between the use of transediting and the participants' declarative and procedural knowledge.

Although our exploratory study has provided some valuable insights into transediting, more research is needed from a variety of perspectives. For example, it would be interesting to take into account various text genres and text types. The degree of (permissible) transediting will vary considerably according to the text type and genre. On the basis of interviews with several professional translators specialized in the translation of PILs, we have found that the degree of transediting displayed in the pilot study would not be feasible in professional environments. Pharmaceutical companies, for example, give professional translators very little room to improve TTs. Another aspect which would be interesting to explore is translation students' transeditorial consciousness and/or ability to critically review the quality of the ST, as suggested by Stetting (1989: 381). This is certainly an important aspect in light of translation pedagogy, but also considering students' future as professional translators. Unfortunately, they will almost certainly be confronted with poorly composed STs and should thus be adequately prepared to transedit to avoid a 'garbage in, garbage out' situation.

Several suggestions can be made to optimize the methodological framework for future research on transediting in the translation process. First, triangulation of TAP and computer keystroke logging indeed proved to compensate their individual shortcomings and provided rich complementary data on transediting. However, in many instances, the TAP did not provide further insights into why the participants translated ST segments the way that they did. Given the relatively long duration of the translation task, this could have been caused by cognitive overload and fatigue. However, other factors could have also been of influence, such as the incomplete nature of human thought processes, affective factors or even automatic processing (Jääskeläinen 2000). The latter does not seem very likely, since all participants were translator students with little to no experience in the translation of PILs. The method of prompted immediate retrospection might avoid these problems. Retrospection does not affect the duration of the task execution, the segmentation and the nature of the translation process itself. Moreover, by opting for retrospective dialogues or interviews, the researcher can focus on particularly interesting points in the process (see Hansen 2006 and Leijten 2007). However, there is still the alleged risk of incomplete or distorted data as the recalled information has undergone processes of abstraction, generalization etc. (Englund Dimitrova 2005). The contemporary logging programs may have solved this presumed lack of reliability of retrospection, as they offer the possibility to replay the translation process which might serve as stimulated recall. However, critical analysis of information obtained by retrospection is crucial, especially in tasks which require more time, since fatigue and recursive actions within the translation process may cloud retrospection. Second, the quality of the TT should be taken into consideration when investigating transediting. This will make observations about transediting, working profiles and process parameters such as segmentation and fluency more complete and

profound. It might also yield interesting data which could be used in translation pedagogy. The evaluation of translation quality is a thorny subject among scholars. Nevertheless, we feel that by using several expert raters to evaluate the TT according to a well-established model of evaluation criteria, subjectivity can be controlled if interrater reliability is high. Third, small samples of participants appear to be a critical point in the majority of translation-process studies. In order to be able to generalize findings, larger populations are necessary.

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