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Analysis of a Medical Translation

Terminology and cultural aspects

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Abstract

This analysis deals with the difficulties in translating a medical text from English into Swedish. As primary source, I have used a British textbook about geriatrics called *Nursing Older People* which is aimed at university students of nursing. The selected chapter is called *Person-centred dementia care* written by the authors Sue Davies, Barry Aveyard and Ian J. Norman. The translation difficulties have involved terminology and cultural aspects. This analysis shows how these problems were tackled by studying different translation theories, such as Munday (2001) who refers to Koller's theory about equivalence and Vinay & Darbelnet's model of direct translation and oblique translation as well as Ingo (2007) who accounts for text sort conventions.

The terminological problems involved choosing the most appropriate term for describing diagnosis, diseases, body organs and symptoms. There was a wide variety of terms from old Graeco-Latin terms to English terms coined in the 1990s. Other terms were related to the international field of epidemiology as well as the organisation of care for the elderly, based on the Swedish Social Services Act. A suitable choice was possible by considering aspects like frequent usage of field specific words and collocations in parallel texts.

The cultural aspects involved cultural references such as differences between Sweden and the UK as for national institutions and organisations. The solution was to find a cultural equivalent or, when this was not possible, explain the term in a footnote.

Key words: cultural adaptation, dementia, medical translation, terminology.

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1. Introduction

This essay is based on a translated text taken from a textbook of geriatrics called *Nursing Older People* which has not been translated into Swedish before. The selected chapter is called *Person-centred dementia care* written by the authors Sue Davies, Barry Aveyard and Ian J. Norman. It was natural to choose a source text about dementia care, as I have worked as an assistant nurse for about 13 years within the field. There are many interesting phenomena within the field of medical translation, first and foremost terminology but also cultural aspects which may cause problems when the source text refers to British phenomena. The following is an example of terminological aspects, including one medical term that can be transferred directly (Vinay & Darbelnet quoted in Munday 2001:56) into Swedish as it is fully integrated in the general language (*hallucinationer*), another medical term that requires a translation into a Swedish term (*vanföreställningar*) and an English term adapted into a Swedish term (*Lewykroppsdemens*). The result is shown in (1).

(1)	There is also evidence to suggest that *hallucinations* and *delusions* are particularly experienced by people with *Lewy body dementia* (Holden & Stokes 2002). (page 495)	Det finns också belägg för att *hallucinationer* och *vanföreställningar* är vanligast hos personer med *Lewy-kroppsdemens* (Holden & Stokes 2002)

Below is an example of a cultural aspect, an institutional term that has no formal equivalent in Swedish. It has been kept for possible further studies by the target readers but has been clarified in a footnote, as illustrated in (2).

(2)	/…/ this is likely to be an underestimate because studies usually fail to include older people living in some form of *residential care*. (page 493)	/…/ att denna siffra troligen är för lågt beräknad eftersom studier ofta inte inkluderar äldre i *residential care.* *Fotnot: Residential care* bedrivs på speciella boenden, *residential homes*, där de äldre förväntas kunna ta hand om sig själva men har tillgång till vård och annan service vid behov.

A translator should work with the aim of producing a text that should read like an original. A demanding challenge is to avoid 'translationese' (Munday 2001:133), a word or an expression in the target text that sounds like an obvious translation. The following analysis will deal with how to tackle a variety of difficulties by using translation theories and parallel texts within the field.

1.1 Aim

The aim of this essay is to investigate the following translation aspects:

1. Cultural aspects regarding changes of cultural references and differences of national institutions and organisations.
2. Terminology regarding medical, organisational and epidemiological terms.

1.2 Material

The source text comes from an academic textbook dealing with geriatrics within different fields, both psychiatric and somatic ones, aimed at teaching nursing at university level. It was published in 2006 in London and conveys up-to-date medical facts and figures which refer to British conditions. However, the translated part is supposed to be published in 2008. The chapter of about 30 pages, *Person-centred dementia care*, was written by the authors Davies, Aveyard and Norman, who are lecturers of nursing at different universities in the UK. I have selected to translate one part of nursing (symptoms of dementia), one part of medicine (physical causes) and one part of epidemiology (prevalence and incidence) to practise my translation skills within different fields. The parts show clearly the variety of problems that a medical translator has to face.

As secondary sources within the field of medicine, I have used other textbooks about dementia in Swedish as guidelines, especially Basun et al (1999) and Jansson & Almberg (2002) can be mentioned. To tackle the difficult medical terminology the book written by Fogelberg & Petersson (2006) has been very useful and the website of *Läkartidningen*. Organisational terms regarding care for the elderly are also related to the legal field in Socialtjänstlagen and this information came from the website of Socialstyrelsen.

Translation as such has been considered by studying linguistic literature. Munday (2001) provided theories about equivalence and translation strategies, Ingo (2007) described the importance of respecting the text sort conventions and Newmark (1981 and 1998) accounted for cultural differences. Additionally, grammar books, dictionaries and synonym books, both in Swedish and in English have been useful.

1.3 Method

The first step to be taken for this paper was to assess the source text as for the intended target group, the purpose and the characteristics. By studying the same kind of texts in Swedish, I could understand what the Swedish readers could expect from the translation. Furthermore,

different suitable methods based on translation theories were considered before translating. The main focus has been Koller's five different types of equivalence (Munday 2001:47–48), Vinay and Darbelnet's model of direct translation and oblique translation (Munday 2001:56) as well as text sort conventions presented by Ingo (2007:216).

The next step was to translate the selected chapter from English into Swedish. It was translated just as if the whole book was to be translated i.e. the meta-language with references to the other chapters of the book was kept as well as the academic references. I managed to tackle the problems that occurred thanks to my own education and experience, dictionaries of different kinds and medical websites like *Läkartidningen* which provided me with up-to-date and accurate terminology and the website of Socialstyrelsen which provided me with organisational terminology. I also contacted Svenska Läkaresällskapets språkkommitté for professional counselling.

The last step was to present the difficulties of the translation by accounting for suitable theories and how they are related to the selected fields of study, namely terminology and cultural aspects. The investigation will be presented in detail, referring to the particular page with the source text wording and the target text wording compared. An account for how to select the most suitable strategy will be made and the main findings and conclusions based on my results will be presented.

2. Theoretical background

Translating a text of 'Language for Special Purposes' (LSP), in this case a medical text, involves being confronted with different problems. The choice of translation strategy depends on the characteristics of the source text and those of the target text as well as the culture and the function in the new context. The translation procedure is facilitated by being prepared to consider a wide variety of methods.

2.1 Target group

For this particular translation, I have had the possibility to choose the target group myself. I have focused on the same readers as the source text, namely university students of nursing at intermediate educational level. This involves Swedish future nurses and physiotherapists with basic medical and academic knowledge as well as quite a good command of English. Another possible group is staff within the geriatric field in need of revision or up-to-date knowledge.

Excluded from the target group are medical students (future doctors) as the text is more focused on nursing than on medical or pharmaceutical facts. Another excluded group is students of nursing at High School Nursing School (future assistant nurses) because of the general academic language with advanced medical terminology and academic references which is not common for textbooks at that educational level.

In intercultural communication it is necessary to consider the differences of background knowledge between the source text readers and the target text readers. This phenomenon is called 'presupposition' and is defined as the "linguistic and extra-linguistic knowledge the sender assumes the receiver to have or which are necessary in order to retrieve the sender's message" (Baker 1992:259 quoted in Munday 2001:98). Referring to the above-mentioned target group, the receiver of this text can be assumed to have generally the same background knowledge and the text will function in a similar communicative situation, i.e. a transfer of medical knowledge from British professionals to Swedish future professionals.

2.2 Text type and text variety

Establishing the properties of the text means considering the'text type', (also called 'text sort' or 'genre') and style. There are different text types described in Reiss's model, which is based on Bühler's categorisation of the functions of language. The four categories are 'informative', 'expressive', 'operative' and 'audiomedial' texts. The translated text type is informative, and its main characteristic is communication of facts, in the form of information and knowledge. The content is the focus and is transferred explicitly (Munday 2001: 75–78). However, Holz-Mänttäri comments that terminology is a feature of form (Holz-Mänttäri 1984:126 quoted in Munday 2001:78), which should make the medical text a special case of a hybrid, an informative text focusing on both content and form.

The text variety (text sort or genre), is associated with the text type (Munday 2001:73). This informative text has a cognitive function as an academic, medical textbook for university students of nursing. When translating field specific texts,one come across the 'text sort conventions' (Ingo 2007:216), i.e. the norms and traditions of using linguistic features connected with a specific text sort and which the target readers expect. By considering aspects like frequent usage of field specific words and collocations in parallel texts, the translator can preserve the text sort conventions.

2.3 Koller's equivalence

Equivalence is a much debated concept within the field of translation studies. One theory is proposed by Koller who argues that it is related to "equivalent items in specific ST-TT pairs and contexts". There are five different types (Koller quoted in Munday 2001:47) that are described below and my personal interpretation of how they are connected to the translated text has been added.

- 'Denotative equivalence' refers to the extralinguistic content of a text (Munday 2001:47). It has to do with the lexical content by choosing the most appropriate field-specific words for transferring the actual meaning. One example is a word with no proper equivalent in the target language so an English term has to be inserted into the flow of the Swedish text. Another example is the choice between terms of different hierarchical levels, such as hyperonyms and hyponyms.
- 'Connotative equivalence' refers to the lexical choices e.g. between near-synonyms (Munday 2001:47). This particular context has offered the choice between different words, similar in meaning but with different 'connotations', i.e. associations. An example is the choice between *progressiv sjukdom* (with positive connotations of the adjective itself) and *progredierande sjukdom* (without connotations).
- 'Text-normative equivalence' refers to different kinds of text types (Munday 2001:47). Their characteristic style is based on patterns of usage. An academic text requires an informative transfer of facts while keeping to the text sort conventions. This can be exemplified by the use of standardised terms that are found frequently in other medical texts.
- 'Pragmatic equivalence' refers to the orientation towards the receiver of the text (Munday 2001:47). The source text is British, which implies differences in cultural aspects like national organisations and institutions, such as *The Alzheimer's Society* and *residential care*. Translation has involved choosing the closest cultural equivalent and, when this was not possible, adapting terms by clarifying concepts in footnotes.
- 'Formal equivalence' refers to the form and the aesthetics of the text (Munday 2001:47). If form is defined as a feature of terminology (Holz-Mänttäri 1984:126 quoted in Munday 2001:78), this equivalence implies keeping close to the practice of terminological accuracy. Generally speaking, this aspect has been taken into account through the whole of the translation. The variety of terms has ranged from the use of

old Graeco-Latin terms to English terms coined in the 1990s. As for aesthetics, there are no such aspects of the text.

The theory covers a wide variety of translation aspects, which have been taken into account, individually or in combination, depending on what kind of problems that have occurred.

2.4 Vinay & Darbelnet's model

There are two basic translation strategies presented by Vinay & Darbelnet. One is 'direct translation' which refers to the literal transfer of the words. The other is 'oblique translation' which refers to the free transfer of the words. The different procedures of the two strategies used are 'borrowing' (direct translation) and 'adaptation' (oblique translation) (Munday 2001:56–58). Borrowing refers to transferring a source text word directly into the target language, sometimes in order to fill a semantic gap, like using the English word *sundowning* which has no Swedish equivalent. Adaptation expresses the change of cultural reference for situations that do not exist in the source culture or are uncommon. This has implied referring to *kaffe* instead of *te*, as coffee-drinking is more common in Sweden than tea-drinking. This enables the target readers to recognize the context.

2.5 Terminology

The most difficult part of the translation work has been to transfer the terminology specific to this field. As for general terminology as a discipline, Pozzi states that "the ancient process of naming concepts and objects belonging to a special subject or field constitutes an essential part of what is now known as the discipline of terminology" (Pozzi 1996:68). A translator should follow principles of terminology like aiming at accuracy which links to Koller's formal equivalence (Munday 2001: 47–48). The terms should be appropriate translation equivalents adapted in spelling and should be found in up-to-date parallel texts that are representative of the field. Cabré argues that it is essential to keep to the standardisation of terms to exclude the risk of naming the same concepts with variants of terms. "The ultimate goal is the achievement of accurate, modern and unambiguous professional communication" (Cabré 1996:26). This has been achieved by checking the vocabulary in both relevant, newly published literature and medical websites. This standardisation refers to Koller' text normative equivalence, i.e. maintaining the characteristic style by examining the patterns of usage (Munday 2001:47–48), what Ingo calls text sort conventions (2007:16).

2.5.1 Medical terms

Primarily, there are three categories of medical terms, each used within its specific group of people for communication, information and documentation (Fogelberg & Petersson 2006:13, 22):

- scientific medical terms used among professional medical staff
- general medical terms used between medical staff and patients
- medical terms used among medical staff (often jargon)

The translated text is aimed at nursing students at university level, i.e. future professional medical people.

Medical terms are used for describing diagnoses, body organs and diseases (Fogelberg & Petersson 2006:13). However, apart from the terms mentioned above, there are also those used for symptoms such as *agnosi*, the difficulties in recognising familiar things. The analysis showed a wide variety of the use of terms related to the medical field. They have been subcategorised according to their linguistic features, which will be dealt with below.

3. Result and analysis

3.1 Cultural aspects

The cultural context describes ways of thinking and behaving that are related to a particular language community (Newmark 1981: 193). When culturally-related terms that differ between the source culture and the target culture occur in a text, the translator has to consider ways of solving this problem. Koller's pragmatic equivalence (Munday 2001: 47) implies that the translated text requires an adapted communication towards the target group. It is necessary when the source text deals with cultural phenomena that do not exist in the target language culture, like national institutions and organisations as seen in (3), (4) and (5) as well as unfamiliar cultural references as in (6).

There are some phenomena which are peculiar to the UK in the text, namely North of England Evidence Based Guidelines Development Project 1998 (http://bmj.bmjjournals.com) and The Alzheimer's Society (www.alzheimers.org.uk). These are difficult to translate so they have been kept in English for possible further studies by the target readers, as a presupposition (Baker 1992:259 quoted in Munday 2001:98) about the target group is that it has quite a good command of English. However, the concepts have been clarified by a

description, a ‘descriptive equivalent’ (Newmark 1998:83). Newmark also comments that additional information should be inserted into the text but it cannot be used for lengthy additions because it “blurs the distinction between the text and the translator’s contribution” (Newmark 1998:92). Consequently, as the explanations are quite long, it is appropriate to separate them from the text and present them in footnotes, as shown in (3) and (4).

(3)	/…/ *North of England Evidence Based Guideline Development Project 1998* (page 493)	*Fotnot:* Praktiska riktlinjer för hur allmänpraktiserande läkare ska bemöta personer med demens och deras närstående.
(4)	/…/ *The Alzheimer’s Society* /…/ (page 493)	*Fotnot:* Organisation som erbjuder information och stöd till personer med demens och deras närstående.

Other terms that differ between Sweden and the UK are *residential care* and *residential home*. These British phenomena are described at the website of the UK Nursing Homes Directory as “Residential Home provides assistance with personal care such as dressing and washing if required, staff can care for residents during short periods of illness” (www.ucarewecare.com). This is a form of institution that does not exist in Sweden The alternative for the people in need of that kind of care is to stay in their own homes with home care services (Socialtjänstlagen 2001:453 quoted at www.sos.se). Consequently, the word has been kept in English in the translation to enable further studies and an explanation has been added and presented as a footnote according to Newmark’s theory (Newmark 1998:92) mentioned above. The result is presented in (5).

(5)	/…/ this is likely to be an underestimate because studies usually fail to include older people living in some form of *residential care*. (page 493)	/…/ att denna siffra troligen är för lågt beräknad eftersom studier ofta inte inkluderar äldre i *residential care.* *Fotnot: Residential care* bedrivs på speciella boenden, *residential homes*, där de äldre kan få hjälp med t.ex personlig hygien och påklädning samt få vård under en kort sjukdomsperiod.

The next example shows another cultural linguistic change, adaptation (Vinay & Darbelnet quoted in Munday 2001:58), which implies changing the cultural reference when it does not exist in the target culture. The source text refers to *tea* while it has been referred to as *kaffe* in the target text. However, in this particular case tea-drinking exists in Sweden but referring to coffee-drinking is considerably more common in Sweden. This adaptation can be seen in (6).

(6)	/…/ may help to explain everyday errors such as putting salt in *tea* rather than sugar /…/ (page 494)	/…/ troligen förklarar misstag i vardagslivet t.ex. att hälla salt i *kaffet* i stället för socker.

By using an adapted communication like in the above mentioned examples, a translator can make the target readers feel at home with the text. It enables them to concentrate on the content in general without being disturbed by occasional unfamiliar concepts.

3.2 Terminology

3.2.1 Medical terms

3.2.1.1 Graeco-Latin terms

By assessing parallel texts (Jansson & Almberg 2002 and Basun 1999), I can conclude that classical medical terms of Graeco-Latin origin are frequently used in Swedish medical contexts but are sometimes modified in spelling. Besides, some of them have even become fully integrated in general Swedish. According to Fogelberg & Petersson these terms have many advantages such as being precise, short, neutral and international (Fogelberg & Petersson 2006:43).

The medical terms below are terms describing symptoms, used both within the field of medicine and in general Swedish. The words have been transferred from Latin (*delirium*) and Greek (*apathy*) by borrowing (Munday 2001:56). This is illustrated in (7) and (8). However, (8) has been modified in spelling to apply to the Swedish spelling rules.

(7)	Research suggests, as with *delirium*, hallucinations are more frequent during the evening and night than the daytime /…/ (page 494)	Forskning tyder på att hallucinationer är vanligare på kvällar och nätter än på dagtid, precis som vid *delirium.*
(8)	Some individuals demonstrate reduced activity and experience *apathy*. (page 495)	/…/ medan andra blir mindre aktiva och känner *apati*.

The terms in (9) and (10) below are used only within the field of medicine and have been transferred from Greek by borrowing (Munday 2001:56) but with modified spelling.

(9)	Later individuals with dementia may develop non-fluent *aphasia* /…/ (page 494)	Senare kan demenssjuka utveckla *afasi* då talet inte kommer flytande /…/
(10)	*Agnosia* is the failure to recognize, and therefore to understand and name, familiar objects. (page 494)	*Agnosi* innebär att inte kunna känna igen, namnge eller förstå användningen av bekanta föremål.

The use of Graeco-Latin terms in medical texts links to Koller's formal equivalence i.e. the accurate use of terminology. Medical staff needs to know Graeco-Latin terms to understand medical documentation properly and for the communication between professional medical people.

3.2.1.2 Synonyms

A 'synonym' is a word with a similar basic meaning as another word but it is different in nuances, style and connotations (Ingo 2007:190). Some terms have two possible equivalents in Swedish but they are of different stylistic value. To be able to choose the most suitable term, it is important to check the frequency in parallel texts. Referring to Koller, this is text-normative equivalence (Munday 2001:47-48), where the characteristics of the style are based on the patterns of usage e.g. standardised terms, which is also related to text sort conventions (Ingo 2007:216).

One difficulty was to translate *faeces*, a medical term that a translator could be prone to translate into the same word. However, the translation involved the choice between *feces* (the Swedish spelling) and *avföring* where either the Latin term could be transferred by borrowing (Vinay & Darbelnet quoted in Munday 2001:56) or the Swedish formal word could be used. It has been important to check the frequency in parallel texts to exclude the risk of naming a concept with an unsuitable variant of term. Therefore, I have searched the websites of *Läkartidningen* (www.lakartidningen.se) and Google with the following result:

feces:	Läkartidningen 60 hits	Google 9 430 hits
avföring:	Läkartidningen 142 hits	Google 188 000 hits

Surprisingly enough, *avföring* was more common. This synonym seems to be of lower stylistic value in formal, medical text compared to *feces*. But a translator ought to comply with the text sort conventions (Ingo 2007:216) and accordingly, the following transfer has been made as in (11):

(11)	/…/and eating inedible food (including *faeces*). (page 495)	/…/ att äta oätliga saker (inklusive *avföring*).

The next example involves Koller's connotative equivalence (Munday 2001:47–48), the choice between words of different connotations. A pair of complicated synonyms was the

adjectives *progredierande* and *progressiv*, which are used when describing the course of dementia. According to Fogelberg & Petersson (2006:137) the individual word *progressiv* has positive connotations and according to Nationalencyclopedin's dictionary (www.ne.se) the word means 'positive to changes and development' as well as 'progressing' when speaking about diseases. A search at the website of *Läkartidningen* (www.lakartidningen.se) and Google showed the following use within the context of diseases:

progredierande sjukdom:	Läkartidningen 138 hits	Google 513 hits
progressiv sjukdom:	Läkartidningen 156 hits	Google 1180 hits

The use of *progressiv* was only slightly more frequent than *progredierande* as for *Läkartidningen* but as for Google it was the most frequent. However, the result from *Läkartidningen* should be considered as normative as it is a typical medical website while Google has many different kinds of texts. In this case it ought to be possible to choose either of the adjectives but to avoid positive connotations, *progredierande* would be preferable.

Before deciding what adjective to use, I also checked the frequency for the verbs related to them as the verb *progresses* is used in the source text. One interesting fact is that there is no verb based on either *progressiv* or *progredierande* according to the Dictionary of the Swedish Academy, SAOL (2006:717) and Nationalencyclopedin's dictionary (www.ne.se). Still, the verb *progrediera* is used within the field of diseases. The alternative Swedish verb, *fortskrida*, has also been included in the search as the following result shows:

progrediera+sjukdom:	Läkartidningen 48 hits	Google 1 020 hits
fortskrida+ sjukdom:	Läkartidningen 24 hits	Google 13 800 hits

The two results of the verbs do not correspond with each other, making the decision even more difficult. Should *fortskrida* be used or is *progrediera* more appropriate, in spite of the fact that it does not exist in dictionaries? The word may be too specific to be included in the dictionaries for general Swedish but obviously it is common within the medical field. I have decided to take the result from *Läkartidningen* as normative so the verb *progrediera* has been used to respect the text sort conventions (Ingo 2007:216). Consequently, the adjective *progredierande* has been chosen instead of *progressiv* in order to be consistent because there was not a big difference of the frequency in *Läkartidningen*. Furthermore, *progrediera* is

without connotations as referred to above and this links to Koller's connotative equivalence (Munday 2001:47). The result is illustrated in (12) and (13).

(12)	/…/ relatively common cause of *progressive* cognitive decline in older people /…/ (page 498)	/…/ relativt vanlig orsak till *progredierande* kognitiv försämring hos äldre.
(13)	/…/ day time sleep increases as dementia *progresses* /…/ (page 495)	/sömn under dagtid ökar efterhand som demensen *progredierar* /…/

I could not take for granted that the immediate idea of what synonym to use always was the most appropriate. Respecting the text-normative equivalence is a helpful strategy for a beginner within the field of translation.

3.2.1.3 Eponyms

Another terminological aspect is the use of 'eponyms' in medical texts. Newmark defines an eponym as "any word that is identical with or derived from a proper name which gives it a related sense (Newmark 1981:198)." Newmark also states that there are three categories, namely derived from persons, objects and places. The eponyms in the text belong to the first category, which often refers to the inventor or the discoverer of a phenomenon, in this case diseases. Eponyms in Swedish keep the genitive form and the initial capital letter of the name when referring to the discoverer and the disease but not when referring to only the disease e.g. *Alzheimers sjukdom* and *alzheimer* respectively (Lindskog 2004:454). However, only the form like *Alzheimers sjukdom* has been used as presented in (14).

(14)	The most common cause of dementia is *AD.* (page 498)	Den vanligaste orsaken till demens är *Alzheimers sjukdom.*

This translation procedure refers to Koller's formal equivalence (Munday 2001: 47-48), the accurate use of terminology which is especially important when the terms are frequently used for defining diseases in medical records.

3.2.1.4 English terms

Koller's denotative equivalence emphasises choosing the correct word to transfer the actual meaning (Munday 2001: 47), a problem a translator faces when there is no proper equivalent in the target language. It is important to exclude the risk of naming the same concept with variants of terms (Cabré 1996:26). Fogelberg & Petersson (2006:161) refer to the fact that

most discoveries are not made in Sweden and consequently the denomination of new phenomena is in a foreign language, mostly English. It takes some time before new concepts are fully integrated into the target language. The process of 'neology', i.e. coining new terms, can be treated in three ways, namely:

1: the English term is kept
2: the English term is kept but is adapted into the target language
3: a new term is coined in the target language (Fogelberg & Petersson 2006:161)

The processes used in the text are number one and two, based on considering up-to-date text sort conventions (Ingo 2007:216) as well as the presupposition (Baker 1992:259 quoted in Munday 2001:98) that the target group has quite a good command of English.

One case of Koller's denotative equivalence involved how to find the Swedish equivalent for *sundowning*, which refers to the worsening of activity disturbances in the latter part of the day. As this expression seemed to be rare in publications, I decided to contact Svenska Läkaresällskapets språkkommitté (www.svls.se). I was advised by Annika Asp, terminologist at the organisation, to keep the English term and add a Swedish clarification as she could not find a Swedish equivalent (Annika Asp, terminologist, personal contact). This means that the word has been transferred from English by borrowing (Vinay & Darbelnet quoted in Munday 2001:56) in order to fill a semantic gap. As the explanation of the word follows in the source text no extra clarification has been made as can be seen in (15).

(15)	Other behaviours related to disturbances of diurnal rhythm include *´sundowning'* (the worsening of activity disturbances in the latter part of the day) /…/ (part 496)	Andra tecken på rubbad dygnsrytm är att den sjuke blir mer förvirrad under senare halvan av dagen, *sundowning* /…/

Another case of denotative equivalence was how to translate the word *stroke* which is used in Swedish for both *hjärnblödning* and *hjärninfarkt*, just as in English. A translator should try to find equivalent expressions at the same hierarchical level. A word higher up in the hierarchy is a 'hyperonym' which is related to words lower down, its 'hyponyms'. The higher hyperonym covers a greater semantic field than the hyponym which has a greater intension i.e. it is more exact and requires more specific features when described (Ingo 2007:91). The

following is an example for the word *stroke* both in Swedish (www.ne.se) and in English (www.stroke.org).

stroke (hyperonym)

1: hjärnblödning 2: hjärninfarkt (hyponyms)

1: hemorrhagic stroke 2: ischemic stroke (hyponyms)

It is worth noticing that while the plural form is used in the source text, the singular form is the only alternative in Swedish according to Nationalencyclopedin's dictionary. Consequently, the word in the example below has been kept in English by borrowing (Vinay & Darbelnet quoted in Munday 2001:56) but has been adapted to Swedish spelling as shown in (16).

(16)	The risk factors for VAD are those associated with *strokes* /…/ (page 499)	Riskfaktorerna är samma som för *stroke* /…/

As it takes some time before new medical phenomena have been coined in Swedish, if they ever are, it is important to stay up-to-date in order to know when to break the flow of a text to insert an English word or expression.

3.2.2 Organisational terms

These terms are national denominations of phenomena related to care for the elderly in Sweden, based on Socialtjänstlagen (The Swedish Social Services Act). This means that they are completely different from the British terms. Therefore, the translation process links to Koller's pragmatic equivalence, the orientation towards the receivers of the text (Munday 2001:47).

The first problem concerns the word *care*, which means 'vård', 'omsorg' and 'omvårdnad' (Norstedts 1993:147). According to Socialtjänstlagen (1980:620 quoted at www.sos.se/sosfs[1]) care for the elderly and handicapped people is referred to in Sweden as *omsorg* including 'service' (e.g. cleaning and washing) and 'omvårdnad' (e.g. help with daily activities such as dressing and eating). 'Omvårdnad' partly coincides with and is complementary to medical care, paying regard to psychological, social and cultural aspects (Medicinska forskningsrådet 1982 quoted in Jansson & Almberg 2002: 186). Consequently, it is appropriate to translate *care* into *omvårdnad*, as illustrated in (17).

(17)	/…/ or in respons to poor *care practices.* (page 495)	/…/ eller som svar på *dålig omvårdnad.*

[1] Socialstyrelsens författningssamling

Another aspect has been the use of a 'cultural equivalent' which is "an appropriate translation where a SL cultural word is translated by a TL cultural word… (Newmark 1998:82). These words have a "greater pragmatic impact than culturally neutral terms" (Newmark 1998:83). This can also be related to Koller's denotative equivalence, the choice of the most appropriate word to transfer the actual meaning e.g. among hyperonyms and hyponyms. *Nursing home* in the UK is an institution for people with need of constant medical attention as can be seen at the website of the UK Nursing Homes Directory (www.ucarewecare.com). It has a different equivalent in Swedish, namely *särskilt boende* (Socialtjänsten i Sverige kap. 9 quoted at www.sos.se). This term covers the Swedish institutions of care for the elderly, 'servicehus' and 'gruppboende'. The hierarchical relations are as follows:

särskilt boende (hyperonym)

1: serviceboende 2: gruppboende (hyponyms)

Consequently, *nursing home* has been referred to as *särskilt boende*, instead of using the neutral term *vårdinstitution*, as can be seen in (18).

(18)	/…/ 38 % of *nursing home residents* were admitted with dementia. (page 493)	/…/ 38 % av *boende i särskilt boende* hade demens.

One difficulty involved transferring the English word *relative*. A translator could be prone to translate this term into *anhörig*. However, it is preferable to use the term *närstående*, as is done in The Swedish Social Services Act, as a care-giver can be a person like a family member or a relative as well as a close friend or a neighbour as is defined in SOSFS 1989:14 (www.vardalinstitutet.net). The hierarchical relations are as follows:

närstående (hyperonym)

1: relative 2: family member 3: close friend 4: neighbour (hyponyms)

Again, the process of choosing the most appropriate term can be referred to as Koller's denotative equivalence. Consequently, in (19), the expressions in the source text and the target text are of different hierarchical levels.

(19)	/…/ *relatives* may say that the person is different from the one they had known. (page 495)	/…/ *de närstående* upplever att det inte är samma person som tidigare.

As organisational terms both differ from the source language and change in accordance with the national legislation, it is important to a translator to keep up-to-date to be able to provide the readers with appropriate terms.

3.2.3 Epidemiological terms

Epidemiological terms like *prevalence* and *incidence* are statistical terms within the medical field describing the frequency of a disease. As they are used internationally, it is important to keep close to the practise of terminological accuracy, what is referred to by Koller as formal equivalence (Munday 2001:47). The same form is used for both English and Swedish. A search on Google and *Läkartidningen* (www.lakartidningen.se) showed the following frequency:

prevalens:	Läkartidningen 559 hits	Google 161 000 hits
incidens:	Läkartidningen 740 hits	Google 165 000 hits

Consequently, they have been translated into *prevalens* and *incidens* as shown in (20) and (21) below.

(20)	The *prevalence* of dementia is the frequency with which it occurs in a population. (page 493)	*Prevalensen* av demens anger frekvensen av sjuka i en viss population.
(21)	The *incidence* of dementia is the number of new cases within a given time period. (page 493)	*Incidensen* av demens anger antalet nya sjukdomsfall under en given tidsperiod.

As pointed out before in this analysis, an accurate use of international terms is essential, as medical staff need the knowledge for professional communication and acquiring new information from both national and international sources.

4. Conclusion

This medical translation made me realize the width of problems to face as a translator such as cultural aspects like national institutions and organisations as well as terminological aspects, like the choice between Graeco-Latin terms, Swedish terms and English terms. It is a matter different strategies and here the translation theories were necessary and useful guidelines.

The cultural aspects consisted of differences of institutions and organisations. However, these phenomena were quite easy to find, but as they differ from Swedish conditions it was difficult to determine how to insert the new information into the text. For long explanations, the most suitable method was the use of footnotes (Newmark 1998:92) as in examples (3), (4) and (5) while for short ones, it has been the use of a cultural equivalent (Newmark 1998:82), as in example (18). This method links to Koller's pragmatic equivalence (Munday 2001:47).

The most challenging part was definitely the terminology. It was important to keep to the standardisation of terminology (text-normative equivalence in Munday 2001:47–48), and the text sort conventions (Ingo 2007:216) established in the parallel texts as illustrated in (11), (12) and (13). The importance of accuracy could be seen in the choice of suitable Graeco-Latin terms, like examples (7), (8), (9) and (10). Other cases are the eponyms, such as (14) and the epidemiological terms, such as (20) and (21). They all refer to Koller's formal equivalence (Munday 2001:47). Accuracy and standardisation should be an absolute condition for effective documentation, information and communication among professional medical staff. Another aspect was the national organisational terms, which require up-to-date knowledge as they have changed over the years, depending on the wording in the legislation regulating the social services (www.sos.se) as illustrated in examples (17), (18) and (19).

To summarise, a translator should consider cultural differences and have up-to-date terminological knowledge. Translation requires having to learn how to deal with different kinds of terms in accordance with established text sort conventions. As there are constant developments and discoveries within the international field of medicine, this is a challenging task for the future which requires continuous studies.

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