The Bergen translation corpus *TK-NHH* – design and applications

Ingrid Simonnæs, NHH Norwegian School of Economics

Sunniva Whittaker, NHH Norwegian School of Economics

**Abstract**

The Bergen Translation Corpus (TK-NHH) is the result of a fruitful collaboration between Knut Hofland at UniResearch and the Department of Professional and Intercultural Communication at NHH Norwegian School of Economics. The corpus comprises translations into English, French, German and Spanish of the same Norwegian source texts. The translations have been produced by candidates sitting for the National Accreditation Exam. In this contribution to the Festschrift in honour of Knut Hofland, we aim to describe the corpus design, explain how it can be used to test a variety of translation-relevant questions and also present some results from a case study using data drawn from the corpus.

*Principal contact:*
Ingrid Simonnæs
Professor
NHH Norwegian School of Economics, Norway
Tel: +47 55 959 333
Email: Ingrid.Simonnas@NHH.NO
1. Introduction
The Bergen Translation Corpus was established in 2007 on the initiative of the Department of Professional and Intercultural Communication in order to facilitate research using the texts produced by the candidates sitting for the National Translator Accreditation Exam (NTAE) as empirical data. In this article we will first shortly present the NTAE and the background for the development of the corpus. In section 2 we will compare the Bergen Translation Corpus to other types of corpora used in translation research and describe the corpus setup designed by Knut Hofland. Section 3 describes how the corpus can be used for pedagogical and research purposes. Finally, in section 4, we will present a case study on culture-bound legal concepts illustrating the use of empirical data from the corpus.

2. Description of the National Translator Accreditation Exam (NTAE, statsautorisert translatøreksamen)
NTAE has been arranged at NHH Norwegian School of Economics since 1979. The exam comprises four texts: one LGP text and three LSP texts from the economic, legal and technical domains respectively, each of them approximately currently about 350 words. The exam is divided into two sessions with Norwegian as either the source or the target language. Candidates may choose to sit for one or both sessions.

The number of foreign languages on offer varies from year to year depending on both requests from prospective candidates and on examiner availability. English, French, German and Spanish, however, are offered as both source and target languages every year. Since 1979 182 candidates have passed the exam in a wide range of languages, the number of candidates translating between Norwegian and English being by far the most popular.
In 2007 new regulations for the exam were issued, allowing candidates to write their exam papers on their computers and to hand them in electronically. This amendment was first and foremost introduced in order to make the exam setting more true to life. Research into the translation process clearly demonstrates that translators do not have a linear approach to the text (e.g. Fougner Rydning 2000). Using pen and paper under time constraints is thus an unnecessary impediment to efficiency. Another positive result of allowing the use of computers was that it gave us access to electronic data and thereby enabling us to construct a digital corpus with a minimal need for post editing. For the last five years, all candidates have therefore been asked to fill in a consent form for the use of their texts for research purposes. This procedure was the first step towards building the Bergen translation corpus.

3. Corpus-based translation studies

Corpus-based translation studies have been popular for a number of years (cf. Baker 1993, 1995; Laviosa 1998, 2010). There is however a great variety of types of corpora used to address translation related questions both in terms of size, text types and number of languages. The type of research questions that can be addressed obviously depends on the corpus design. An extreme example would be the TEC, The Translational English Corpus, at the University of Manchester which was tailored to investigate so-called translation universals consisting of only target texts in English translated from a variety of languages. Another well known corpus is the Oslo Multilingual Corpus (OMC) which contains both source and target texts in three different languages. This corpus, which contains primarily fiction texts, is widely used to address both translation related questions and contrastive linguistics (Fabricius-Hansen 2005; Johansson 2003). Given the variety of corpus designs, it should come as no surprise that there is a certain confusion regarding the terms used to designate different types of corpora used in translation studies (cf. the typology elaborated by Granger 2003:19).¹

Our corpus can best be described as a multilingual parallel LSP corpus and is to our knowledge unique in its kind not only in terms of the language combinations but also with regard to text types.²

¹ E.g. Schmied and Schäffler (1996): use ‘parallel corpus’ to refer to ‘comparable corpus’, or to a ‘translation corpus’ (Hartmann 1980: 37 or a combined ‘comparable/translation corpus’ (Johansson et al. 1996, all cited in Granger 2003: 19; as well as her suggested typology (op.cit.:21, albeit focusing on corpora in cross-linguistic research).
The corpus is divided into 5 subcorpora: Norwegian source texts and the corresponding target texts in English, French, German and, as of 2011, Spanish. These subcorpora contain four text types: LGP, economic, legal and technical texts. New texts are added to the corpus each year after the NTAE has been held. It is in other words a dynamic corpus. However, in contrast to many other dynamic corpora, where the aim is to study language change over time (cf. Renouf 2007: 37), our corpus is dynamic by virtue of necessity: given the limited number of candidates sitting for the exam each year, the corpus must be built gradually. The number of research questions that can be addressed using the corpus as empirical evidence as well as the reliability of the results is correlated with the size of the corpus. This said, as the corpus is mainly intended for research into the translation of LSP texts, the size requirements are not the same as for a LGP corpus. At present, the corpus comprises approx. 136 000 source text tokens.
The Bergen translation corpus TK-NHH

Fig. 3
Part of alignment / GLP text 2009

The texts are produced by candidates who all meet the exam requirement of at least three years of higher education. As of 2011 the metadata allow us to divide the texts into two categories depending on whether the candidates are translating into their mother tongue or a foreign language. The corpus also contains metadata allowing us to single out the candidates who have failed the exam. Information about additional education or experience as a translator is however not included.

The corpus has been developed with the technical assistance of Gisle Andersen, Kai Innselset and Knut Hofland (CLU – Uni Computing). The design is in many ways similar to that of other translation corpora developed at Uni Computing, the most well known being the Oslo Multilingual corpus. However, the specificity of this corpus lies in the fact that each source text is aligned with many target texts in four languages. At the most 33 target texts.

The source texts and target texts constitute each a language-specific subcorpus under the overall corpus (cf. Fig. 2) covering different text types within general, economic, legal and technical language. ³

The source texts and target texts are in a first step converted into Extensible Markup Language (XML) and aligned. The alignment process has been done at CLU – Uni Computing (former AKSIS) at the University of Bergen. The texts are aligned sentence for sentence as illustrated in the following figure where the different target text renderings of the same source text sentence are presented in the left column: ⁴

---

³ We are well aware of the fact that the boundary between economic and legal texts is fuzzy. The decision as to what is subsumed under the umbrella “legal” versus “economic” is taken by a scientific board appointed by the Department.

⁴ For more details about the program see Hofland and Johansson (1998).
Each sentence of the Norwegian source text (as exemplified in the right column with the first sentence of the text under discussion) is aligned for every candidate, identified by the following metadata: text type, year, a randomly selected candidate number, fail/pass, and sentence number as the last code. The texts thus aligned can be queried using a selection of corpus workbench tools (CWB) developed by IMS (Institut für Maschinelle Sprachverarbeitung)\(^5\). Queries regarding particular words or word strings can be made by using the following search window (Fig. 4):

4. Pedagogical and research purposes of the corpus
In our view the corpus has a twofold interest both as a pedagogical and a research resource.

4.1 Pedagogical research purposes of the corpus
In the first instance, given that the corpus metadata allow us to distinguish between target texts that have been deemed satisfactory and those that do not attain the required quality level, the corpus can be used to conduct error analysis. This may be done not only at word or term level, but also with regard to syntactical constructions and pragmatic choices, e.g. explicitation strategies. Knowledge regarding frequently made mistakes of all kinds is highly useful for the elaboration of teaching material. These mistakes can be divided into two main categories: decoding or encoding errors due to a lack of proficiency in either the source or the target language on the one hand, and problems that can be ascribed to a lack of knowledge of the source or target culture on the other. The corpus yields good examples of both kinds. A fairly common error of the first type is the translation of the Norwegian modal verb *vil*. This verb is highly context sensitive and its translation can be quite problematic. A query of the present form of this verb ‘vil’ provides the following translations into English: *would*, *should*, *might*, *will*, *wishes intends* *wants* *to*. In the German target texts: *möchte*, *will* and present and conditional forms of *werden*. In the French texts both present, periphrastic future, simple future forms, passive forms and the modal verb *pouvoir* are attested as well as nominalizations of the main verb in question. A comparison of the different variants and their appropriateness in given contexts is one possible pedagogical use of the corpus.

\(^5\) Cf. [http://www.uni-stuttgart.de/forschung/orp/inst_profile/fak05/ims.html](http://www.uni-stuttgart.de/forschung/orp/inst_profile/fak05/ims.html)
Errors due to a lack of cultural knowledge are also legion. One quite common mistake of this kind is the translation of names of institutions that have an official name in the target language. The following translations of Norsk Lovtidend (the Norwegian Legal Gazette) suggested by several candidates indicate that they are unfamiliar not only with the official name, but also, one might suspect, with the function of the gazette: Norsk Lovtidend, a Norwegian legal journal, Norwegian Law Reports Journal, Journal Juridique Norvégien (Norsk Lovtidend), Norwegische Gesetzessammlungen.

The pedagogical interest of the corpus goes however beyond mere error analysis. Indeed access to a wide range of target texts of acceptable quality can contribute to sensitizing students regarding the many choices translators face at all text levels and can serve as a basis for discussions on translation shifts, such as modulation, modification and mutation (cf. Vinay/Darbrelnet 1995, Leuven-Zwart, 1989, 1990) and possible skopoi (Vermeer 1992, 1996) and overt versus covert translations (House, 1997) or, in Nord's terminology, between documentary and instrumental translations (Nord 1989, 1991: 82).

The choice between the three following renderings of Norsk Lovtidend attested in the corpus may for instance illustrate the importance of determining the skopos of a translation:

• Norsk Lovtidend,
• Norsk Lovtidend, The Norwegian Legal Gazette
• The Norwegian Legal Gazette

The first two renderings show an overt (House)/documentary (Nord) translation, whereas the last rendering is a covert (House)/informative (Nord) translation.

The table in Figure 5 below illustrates the different variants attested in the corpus and their frequency:

As the Department of Professional and Intercultural Communication is in the process of developing an online course in legal translation geared towards prospective candidates for the NTAE, the corpus constitutes a very useful resource in this endeavour.

<table>
<thead>
<tr>
<th>Norsk Lovtidend</th>
<th>candidate number /total occurrences 9</th>
<th>translation into English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1;</td>
<td>Norsk Lovtidend (Norwegian Law Reports)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>The Norwegian Legal Gazette</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Norsk Lovtidend (Norwegian Law Reports)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Norsk Lovtidende [sic] (The Norwegian legal gazette)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Norsk Lovtidend [The Norwegian Law Bulletin]</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Norsk Lovtidend, a Norwegian legal journal</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Norsk Lovtidend</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Norsk Lovtidend [the Norwegian Law Gazette]</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Norsk Lovtidend, a Norwegian legal journal</td>
<td></td>
</tr>
<tr>
<td>total occurrences 4</td>
<td>translations into German</td>
<td></td>
</tr>
<tr>
<td>Norsk Lovtidend</td>
<td>A</td>
<td>Norwegische Gesetzessammlung (Norsk Lovtidend)</td>
</tr>
</tbody>
</table>
4.2 Research purposes
The present size of the corpus poses certain limitations with regard to its use as empirical evidence for inductive studies. It may however serve to corroborate theories developed on the basis of larger data set. Indeed, given the specialized nature of three of the four texts in each exam set, the corpus can be used to test the validity of hypothesis made regarding LGP or fiction translations for LSP translations. One such study is Simmonæs (2011) which addresses the use of explicitation in legal translations. At the present stage, the corpus is particularly well suited for case studies related to specific texts or to specific terminological challenges within a text. A study of this type is Roald and Whittaker (in press) which discusses differences in French and Norwegian discursive norms. The translation of the Norwegian term leverandør within the context of public procurement in one of the corpus texts serves as an illustration of this phenomenon.

The multilingual nature of the corpus also allows for contrastive studies of translation strategy choices in the different target languages. Variation in the shifts made by translators working into different languages may have both linguistic and cultural explanations and can thus be studied from a variety of theoretical perspectives.

One of the most interesting prospective uses of the corpus is to study how culture bound concepts are translated. The corpus provides a host of interesting examples which can serve as a basis for a wide range of theoretical discussions. In the following we will describe how the corpus has been used to explore culture bound concepts so far.

5. Research method
Identifying culture bound legal concepts requires in depth knowledge of the legal cultures in the countries where the source and target languages are official languages on the part of the researchers. Indeed the terms used to designate culture bound concepts cannot be isolated on the basis of their morphosyntactic features and cannot be found through an automated corpus analysis of the source text. One possible approach would be to search for lexical items that give rise to many different translations in the target language(s) (cf. Bjørge, 2007). Concepts that are specific to the source culture will rarely have an official term in the target languages. Given the constant renewal of legal terminology and the scarcity of updated bilingual legal dictionaries, the translator will often have to coin ad hoc terms. Variation in the translations can therefore be considered as a possible indicator of cultural specificity. We have not investigated the precision and recall rate of this type of query, but as the different renderings presented in figure 3 above illustrate, variation cannot be directly correlated to culture specificity. We have therefore relied on close reading of the source texts for the identification of culture bound concepts. Automatic queries have then been conducted in order to find the different renderings of the terms.
designating these concepts in the target texts. In view of the limited size of the corpus this method seems to be the most reliable and cost effective.

6. Case study – the translation of culture bound legal concepts

The present case study aims at demonstrating how the corpus can be used to explore creativity in the translation of legal texts.

A priori, one might think that translations of texts from the legal domain leave little room for creativity as literal translation is the norm, in particular if we are talking about documentary (sensu Nord) translations. However, given the culture boundedness of many legal concepts, translators often face the problem of rendering concepts that may not exist in the target culture. As has been pointed out by many scholars, legal translations require not only basic knowledge of the respective legal systems, familiarity with the relevant terminology and competence in the target language’s specific legal style of writing, but also an extensive knowledge of the respective legal topic in both source and target language (cf. Bhatia 2008: 17). It goes without saying that the translation of legal concepts, which already poses a great challenge to translators who have access to experts and all kinds of internet resources, is an extremely difficult endeavor for candidates sitting for an exam, with limited time and only dictionaries and downloaded terminological resources at hand. Using terms suggested by Chesterman (2000), the candidates meet impediments with regard to solving a means problem as they cannot adopt the same search strategies as a translator would when translating the same texts.

Translational creativity has been the subject of theoretical discussions for some time now. At the end of the 80s Wilss (1988) deplored the lack of attention paid to creativity in translation studies claiming that translational creativity is still a “terra incognita” (Wilss 1988: 110). This is no longer the case. Pommer (2008: 355) even refers to the “creative turn in translation studies”. Not surprisingly however the focus has been more on literary translation rather than on LSP-translation. With respect to legal translation Šarčević argues that translators indeed can be creative (2000: 282). Her study draws on examples from bilingual Canadian legislative texts, in other words, instances where the source and target texts both belong to the same legal culture.

In this case study we are interested in a different type of scenario, i.e. the translation of legal concepts that do not exist in the target legal culture. Due to space constraints we will in this article focus on the rendering into English, French and of the recently introduced legal concept of MEDMOR and the closely linked concept of MEDMORSKAP in the field of Norwegian family law. These concepts, which can be translated literally as ‘co-mother’ and ‘co-motherhood’ respectively, are central in the legal text used for the 2010 exam.

To facilitate the discussion regarding the translation of this concept, we will first give a short description of recent changes in Norwegian family law leading up to the formation of these concepts.

In 2009 the Common Marriage Act (felles ekteskaplov) was adopted making no longer a difference between same-sex and hetero-sex marriages. At the same time the Act relating to registered partnership (partnerskapsloven) was abolished having lost its raison d’être. Further amendments in other related acts to the Common Marriage Act were adopted, viz. in the Children Act (barnelova), the Act relating to adoption (adopsjonsloven) and in the Biotechnology Act (bioteknologiloven). A new form of parenthood based on modern assisted reproductive technology (ART) was introduced in same-sex marriage between two women. Pursuant to Section 4 a Children Act (barnelova): “A child cannot have both a father and a co- mother” thus leaving the traditional view that parenthood is based on a father and a mother. But this new legal understanding of parenthood does only apply to children born after 1. January 2009,

---

6 The concept of CO-MOTHER is also discussed in Roald and Whittaker (2012) and in Simonnaes (in preparation)
whereas parenthood for children born before 1. January 2009 has to be declared by step child adoption. This gave rise to the concept of MEDMOR which is defined in the Children Act in the following way: a MEDMOR is a woman in same-sex relationship (marriage or non-marital cohabitation) who has not given birth to a child conceived

- after assisted reproductive technology (ART)
- with sperm from an identifiable and registered donor and
- has given a written consent to ART treatment prior to the treatment (our translation).

When faced with legal concepts of this kind, specific to a particular legal system, the translator must first determine whether there is a comparability “quant à la substance” (Kisch 1973: 411) in the target legal system. If this is not the case, the translator must strive to convey the meaning of the concept by describing and/or explicating what lies at the heart of the concept (concept nucleus, “Begriffskern”, Heck 1932: 52f.) and at its periphery (“Begriffshof”, ibid.)

To find out whether there is a comparability “quant à la substance” in the target legal cultures, the English, French and German legal cultures must be compared to the Norwegian one with respect to the regulation of same sex marriages. None of these allow same sex marriages and there are hence no legal concepts similar to the Norwegian MEDMOR and MEDMORSKAP.

How have the candidates solved this problem? Our corpus contains 15 target texts: two into French, four into German and 9 into English. As our study is purely descriptive, we have looked at all of these regardless of whether the candidates who have produced the text passed or failed the exam.

In theory, the candidates have a wide range of strategies to choose between (cf. Chesterman 2000). Interestingly, we find the same two strategies in the examples for all three target languages. The first is a calque of the Norwegian term where the same prefix is used: co-mother(hood), co-mère/co-maternité, Mitmutter(schaft). The Norwegian prefix med (which corresponds to the preposition with), is highly productive and is used with a wide range of nouns: medforfatter, medeier, medarbeider. The prefixes chosen in the target languages (co- in English and French and mit- in German are also productive and are used with the same type of nouns: medforfatter (co-author, coauteur, Co-Autor), medeier (co-owner, copropriétaire, Miteigentümer), medarbeider (co-worker, co-travailleur, Mitarbeiter). The candidates who have opted for this solution have used their linguistic knowledge regarding productive prefixes in the target languages. It is reasonable to assume that they have started out by searching for other expressions in Norwegian where the prefix med is used and have translated medmor(skap) using the same pattern. As we can see from the examples above the use of these prefixes is by no means limited to legal language.

The other strategy is less straightforward. In English and French the prefix med has been replaced by an adjective which also conveys the idea of motherhood being shared. Interestingly the adjectives that have been chosen ‘joint’ in English and ‘associé’ in French have a certain legal ring to them. Indeed the adjective ‘joint’ is used in legal expressions such as joint liability, joint custody, joint venture (Lind 2007) whereas the French ‘associé’ is used in commercial law to designate a partner in a commercial enterprise (Cornu 2007). The translation into Teilmutter(schaft) follows a similar strategy. The designation seems to have been coined from Teileigentum (‘part ownership’) and other composita with ‘teil’ as e.g. Teilcharter (‘partial charter’), regulated in the German Civil Code, BGB. These terms also convey the idea of sharing.

<table>
<thead>
<tr>
<th>culture concept in Norwegian</th>
<th>specific candidate no / total occurrences 9-</th>
<th>suggested designation in English</th>
</tr>
</thead>
</table>

| Miteigentümer | medforfatter, medeier, medarbeider | co-mother(hood), co-mère/co-maternité, Mitmutter(schaft) |

7 Randomly given candidate identification.
### Table

| MEDMORSKAP | 01; 11 | joint maternity |
| MEDMORSKAP | 15 | joint status as mother |
| MEDMORSKAP | 06; 09; 14; 24 | co-motherhood |
| MEDMORSKAP | 21; 25 | co-maternity |
| MEDMOR | 01; 11 | joint mother |
| MEDMOR | 06; 09; 14; 21; 24; 25 | co-mother |
| MEDMOR | 15 | joint status as mother |
| **Total occurrences 4** | **Suggested designation in German** |

| MEDMORSKAP | A | Teilmutterschaft |
| MEDMORSKAP | B; C; D | Mitmutterschaft |
| MEDMOR | A | Teilmutter |
| MEDMOR | B; C; D | Mitmutter |
| **Total occurrences 2** | **Suggested designation in French** |

| MEDMORSKAP | X | mère-associée |
| MEDMORSKAP | Y | co-maternité |
| MEDMOR | X | mère-associée |
| MEDMOR | Y | co-mère |

**Fig. 6**

**MEDMOR(SKAP) – Various renderings as found in our corpus**

The choice of adjective seems to be motivated in all three languages by the desire to stay within the legal register. Candidates who have opted for this solution therefore draw not merely on linguistic knowledge, but also on more specific knowledge regarding legal language. As mentioned earlier, the focus of this study is purely descriptive and we will thus not comment on the felicity of the choices that have been made.

This case study illustrates how the candidates sitting for the exam either draw on their general linguistic competence regarding word formation in the target language or on more specific knowledge about the register used within a particular domain and/or genre when faced with the task of coining a new expression in the target language. We have demonstrated that the same strategies are preferred by the candidates in all three target languages. Clearly broader studies including other target languages would have to be conducted to verify whether this is a more general trend. The possibility our corpus offers when it comes to comparing strategies across languages may however serve as a starting point and contribute to identifying problems that can be studied further using larger corpora or different methodologies.

### 7. Concluding remarks

In this article we have attempted to describe the specificities of the Bergen Translation Corpus in terms of design and prospective uses. The corpus has already proven useful for both teaching and research purposes. As the corpus grows in size so will its potential. We have suggested some ways in which the corpus can be used, but our description is by no means exhaustive. In our case
study we have chosen to focus on concepts and their terms, i.e. the micro level. Notwithstanding the limited size of the corpus, other text levels such the standard macro-structure of source and target text(s) could also be investigated. We hope that in the future the corpus will be used not only by researchers at our department, but will also be regarded as an interesting resource for the translation studies community at large.

References


