The Translation Classroom: Technology, Strategies and Employability

Working with Corpora in the Translation Classroom

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Some definitions of the term “corpus”

- „corpus now means primarily a collection of texts held in machine-readable form and capable of being analysed automatically or semi-automatically in a variety of ways …“ (Baker 1995:225)

- “a corpus is by default assumed to be a collection of texts in electronic format which are processed and analyzed using software specifically created for linguistic research.” (Zanettin 2012:7).

- “A corpus can be described as a large collection of authentic texts that have been gathered in electronic form according to a specific set of criteria.” (Bowker and Pearson 2002:9)

Corpus typology in translation studies

- Parallel/translation corpora

  - consist of a set of texts in one language and their translations
  - may be bilingual or multilingual (e.g. translations into different languages)

- Comparable corpora

  - consist of comparable (original or translated) texts (usually the same genre, text type, register, subject matter, etc.)
  - may be monolingual, bilingual or multilingual
  - no translational relation between the corpus texts

Dichotomies in corpus linguistics/corpus-based translation studies

- general reference corpus vs. special purpose corpus
- written vs. spoken corpus
- monolingual vs. multilingual corpus
- permanent vs. disposable corpus
- synchronic vs. diachronic corpus
- open vs. closed corpus

Corpus types with direct relevance to translation teaching and practice

- Bilingual parallel/translation corpora (SL and TL texts)

  - insights into strategies employed by (professional) translators
  - provide more collocational and stylistic information than bilingual dictionaries
  - can be used to identify terminological equivalents and their collocates

- Monolingual comparable corpora (original TL texts)

  - checking terminology and collocates against original TL texts
  - searching for unknown equivalents and collocates
  - identifying genre conventions and register
  - searching for explanatory contexts (conceptual instead of linguistic information)

Situating the use of corpora in the translation process

overall translation project process

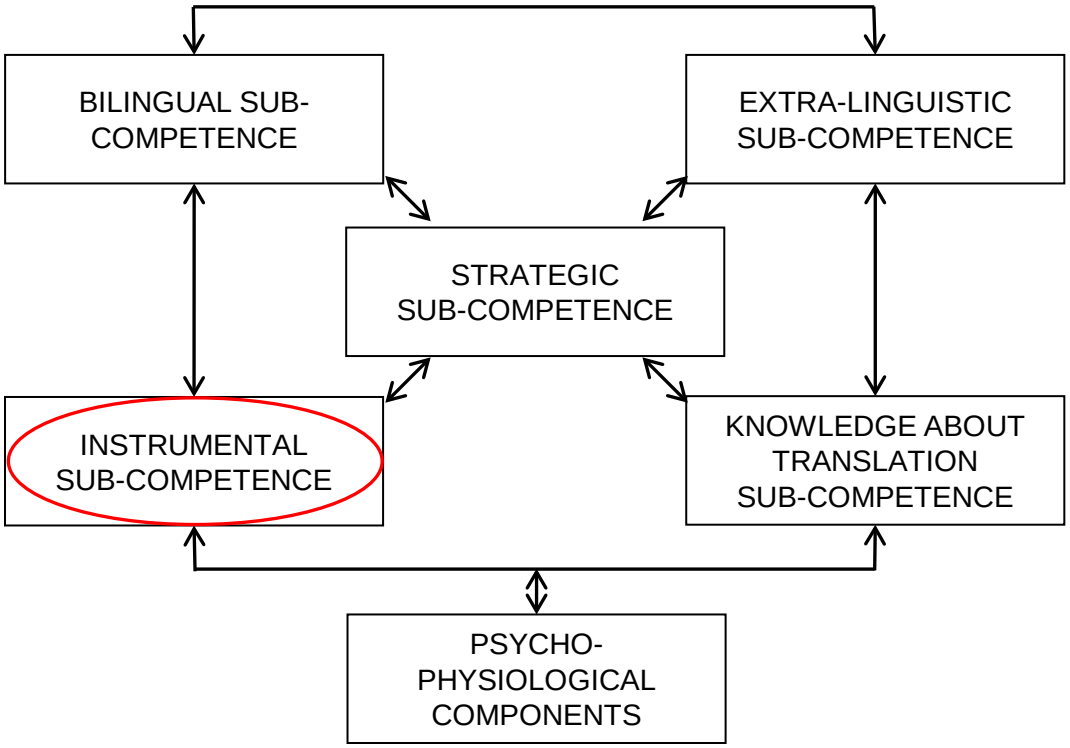
- general preparations (quotation, scheduling, etc.)
- translation-specific preparations (TM creation, subject matter, register, and terminology research, etc.)

translation process

- text reception/analysis
- "on-the-fly" research (linguistic and conceptual)
- translation
- quality assurance (proofreading etc.)

- follow-up measures (file clean-up, delivery, etc.)

Situating the use of corpora within a translation competence model



PACTE's Model of Translation Competence (PACTE 2003)

Different approaches to corpus use in the translation classroom

- Corpus use for learning to translate

  - corpora are selected and controlled by the teacher to provide real-life examples and exercises

  - students learn to use corpora for their actual translation task but not to compile/evaluate them

- Learning corpus use to translate

  - corpus compilation and evaluation are the students‘ responsibility

  - holistic approach to corpus use for translating

Do-it-yourself (DIY) corpora

- corpora of texts compiled with the sole purpose of providing information (linguistic or conceptual) for completing a specific translation task
- also called disposable or ad-hoc corpora
- useful not only as a training resource, but also as a resource for professional translators

DIY corpora

possible sources for retrieving corpus texts

- the client

  - lecturer can act as client
  - “corpus use for learning to translate” approach
  - students do not acquire or improve their own documentation skills

- specialist resources

  - databases, academic articles, etc.
  - not always available for the required subject domains

- the internet

  - offers vast amount of information in multiple digital formats
  - most viable alternative for documenting translation tasks
  - requires specific research and QA strategies

DIY corpora

retrieving corpus texts from the internet

- determining the characteristics of the resource used for text research

  - raising students‘ awareness of the difference between Surface Web and Deep Web
  - universal search engines (e.g. Google, Yahoo!, Bing) vs vertical search engines specialising in a specific field or discipline (e.g. scirius.com for scientific and technical information)
  - ranking criteria for displaying search results (e.g. Google‘s *PageRank* algorithm)

- specific research techniques for narrowing down the potential results

  - search within a specific website or top-level domain (e.g. *site:.edu/ac.uk*)
  - search within specific file formats (e.g. *filetype:.pdf*)

- establishing quality criteria

  - possible evaluation criteria: authorship, publishing organisation, own judgement of corpus samples (e.g. analysing translated texts for instances of *translationese*)

Excursus: the Web as corpus

- Web is used as macro-corpus
- applying specific search criteria to narrow down the search results (see previous slide)
- Shifting focus from corpus design to search strategies and interpretation of the results
- no indication of the external boundaries or the internal subdivision of the “Web subcorpus“
- Search engines do not present results in a form suitable for linguistic analysis
- Web concordancer: e.g. WebCorp Live (http://www.webcorp.org.uk/live/)

Excursus: the Web as corpus

listing of results in WebCorp Live

1) http://www-mdp.eng.cam.ac.uk/web/library/enginfo/aerothermal_dvd_only/aero/fprops/cvanalysis/node54.html
Text, Wordlist, text/html, ISO8859_1 (HTML source), 2005-01-01 (Copyright footer)

```
1:        Previous: Bernoulli Equation Analysis of a Wind Turbine Figure 3.32: Analysis of a Wind Turbine A wind
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2) http://www.ntu.ac.uk/ecoweb/carbon_elephant/wind_turbine_project/index.html
Text, Wordlist, text/html, UTF8 (HTML source), 2011-01-11 (Meta tag)

```
2:                  NTU > EcoWeb > Carbon Elephant > Wind turbine project EcoWeb Wind turbine project Wind turbine
```

3) http://www.keele.ac.uk/geophysics/appliedseismology/wind/
Text, Wordlist, text/html, UTF8 (HTML source), 2012-03-09 (Body near 'Last Modified')

```
3:          Local Seismicity Microseismic Monitoring Wind Turbine Vibrations Small Wind Turbines Eskdalemuir
```

4) http://www.inference.phy.cam.ac.uk/sustainable/energy/wind/080611/index.1.html
Text, Wordlist, text/html, UTF8 (Content-type), 2008-06-23 (Server header)

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4:   | | Back to Index | David MacKay | Visit to the wind turbine at the organic farm in Bassingbourn, Herts..
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5) http://www.lancs.ac.uk/windturbine/
Text, Wordlist, text/html, ISO8859_1 (Content-type), 2006-01-01 (Copyright footer)

```
5:   2012 Work has started on Lancaster University's wind turbine Work has started onsite to construct Lancaster
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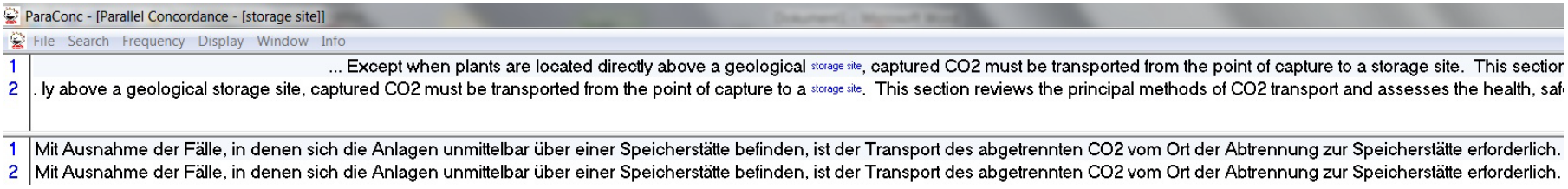
Corpus analysis software

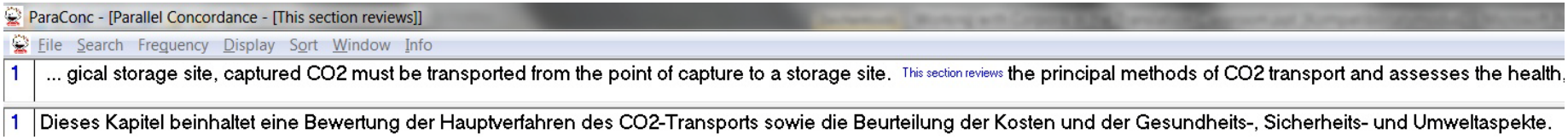
- monolingual comparable corpora: e.g. WordSmith (http://www.lexically.net/wordsmith)
- bilingual translation corpora: e.g. ParaConc (http://www.athel.com/para.html)
  - texts can be prealigned with specific alignment tool (e.g. WinAlign)
  - ParaConc also offers alignment function
- texts must be converted to TXT format before analysis

Analysing a bilingual translation corpus

- looking for the terminological equivalent of “storage site”



- treatment of ST inanimate nouns + action verbs in German translation



Analysing a bilingual translation corpus

- looking for German collocates of the term “CO2”

ParaConc - [Parallel Concordance - [CO2]]

File Search Frequency Display Sort Window Info

1	... ported from the point of capture to a storage site. This section reviews the principal methods of	CO2	transport and assesses the health, safety and environment aspects, and costs. Pipelines today oper ...
2	... ansporting CO2. CO2 also can be transported as a liquid in ships, road or rail tankers that carry	CO2	in insulated tanks at a temperature well below ambient, and at much lower pressures. The first lon ...
3	ed tanks at a temperature well below ambient, and at much lower pressures. The first long-distance	CO2	pipeline came into operation in the early 1970s. In the United States, over 2,500 km of pipeline ...
4	... nes have intermediate (booster) compressor stations. In some situations or locations, transport of	CO2	by ship may be economically more attractive, particularly when the CO2 has to be moved over large d .
5	... s or locations, transport of CO2 by ship may be economically more attractive, particularly when the	CO2	has to be moved over large distances or overseas. Liquefied petroleum gases (LPG, principally pro ...
6	G, principally propane and butane) are transported on a large commercial scale by marine tankers.	CO2	can be transported by ship in much the same way (typically at 0.7 MPa pressure), but this currently ...
7	... his currently takes place on a small scale because of limited demand. The properties of liquefied	CO2	are similar to those of LPG, and the technology could be scaled up to large CO2 carriers if a deman ...
8	... erties of liquefied CO2 are similar to those of LPG, and the technology could be scaled up to large	CO2	carriers if a demand for such systems were to materialize. Road and rail tankers also are technica ...
9	... aterialize. Road and rail tankers also are technically feasible options. These systems transport	CO2	at a temperature of -20ºC and at 2 MPa pressure. However, they are uneconomical compared to pipel

1	Dieses Kapitel beinhaltet eine Bewertung der Hauptverfahren des CO2-Transports sowie die Beurteilung der Kosten und der Gesundheits-, Sicherheits- und Umweltaspekte.
2	CO2 kann auch in flüssigem Zustand per Schiff, Lkw oder Bahn in isolierten Tanks bei sehr niedrigen Temperaturen und Drücken transportiert werden.
3	Die erste Fernpipeline wurde zu Beginn der 1970er Jahre in Betrieb genommen.
4	Je nach Gegebenheit oder Standort ist der CO2-Transport in Tankschiffen wirtschaftlich vorteilhafter, insbesondere auf langen Transportwegen oder beim Transport nach Übersee.
5	Je nach Gegebenheit oder Standort ist der CO2-Transport in Tankschiffen wirtschaftlich vorteilhafter, insbesondere auf langen Transportwegen oder beim Transport nach Übersee.
6	Der CO2-Transport in Tankern läuft prinzipiell auf die gleiche Weise ab (typischerweise bei einem Druck von 0,7 MPa), aufgrund geringer Nachfrage findet er derzeit jedoch nur in begrenztem Umfang statt.
7	Die Eigenschaften verflüssigten Kohlendioxids ähneln denen von LPG, und bei einer entsprechenden Nachfrage könnte diese Technik auf große CO2-Tanker übertragen werden.
8	Die Eigenschaften verflüssigten Kohlendioxids ähneln denen von LPG, und bei einer entsprechenden Nachfrage könnte diese Technik auf große CO2-Tanker übertragen werden.
9	Dabei liegt das CO2 bei einer Temperatur von 20?C und einem Druck von 2 MPa vor.

Analysing a monolingual comparable corpus

- Checking whether “CO2-Abtrennung” or “CO2-Abscheidung” is the more frequently used German equivalent of “CO2 capture”

Analysing a monolingual comparable corpus

- searching for explanatory contexts: concept to be defined together with the copula “is a(n)” from the classical Aristotelian definition

5) http://zebu.uoregon.edu/disted/ph121/l13.html
Text, Wordlist, text/html, UTF8 (Failed), 2005-01-06 (Server header)

5: less than 1% of O2, H2O and CH4 (methane). Since CO2 is a major greenhouse gas, the radiation from the Sun is trapped

6) http://bme.usc.edu/bme403/Section_1/r9.html
Text, Wordlist, text/html, UTF8 (Failed), 1997-10-02 (Server header)

6: s what lungs do. Your tissues need O2 to live. CO2 is a waste product of cell metabolism, and needs to be got

7) http://dwb.unl.edu/teacher/nsf/c09/c09links/www.casahome.org/carbondi.htm
Text, Wordlist, text/html, UTF8 (Failed), 2001-03-22 (Server header)

7: CARBON DIOXIDE (CO2) What is Carbon Dioxide? Carbon dioxide (CO2) is a colourless, odourless, non-toxic gas that in its solid form is

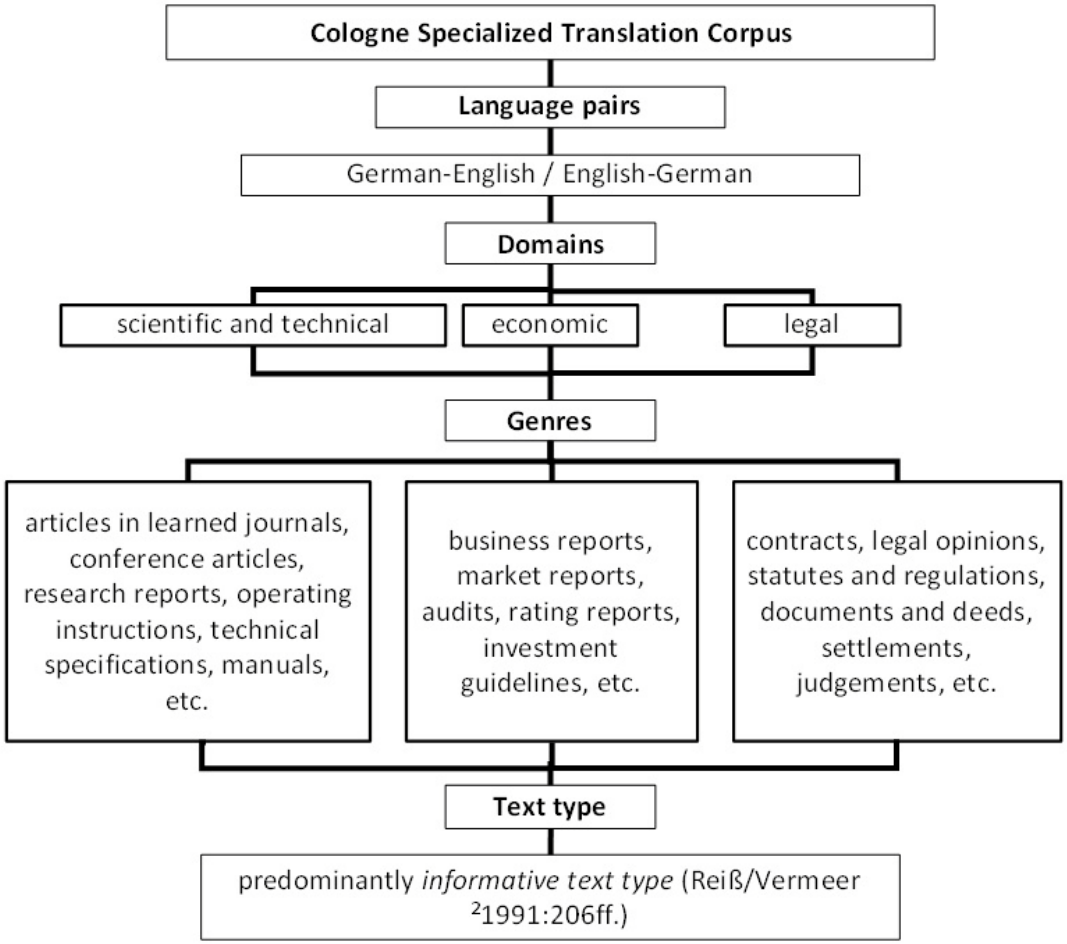
Some disadvantages of using special corpus-analysis software

- conversion of corpus files into txt format and file alignment/preparation for automatic alignment may be quite time consuming
- loss of formatting information (boldface, italics, etc.)
- loss of image information (no study of image-text interaction possible)
- focus on micro level, i.e. search words and their immediate linguistic context (no study of macro-level structures possible)

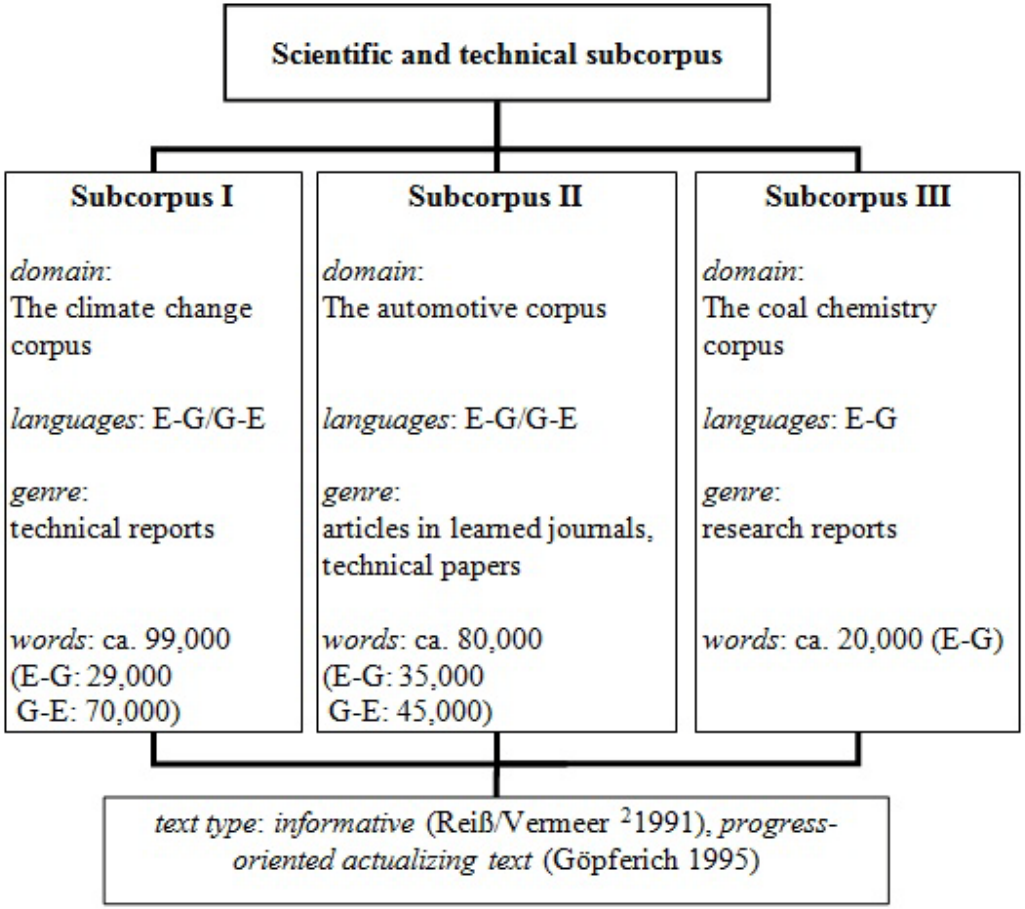
The Cologne Specialised Translation Corpus

- high-quality bilingual specialised translation corpus (English and German)
- expert communication in different domains and different genres
- used for translator training as well as for research projects (MA and PhD theses)
- Example of corpus-based PhD research: investigation of explicitation and implicitation in scientific and technical translation (language directions EN-DE and DE-EN, texts differ in degrees of technicality)

The Cologne Specialised Translation Corpus



The Cologne Specialised Translation Corpus



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