# Dealing with cultural elements in technical texts for translation Radegundis Stolze, Darmstadt University of Technology

#### **ABSTRACT**

Culture is the background of every human communication. Cultural embedding as a feature of texts in general is also valid in technical and scientific texts. As translation by humans is based on understanding, the translator needs knowledge in order to detect cultural aspects. This is possible by putting down implicit cultural references to certain structures on the text level. Cultural elements appear in the text on all levels – from the concept and form of words, to the sentence and text structure, to pragmatics. Examples for the various appearances are presented in the first part of the paper.

The second part discusses translation as a writing process. Here the categories of attention governing the translator's approach are presented. Taking a holistic view of the text, the translator may consider the relevant cultural context, discourse field, conceptual world and predicative mode to promote his or her understanding. The target language formulation will then observe the medium, stylistics, coherence and function of the text. Dealing with cultural elements may be motivated in view of the aforementioned categories of attention.

#### **KEYWORDS**

Culture, terminology, text type, function, categories of attention, understanding, pragmatics.

#### 1. Introduction

Technical translation or research in language for specific purposes (LSP) has long been considered as a field of the exact sciences, and the idea of a cultural embedding of technical and scientific texts was dismissed from the theoretical analysis:

As a 'higher-level' discipline, building upon the insights of contrastive linguistics and sharing with it the notion of 'tertium comparationis', TS [sc. Translation Studies] seeks optimally inclusive rules of ST/TT coordination (Wilss 1996: 10).

It is questionable, though, whether the notion of a *tertium comparationis* – valid for standardised technical terminology – can be transferred to the task of translating in general. Translating technical texts in the professional environment or in scientific communication is more than handling terminology.

Texts, as the means of oral and written communication among persons, are carriers of messages. And any message within a technical or scientific discourse field includes both subject-relevant information and some implicit references to the cultural background of the person speaking. There is no sterile sphere of 'optimal text coordination' in the real world. Culture as the background of every human communication is a dynamic phenomenon based on historical tradition including the individuals'

personal development. Cultural issues in translation are connected with the problem of understanding the texts to be translated, because in many cases the translator is not necessarily a member of the same culture.

The translator therefore will have to be aware of his or her own hermeneutic approach. Understanding is never a matter of fact but requires interpretation as the process of searching for meaningfulness. Hermeneutics sees comprehension as a cognitive revelation of meaning to the interested receptive reader (Stolze 2003: 81); it is not an active construction of sense, and it may also fail.

The foreign reality is always seen phenomenologically from a particular individual perspective. This individual perspective is the "hermeneutic circle" as every human disposes of different experiences and knowledge. You can only understand something when a bridge of knowledge already exists. But this is no fixed restriction, as the circle may easily be extended by learning. However, without any cultural or factual pre-knowledge I will not understand a piece of information, even if it is presented to me in the most logical way. Hermeneutics calls for a critical self-awareness regarding this problem: one must always ask oneself whether sufficient knowledge is given for understanding, translating and entering into a debate, or whether some learning strategies are still needed.

When we accept that texts function within cultures, there must also be some cultural features discernable in those texts. Cognitive text processing based on reading is a partly intuitive interaction between the bottom-up input of the text structure and the top-down intervention of the content of one's memory. That means that understanding can be put down to linguistic structures on the text level that first triggered the respective cognitive reaction. Culture will be present in texts, even in technical ones. And culturally based conventions of text construction may even constitute a major translation problem for scientific communication. Detecting cultural elements in texts therefore is decisive for translation.

#### 2. Cultural elements in texts

A key question is what are cultural elements and how are they visible in texts? Cultural elements cannot be reduced to strange objects that would be unknown elsewhere. Cultural elements are a background of knowledge which is generally relevant for adequate communication within a society:

Culture, being what people have to learn as distinct from their biological heritage, must consist of the end product of learning: knowledge, in a most general, if relative, sense of the term. By this definition, we should note that culture is not a material phenomenon; it does not consist of things, people, behaviour, or emotions. It is rather an organization of these things. It is the forms of things that people have in mind, their models for perceiving, relating, and otherwise interpreting them (Goodenough 1964: 36).

Culture determines how people speak and write and perceive each other. Consequently, cultural elements, therefore, must be present implicitly in texts, but as a background feature they are implicit. This becomes crucial in translation, when a translator from a different culture may not be able to adequately interpret the implicit cultural traces, or even misinterprets them. In translations we often find more or less adequate "modulations" or "adaptations" resulting in "cultural shifts". And a translation where foreign elements are not adapted will appear as an "overt translation" (House 1997: 29) "which allows the translation receptor a view of the original through a foreign language while clearly operating in a different discourse world".

This in technical translation is inadequate, since the purpose of translating, here, is simply to continue a scientific communication across the language border. Science means communication among scientists regarding their respective view on the objects (Kalverkämper 1998: 31). Technical translation requires the formulation of communicatively adequate technical texts in the other language. This includes clarity, precision and linguistic economy, as the key function of LSP (Language for Specific Purposes) is the specification, condensation and anonymity of the propositions (Gläser 1998: 206). Cultural elements in texts might be deemed superfluous here, but they are always there, if only implicitly.

Cultural traces in texts certainly have a specific linguistic form. Hence it is useful to present an overview of various linguistic manifestations of culture in texts. This ranges from the word level and syntactic structures to the style on the text level, and its pragmatic social function.

## 2.1. Culture in terminological concepts

In technical translation the terminology must be checked conscientiously. Of course no cultural differences are prevalent in internationally standardised terminology, e.g. words listed in relevant databases with the mark CE or DIN or ISO. However, this type of terminology is very much in the minority. Terminology is intelligible within a scientific or technical domain, as "terms in a text presuppose memorized contexts and practical situations both for their usage and for their comprehension" (Kalverkämper 1983: 154, my translation).

Understanding of terminology – which is essential for correct translation – is not fully guaranteed by the consultation of dictionaries and databases, because new terms are constantly being created that partly even carry inherent conceptual differences. Schmitt (1999: 228ff) presents some impressive examples of an inter-cultural incongruence of concepts, where comparable terms are not equivalent because the concepts they designate are different for cultural reasons. There are for instance varying standards for the steelmaking between the U.S.A. and Germany: *carbon steel* is not

equivalent to *Kohlenstoffstahl* (as is indicated in many dictionaries), rather it is *Baustahl*, a less brittle type of steel.

Due to climatic variations, the safety and construction rules may be different in countries, even if the terms designating the respective object are apparently the same: Wärmepumpe (in Germany for environment-friendly house-heating) ~ heat pump (for heating and/or cooling in the U.S.). From a linguistic perspective we are faced with "false friends". There is also the example of apparently equivalent terms in the construction of power stations: Druckhalter-Wasserstandsmesskanal ~ pressurizer water level sensing channel, or integriertes Blockregelsystem ~ integrated control system, etc. Even if the basic function of the respective object is the same, e.g. in the American and the German culture, the terms still are incongruent, because the objects are constructed in a different way.

Problems of equivalence vary among the languages. For the combination of materials the German and the English language have special words: löten – to solder; schweißen – to weld. The Italian language is, by comparison, less specific and so, for example, the word saldare can mean löten/schweißen, whereas French, another Romance language, has the terms brasage/brasure – Löten and soudage/soudure – Schweißen, which are occasionally even used interchangeably.

Sometimes, new technical terms are created by means of metaphorical terminology referring to similarities in the function, form, or position of an object. But even if the concrete form of an object might lead to a similar cognitive concept in various cultures, this is not necessarily always the case. Problems in translation can arise when the metaphors are not identical between languages and translators are not aware of this possibility, for example:

<u>male</u> plug – Stecker<u>stift</u> <u>head</u> light – Schein<u>werfer</u> <u>female</u> mould – <u>Negativ</u>form cable <u>sleeve</u> – Kabel<u>muffe</u>.

Other examples are provided by Schmitt (1999: 238ff), for example, who mentions different legislation on production methods, varying measuring methods, the specific climate, semantic prototypes, e.g. a 'hammer' that actually has various concrete forms and thus names (*ball peen hammer – Schlosserhammer, cross peen hammer – Klauenhammer*). Of course this problem can often be solved with the help of a dictionary, but the translators need to be aware of the problem. They will have to be critical and possess the relevant knowledge in order to be able to select the right expressions.

The above examples present cultural differences in terminological concepts between the languages. In addition to this variation there is the basic difference of terminological conceptualisation in the sciences and in the humanities (Stolze 2003: 201) that will reflect in the texts. In the natural sciences terminology is based on exact definitions and includes methodical deduction. Every term has its place within a hierarchical system, but it is not always totally free of cultural differences in the concepts, as shown. In the humanities, on the other hand, there is academic convention and interpretation of concepts to be agreed among scholars. Whether 'translation', for instance, is defined as an inter-lingual transfer or a cultural manipulation or the representation of a message understood or a cognitive decision process, etc. depends on the respective academic 'school'. Recognition of the relevant terminology and its distinction from general language forms is important, in order to prevent naïve understanding of a specialist text.

## 2.2. Culture in the language form

Languages are the main expression of cultural differences developed in history. Terminology in nouns and adjectives combined with a few tenses are characteristics of the functional style of communication for specific purposes. But there are langue-specific forms of word compounding, to be recognised and applied in technical translation. English and German terms are mostly construed by a combination of several nouns, or of an adjective with a noun, in a similar sequence. On the contrary, in Romance languages the word compounding goes in the reverse order and is realised by particles. The following examples illustrate these issues:

G 1-2-3-4: Bremsstörungskontrolllampe

E 1-2-3-4: brake failure warning lamp

F 4-3-2-1: témoin détecteur d'incident de frein

I 4-3-2-1: lampada pilota di disturbo del freno

P 4-3-2-1: lâmpada de controle de folha de freio

In a geographical text, for example, we might have the term *undersea* basaltic volcanoes, and translate it according to the standard (Stolze 1999: 68) with *unterseeische Basaltvulkane*, as more than three parts are unusual, especially for popular texts. However, there are many other solutions possible idiomatically, but not technically:

- unterseeische basaltische Vulkane (adjective, no technical expression)
- unterseeische Vulkane aus Basalt/des Basalts (unnecessary explicitation)
- basaltische unterseeische Vulkane (focus reversed)
- basaltische Unterwasservulkane (unclear)
- Basaltvulkane unter dem Wasser (lack of precision)
- basaltische Vulkane unter Wasser (unclear)

- *Unterwasservulkane aus Basalt (*general language)
- unter Wasser liegende Vulkane aus Basalt (literary).

The German language allows one-word combinations as shown in the previous example, and this is generally applicable in translation. For example, the term *a change in the rate of exchange* might be translated with *Wechselkursänderung* instead of "Änderung des Wechselkurses", a literal version which is considered as too long, though being perfectly correct regarding the semantic content.

Sometimes the analysis of very long compounds requires special knowledge:

ein planfestgestellter Autobahnabschnitt is "a section of the motorway in planning for which the official approval of the plan has definitely been granted" (acc. to German law VwVfG), to be translated with a motorway section finally planned; similarly vertaktete Direktfahrten im Nahverkehr is a "system of public transportation where buses and trains are scheduled suitably to one another in order to prevent too long intervals of waiting for the passengers" (my explanation), maybe translatable by a mode of scheduled direct transport.

In the adjective-noun combinations one has to check whether this is a normal qualifying expression: long distance (Langstrecke), basaltic volcano (Basaltvulkan), textile product (Textilprodukt) or, rather, a qualifier: seasonal worker (worker for one relative Saisonarbeiter), textile industry (industry producing textiles Textilindustrie), presidential elections (election of the president -Präsidentschaftswahlen), etc. Due to the language economy the use of this linguistic concentration is developing fast in many European languages. Linguistic differences based on culture are not limited to the word level but also include syntactic structures.

## 2.3. Culture in the syntax

Syntactic forms concern the way in which the elements in a sentence are combined idiomatically. Whereas the languages in literature demonstrate a great variety of creative linguistic forms, technical communication uses a purposeful reduction of stylistic forms where the content-oriented nature of technical communication means that short assertive sentences, a linear theme-rheme organisation, and a dense syntactic compression are prevalent. However, there are differences between languages, beyond technical and scientific writing styles. The following examples illustrate how concise explicit expressions are realised in German by reducing several subordinate clauses into an attributive construction:

<u>Wenn</u> sich das Werkstück abkühlt, können Oberflächenspannungen entstehen > <u>Beim Abkühlen</u> des Werkstücks können ...

Die Welle wird durch das Stirnrad angetrieben, <u>das</u> auf der Achse <u>festsitzt</u>. > Die Welle wird durch <u>das auf der Achse festsitzende</u> Stirnrad angetrieben.

There are differences in indicating the direct relationship.

G: Wenn x gegeben, dann folgt y; - E: if x is given, y will result;

F: étant donné A nous <u>dirons</u> B (present vs future tense).

If the target language structure is different, the translator will have to apply shifts in order to enhance intelligibility. This also concerns the use of discourse markers which is different in the languages and where interference between two languages in translation may cause less idiomatic formulations (Olohan & Baker 2000: 142). Several hypotheses have been presented as to why and when translators resort to 'explicitation' showing implicit variations, and communicative preferences across languages are one of the factors to consider. Contrastive English-German discourse analyses, made by House, among others, suggest that German speakers and writers tend to present information syntactically in a more explicit manner than their English counterparts:

They tend to (overtly) encode or verbalize propositional content rather than leave it to be inferred from the context (House 2004: 187).

Therefore, according to House, a tendency to explicitate among English to German translators would simply be a reflection of German communicative preferences. We call these phenomena cultural aspects because they are inherent to the idiomatic usage of language, and this should not be omitted in technical communication.

Structural differences between languages are particularly visible in communicative situations which are functionally comparable, for instance regarding legal relations. Even if German expressions are more explicit to some extent, as shown, we can also note that the English language has a tendency to express detailed semantic variations with more words. It presents the feature of double phraseological forms that would correspond to single forms in German. Such forms concern both objects and actions, for example:

action or proceedings – Gerichtsverfahren administration & accounting – Geschäftsbuchhaltung conflict or inconsistency (in a contract text) – Widerspruch (im Text) costs, charges or expenses – Kosten custody & support – Sorgerecht executor & administrator of estate – Nachlassverwalter in force & effect – in Kraft to agree & warrant – vereinbaren to alter or modify – verändern to construe & interpret – auslegen (this agreement is) made & entered into between – (diese Vereinbarung) wird geschlossen zwischen.

The German language is more inclusive in its expressions here (but this does not mean that a lack of expression would be a lack of statement giving room for legal action). For translators it is important to note the linguistic difference which excludes a literal translation.

#### 2.4. Culture in the text structure

The culture-specific use of language is closely linked with the communicative situation, and frequently recurring situations lead to the creation of specific text types. A fixed structure of texts enhances intelligibility for the communication partners within their culture. Linguistic research has grouped text types in various text genres, both for literary (Werlich 1975: 71) and for specialist communication (Göpferich 1995). The text structure as a reflection of cultural norms is most clearly visible in texts which are totally standardised for their situation rooted in a culture, i.e. medical certificates, weather reports, tax declarations, school certificates and employment references, court sentences, bills, business letters, balance sheets, obituaries, menus, crossword puzzles, cooking recipes, tourist information, etc. Such texts are each time standardised within their cultural background, and a possible translation may either focus on a literal and formal re-presentation or on a target-specific transformation, depending on the purpose.

German CVs, for example, generally begin with birth and present the whole development of the person from schooling to studies up to work experience. In other countries the tradition is to focus on the present situation, adding information on the past.

Whereas *German testimonials* contain a detailed description of the employee's character and working method, American credentials are a simple certificate on the period and field of employment.

Court sentences in Germany show first the substance of the judgement in a sentence followed by a statement of facts and the presentation of the reasons for the decision, quasi as a justification of the sentence.

Court sentences in France begin with the statement of facts followed by the reasons for the decision based on a listing of relevant articles from the code, which finally leads to the substance of the sentence.

In *Italy the court sentences* begin with a presentation of the lawyer's conclusions, a description of the instruction proceedings, and the reasons for the decision, the whole ending in the substance of the judgment.

In *British or American court sentences* we find the accumulation of relative sentences as a typical feature of this text genre. Example: *The court finds that... and that...* - In German texts such long lists are unusual.

In *British court sentences* the motivation of the decision is often given by the judge in a personal style (Lashöfer 1992: 14/19) according to the common law system with independent judges, whereas this style in German decisions would not be considered adequate, since they have a general legal effectiveness based on the civil law.

Informative text types on a higher level – possibly with an international perspective –, such as user manuals, patent specifications, patient package inserts, scientific papers, monographs, court sentences, articles of law, sales contracts, among others, are based as a text type on a specific communicative situation, and in their content they focus on a specific technical object. And still there are traces of culture left in such texts which have not yet been standardised on an international level. Texts as language usage within a cultural situation are never a mere response to external conditions or technical objects but, rather, a result of individual language usage. Cultural aspects are mainly visible in the global text structure.

It is not always easy to distinguish between cultural text structures and characteristics of a text type. We note, however, that macrostructures of texts may be culturally different, even if the extra-lingual function as such is comparable.

There seem to be culturally different styles of writing but the importance of cultural styles in academic presentations is often underestimated by academics when presenting abroad. Everybody intuitively starts with one's own idea of structuring texts, and this may cause understanding problems. What usually goes down well in our home country may receive an entirely different reception elsewhere. Johan Galtung, Professor of Peace Studies with a focus on cultural stereotypes, was one of the first to document his differing experiences of holding lectures and appearing at international congresses. Galtung (1995) described a "Saxon, Teutonic, Gallic and Nippon" style of academic writing. These differences mainly concern the structural arrangement of argumentation - whether more linear in small pieces, or rather theoretical with some supposedly circular argument, or emphasising a good formulation, or giving much reference to masters thus obscuring novelty. This is relevant for translating such articles. It may even be necessary to rewrite an article in a 'shape' which is preferred in the target culture.

## 2.5. Culture in pragmatics

Pragmatics refers to senders and receivers of a text message and, therefore, is also part of the text itself. It is particularly in this respect that we find traces of the cultural background which is implicitly mentioned. There are different social procedures for organising social life, especially in law. This is reflected, for instance, in legal texts and personal documents:

In an original Italian certificate of marriage, issued in 2008, there may be found a sentence in the form of a footnote like: (1) indicare il rito civile, cattolico, ebraico, ecc. ("please indicate the marriage ceremony: civil, Catholic, Hebrew, etc.").

This tells us two cultural specificities: (a) in Italy the law permits marriage celebrations by religious communities, unlike Germany for instance (only civil) and to the U.S.A. (any official person), and (b) especially in the South (Naples, Messina) there have been living a lot of inhabitants with Hebrew faith.

Different legal structures too can have an impact on the text level. To the unwitting translator with insufficient background knowledge this may lead to an inadequate translation hardly comprehensible. Consider the following example from a business letter:

#### American source text:

As a supplier who has been with D. since it entered into Chapter 11 nearly two years ago, we wanted to share some very important news with you. D. has filed its proposed Plan of Reorganization and related Disclosure Statement with the U.S. Bankruptcy Court.

The Court will consider the Disclosure Statement at a hearing on October 3, 2007 and if the Disclosure Statement is approved at that hearing, then D. will seek confirmation of the Plan of Reorganization at a hearing before the U.S. Bankruptcy Court on or about November 19, 2007. If the Plan of Reorganization is confirmed at the hearing, then D. will seek to emerge from Chapter 11 by the end of the calendar year. (Letter informing customers on the state of evaluation.)

#### Translation (a):

Als Zulieferer, der bei D. war, seit diese vor knapp zwei Jahren in Kapitel 11 eintrat, wollen wir Ihnen einige sehr wichtige Informationen übermitteln. D. hat ihren vorgeschlagenen Umstrukturierungsplan und die zugehörige Offenbarungserklärung beim U.S. Bankruptcy Court eingereicht.

Das Gericht wird die Offenbarungserklärung bei einer Anhörung am 3. Oktober 2007 begutachten, und wenn diese dabei genehmigt wird, will D. versuchen, bei einer Anhörung vor dem U.S. Bankruptcy Court um den 19. November 2007 eine Bestätigung des Umstrukturierungsplans zu erreichen. Wird dieser bestätigt, wird D. versuchen, gegen Jahresende aus

Kapitel 11 hervorzugehen. (Translation difficulties with "to enter into Chapter 11/to emerge from it" and "file the Plan of Reorganization". The literal translation is hard to understand in a German context because overcoming bankruptcy is difficult here.)

#### Translation (b):

Ihnen als Zulieferer von D. seit der Zeit, als diese vor fast zwei Jahren ein Verfahren nach Kapitel 11 des Amerikanischen Konkursrechts (Bankruptcy Code) eingeleitet hat, möchten wir einige sehr wichtige Informationen mitteilen. D. hat ihren vorgeschlagenen Reorganisierungsplan und die Offenbarungserklärung beim US-amerikanischen Konkursgericht eingereicht. Das Konkursgericht wird in einem Termin am 3. Oktober 2007 die Offenbarungserklärung prüfen, und wenn diese in dem Anhörungstermin genehmigt wird, wird D. die Bestätigung des Reorganisierungsplans bei einer Anhörung vor dem US-Konkursgericht am den 19. November 2007 beantragen. oder um Reorganisierungsplan dann bei diesem Termin bestätigt, will D. versuchen, bis zum Ende des Kalenderjahres aus dem Verfahren nach Kapitel 11 heraus zu kommen. (This translation tries to explain the implicit cultural/legal difference and thus make the message transparent. Instead of a merely literal translation it adds explanation: in Kapitel 11 eintrat > ein Verfahren nach Kapitel 11 des amerikanischen Konkursrechts eingeleitet hat.)

Cultural differences include varying ideas of politeness, stereotypes of foreign people, and special images of a society in another area. Such features tend to reflect on the text level and any literal translation will sound strange in the target culture. Below we have a German publicity text for a set of knives which seems to be a literal translation from an American text. In that culture publicity and underlining one's capacity, rather than being unassuming, is a social value. This is visible in the text with its collection of superlatives and attributive constructions in the description of the knives for sale. For German readers this sounds very strange, and this translation will certainly not fulfil its publicity purpose. Example:

## Text, obviously translated:

Die Jagdmessersammlung schlechthin!

Zwölf neue Messer aus feinem Stahl. Aufwendig vergoldet und versilbert mit Messing, Zinn und Hirsch und Büffelhorn verziert. – Die erste Sammlung, die von der NATIONAL FISH AND WILDLIFE FOUNDATION autorisiert wurde.

Mit aus Stahl gearbeiteten Klingen, die auf Hochglanz poliert wurden. Die Griffe sind in einer Vielzahl verschiedener Materialien von Hand gefertigt. In jede Klinge ist ein Design eingraviert, das den Griff auf faszinierende Weise ergänzt. Die Sammlung umfaßt sowohl feststehende Messer als auch Klappmesser. Jede Klinge und jeder Griff wird in einem anderen Stil gefertigt. Ein Muß für Naturmenschen und Sammler. Ob skulptiert oder

geschnitzt, jeder Entwurf hebt die Schönheit eines jeden Messers einzigartig hervor. – [ADAC motorwelt, 2/1993].

#### Back translation:

The absolute collection of hunting knives!

Twelve new knives in fine steel. Lavishly gold- and silver-plated and decorated with brass, tin, staghorn and buffalo horn. –

The first collection authorized by NFWF.

With blades worked in steel given a high polish. The handles are handmade in a variety of different materials. A design is engraved in every blade fascinatingly complementing the handle. The collection includes both fixed knives and jack-knives. Each blade and each handle is manufactured in a different style. A must-have for nature boys and collectors. Whether sculpted or carved, each model uniquely emphasizes the beauty of every single knife. (my translation)

Chesterman (1994) refers us to "quantitative aspects of translation quality", as the expectations of readers not only focus on the communicative adequacy of a text regarding cultural features, but also on idiomatic characteristics, such as the relative frequency of certain parts of speech. Chesterman (1994: 154) mentions stative verbs, the length of sentences, and cohesion devices, but superlatives are also relevant. A more idiomatic German translation could try to reduce the exaggerated English adjectives and participles (verziert, gefertigt, apply faszinierend, einzigartig) instead word and (handgearbeitet, hochglanzpoliert) as a modern language signal in technical communication. A publicity text will require a new redaction instead of a translation.

#### New translation:

Jagdmesser als Sammlerstücke!

Jetzt gibt es zwölf neue Messer aus verziertem Edelstahl mit Horngriffen. Die erste Sammlung mit Autorisierung der Umweltorganisation WWF. Jedes einzelne der festen oder Klappmesser ist anders gestaltet. Alle hochglanzpolierten Stahlklingen mit Spezialvergoldung tragen eine schöne Gravur passend zum handgearbeiteten Griff. - Ein Muss für alle Naturfreunde und Sammler!

## Heuristic back translation

Hunting knives as collector's items!

Now there are twelve new knives in decorated high-grade steel with handles in horn - the first collection authorized by the environment organization WWF. Every single piece of the fixed and jack-knives has a different shape. All polished steel blades with special gold-plating carry a beautiful engraving that matches the handmade handle. — A must for all nature lovers and collectors!

Intercultural differences may also cause problems in business relations when correspondence texts contain hidden information. Whereas Americans and Europeans follow the norms of clear, direct expression, there are other cultures favouring indirect expression in order not to be impolite or offend their partners, even if they communicate in the English language (Hall 1976: 98). The example below shows the attempt to hide uneasy messages, e.g. a reluctance to pay or the failure to reach sales goals, within unclear grammatical forms. In this case a translation should be very precise, even giving special comments, in order to enable decisions on the side of the contract partner.

### Business letter (ca. 1998):

(...) I think if we had succeeded to sell in U. R. team, we also easy to introduce your items to the other team, so we need your 100% help to first order of U. R. products.

I heard about K. soccer shop want to buy some product from you. I think they want to buy some European Soccer teams products. Is it correct? In case, we have no problem to sell directly from you, but if they want to make original design products, it's become problem to our relationship in future business.

Please consider our market is very closed and small market for such items. I will try to my best effort to sell your products in this market, so please continue to support to our company. (The point is that a potential licensee fears not to attain the proposed sales volume. He hints some competitive business, and he wants to receive more free samples. The German partner company does not like this, fearing pirate copies. The international aggressive pushing of products still seemed to be unknown on this side.)

Scientific language is also a group language, a sociolect. Pragmatic aspects of user preferences have to be observed in translation. Communication in certain discourse fields using a special sociolect, e.g. in groups such as teenagers, a political party, unions, churches, management with corporate identity, and others, is visible in their texts. Politically correct expressions for certain groups is recognised in Germany in inclusive language: *StudentInnen, ErzieherInnen* (students, teachers).

The translator will need to have a clear knowledge of the cultural specificities and explain them in the translation. There are various possibilities for compensating cultural incongruence between texts: explication, paraphrasing, adaptation, and modification (Stolze 1999: 225f).

Cultural keywords and certain colours trigger specific associations. Translators will need to know such aspects, in order to prevent misunderstanding or unintended comic. Values of a society are almost always different from one another, and this again will have traces in texts.

Religious and other metaphors will in a literal translation not always create the same cognitive ideas as in the original text.

All of these traces of the culture in a text may cause comprehension problems for a translator unacquainted with these unique features. At a first glance, the respective indications might seem wrong, unusual, or inadequate for the target readers. A transparent translation is needed that can give presence to the new text and make intelligible the cultural differences which nonetheless are implicit in the message. The translator will have a specific outlook to the texts presented for translation.

## 3. The translator's approach

We have discussed various aspects of cultural diversity as they appear in texts. Every text as an individual entity is different, and the translator needs a relevant factual and procedural knowledge base in order to recognise its characteristics. As any translator will only represent what he or she has understood from the text beforehand, translation as a dynamic process is a hermeneutical problem. The translator as a person (and not a machine) needs points of orientation to become sensitive for the content of a text, and at the same time to activate the given knowledge base. When he or she becomes aware of a lack of technical knowledge, one will start research activities, analyse parallel texts, ask specialists, or search the Internet. But the awareness must first be created.

Just like finding one's way in unknown territory, the translator will use a cognitive map for guidance. One will observe some points of orientation, going from macroscopic to microscopic. Any linguistic feature has an intrinsic relationship to the whole of a text, and within a different proposition it may have a different meaning. Hence the mere description of linguistic forms indicating cultural aspects, such as standard formulae, specific word compounds, strange propositions, unusual expressions, is not sufficient. Analysis does not lead to comprehension. We have, rather, to determine the 'right culture' which is relevant as the cognitive environment for the text and determines the value of individual structural elements. One will first try to grasp the text's message as a whole, and only later analyse details with reference to the text's embedding.

The orientation in such a holistic approach to texts may be assisted by some 'categories of attention' which are presented in the following table (Stolze 2003):

Translator's reading		Specialist communication
Understanding	CULTURAL CONTEXT	Epoch of text, sphere of sciences or humanities with state of development
	DISCOURSE FIELD	Special domain and discipline, level of communication (expert/laymen), text type
	CONCEPTUAL WORLD	Terminological conceptualisation (definition vs. convention), sector of special discipline
	PREDICATIVE MODE	Sort of information presentation, speech acts, sentence structure, formulaic language, use of footnotes
Translation writing		Language for specific purposes
Formulating	MEDIUM	Form of publication, layout, illustration, space available, structural markers, script fonts
	STYLISTICS	Functional style, phraseology, standard text blocks, passive voice, directives, controlled language
	COHERENCE	Equivalence of scientific terminology, specification of scholarly concepts, technical word compounding
	FUNCTION	Macrostructure, parallel text types, addressees' expectation, intelligibility

Based on the hermeneutic philosophy of language, the translator's holistic approach to texts is discussed there. The idea is that translators begin their work with a global view of the text to be translated, rather than with a text analysis focusing on syntactic structures which appear difficult to translate. The translator's approach in practice is reversed from the sequential text processing to a vertical treatment of the text as a whole. The global approach is applied similarly in dealing with literary and with technical texts, and the above categories for specialist communication are in a somewhat different manner also valid for the translation of literature (Stolze 2003: 244) where the knowledge base is more general and language allows more creative solutions. Establishing the right cultural context from the beginning will enable a better understanding of the individual features in a text. The various categories of attention for reading and writing in translation are like a cognitive map and have proved to be relevant for the process of translating.

## 3.1. Understanding the original

Faced with the task of translating one will first check the CULTURAL CONTEXT about the epoch of a text, i.e. the relevant sphere of sciences or humanities with their state of development. This is extra-textual information which needs to be collected in order to position the text adequately. An older technical text will require different knowledge regarding terminology, compared with a report on the most recent scientific developments in a field.

This cultural context then includes the relevant DISCOURSE FIELD, e.g. the special domain and the level of communication. Is it a scientific text for experts in the field, or rather an expert-lay message like in user manuals?

Which text type is valid? This information is construed with a view on the author and the place of publication of the text which also determines the special domain. The translator will then be able to establish whether s/he is capable of translating that text, or whether further research is needed, and this even before actually going into much detail. Positioning the text in a certain discourse field will raise the awareness for any terminological differences, either in the concepts or in the form.

The understanding of technical texts is then guided by the terminology found on the text level. The CONCEPTUAL WORLD of the sector of a special discipline is relevant. The varying terminological conceptualisation with definitions in technology compared with conventions in the humanities both with their cultural qualities are issues for the translation.

Finally the translator will focus on the PREDICATIVE MODE found in the text, i.e. the form of the information presentation, the speech acts, the sentence structure, formulaic language, use of footnotes, etc. All of these mainly syntactic aspects will give additional information for the understanding of the text as a text type. Then we can also translate it.

## 3.2. Writing the translation

In formulating the translation we will first observe the MEDIUM. The required target language layout, form of illustrations, the space available, the style of structural markers and even script fonts may be culturally different and are relevant for translation.

Translation is considerably governed by STYLISTICS. The adequate functional style, the phraseology, standard text blocks to be used, any passive voice required, the form of directives, and controlled language may be relevant in the given translation. Cultural variation to this respect shall be considered, also regarding a sociolect. A translation for a specific target discourse field would have to observe this fact and introduce it into the translation text.

One point of adequate translation is the COHERENCE of the target text. This can be obtained by checking the equivalence of the target scientific terminology and the specification of scholarly concepts, not to forget about the language-specific technical word compounding. There will always be used the target norms, independent from the forms in the source text.

As a final step, focusing on the FUNCTION of the translation, one will lift the look from the sentence level to the text's macrostructure including parallel text types. One will think of the addressees' expectation and of the law of intelligibility. A text for lay people poses other challenges than one for experts, even if the translator himself is no expert in that field.

It is clear that cultural elements are an issue for technical translation, but their handling is governed by the global text function. The goal of translation is precision in making transparent the foreign cultural ideas, however in a functionally adequate and idiomatic formulation. This goes beyond the surface level observation of "covert vs. overt translations" (House 1997: 29).

## 3.3. Handling cultural elements in texts

As points of orientation for the translator these global "categories of attention" do not form a sequence but are all valid simultaneously, however not to the same extent. Every text is different and no general procedure is yet available from the point of view of an inter-linguistic transfer. These categories may nonetheless make the translator sensitive to the important aspects in a text to be translated.

Regarding culture in terminological concepts, an additional explanation or the correct target term is needed; regarding the linguistic form of terms, the target norm shall always be applied. Cultural features in the syntax will be changed into target idioms, so as not to affect technical communication.

As regards culture in the text structure, we have to decide whether or not a specific source-cultural standard text will be replaced by a target-culture standard text type. A substitution of text types seems adequate for instruction manuals or publicity texts, where the social functionality is predominant. In document translation (certificates, contracts, testimonials, business correspondence, etc.), on the other hand, a formal preservation is required. Those texts with informative function have their validity as an original, and the translation is only a secondary text to help understanding 'what the text is saying'.

In view of culture in pragmatics, a transparent translation offering explanations of the foreign features seems adequate, because here a modification would be equivalent to a change of the text message, and endanger the flow of information in technical communication. The point in translation is not to detect any strange elements in a text and to define them as cultural aspects, but to see and interpret that text against its cultural background right from the beginning, and thus understand any cultural traces in their right meaning. This might even happen unconsciously, when the translator follows the said categories of attention.

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# **Biography**

Dr. Radegundis Stolze holds a Diplom-Übersetzerin and is a qualified translator, working with German, English, French and Italian. An independent sworn translator, she also holds an M.A. and a Dr. Phil. from Heidelberg. She is a Lecturer at the University of Technology, Darmstadt, She has published widely in the field of TS and has been a board member of the European Society for Translation Studies for over fifteen years. Her scholarly interests are: theory of translation, hermeneutics, legal translation, translation for specific purposes, bible translation into German.



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