Ekaterina Pantileienko,

lecturer at Philology department of DSAEU

TECHNICAL TRANSLATION OR RESEARCH IN LANGUAGE FOR SPECIFIC PURPOSES (LSP)

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 [5, p.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.

Analysis of the latest researches. 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 [4, p.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.

Cultural elements in the 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 [3, p. 36].

Presentations of the main material. 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" [3, p.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 [2, p.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. 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.

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" [2, p.154].

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 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 environmentfriendly 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.

Other examples are provided by Schmitt, 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 [2, p.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.

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.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.

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 [1, p.71] and for specialist communication. 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. 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.

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 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.

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, etc. ("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 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. Chesterman 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 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 and apply instead word compounds (handgearbeitet, hochglanzpoliert) as a modern language signal in technical communication. A publicity text will require a new redaction instead of a translation.

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 [3, p.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.

Results and conclusions. 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.

References:

1. Chesterman A. (1994) Quantitative Aspects of Translation Quality. Lebende Sprachen 4/1994, pp. 153–156. (in English)

2. Goodenough W. (1964) Cultural anthropology and linguistics. Language in Culture and Society. A Reader in Linguistics and Anthropology. New York: Harper Row, pp. 36–40. (in English)

3. Hall Edward T. (1976) Beyond Culture. Garden City. NJ: Doubleday. (in English)

4. Olohan M., Baker M. (2000) Reporting that in translated English: Evidence for Subconscious Processes of Explicitation Across Languages and Cultures 1 [2], pp.141–158. (in English)

5. Wilss W. (1996) Knowledge and Skills in Translator Behaviour. Amsterdam/Philadelphia: John Benjamins.703 p. (in English)