

Scientific translation is the translation of scientific texts, thus a special knowledge will be required. These texts require a deep knowledge of both the source and target languages, as well as a proper understanding of the subject. Scientific translators are often trained linguists that specialize in fields such as medicine, biology or chemistry. Sometimes they are scientists that have developed a high degree of linguistic knowledge, which they apply to the translation of texts in their field of expertise. Collaboration between linguists and subject specialists is really common in this case. In this article, we will explain you some of the best scientific translation techniques.

Features of scientific translation

Be clear and concise

Clarity and concision are the main stylistic goals of scientific translation, which must convey the exact meaning of the original text. Ambiguities and unclear constructions are characteristics of the literary texts and must not be found anywhere in scientific translation. This is the hardest task in scientific translation. Finding the right words can be a struggle sometimes and it can also create repetitiveness in the text, as synonyms of certain words can be rather ambiguous and more suitable for literary work. Avoiding repetitions can sometimes be extremely hard. This is why the translator must have a scientific background that allows her or him to play with the terminology without changing the meaning of the text.

Keep an eye on the mistakes in the original text

What is also really common among scientific translators is their ability to correct the small mistakes in the original text, as they will be the persons that will read the document most attentively. Common mistakes in scientific work include: inconsistencies between numbers listed in tables, accompanying diagrams showing something else than they should or tables referred to by non-obvious symbols. In this case the translator is advised to correct such mistakes in brackets or footnotes.

Play with structure and meaning

If the syntactic and lexical features of the language differ, it is sometimes necessary to completely recast certain sentences. For instance, highly inflected languages such as Russian and German can string together long chain of independent and dependent clauses with many referents and antecedents and still keeping the whole meaning clear. On the other hand, this would be impossible in English for example. In this case, the translator will have some work to do in terms of structure and meaning. This is one of those times when keeping the sense of

a sentence intact can be a real challenge. [One of the best techniques to use in these cases is paraphrasing](#), namely a restatement of the meaning of a text or passage using other words.

Be an avid reader

In order to create a flawless scientific translation, the translator must be as informed as possible. Reading the latest books and academic journals helps you improve your translation skills. Firstly, you get used to the terminology and with the style of this type of work. Secondly, you will be up to date with the latest scientific researches and discoveries, which helps you understand more easily the concepts that you are supposed to translate. You can even create a blog about scientific translation, scientific researches and events. You can write articles or take existing articles and then translate them in the other languages that you know in order to gain more experience (remember to ask permission in order to avoid copyright infringements). This is a good idea particularly for beginners that want to specialize in scientific translation. Remember that the more you specialize in niches and sub-niches the easier it will be to research, write and become an expert.

Pay attention to numbers and symbols

In science you will come across a lot of numbers, formulas, diagrams and symbols, which must not be ignored in the process of translation. The sense of a whole page or even chapter can be altered if the translator adds the wrong number or symbol. To avoid this, he must understand very well the topic. Afterwards, he must pay a lot of attention to all the little things. This requires patience and analytical skills, qualities that are indispensable for a scientific translator.

Always proofread your translation

At the end of your translation, you should always proofread the texts yourself first and then ask a second translator to proofread your work as well. Ideally, ask other translators who have experience in the field. This way, all the mistakes that you did not notice will be corrected. In case some concepts from the original text are really unclear to you, you can communicate this to the author (if possible) or with the client. It is always better to ask for clarifications, than leaving your work unclear.

Adapt your style to the type of document

In science, you will come across different types of documents that require different degrees of formality. If you are translating academic work, you will need to find a very elevated style with complex phrases and less common words. On the other hand, if we are talking about manuals or drug instructions, the translation must be less formal. This type of documents is

going to be read by normal people or beginners in the field of science. This is why the language must be more accessible and easy to understand.

In conclusion, scientific translation is always a challenge. The translator must keep up with the constant changes in this field. She must be a scientist or she must read a lot and get as much information about the topics that he is going to translate. The style of a scientific translator must be very clear and concise. The level of formality differs according to the type of documents he has to deal with.

strategies of scientific translation

There are many translation strategies used for rendering of scientific texts. For example, Faber, Hjort-Pedersen and Klinge (1996/1997, cited in K  os et al. 2007:87) distinguish two divergent approaches. The first one is a target language orientation which aims at producing a translation specifically orientated towards the target audience and based on the reuse and borrowing of the linguistic material from already existent parallel documents. The target text has therefore little in common with the original text. The second strategy leans towards a source language orientation which seeks to translate the text orienting it at the source language community by reproducing and using the semantic and linguistic features of the source text in order to increase its resemblance with this text. The latter strategy appears to be very popular in scientific translation, in particular, of the texts related to medicine, biology, biotechnology (K  os et al. 2007:88) and chemistry. It thus seems that in the situation when the terms lack equivalents in the target language, one of the translation strategies ensuring accurate and precise translation entails the use of "borrowings". Haugen (1950:212) defines a borrowing as an attempt at reproduction of certain patterns found in one language and its application to another language.