Features, Skills and Practice of EST Translation

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Abstract: Economic globalization has highlighted the importance of English. EST (English for Science and Technology) translation has become an independent discipline, which has a very important significance and role in scientific progress and social development. To truly master the essence of its translation, it is essential for one not only to have a solid knowledge of English language, but also to be familiar with English professional knowledge. In EST translation, certain principles and skills must be followed. In this paper, the author first analyzes the characteristics of EST, and then puts forward the points needing attention in EST translation.

1. Introduction

With the acceleration of globalization, academic exchange in science and technology between countries is increasingly frequent, we need to absorb advanced science and technology of foreign countries, and introduce foreign literature on science and technology. Along with our country’s prosperity and strength at the same time, we also need to introduce our country’s advanced technology and culture to the world. Therefore, as a tool to understand the status quo of scientific and technological development in various countries, EST has profoundly changed people's daily life. EST translation has attracted more and more attention from translation researchers. A deep understanding of the characteristics of EST is of great significance to further explore the translation skills.

2. Stylistic Features of EST

EST not only covers the content of science and technology in the field of natural science, such as chemical industry, machinery, medicine, computer, etc., but also social science in the field of humanities and social science such as philosophy, political science, economics, law, history, etc., of course, the technology and academic contents belonging to in the field of natural science, is always the theme of scientific English part. Stylistic features of EST gives priority to argumentation and exposition, which are objective, exact, clear, rigorous and concise, and never pursue literarily flowery rhetoric, meanwhile rarely containing the unique characteristics of the British and American national cultural traditions, often with direct, clear, seriousness and witty humor.

3. Lexical Features of EST

There is a vast vocabulary in Scientific English, and its language structure and daily English is different. Professional vocabulary has a low occurrence rate and single-purpose meaning. Many words come from Latin and Greek, and abbreviations are widely used. The frequency of prefixes and suffixes is also high. The first kind of technical words in EST is usually compound words, such as current-carrying, output drive current, phase-locked loop, X-component; gravitational attraction; the second kind of words are composed of prefix, suffix and roots, such as semiconductor, transship; The third category is contractions, such as smog=smoke+fog, maglev=magnetic levitation, etc. The fourth category is acronym, such as AC (alternative current) , DC (direct current) , etc. Of course, there are various ways of forming EST words, while there are other ways as well, including Coinage, Functional Shift, Borrowing, Clipping, Back-formation, etc.
4. Syntactic Features of EST

Compared with everyday English, syntax of EST is quite different, which is mainly reflected in the extensive use of long sentences, nominalized structure, passive voice, unrestricted verbs, postpositive attributive, conditional sentences, part-of-speech conversion and so on.

4.1 The extensive use of long sentences makes EST formal and rigorous.

Although the sentence is relatively long, it has a clear structure and no ambiguity, so it is not difficult to understand. When translating such a long and difficult sentence, it is necessary to clarify the internal logical relationship of the sentence and divide it into several simple sentences, whose translations should be in line with Chinese customs and logic, and whose meaning can be translated layer by layer, as long as the context of the original text is grasped. For example: The equivalent resistance of a set of inter-connected resistors is the value of the single resistor that can be substituted for the entire set without affecting the current that flows in the rest of any circuit of which it is a part. In this sentence, “of which” is used to modify the predicative “a part” in the clause; “it” in the clause refers to “the set”.

4.2 Passive voice is widely used

EST articles mainly present objective facts, and make scientific inference according to the facts, its language must reflect the objectivity and universality, avoiding using the vocabulary of emotional color, and the passive expression as the research object, usually preferring to use a lot of sentences with objective things, research object as the subject of the sentence (i.e., using the objective things as the main body of impersonal sentence). Using the active sentence pattern with the first and second person or agency as the subject should be avoidable (namely, the personal sentence using people as the main body of the description), in order to avoid the subjective impression caused by the excessive use of such personal sentences. For Example 1: This force can be resolved into two components, one of them vertical and the other horizontal; example 2: Attention must be paid to the working temperature of the machine. Example 3 (rarely expressed in this way): You should pay attention to the working temperature of the machine.

4.3 Frequent Use of Nominalized Structures

EST articles are required to be concise and objective. The nominalized structure is characterized by compact structure, concise language and rich information content. Its extensive use can also avoid the use of personal subjects, making the article more objective and shorten the length of sentences. Therefore, it is not appropriate to apply the English model in its translation into Chinese. Instead, it needs to be flexibly translated according to the customary expression of Chinese, and otherwise the sentence will be very stiff. For example, Aerospace Applications of artificial intelligence annual conference.

4.4 Wide Use of Postpositive Attributives

Another major feature of EST articles is the word order of attributive and adverbial. There are a large number of postpositions of English attributive, and the postposition structure includes prepositional phrase, adjective phrase, participle phrase, adverb and attributive clause, etc. However, modifiers in Chinese are always placed in front of the modified noun or dealt with in other ways, which is mainly because EST articles emphasize simplicity and rigor. In complex sentences, the use of postpositive attributives is conducive to making the sentence structure clear and easy for readers to read. Attention should be paid to this phenomenon in translation. For example: This parameter is the virtual moment of inertia coefficient (This parameter is the effective moment of inertia coefficient of inertia coefficient for rear attributive).

4.5 Universality of Non-finite Verbs

Due to the concise features of EST articles, participle phrases and independent participle structures are often used to express time, condition and cause and effect. Infinitive phrases replace multiple clauses, and prepositional gerund phrases replace attributive clauses or adverbial clauses,
which is characterized by the fact that the non-finite verb structure can shorten sentences while maintaining the integrity and normality of sentences. In Chinese, there is no non-finite verb structure similar to that in English, and the translation of such structure can be handled according to concrete situations, either translated as the verb-object structure in Chinese or as a translation of another sentence. For example: Given current and resistance, we can find out voltage.

4.6 Use of Tenses

EST tends to use the past tense and the present tense, and the latter is used more frequently. The present tense is used to express theorems, formulas and phenomena without time constraints. In everyday English, the past tense is used only to express the things that had happened in the past, while in scientific English, the past tense can often be used to express different chronological order. In case of different time order, the Chinese translation should add appropriate adverbial of time.

4.7 Wise Use of Ellipsis Structure

For EST, clarity and conciseness are the most basic requirements, so it is necessary to shorten the sentence as possible as the translator can, to avoid unnecessary repetition. In the premise of not affecting the accurate and clear expression of technical content, the unnecessary words should be omitted. Ellipsis structure mainly includes the ellipsis of juxtaposition sentence, compound sentence, adverbial clause, attributive clause and soon. For example: The first program would require a minimum of 108 weeks, (while) The second (program would require) only 72 weeks. Example 2: T will represent temperature alone in this book unless (it is) otherwise stated. (In a conditional adverbial clause, the pronoun subject referring to the same subject in the main sentence and its auxiliary verb of its passive voice that are omitted).

5. The smooth transmission of scientific and technological information and build a bridge for its transmission between different countries.

From the above characteristics, it is not difficult to see that EST translation cannot be conducted blindly. It is necessary to follow the principles of accuracy, standardization, simplicity and conciseness, and master the skills of translation, so as to ensure the smooth transmission of scientific and technological information and build a bridge for its transmission between different countries.

Common skills for EST translation are as follows.

Expand nominal phrases into Chinese sentences; translate nominal phrases into verb-object structures; change the attributive components into independent sentences and adverbial clauses, etc.; turn passive voice into active voice; add the necessary words. Among the above five methods, the first two methods are relatively common in EST translation, and the latter three methods are applicable to both daily English translation and EST translation. The translators should especially pay attention to the translation strategies in the four aspects of professional vocabulary, voice, sentence and discourse.

In EST translation, the most commonly used method is to translate according to the internal logical relations of long and difficult sentences or the chronological sequence of a series of actions. This method is basically consistent with Chinese customs, that is, to translate according to the sentence order of the original text. Many sentences in EST have the structure of parallel sentences, complex sentences and simple sentences comprehensively. Therefore, in their translations, we should not only conduct the translation in the order of Chinese or adopt the method of inverse translation, but flexibly use a variety of translation methods according to the logical structure of the sentence to make the translation smooth with clear semantic expression, so as not to cause misunderstanding to readers.

EST translation should faithfully and smoothly reflect the original text, so as to ensure that the information conveyed by the translation is consistent with that conveyed by the original. Professional English translation involves the contents in various professional fields, and translators are not allowed to freely express in translation, and should accurately select words, clearly express
concepts, and correctly refer to objects and names. Compared with the form of language expression, SCT translation pays more attention to the faithfulness and accuracy of the content, so as to achieve the purpose of being practical.

There is a great difference between English and Chinese, so we must pay attention to the integrity of the discourse. In the translation of scientific and technological literature, it is often encountered that the trademark, brand name, model and other specific meanings of the characters, generally do not need to be translated, only need to transcribe the original characters. When encountering conventional words, we should follow the inherent translation methods, such as direct translation, inverse translation, comprehensive translation and even fixed sentence patterns. We should not create new words at will. In addition, in the process of translation, when there is a contradiction between the expression form of the translation and the ideological content of the original text, the literal translation method should be abandoned and the free translation method should be adopted. The method of free translation can avoid the limitation of the original form and only pay attention to the idea of the original text, so as to improve the accuracy of the translation.

6. Conclusion

To sum up, EST belongs to the category of professional English, which is characterized by many professional terms and a large number of long and difficult sentences. The translator should have a good understanding of the basic forms of English technical words, and then according to the syntactic characteristics of EST, make a careful analysis of the contents of the article, sorting out time and logical sequence and analyzing the structure and composition of the sentence, and finally choose the suitable method to finish the practical and proper translation, to contribute to the spread of scientific and technological achievements.

References


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