

Translation Strategies of Scientific and Technological Words From the Translation of “Meta”*

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The translation of S & T neologisms plays an important role in scientific and technological spreading and development. This paper analyzes the translation of the word “meta” from the perspective of Chinese cultural origin, and makes detailed explanations of translation strategies for scientific neologisms.

Keywords: S & T translation, meta

Introduction

The research significance of translation lies in how to narrow the equivalence difference between languages. Translators have the obligation to convey the intention from one culture to another, as well as respect both linguistic habits. Compared with common words, one important characteristic of scientific words is their higher frequency of subsequent use in both academic and general field. That is to say, S&T neologisms should not be annotated all the time they are used.

The special usage of scientific words makes the translation more complicated. Previously, other authors have mentioned some about the translation of neologisms. Li (2021) mainly focuses on the translation standard and strategies through a large amount of example listing. In the analysis of Wang(2018), people add original cognition to new things and form new words generated through metaphor. However, there's little argument on specific word translation, which can be seen as a translation example to future word choices. The analysis below will mainly focus on the translation of “meta”, inspired by the exchange of the company' name from “Facebook” to “Meta”. Besides, the basic translation principles of most neologisms can be categorized into two dimensions: respecting the linguistic features of the target language and keeping the features of the source language. Only through the combination of these two points can translators respect both cultures properly.

The Translation of the Word “Meta”

The word “meta” comes from the Greek word “metaphysika”, which originally refers to the study of

*This research was funded by 2021 Undergraduate Innovation and Entrepreneurship Training Program (No. XJ2021294, XJ2021284) and First-Class Curriculum Construction Program of USST “English Interpreting Ability Training” (YLKC202204) and The Eleventh China Foreign Language Education Fund Project “On the blended teaching model of interpretation course with the synergistic development of interpretation ability and critical thinking ability” (ZGWYJYJJ11A071).

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physical and natural phenomena in order to explore their origins. Later, it was mistaken by Latin scholars as metaphysics, a kind of science beyond physics, and became a vigorous root widely used in the field of science and technology. “Meta” means “beyond” and “after”, which is translated as “元” in Chinese (Yang, 2022). The original concept of “metaverse” originated from the concept of “metaverse” and ‘avatar’ mentioned in the science fiction *Avalanche* in 1992. People can have their avatars in metaverse.

The Translation of “Metaverse”

There are three reasons for this version of translation: First, *Kangxi Dictionary* describes the interpretation of “元” in *Posthumous Law* as: “行义悦民，始建国都，主义行德，并曰元”. That is, the character “元” can represent a new social relationship, seen as the beginning of a new social contract. Metaverse is a new digital virtual space created by human digital technology, which is based on the basic relationship between human and natural universe. Second, “元” used as an adjective has the meaning of “big”, “constitute the whole”. *The History of the Han Dynasty* recorded: “夫基事之元命，必与天下自新”. In the concept of metaverse, its original intention comes from virtual reality, whose operating laws are innovated based on the laws of nature in reality. An infinite, integrated virtual space which is parallel to our own world but has its own independent operating rules can be created to meet human needs. Third, the character “元” has the meaning of “beginning” and “root” (Xiao, 2015). To quote *Gongyang’s Commentary on the Spring and Autumn Annals*, “元年者何？君之始年也”. *Lament for a Monk* by the Tang poet Qingshang says: “水流元在海，月落不离天”. The concept of the “metaverse” was the inspiration and creative base for many subsequent extended products, which spawned new kinds of gaming types and various changes to real lives. For example, sandbox game is a simulation and extension of reality, which can be regarded as the conceptual realization of the metaverse. The sense of immersion and presence in the virtual world makes traditional life-style be simulated in the virtual space, bringing new possibilities for people’s consumption life (Fang & Tian, 2022). All these exchange of life styles thank to the concept of metaverse, matching the general cognition of “元”.

The word “metaverse” was not originally translated as “元宇宙” though. One original translation of metaverse was “元界”, but it was not widely used. The Chinese character “界” means “world”, and both “world” and “universe” can be translated as “界” in Chinese. But “界” itself has the meaning of “border”. In *Mencius*, it says, “域民不以封疆之界” (Wang, 2017, p. 199). Virtual reality creates a digital world that is borderless. That is, as long as humans dare to imagine, the virtual world can be infinitely enlarged, drawing up new and even beyond the operation of the physical principles of the earth. Metaverse has no boundary. If it is translated as “元界”, although it makes sense in literal translation, the meaning of “boundary” is doomed to fail to reflect the uniqueness and bright future of the metaverse.

The Translation of “Metahuman”

However, the word “metahuman”, also prefixed with “meta”, is not translated as “元人”. In February 2021, Unreal Engine (UE) announced a new graphic creation tool named MetaHuman Creator, which focuses on the creation of virtual human images. It allows everyone to create photo-level digital human images in a few minutes. This technology is based on artificially created, highly realistic images that interact in realistic situations in a way that humans can. However, “meta” in the word “metahuman” focuses more on the fact that technology surpasses the “virtual” itself. It can achieve the goal that “virtual human” can also realize the interactive actions completed by “real human”. Under the premise of this concept, the meaning of “元” is not enough to express its characteristics. Moreover, “元人” can also refer to the people of the Yuan Dynasty in

ancient China. It can be easy to be confused about what it refers to, which is not conducive to the differentiation in the future. Therefore, the word “metahuman” can better be translated as “数字人” or “超人类”.

Translation Strategies for Scientific Neologisms

The following view is inspired by “Functional Equivalence Theory” put forward by Eugene A. Nida. In his book *The Theory and Practice of Translation* published in 1969, Nida gave a clear definition of “dynamic equivalence”: Dynamic equivalence is therefore to be defined in terms of the degree to which the receptors of the message in the receptor language respond to it in substantially the same manner as the receptors in the source language (Zhao, 2011). In the field of neologism translation of science and technology, this theory mainly means to retain the meaning of the original words and adapt to the target language and culture. Take the Chinese translation of foreign scientific and technological words as an example. On the one hand, the translation of terms should conform to China’s cultural and aesthetic cognition; on the other hand, the original scientific and technological characteristics should be preserved as much as possible.

For the most of scientific and technology terms, both target language and source language need careful consideration. Nida points out that translating important information of the original text should focus more on the reader’s reaction. That is, the closer the reader’s response to the translation is to the original meaning, the more successful the translation is (Lang, 2020). For many other words, cultural differences need to be dealt with on the basis of the author’s original text in order to express the author’s feelings. However, if it is the translation of scientific and technological neologisms, the accuracy and objectivity of them should be guaranteed. The translation of S&T neologisms only needs to express the meaning of the original principles and transfer the objective information to target language, so that target readers can understand the theories and thinking modes the source language wants to express (Toury, 1988).

Respecting the Linguistic Features of the Target Language

The translation of scientific and technological neologisms should respect the linguistic features of the target culture. New technologies contain more technical terms and complex functional rules, making it difficult to fully express the details of scientific achievements to the public. The translation of new words should pay attention to the common people’s cognition and the connection between people’s basic linguistic cognition and the concept in the science and technology field. In Chinese, whether it is a single word or a phrase, most of them have inherent meaning. The translation of new scientific and technological words should be explained according to people’s inherent impression of the words to realize easy understanding. For example, the translation of the word “元界” mentioned above will make people mistakenly think that the word “metaverse” is associated with the “boundary”, resulting in a narrow cognition of metaverse. Another example is “cloud computing”. The Book of *Songs* says: “齐子归止，其从如云”。“云” in Chinese has the meaning of “many” and “a lot”. The use of “云” can show the characteristic of cloud computing of providing a large amount of data, in line with people’s general cognition of “云”. This kind of translation lets people understand the meaning at a glance.

Keeping the Features of the Source Language

In the process of translation of new scientific and technological words, the original meaning should be kept as much as possible. The naming of new objects in scientific field largely preserves the characteristics of the new achievements, expressing more meanings in less words and making the receiver easily get the points.

The same intention should be done with the translation of technical terms, so that people can understand the qualities of the new neologisms. For example, the concept of the “Internet of Things” can be literally translated as “物品的互联网”. However, it is obviously difficult to show that “Internet of Things” realizes the monitoring, linking, and interaction of objects through network access. Besides, this translation is too long to be used frequently in the future. While translating “Internet of Things”, on the one hand, we should distinguish the significant differences between “Internet of Things” and “Internet”. On the other hand, we should dependently translate the characteristics of it related to the Internet. The data information of “Internet of Things” is mainly about perception and service, while Internet is about pushing and sharing information. And the invention of “Internet of Things” largely depends on the advanced development of Internet. Hence there is a new term invented to describe it: “物联网”. This translation not only achieves the construction of new words through the piecing method, but also preserves the original meaning of the concept, thus killing two birds with one stone.

Conclusion

The ultimate goal of translating scientific neologisms is to change them into commonly accepted words that can be understood by people in target culture. The idiomatic usages in every language have abundant and complicated meanings influenced by its historical and social needs. That leads to the inherent conceptual cognition and preference for words and phrases in target culture, making the translation should be more well-considered.

The analysis of “meta” is just one example of neologisms in science and technology field. With the development of technology, there will be more inventions in the future, which needs proper translations to other cultures. The accuracy of translation is of great significance to the development and spread of science and technology.

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