A Study of the Impact of Translation Ecosystem on the Translator from the Perspective of Restriction Factors

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Abstract. This paper conducted a research into the role a translator plays in a translation ecosystem as well as the impacts of various factors on the translator in the process of translation. There are interactions between the translator and the translation ecosystem. Translator is the dominant factor of this system, who assumes overall responsibility of translation while feeling the effects of other ecological factors. The influence of restriction factors is especially remarkable. After studying the impacts of restriction factors of both the external and the internal ecological environment, including natural, social and standardized factors on the one hand, and physiological and psychological factors of the translator on the other hand, this study discovered that the active intervention of the above mentioned factors can greatly optimize a translation ecosystem, improve the working atmosphere and conditions of the translator and therefore enhance the quality and effect of translation.

1. Introduction
The term “ecological system” was initially used to describe a community of living organisms and various nonliving components around them. In an ecosystem, ecological factors interact with each other by means of energy flow, material cycle and information transmission and contribute to the features of the system. An ecosystem can be very small or very large, from a microbiological system in the digestive tract of an animal to a school, a city or even the earth. The British botanist, A. G. Tansley was the first to use the term “ecosystem” in 1935. Since then, its application has been extended to many different fields, originally in natural ecological environment and then in artificial ecological environment, including education, finance, the Internet, artificial intelligence and so on [1].

At the beginning of the 19th century, along with the appearance of translation ecology, research results in ecology was introduced into translation study. In his book Translation as Adaptation and Selection, Prof. Hu Gengshen (2004) from Tsinghua University made a study on translation from the perspective of “adaption/selection”, which was originated from Darwin’s biological evolution theory. He described translation as “a translator’s adaptation and selection activities in a translational eco-environment [2]”. According to Prof. Xu Jianzhong (2009), translation ecosystem is “a translation ecological unit existed in a certain time and space, in which the biological and abiological components of translation interact with and depend on each other by means of material cycle and energy flow [4]”.

2. The constitution of translation ecosystem
Research of translation ecology started with the exploration of translation ecological environment. According to Modern Chinese Dictionary, ecological environment refers to “living things and the sum of
all external conditions that affect the survival and development of them”. And translation ecological environment means “the sum of all external conditions affecting the survival and development of the translation subject”. In this case, “subject” refers to all the human beings relating to translation, including the original author, the translator and the readers, while “external conditions” consist of nature, economy, language, culture, social and political environments, and so on [4]. Furthermore, translation ecological environment can also be divided into two parts: external ecological environment and internal ecological environment. The former contains natural environment, social environment and standardized environment, whereas the latter refers to the physical and psychological factors of the translators and translation researchers.

In external environment, the first component, natural environment refers to the natural biological environment in which human beings can live and develop, such as the sunshine, the air and water, as well as all kinds of animals and plants, mineral resources, mountains, rivers, forests and grasslands on the earth. The second component, social environment includes political, economic and historical factors. It is obvious that translation is carried out in a certain social environment and is restricted by social system, economic development and historical background. The third component, standardized environment is also called spiritual environment, which mainly consists of culture, science and technology, moral ideas and so on, which are closely related to translation in many different ways. All the above-mentioned ecological environments in various dimensions integrate with each other to form a compound ecological environment in which all the factors interact with each other and form the translation ecological system, which exert influence on the translator and translation.

In an ecosystem, ecological factors play different roles, with some of them more important than others. Special attention should be paid to two types of factors, dominant factor and restriction factors. Under given conditions, there is usually an ecological factor that plays a decisive role in the system, and this is called the dominant factor. If this factor changes, others change accordingly and all these lead to the obvious change of the whole system. Take photosynthesis of green plants as an example, in which sunshine is the dominant factor, while water and carbon dioxide are subordinate factors. Parameters relating to the sunshine, such as the intensity and duration of the light play a decisive role in the generation and duration of photosynthesis. This example demonstrates the significant role dominant factor plays in an ecosystem [5]. Another type of important factors are restriction factors, which are key factors limiting the survival and development of living organisms [6]. Research conducted by Blackman (1905) shows that the survival and reproduction of organisms in nature are affected by a variety of ecological factors. Some of the factors play critical parts in the survival and reproduction of the organism. When their values below or above a certain range, the survival or development of the organism is affected. He referred to them as “restriction factors” [7]. For example, Calcium acts as a restriction factor for the growth and development of infants. Lack of calcium will lead to healing failure of the infant skull, delaying the time when he/she learns to walk, and bone deformation, etc. Therefore, calcium is the restriction factor for the growth of infants. Similar to natural ecosystem, restriction factors also exist in artificial ecosystems. It is an important mission of ecology to find out restriction factors in an ecosystem and intervene in them, so as to optimize the system and drive its performance in a favorable direction.

3. The impact of translation ecosystem on the translator
In a translation ecosystem, the translator plays a leading part, as all the natural, social and standardized ecological factors from the external environment interact with him. On this basis, the author suggests that translator is the dominant factor of a translation ecosystem. Many researchers have realized the leading role translators play in translation. Gong Jun (2010) pointed out that “the major parts of translation are translators and translation researchers [8]”. Chen Daliang (2004) suggested that the translator is the only major part in translation among original author, translator and readers [9]. Shang Yanyan, Yang Ping (2007) also suggested that translator is the major part of translation, on the basis that translation will not happen without a translator [10]. The whole process of translation is actually a process in which the translator selects an original text, comprehend it and rewrite it in his target language. All the other ecological factors have their influence on translation through interaction with the translator in various ways. For instance, translators living in different natural environments tend to have different language and culture features, and as a result, their translation will also be stamped with corresponding regional brands.
A translator and his translation ecosystem interact with each other. On the one hand, the translator plays a leading role in the system. On the other hand, he is influenced by all the other factors in the system. Natural, social and standardized ecological factors exert their influences by means of the translator. In general, all of the ecological factors from the internal environment and external environment of translation have influence on the translator. Being restricted by space, this paper just focuses on the couple of restriction factors that have major impacts on the translator.

3.1. Restriction factors in the external ecological environment of translation
There are three constituent parts in external environment, namely natural environment, social environment and standardized environment. The first is natural environment, which refers to the sum of all natural conditions in the translation ecosystem. For translators coming from various countries or regions, they are faced with very different natural conditions which have different impacts on them. Take geographic condition as an example. Authors or translators from China and the United Kingdom tend to choose their words in different ways for the following reasons. The Han Nationality lives on the mainland and has deep feelings on land. In the thousands of years of Chinese civilization, a large number of idioms relating to land (土地) emerged, including native-born (土生土长), fight for every inch of land (寸土必争), spend money like water (挥金如土), vast territory and abundant resources (地大物博), a hotly contested spot (必争之地), and so on. By contrast, the United Kingdom is an island country, consisting of Great Britain Island and other nearby islands which are surrounded by the sea. Because of this, the words “sea”, “boat” or names of aquatic animals are involved in lots of English idioms, like at sea, miss the boat, a cold fish, a whale of a difference, just to name a few.

The second is social environment. Translation is a kind of social activity, relating to the communication among human beings. As the translator is influenced by political, economic, historical and other factors, the lack of knowledge about the relevant background of the target language will hinder the translator’s understanding of the original text. For instance, there is a word “demopublican” in American English, which is considered as “democratic-republicans” and translated into ”民主共和党人” by some Chinese translators. Such a translation is misleading and confusing for Chinese readers. If these translators know the fact that there are two major political parties, the Democratic Party and Republican Party in the United States of America, with a couple of groupings in each of the both, it will not be difficult for them to understand that this word refers to “conservative democrats in the U.S” and should be translated into “美国民主党内的保守派” in Chinese language [11].

The third is standardized environment, including culture, science and technology, ethics, morality, etc. Take culture as an example. Due to the differences in family values between Chinese and Western cultures, the Chinese and English kinship appellations may have different meanings. “Grandmother” can be translated into “祖母” or “外祖母”, while “伯父”, “叔父”, “姑父”, “姨夫”, and “舅父” are all called “uncle” in English. There are still many examples of word meanings caused by cultural differences between Chinese and Western cultures. The Chinese word 荷花 often has the connotation “live in the silt but not imbrued” whereas its English counterpart, lotus flower doesn’t have the same meaning. Another example is a Chinese character 龙 (dragon). “Dragon” is a lucky animal in Chinese legend, and also a symbol of ancient emperors. In English, “dragon” mainly has two meanings: “1. a large imaginary animal that has wings and a long tail and can breathe out fire; 2. a woman who behaves in an angry, unfriendly way.” Translators should be fully aware of the difference between Chinese and Western cultures and their semantic reflections to avoid mistranslation.

3.2. Restriction factors in the internal ecological environment of translation
In addition to external ecological environment, translation is also affected by internal ecological factors, which refers to the physiological and psychological environment of the translator. Firstly, physiological condition of the translator is the material basis of all activities of him. Healthy lifestyle, favourable atmosphere and a reasonable schedule will be helpful to improve the physiological status of the translator and inspire their enthusiasm of work. From this perspective, relevant organizations should provide translators with a good working environment and certain material conditions, including computers, typewriters, etc. to facilitate their working. As for the translators, they are supposed to care about their own...
health, continually explore the most appropriate way of working on the basis of their own physiological conditions, and try to find a scientific schedule to improve the quality and efficiency of their translation.

Translators at different ages have different physiological conditions. Generally speaking, young translators are able to adapt to continuous and intense work as they are healthier and more energetic. However, they might be faced with more challenges in their translation because their language competence, cultural quality, practical translation experience and comprehensive capability need to be further improved. On the contrary, senior translators are experienced in coping with problems in translation. Many of them have worked on translation for a long time and have improved their language competence, accumulated background knowledge on the source language country and the target language country in this process. Their ability to analyze and solve problems has been greatly enhanced. Compared with the young, senior translators might not be so energetic and sometimes could not work for a long time continuously. The best way to solve this problem is to form a team consisting of translators at different ages, in which the young, the middle aged and the old can cooperate with each other. As for the individual translators, they ought to know their own physiological conditions, and try to make best use of their advantages and bypass their disadvantages.

The matter of gender also has something to do with translation. In the process of translation, the gender of the translator is an unavoidable factor. According to some research, there are differences between male and female translators in terms of selecting source text and understanding the original. In addition, their translation style, vocabulary selection, and aesthetic standards vary from each other [12]. Translators tend to be more interested in source texts written by authors of the same gender. Take female translators as an example. They tend to pay more attention to female writers’ works, in particular works describing women’s feelings or experience. While translating a work like this, they might focus more on it and select appropriate translation strategies to show their own gender identity [13]. However, in translation practice, translators might be unable to select the works written by authors of the same gender. While translating works written by authors of the opposite gender, translators tend to show their own gender characters unconsciously.

Moreover, psychological quality and mentality are also two important factors in the translator’s internal ecological environment. Good psychological quality is essential for an excellent translator or interpreter. This is especially true for an interpreter, who should not only have good language skills, extensive knowledge, quick response and explicit articulation, but also have good psychological quality, be able to calmly face pressure, be flexible and respond to various situations. The improvement of psychological quality needs long-term efforts. Excellent psychological quality is helpful to the adjustment of mental state. Translators should learn to adjust their mentality, maintain a stable mood, face work and life positively and optimistically, work hand in hand with their team members, treat translation work seriously, and complete their translation with good quality.

4. Conclusion
In conclusion, translators play a leading role in the translation ecosystem. From the selection and understanding of the original text to the style, wording and quality of the translation, the translator’s hard work is the basis. Like all human beings, translators are inevitably influenced by various factors around them. From the perspective of translation ecology, the improvement of the performance of translation ecosystem should be started from the dominant factor and restriction factors in the system. As the dominant factor of the translation ecosystem, the translator’s state and competence is of vital importance. The improvement of the translator’s comprehensive abilities is a long-term systematic project, which requires persistent efforts made by the translator as well as all the parties concerned. In the meantime, attention should be paid to the effect of various restriction factors on the translator. Through the intervention of various factors in natural environment, social environment and standardized environment, especially the restriction factors, the optimization of translation ecosystem can be realized, and favourable working conditions can be provided for translators to maximize their working potential, thus improving the quality and efficiency of translation.
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