

Logical Thinking and Critical Understanding in Translation

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Abstract

Logical thinking is a rational and lawful thinking pattern which takes logic as its highlight and uses concept, judgment, inference and other logical methods to reflect the objective world. It boasts of the law of identity, the law of non-contradiction, the law of interim-exclusion and the law of sufficient reason. Translation, a transformation of languages outwardly, is inwardly the conversion of thinking. Lado Julgi, an outstanding Hungary translator, once pointed out: “translation is a kind of logical activity, and the version is the product of this activity.”¹ In translation, logical thinking is of specific importance for the translator’s critical understanding of the original, which can be shown in three aspects: resolving the structural ambiguity in the original, clarifying the implicit logical relations in the original, and identifying errors in the original.

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I. Resolving the Structural Ambiguity in the Original

Ambiguity, which refers to that a language structure can be interpreted in more than one way, is a common language phenomenon. Ambiguity mainly includes lexical ambiguity and structural ambiguity. Lexical ambiguity is mainly caused by polysemous word or homonym. For example, the sentence “doctor Li will go to Beijing tomorrow” is ambiguous because the word “doctor” can be interpreted in two different ways in the sentence. Structural ambiguity is mainly caused by indeterminacy of syntactic structure. For example, the sentence “I saw Tom in a bus” is syntactically ambiguous in that the preposition phrase “in the bus” can modify either the subject “I” or the object “Tom”, thus resulting in two different understandings: “I saw Tom while I was in the bus” or “I saw that Tom was in the bus”.

William Epton, a British linguist, once stated: “ambiguity is the enemy we have to watch.”² It is one of the greatest bottlenecks for the accurate understanding of language. In the process of translation, ambiguity, especially syntactic ambiguity, produces a great difficulty for the translator. In most cases, grammatical analysis alone is not enough for the translator to resolve the structural ambiguity in the original. The famous linguist Palmer once observed in *Semantics*: “logic can solve the difficult problem and ambiguity which grammar fails to do”³. Therefore, when faced with structural ambiguity, the translator can appeal to logical analysis to have an accurate understanding of the original. Please look at the following example:

[Ex 1] Like the vapor, all the carbon dioxide that gets into the air does not stay there. Carbon dioxide is continually entering the air as a result of burning and breathing, but it is also continually leaving the air by uniting with the rain, the oceans, rocks and soils.

In the above example, the sentence “all the carbon dioxide that gets into the air does not stay there” is ambiguous. Depending on the indeterminacy of the object which the negation “not” modifies, we can interpret this sentence in two different ways:

(1) None of the carbon dioxide that gets into the air stays there.

(2) It is not true that all the carbon dioxide that gets into the air stay there/ Some of the carbon dioxide that gets into the air stays there.

In the first interpretation, the negation “not” modifies the whole sentence; in the second interpretation, it modifies “all the carbon dioxide”. Grammatically, both interpretations are right. That is to say, grammatical analysis alone can not determine which interpretation is suitable for this situation. However, a logical analysis of the original will show that the interpretation (2) is improper for this context because

it violates the logical law of non-contradiction: the statement “some of the carbon dioxide that gets into the air stays there” is contradictory with the statement “carbon dioxide is also continually leaving the air by uniting with the rain, the oceans, and rocks”. Therefore, the interpretation (1) is the right one for the original.

Following is another example:

[Ex 2] we should point out, however, that all electrical systems are not nonconservative. In fact, electrical power generation, radio waves, and sunlight, to mention a few, are consequences of nonconservative systems.

Similarly, the sentence “all electrical systems are not nonconservative” is structurally ambiguous because of the indeterminacy of the modification object of the negation “not”. Grammatically, we can get two different interpretations:

(1) None of electrical systems are nonconservative.

(2) It is not true that all electrical systems are nonconservative/some of electrical systems are nonconservative.

Similar to Ex 1, grammatical analysis alone fails to resolve the ambiguity in the original. Logical analysis is a must for the translator to get an accurate understanding of the original. The first interpretation is not suitable for this situation because it also violates the logical law of non-contradiction: the statement “none of electrical systems are nonconservative” is contradictory to the statement “electrical power generation, radio waves, and sunlight, to mention a few, are consequences of nonconservative systems”. As a result, we can determine that the second interpretation is the proper one.

II. Clarifying the Implicit Logical Relations in the Original

Generally speaking, English is a language of hypotaxis which is inclined to use connectives to show the logical relations in linguistic structures. In English, various connectives such as “when”, “if”, “although”, “because” and etc. are often applied to make explicit various logical relations. For example, in the sentence “he likes this film because it is interesting as well instructive”, the connective “because” is used to show the logical relation of cause between the main clause and the subordinate clause.

However, there are also some English expressions which do not take advantage of explicit logical marks to show the logical relations in them. Instead, the logical relations in them are implicit for the readers. They are implied in the deep structure and have to be understood by the readers through the logical analysis of the structures. For examples, in the sentence “a

ship, which is colossal, can float on water”, there is an covert logical relation of concession between the attributive clause “which is colossal” and the main clause though it is not made explicit by connective “although”; similarly, in the sentence “the substitution of rolling friction for sliding friction will result in a great reduction of friction”, there is an implicit logical relation of condition between “the substitution of rolling friction for sliding friction” and “a great reduction of friction” though there is no any explicit connective denoting it.

In the process of translating linguistic structures with implicit logical relations, the first step for the translator is to make clear the covert logical relations. A logical analysis of the original is of great help for the translator to clarify the implicit logical relations, thus laying a foundation for formally cohesive and semantically coherent versions. Please look at a typical example:

[Ex 3] *He had long been held in cordial contempt by his peers; now that contempt was no longer cordial.*

In the above example, the word “cordial”, which means “sincere and friendly”, seems to be logically contradictory with the word “contempt”, which means “feeling that sb/sth is completely worthless and cannot be respected”. However, a logical analysis of the original indicates that this collocation is right in the deep semantic structure: although his peers looked down upon him, they have been expressing a cordial feeling to him. That is to say, there exists a logical relation of concession between the word “contempt” and its modifier “cordial”. In the version, the translator should make explicit this logical relation by using Chinese corresponding logical connectives.

There is another implicit logical relation to which the translator should pay attention. Generally speaking, specific connective expresses specific logical relation in English. For example, the connective “if” usually indicates the logical relation of condition; the connective “because” often signifies the logical relation of cause. However, in some cases, a specific connective does not express a logical relation which it usually does. Instead, it indicates another logical relation which is often signified by other specific connective. In this case, a logical analysis is necessary to determine the implied real logical relation. Please look at the following example:

[Ex 4] *It (psychology) certainly must be of practical service when businessmen have taken a fancy to it, spending hundreds of thousands of dollars under its rigorous guidance.*

The connective “when” usually expresses a logical relation of time. However, in the above example, it is not the case. A logical analysis of the deep structure of the original tells us that there exists a logical relation of cause between the main clause and the subordinate clause. Therefore, the translator should

translate “when” into a logical relation of cause instead of that of time to achieve faithful and expressive version.

III. Identifying Errors in the Original

In the process of translation, it is not rare to encounter errors in the original which are caused by carelessness of the writer or typist or other reasons. In translation, the translator should indicate and correct errors in the original, or at least point them out in the notes. Firstly, the translator should be an expert about the subject s/he is translating or at least very familiar with it. Therefore, he is able to find out errors in the original; secondly, the client would be thankful if errors in the original are pointed out by the translator because this would avoid unnecessary losses. *The Chinese Target Text Quality Requirement for Translation Services (2005)* suggests: if there are errors in the original, the translator can translate them literally into the original and point them out in the notes, or correct them in the version and point out in the notes. If there exist vagueness or miss of words in the original and the client fails to offer a necessary explanation, the translator can take reasonable and flexible measures in translation”.⁴

Therefore, it is very important for the translator to identify errors in the original. Generally speaking, grammatical analysis is an effective way for the translator to find out some errors in the original. But it is not a sufficient way. Sometimes, grammatical analysis alone fails to help the translator to find out the errors in the original because the original may be grammatically correct but logically wrong. Therefore, logical analysis is a useful assistance for the translator to identify the errors in the original. Please look at the following example:

[Ex 5] *At the beginning of 1997 macroeconomic indicators showed a decline in industrial output, retail trade and exports. All this led to the drop in GDP in that year by one-fifth of its value in 1998(-19.3%). Thus, the FRY entered the last year of the 20th century as one of the poorest countries in Europe.*

Seemingly, there is no error in the above example because it is grammatically correct. But a logical analysis of the original will reveal that it is illogical. How would it be possible to say that “the GDP in 1997 dropped by one-fifth of its value in 1998(-19.3%)”? Usually, we will say the GDP of a certain year drops or increases with the *former year* being the comparative object. Therefore, we can say “the GDP in 1998 dropped by one-fifth of its value in 1997(-19.3%)”, but we can not say or “the GDP in 1997 dropped by one-fifth of its value in 1998(-19.3%)”. “The last year of the 20th century” in the above example gives us enlightenment that “1997” might be the misspelling of “1999”. That is to say, the writer of the original or the typist made a slip

of pen when writing or typing it. Consequently, we can correct this error in the version and point it out in the note.

The following is another example:

[Ex 6]One could envisage, for instance, alloys which are so designed that metallic reactions occurring within the material continually make good the damage or loss of properties taking place in service. Such materials would be extremely valuable in components which could be discarded after short service.

Grammatically, the above example is also right. But it is logically unacceptable. The first part of this example says that “alloys can be so designed that metallic reactions occurring within the material continually make good the damage or loss of properties taking place in service”, if so, they should be used for a long time and therefore valuable in components which can last for a long time. But the second part of the example states that “Such materials would be extremely valuable in components which could be discarded after short service”. Obviously, the first part is contradictory with the second part. There is a logical problem in the original. If we add the word “otherwise” between the word “which” and the word “could”, the logical problem might be eliminated. That is to say, the illogicality of the original might be caused by miss of the word “otherwise”. According to the above logical analysis, we can correct the error in the version with a note explaining it.

IV. References

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- 2 Lijuan Chang. Structural Ambiguity in English and Its Resolution Methods [J]. Journal of Hulunbeier University , 2004 (6)
- 3 F.R. Palmer. Semantics[M]. Cambridge: Cambridge University Press, 1976, P86
- 4 <http://www.sunyu.com/wenzhanglist.asp?id=65>