

Assimilation, Accommodation, and Equilibration: A Schema-Based Perspective on Translation as Process and as Product

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[Abstract] Piaget's schema theory renders a new perspective on translation as process and as product. Assimilation, accommodation, and equilibration, the three major concepts of this theory, are used for the schema-based construction of comprehension and reproduction in translation as well as that of translation as product. Based on such a construction, this paper reveals that assimilation and accommodation play an equally important role in the process of comprehension and reproduction, and the intrinsic demand of translation as a product for equilibration necessitates the adoption of different translation strategies and methods when the translational context has changed.

[Keywords] schema; assimilation and accommodation; equilibration; translation as process; translation as product

Introduction

Schema, a core concept of Piaget's genetic epistemology, refers to the way the world is perceived, interpreted, and reflected upon. It is the starting point of human cognitive structure and the basis of human knowledge. On the other hand, it restricts our immediate cognition by determining what we can know about and what we cannot. In addition, schema can work for us by helping us acquire knowledge or against us by distorting or excluding our knowledge. This accounts for the fact that a reader's pre-structure may play either a positive or negative role in his interpretation of the source text. As far as Piaget is concerned, a subject's schemata are multi-layered. Although a baby's schemata are scarce, they increase a great deal through differentiation. The differentiated schemata are linked and coordinated with each other. Hence, there is a new schema organization in which the newly assimilated object shares some meaning with the new organization as a whole (Lei, 1987, p. 69). Through differentiation, coordination, and constant stimulation from exterior objects, schema begins to evolve. Assimilation, accommodation, and equilibration, the three major concepts of Piaget's schema theory, embody the principle of his genetic epistemology. Moreover, they shed great light upon the schema movement of translation and improve our knowledge of translation as process and as product.

Assimilation, Accommodation and Equilibration

Assimilation refers to the process by which a subject incorporates a perceived stimulus into the existing schema. Essentially, it refers to the influence of a subject on his environment. On the one hand, assimilation produces a positive effect. When a new object is assimilated into an old schema, the schema gets enriched and renewed. Owing to assimilation, a subject is given the opportunity to meet a wide range of objects. These objects, however, can't be absorbed into the same schema. Therefore, the subject is bound to suffer their resistance when the former attempts to over-assimilate the latter. In this case, the old schema is likely to differentiate in order to accommodate the new objects, thus providing preemptive opportunities for the schema to evolve. On the other hand, assimilation may produce a negative effect. Owing to the pre-structure formed in the existing schema and assimilation, the perception of new objects may be distorted or even excluded. The concept is the highest form of schema and always goes along with language, so it can be safely concluded that language is a double-edged sword, just like schema (Piaget, 2011).

Accommodation refers to the process by which the subject adjusts the old schema or builds a new schema on the basis of the old one in order to accept and accommodate the new object when it fails to conform to the subject's schema. Accommodation indicates the process of how the subject under the

influence of the object is modified and transformed, whereas assimilation indicates the conservative process of how the subject modifies and transforms the object. In short, assimilation and accommodation represent the interactions between the subject and the object (Lei, 1987, p. 110). In spite of their different functions, assimilation and accommodation are closely correlated with each other. First, they blend with each other. When assimilation dominates the schema, the schema is partially accommodated, and vice versa. That's to say, in the course of knowledge acquisition, assimilation and accommodation occur simultaneously, though to different degrees, as long as the subject and the object interact with each other. Second, we cannot afford to disregard either of them. It is arguably obvious that without accommodation, our cognition would stay where it was; without assimilation, cognition would be no simpler than imitation. In short, assimilation and accommodation exist side by side, and both are indispensable to our cognitive development.

Piaget emphasizes once and again that accommodation occurs only when a new object can arouse the interest of the subject and meanwhile cannot be totally assimilated into his present schema. Numerous new objects may fall within the attention of a subject, but not every one of them can attract his interest. Only when the new object and the old one bear some similarities and differences can the new object appeal to his interest (Lei, 1987, p. 107). It is justified to say that the subject assimilates the object in a selective manner. Of the countless stimuli, only those which can meet the demands of the subject at the moment will be selected and assimilated. However, the subject's demands change as his adaptability improves. To be more specific, due to the changes of the subject's demands and the improvement of his assimilation, the previously improper stimuli will become proper, and the presently unknown objects will be known one day (Lei, 1987, p. 110).

Equilibration refers to the process by which a person utilizes his self-adjustment mechanism to move his cognitive equilibrium to a higher level. Specifically, equilibration is a condition in which the subject truthfully represents the object and the object conforms to the subject. When equilibration is reached, the subject assimilates the object into the current schema. This equilibration will not be broken until his present schema can no longer assimilate the new stimuli. Therefore, when a person loses the equilibration established through assimilation and accommodation between his body and the environment, he needs to change his behavior so as to reestablish the equilibration. The process from equilibration to non-equilibration and back to equilibration reflects the reason for human cognitive development. Human cognitive development is a continuum from elementary to advanced level. Equilibration, the intrinsic demand of human cognition, is continuously broken by the entry of new information from the exterior environment. In order to reach a new level of equilibration, the subject must keep resorting to assimilation and accommodation. In this way, the subject's schema and his cognition is constantly developed.

Not only does the schema theory advocated by Piaget bring much light to how human cognition occurs and evolves, it also renders a new perspective to understand translation as process and as product.

Schema-based Construction of Comprehension in Translation

Comprehension in translation refers to correctly decoding the source text; reproduction refers to properly re-encoding the target language. In the process of translation, the translator first places himself in the position of the source text reader in order to comprehend the source text and then in the position of the target text reader in order to produce the target text. In doing so, the translator makes use of two schemata, first a source text reader's schema and then a target text reader's schema, to deal with two texts as two objects.

When the translator tries to comprehend the source text as the source text reader, his schemata as subject and the source text as object interact with each other in two ways. First, the source text needs to be assimilated into the translator's schemata. Second, if the translator fails to completely absorb the source text through assimilation, he will either change his schemata to accommodate the source text, or count out the unable-to-assimilate part of the source text by unconsciously refusing to translate or ignore it. If the translator over-assimilates the source text, he is likely to distort it. If the translator doesn't have sufficient schemata to assimilate the source text and, meanwhile, is not able to change his schemata, his comprehension can't work out properly. Nevertheless, in most cases, earnest and qualified translators will

enlarge their schemata to accommodate the source text, especially the expressive and appreciative ones that they are unable to completely assimilate. By doing so, the translator breaks the current equilibration and reestablishes a new one so that his cognitive schemata are developed. In addition, seldom can the assimilation and the accommodation of a source text be accomplished at one go, which indicates the difficulties of comprehension in translation, as well as the relativity of a thorough understanding.

Assimilation and accommodation can be used to describe the process of comprehension in translation. Based upon the schema theory, comprehension is the process by which the translator's schemata as the cognitive subject interact with the source text as the cognitive object. The translator's schemata are known information and the source text is new information. Therefore, the process of comprehension can be understood as the interaction between the known information and the new information. The prerequisite for comprehension is that the translator can employ his schemata to assimilate the source information. The translator's schemata include linguistic and cultural schemata about the source language and culture (Brown, 2000).

E.g. Like charges repel, unlike charges attract.

To comprehend this sentence accurately, the translator needs to activate his linguistic schemata relevant to this sentence, which comprises lexical, grammatical, semantic, pragmatic, contextual schemata, etc. These schemata interact and coordinate with each other. Upon receiving the new information "Like charges repel, unlike charges attract," the translator first needs to activate his grammatical schemata for a grammatical analysis of this information. Given the fact that these three words "like," "unlike," and "charge" have several parts of speech and meanings, the translator has to determine their part of speech to clarify their ambiguity. Through assimilation, the translator decides that "charge" is used as a noun, thus narrowing down its multiple meanings to those, which fall into the category of noun. Likewise, he determines that "like" and "unlike" are used as adjectives and, therefore, narrows down their meaning to "same" and "opposite." Almost simultaneously, the translator uses his physical schemata to further narrow down the meaning of "charge" until he stops at the meaning "the intrinsic property of matter responsible for all electric phenomena." Thus, the concept of "charge" is assimilated into and reinforces the translator's electrical science schemata. At this point, the translator has already grasped the semantic meaning of this sentence, that is, "Charges of the same characteristics go against each other, but charges of the opposite characteristics go for each other."

Furthermore, he makes use of his pragmatic schemata and the communicative situation to figure out its pragmatic meaning. Suppose the communicative situation is correlated with physical phenomenon; the translator will find that the pragmatic meaning and the semantic meaning are basically the same, which puts an end to comprehension process. Suppose the communicative situation is correlated with rules of interpersonal communication; the translator will find that the pragmatic meaning is "People of the same sex tend to go against each other; people of the opposite sex tend to go for each other." Suppose it is about the trading code of conduct, the translator may figure out that the pragmatic meaning is "Two of a trade can never agree." Of course, all these descriptions are based upon a presumption of smooth and successful comprehension. As a matter of fact, the comprehension is not carried out so smoothly. While the translator activates his present schemata to assimilate the utterance, he oftentimes has to accommodate the new information contained in the utterance. On the one hand, the translator activates his present schemata to assimilate the source text so that his present schemata are consolidated and enriched; on the other hand, he needs to accommodate the source text so that his present schemata are renewed.

E.g. The planners were busy bypassing the Gordian Knot.

In order to unravel the implied meaning of this sentence, the translator should be equipped with the linguistic schemata of the English language and the cultural schemata with regard to the "Gordian Knot." "Gordian Knot" is an intricate knot tied by King Gordius of Phrygia and cut by Alexander the Great with his sword after hearing an oracle promise that whoever could undo it would be the next ruler of Asia. With this cultural schema, the translator may comprehend the implied meaning of this sentence, that is, "The plan makers tried to keep themselves away from such a complicated and intricate problem." It

shows that the translator should expand his linguistic and cultural schemata of the source language and culture for a better comprehension of the source text (Liu, 2002, p. 57). Due to the great differences between the Western and the oriental cultures, the cultural schemata activated by the source text, either in English or in Chinese, are different. In English-to-Chinese translation, the translator needs to enlarge his schemata, particularly the cultural schemata of the English speaking countries so that he can more accurately comprehend the implied meaning of the source text.

Schema-Based Construction of Reproduction In Translation

Once the source text is comprehended, the ideas and concepts are separated from the source text and liberated from the source language, waiting to be reproduced. Now the translator begins to produce the target text by placing himself in the position of the target text reader. The linguistic and textual schemata begin to play their roles in the production of the target text. On the one hand, the mode of expression in the source text restricts the way that the translator reproduces the ideas or concepts, which indicates that the translator's linguistic and textual schemata accommodate the source text to a certain extent. On the other hand, the translator's idiolect and habitual diction in the target language unconsciously influences the reproduction so that different translators will produce different styles of target texts of the same source text, which suggests that the source text is assimilated by the translator's linguistic schemata to a certain degree. The key to produce a good translation lies in how to encode in the target language. A successful encoding enables the reader to acquire from the target text the maximum information conveyed in the source text. To do so, a translator should construct the target text in such a way that it can activate the reader's schemata related to the target text. Usually, two factors account for the failure. First, the translator does not provide enough information in the target text to activate the reader's relevant schemata.

Second, the reader does not possess the required schemata. Hence, the translator should take these two factors into consideration in the process of reproduction.

The target text should be reproduced in such a way as to activate the reader's relevant schemata, for only when the reader's schemata can assimilate the text can he understand and accept it. With this in mind, the translator should provide enough information in the target text for the reader to activate his relevant schemata. Nevertheless, the target text should help the reader set up a new schema. In other words, the target text can only be attracted to the reader when his schemata cannot be totally assimilated, and he has no way but to accommodate it. Because assimilation and accommodation co-function, the reader's present schema equilibrium breaks down to be replaced by a new one. Assimilation and accommodation play an equally important role in the reproduction. Under most circumstances, they blend with each other. All in all, the target text should be reproduced in such a way that it can activate the reader's schemata to assimilate the text and at the same time it forces the reader's schemata to accommodate the text. Assimilation ensures comprehension, while accommodation encourages a new schema.

E.g. 三個臭皮匠，賽過諸葛亮。 (Literal translation: Three cobblers outwit Zhuge Liang.)

Translation: Three cobblers with their wits combined surpass Zhuge Liang the Mastermind.

In this proverb, Zhuge Liang was a chancellor of the State of Shu during the Three Kingdoms period. He is often recognized as the greatest and most accomplished strategist of his era and is often compared to another great ancient Chinese strategist Sun Tzu. However, readers in the English-speaking countries may not be equipped with this cultural schema. The translator adds "the mastermind" in the target text with a view to activating the reader's schema about the mastermind to assimilate and accommodate "Zhuge Liang," the new information in the target text. In this way, the reader is able to comprehend the target text and enrich his present schema about the mastermind.

In a nutshell, the translator as the cognitive subject should fully utilize his relevant schemata so as to comprehend the maximum information contained in the source text as the cognitive object. In order to achieve this, he needs to extend his linguistic and cultural schemata. On the basis of adequate comprehension, the translator should reproduce the target text in such a way that it can both activate the

reader's existing schemata and help him build more new schemata to ensure the smoothness and effectiveness of cross-cultural communication.

Schema-Based Construction of Translation as Product

Piaget's schema theory also sheds light upon how translation evolves as product. As has been discussed above, the process of translation involves the interaction between assimilation and accommodation. It is mostly an ideal situation that the target text is totally assimilated into the reader's schemata. Moreover, this situation obstructs the advancement of the reader's schemata. Through accommodation, the schemata adjust themselves to accept those objects, which can't be assimilated into the present schemata. Just as thing-in-itself cannot be totally known, an object cannot be assimilated into the subject's schemata once and for all. Similarly, the source text can't be translated adequately in a single time, which means the ideal of being fully faithful to the source text cannot be realized by a single translation. Both the translator's and the reader's schemata are undergoing constant accommodation, which necessitates changing our perception of translation as product. Just as Wang Keyou said, "Accommodation of schema brings about the evolution of human cognition. That is the purpose of human cognition as well as translation – to deepen and widen the reader's cognition by introducing foreign expressions and concepts" (Wang, 2008, p. 44).

The translator's and the reader's schemata of the source text are constantly broadened due to translational and non-translational factors. In the era of globalization in which telecommunication, transportation, tourism, media and the Internet are rapidly developed, communication across various peoples and cultures happens more frequently and extensively, which enriches the translator's and the reader's schemata of the source culture. Translational factors are reflected in two cases. First, when a text is translated many times, either synchronically or diachronically, the later translators and readers get more schemata of the source text than the previous ones. Second, as many other texts, relevant to the source text, are introduced through translation into the target culture system, the translator's and reader's schemata of the source culture are increased gradually. For instance, when a concept is repeatedly introduced through translation into the target culture system, it may become so familiar as to be integrated into the target culture system.

The constant growth of the translator's and the reader's schemata of the source text necessitates changing the perception of translation as a product. First, the initially untranslatable elements in the source text are, or will be, translatable. Second, the translation will become more and more faithful to the original as it moves closer to the author rather than to the reader. Third, in literary translation, free or domesticating translation will gradually leave more room for literal or foreignizing translation. When the reader gets more knowledge of the source text through translation or otherwise, his schemata of the source text are already developed. When the same text or other relevant texts are translated, the translator should take this change into account and adjust the degree of assimilation and accommodation, or change the extent of domestication and foreignization (Baker, 2000).

The concept of equilibration in Piaget's schema theory can help us further understand translation as a product. When a text comes through translation into another cultural system, it is first assimilated by the linguistic schemata of the target language. As a result, the text moves away from the original semantic field in order to conform to the linguistic norms of the target language. Inevitably, some meanings of the source text are twisted or lost in this process. The translated text is temporarily separated from its original context. However, with more source texts of the same language translated into the target language, intertextuality arises among the translated texts. Then the earlier translated text regains some of its original context and part of its meanings distorted by the target linguistic and cultural schemata. There will certainly arise unbalance between part of the regained original contexts and some of the target language contexts. Since any structure inherently calls for equilibration, it has to adjust some of its constituent elements to accommodate the new elements, which it cannot assimilate. Of course, the translated text can't reproduce all the meanings of the source text. The subsequent translations are also assimilated by the target language. Meanwhile, some old elements of the target culture accommodate the new elements. The extent of assimilation and accommodation depends upon the strengths of the old and

new elements. When accommodation and assimilation reach a certain balance, the translated texts arrive at temporary equilibrium with the new context. When new elements join in or the source language changes itself, the equilibrium breaks down, and assimilation and accommodation get restarted. Thus, a new round of equilibration begins.

Implications and Conclusion

Every new equilibration paves the way for later translations. During the evolution of translation from unbalance to balance and back to unbalance, assimilation is the basis of accommodation, while accommodation is the driving force for the evolution. Usually, the first translator tends to adopt free translation or domesticating translation because the target reader's schemata of the source language and culture are fewer. His translation, which tends to be oriented toward readers and target culture, is transparent and easy to comprehend, though faithfulness to the source culture is discounted considerably. The second translator tends to reduce the degree of domestication because of an increase in the reader's schemata of the source language and culture. His translation, which moves closer to the author, reproduces more of the source culture and, thus, improves its faithfulness to the source culture. As the same text is translated many times and other relevant texts are introduced through translation into the target culture system, the reader's schemata of the source culture is getting richer, which improves the translatability of and the faithfulness to the source text. At the same time, the translation strategies may gradually shift from free or domesticating translating to literal or foreignizing translating (Venuti, 2004). For example, Yan Fu adopted a domesticated translation strategy when he translated some of the foreign concepts so that they could be assimilated and comprehended by the reader. As time went on the same text was retranslated, and Yan Fu's translation exposed its unfaithfulness to the source text and gave way to other translations, which gives more weight to foreignizing translation strategy. Domesticating translation has made necessary preparation for the reader to accept foreign culture, and, at the same time, caused the loss of meanings, especially cultural meanings. When time comes (though it is a long way), foreignizing translation will replace domesticating translation to regain the lost meanings so that the translator can be more faithful to the source text and author and thus, better accomplish his mission as a matchmaker between two languages and cultures.

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