

Space-Time Cognition Contrast between English and Chinese Reflected Through Plant Metaphor Translation*

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This paper intends to demonstrate the differences in space-time cognition by contrasting the English translations of Chinese PLANT metaphors composed by English and Chinese translators. The materials used for analysis are two English versions of the classic Chinese novel *Dream of the Red Mansion* translated by David Hawks and Yang Xianyi. The paper hypothesizes that Chinese is more space-oriented in plant conceptualization, while English is more time-oriented. We analyzed the cognitive reasons behind different translation strategies adopted for the same PLANT metaphor and verified the deduction from example analysis in the corpus. The typical PLANT metaphor analyzed in the research is the “root” metaphor. The results indicate that most Chinese “root” metaphors are “double-imaged” metonymic metaphors, which rely on the hierarchical correlation between plant components and the accumulation of spacial characteristics through multiple metonymies embedded in metaphorical projection. On the contrary, the conceptualization of “root” and “plant” in English pay more attention to the dynamic growth of the plant rather than the spacial relations between different parts.

Keywords: space-time cognition, PLANT metaphor, double-imaged metonymic metaphor

Introduction

The conceptualization of space and time in different languages has always been a hot topic for scholars and researchers in cognitive linguistics. Since Lakoff & Johnson (1980) demonstrated the influence of language on cognition through the illustration of conceptual metaphors, researchers began to pay more attention to the conceptualizing or cognitive differences between languages and their influence on thinking. Langacker argues that our brain “construe” situations and images during language comprehension, which highlights spacial concepts in our conceptualization of the world (Langacker, 1987, 2013). Besides, many other scholars analyzed spatial-temporal metaphors to reveal the cognitive commonness and varieties in space-time cognition (Grady 1997; Kovecses, 2005). Meanwhile, many Chinese scholars, especially those interested in the cognitive comparison between English and Chinese, have devoted themselves to the space-time cognition contrast between English and Chinese (Hao, 2011; Wang, 2013). Recent studies are arguing that there is a dichotomy

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between time and space in English due to the significant variance in the “entrance” of verbs and nouns in English sentence composition, while time and space are conflated in Chinese, drawing evidence from the inner structure of Chinese characters, as well as grammars (Liu, 2019). However, most of the previous studies about space and time have taken the macro semantic approach and are limited to analytical studies with limited support from the corpus. Very few have attempted to reflect the cross-cultural cognitive differences through the comparative analysis of translation strategies with statistical evidence from the corpus (Hu, 2011).

This paper hypothesizes that Chinese is more space-oriented while English is more time-oriented in plant conceptualization, and aims to prove the hypothesis by analyzing the plant metaphor translations (E-C) given by two translators, who are native speakers of English and Chinese. The distinguishing features in Plant metaphor formation and interpretation support the hypothesis that the reason for choosing different translating strategies adopted by the two translators can be attributed to their accustomed schematization of plants, of which Chinese relies more on the hierarchical spacial construction of plant components, while English translator’s cognition depends more on the temporal changes of a plant’s spatial characteristics as a whole.

In this paper, we first compared the typical PLANT metaphors’ translations, and then analyzed the cognitive reasons behind the translation strategies. Examples are from the two English translation versions of the classic Chinese novel—*Dream of the Red Mansion*. The plant-related word “root” is used as the keyword for corpus searching, and we carried out statistical analysis of the retrieved material to further prove the differences in space-time cognition between English and Chinese.

Theoretical Framework

According to Talmy (2000), our conceptualization of space involves two systems, one system is the frame to load things or locate things, and the other is the content of frame, including the shapes and relationships of the content. And there are three types of relations between the content with spatial features and the spatial framework. First is the spatial characteristics of an object itself; second is the relative spatial location between different objects; third is the spatial correlation between the components of an object, including a potential “schemata” and the “arrangement” between its components. The categorization provides a clear framework to understand which type of spatial relation is highlighted in plant conceptualization between English and Chinese.

Besides, the study of “attention”, which is rooted in psychology, is brought into the cognitive study of languages (Shu, 2008). That is, Language can place the focus of attention on some components of a situation by directly mentioning the features, while placing the other components in the background. The cognitive process associated with this phenomenon is called “windowing of attention”, of which the referred situation is called “event frame”. What’s placed into the spot is the “window”, while the parts being backgrounded are called “gap” (Talmy, 2000). In this paper, “windowing of attention” is used as a theoretical approach in analyzing the cognitive process behind the choice of translations for plant metaphors. We hypothesize that the “windowing of attention” varies between English and Chinese Plant conceptualization, spatial features of the plant are those being “windowed” in Chinese while those in the “window” are temporal changes of the spatial features of the plant in English, which provides evidence to the hypothetical space-time cognition contrast between the two languages.

Spatial-temporal Contrast in Plant Conceptualization through Metaphor Analysis

Different Windowing of Attention in the Spatial Cognition of Plant

The space-cognition contrast in PLANT conceptualization between English and Chinese can be demonstrated in the following “root” metaphor translations.

- a. 方剪草除根，保住自己的名誉。（第六十九回，第172页）

(Literal translation: Cut the grasses and remove the root, so can you save your reputation.)

- a1. Only by such **root-and-branch methods**, she felt, could her fears be allayed and the threat to her reputation be removed. (Chapter 69, p. 1363, Hawks)
- a2. In this way the **root of the trouble would be removed** and her reputation assured. (Chapter 69, p. 1238, Yang)

Yang’s translation is closer to the conventional meaning of this Chinese four-character phrase “剪草除根”, in which “根root” is considered the most essential part of the grass compared with other components, therefore the attention focus of the Chinese fixed phrase “剪草除根 (jian=cut cao=grass chu-remove gen=root) is on the second part-除根 (remove the root), which emphasizes the hierarchical spatial structure between the components of a plant in Chinese, that the focus of the phrase is “root”. However, 剪草 and 除根 share equal syntactical status, the trivial difference has to be perceived by semantic analysis, and the semantic analysis is restrained by the schemata in plant conceptualization in different languages and cultures.

As a native Chinese speaker, we can assume that Yang possesses the schemata in Chinese plant conceptualization, and from Yang’s translation choice, we can confirm our assumption. Yang did not translate the phrase literally as “*To cut the grass and remove the root*”, instead, he adapted the English form to maintain the essence of the phrase by translating it simply into “*the root of the trouble would be removed*”, omitting the “*grass-cutting*”. On the contrary, Hawks’ s translation of “root-and-branch methods” reserved the syntactical format of the original phrase. Besides, “*root-and-branch methods*” is also a conventional English phrase, which also shows the resoluteness of doing something.

However, different from “windowing” the importance of “root” as an essential component in a plant as a whole, Hawks’s translation demonstrates that he perceives the most resolute way to eliminate a plant is to curb its growing process in a “*root-and-branch*” way, of which “root” stands for the downward growth, while “branch” represents the upward growth. Hawks’s emphasis in the spatial cognition of grass is on the physical characteristics of grass, which is made of the branches above the ground and the underground root rather than the hierarchical relationship between different components. The individual spatial characteristics of the grass as unity are “windowed” against a time-oriented schema, the most logical way to “*remove the grass =solve the problem*” is to wipe the problem out in a “*root-and-branch way*”.

The different translations of the same “*grass metaphor*” demonstrate the disparity in space cognition between English and Chinese. In the process of plant conceptualization, Yang puts more emphasis on the hierarchical relationship between the components of a plant and the role each component plays in the whole framework, which is the third kind of spatial relationship that’s being underscored (Talmy, 2008). Meanwhile, Hawks’s cognition of a plant relies on individualistic spatial characteristics, which is the first kind of spatial

cognition according to Talmy's categorization. The first type of space cognition is relatively more flexible and dynamic, and it's time-oriented space cognition.

Space-time Cognition Contrast in Plant Conceptualization

From the above example analysis, we have reached a preliminary conclusion that Chinese conceptualization of space is relatively static, while English's conceptualization of space concepts is more frequently intertwined with temporal concepts, which took the form of an "Event Framework" involving more actions represented in verbal forms (Langacker, 2008).

Subject + Complement is a very common Chinese sentence structure, and the usual correspondent English translation has to be Subject+be verb+complement. For example:

a. Chinese: (S) 天气 Weather (C) 很好 good

English: (S) Weather (be verb) is (C) good.

The time-oriented dynamic conceptualization of plant in English is also found in Hawks's translation of the following sentence in *Dream of Red Mansion*.

b. 薛家根基不错，且现今大富，薛蝌生得又好，且贾母又作保山。(第57回-412页)

(Xues have a fairly good root, and now they are very wealthy; Xue ke is very handsome, and Grandmother Jia will be the match-maker.)

b1. Since the Xues came **of fairly good stock** and were now very wealthy, while Xue Ke was a handsome young man, and the go-between, moreover, was no less a person than the Lady Dowager. (Chapter 57, p. 579, Yang)

b2. The Xue family **were of respectable origins**; they were immensely rich; Xue Ke was a good-looking boy; and Grandmother Jia was making herself responsible for the match. (Chapter 57, p. 614, Hawks)

Hawks's translation of sentence b "were of respectable origins" falls into the same pattern of translation by adding the "be verb" between the subject and the adjective. It's argued by Langacker (1987) that compared with "be verb", action verbs are more of a dynamic temporal concept. Now when we take a look at Yang's translation of sentence b- "Xues came of fairly good stock", we can find that Yang used an action verb "came" instead of the "be" verb by default to compensate for the extra cognitive efforts required from the English readers to connect "fairly good stock" with a "good wealthy family background". Yang's translation can bridge the Chinese and English plant conceptualization differences, besides, it also implies that Chinese is more space-oriented while it's easier for English readers to deal with dynamic time-oriented concepts.

There's no denying that there is an overlapping between space-oriented cognition and time-oriented cognition since most matters can be understood and analyzed both as static objects and as developing events, and everything exists in space and time simultaneously. The difference lies in which is more emphasized. In the previous conceptual metaphor, FAMILY IS PLANT, the literal translation of the Chinese description "根基不错 (gen ji bu cuo)" is gen=root, ji=foundation, bucuo=fairly good. It can be found that more emphasis has been placed on the stability of the hierarchical family structure by connecting "root" with "foundation". The formation process of this "double-imaged" metonymy-based Chinese PLANT metaphor will be further illustrated in the following part of this paper. However, if the English translation of the phrase is composed as "Xue's have a fairly good root and foundation", it probably will confuse most of the English readers since their

perception of the metaphor FAMILY IS A PLANT relies on the similarity of developing and growing process between the family and plant rather than the stable constructional relationship between the components. Instead of vertical spacial growth, the image schema of a family is formed along the horizontal axis with stresses on involvement, therefore the only logical way to understand the metaphor is by relating “root” to the “origin” of the family from a temporal perspective, and that’s exactly what Hawks has chosen to do in translating the sentence as “The Xue family were of respectable origins.”

It can be concluded from the above analysis that when the “double-imaged” plant metaphor integrates plant and building, an image which enhances the hierarchical conceptualization of the plant, it’s difficult for the metaphor to be understood by English readers. Yet there are PLANT metaphors that are maintained in both two English translations, the conceptual metaphor DISEASE IS PLANT. Examples can be found in the translation strategies adopted by Hawks and Yang in translating the DISEASE IS PLANT metaphor.

c. 林丫头若不是这个病呢，我凭着花多少钱都使得。

c1. If that’s not **the root of her illness**, I’m willing to spend any sum to cure her. (Hawks, Chapter 97, p. 1050)

d. 贾母等知他病未除根，不许他胡思乱想……

d1. Knowing that **the cause of his illness was not yet uprooted**, his grandmother... (Yang, Chapter 98, p. 1068)

From the translation of sentences c and d, we learned that both Hawks and Yang reserved the conceptual metaphor DISEASE IS PLANT. One of the reasons for a more equivalent translation in form is that the spatial and temporal cognition of DISEASE as a PLANT overlaps. Therefore the cognitive efforts required to understand this metaphor are more or less the same even though the conceptualization of plant is more space-oriented in Chinese and more time-oriented in English.

However, whether the Chinese PLANT metaphor can be perceived easily by English readers depend on the other image integrated into the “double imaged” metaphor. The “disease root” metaphor is reserved in sentences c and d because disease is a concept that pays more or less equal attention to space and time in both English and Chinese. For other Chinese plant metaphors, it’s not easy for English readers who rely more on time-oriented plant conceptualization to comprehend. For example, the commonly accepted Chinese conceptual metaphor LIFE IS PLANT.

e. 贾母咳道：“这是宝玉的命根子，因丢了，所以他这么失魂丧魄的。（第95回，669页）

e1. “**This jade is the root of Baoyu’s life**,” sighed—the old lady. “It’s because he’s lost it that he’s out of his mind.” (Chapter 95, p. 1036)

e2. “**The jade is Bao-yu’s very life**. Losing it is what has made him lose his wits.” (Chapter 95, p. 981)

Conceptual metaphor LIFE IS PLANT in Chinese is also a “double-imaged” metonymic metaphor based on the physiological similarity between a standing person and a vertical tree, which is a space-oriented conceptualization. Besides, because a plant is perceived as a hierarchical structure between different components with “root” as the baseline (Langacker, 2013) when the image schema of a plant projects onto human life, the Chinese metaphor “命根子 (Ming Genzi: the root of life, Ming=life, Genzi=root) is used to emphasize the importance of jade. The same metaphor is translated differently by Hawks and Yang. Yang’s translation reserved the metaphor by literally translating it as “the root of Baoyu’s life” because Yang, as a

native Chinese speaker, subconsciously understands the metaphor between life and plant from a spacial perspective and is aware of the hierarchical relationship between the plant components, therefore choose to reserve the metaphorical form. On the contrary, Hawks only translated the sentence as “The jade is Baoyu’s very life”, omitting the plant metaphor. The reason for his translation choice goes to the cognitive discrepancy between plant-conceptualization. It is the growing process of a plant that is highlighted in the conceptualization, thus when the English readers try to understand the metaphorical projection between LIFE and PLANT, their dynamic developing features are focalized instead of the static comparison between the physiological appearance. Therefore Hawks chose to focus on the meaning and translate the sentence as “The jade is Baoyu’s very life” to avoid possible misunderstanding, for the literal translation stands the risk that English readers might think that “root of life” means that “Baoyu originates from the jade”, which is quite different from the intended meaning of the original text.

From the above analysis of PLANT metaphor translation, we can see that the translations adopted by English and Chinese translators are under the influence of their conceptualization of PLANT, or more specifically, the variance in the strategies used for PLANT metaphor translation is in line with the gap between the cognitive efforts paid to spacial concept between English and Chinese. When the gap is large, in other words, when the space-oriented cognition is the dominant domain in PLANT metaphor, it’s more unlikely for the metaphor to be reserved by a native English translator. Examples include FAMILY IS PLANT and LIFE IS PLANT. On the contrary, when the gap is small, that is to say, the formation of the PLANT metaphor requires similar cognitive efforts from space and time, in this condition the metaphor is more likely to be reserved in C-E translation in both two versions of translation. The translating strategies adopted by Yang and Hawks for the same PLANT metaphor further proved the spacial-temporal contrast in cognition. At least when it comes to the conceptualization of plants, we can conclude that the cognition of plants in Chinese is more space-oriented, while that in English is more time-oriented. Moreover, when space-oriented cognition is in the dominant position, usually more focus would be laid on the hierarchical structure and inter-relationship between various components of the matter. Meanwhile, when time-oriented cognition is highlighted, more attention would be paid to the historical development and distinguishing features of the matter as a whole.

Corpus Search and Statistical Analysis

Despite the analysis of typical plant metaphor translations from *The Dream of Red Mansion*, the spacial-temporal contrast in plant conceptualization is further proved with statistical support from corpus search and analysis of “root” related expressions in both English and Chinese. The data used in the following paper are drawn from Modern Chinese Corpus and COCA. 12,338 search results were found when we run a search for the character “根” in the online corpus of Contemporary Chinese, 2,000 sentences were selected randomly as the material for further analysis. By running manual filtering of the 2,000 sentences, only 345 root metaphors are found. Meanwhile, we have searched for the word “root” in the online corpus COCA and the first thousand sentences are chosen for analysis. Also by filtering the proper nouns and the other unqualified items, 372 root metaphors are found.

Table. 1

The Proportion of Specific Root Metaphors in Chinese and English

Root (根) metaphor In Chinese	Total No.	根 源 (root+origin =cause)	扎根 (take Root = beginning)	根部 (root part = bottom)	Uproot 根除	根 基 Root+foundation =Essence
	468	153	17	10	11	277
		32.6%	3.6%	2.1%	2.3%	59.1%
Root Metaphor in English	Root metaphor	(root=cause)	(root=beginning) Take root	root=bottom	root out	root=support root for
	372	199	90	4	27	56
		53.4%	24.1%	1.0%	7.2%	15.0%

Table 1 shows that the number of “root” metaphors based on ROOT+FOUNDATION=ESSENCE is the largest in Chinese, while the “root” metaphor of the largest proportion is ROOT=CAUSE in English. The results confirmed that Chinese plant conceptualization is more of a hierarchical structure between parts of the plant, of which root is the baseline. The fact that “root” metaphors based on ROOT=CAUSE is of the largest proportion in English also proved that English conceptualization of plants is more time-oriented, and the event framework of plant growth is the most frequently focalized feature in plant metaphor formation. The idea is also supported by the verb-based metaphorical expressions “take root” and “root for”. Meanwhile, the “root” metaphor that ranks second place in Chinese is “ROOT+ORIGIN=CAUSE”, the metaphor is 根源 (gen yuan) in Chinese, “gen=root, yuan=origin of river”, similar to the formation of “根基 (gen ji)”, in which “gen=root, ji=foundation”, “gen yuan” is also an example of using another image with features related to certain features of the plant to extract and enhance these characteristics of the plant, thus realizing the metaphorical projection from concrete “root” to abstract concepts like “importance” and “cause”. In other words, as for the Chinese ROOT metaphors, the attention gapping of root-related features is accomplished by adding more required features from another concrete image, and then the similar features between the two concrete images can be extracted and projected onto a more abstract concept. The cognitive process emulates block-building, when the accumulated required features reached a certain point, the abstract concept can be perceived.

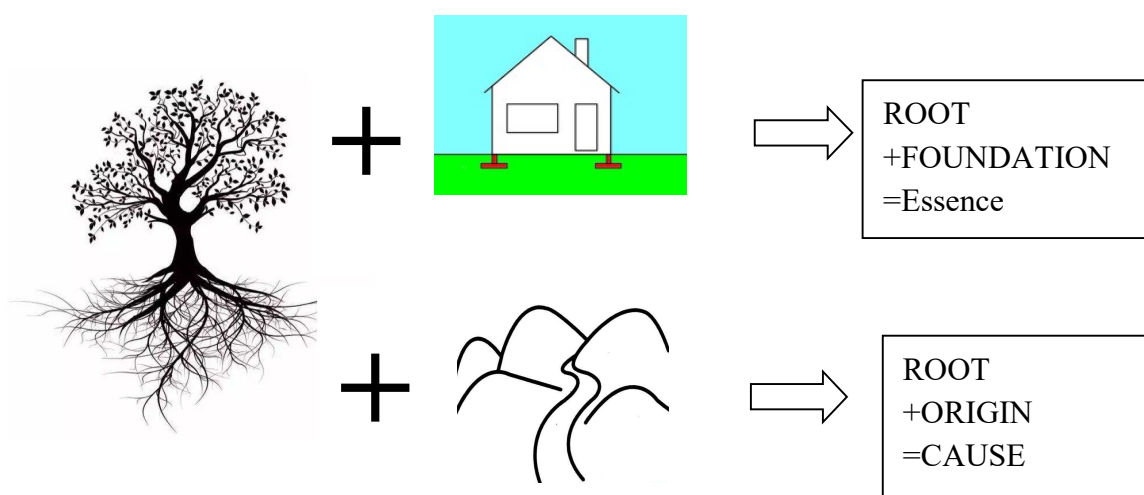


Figure 1. The Formation process of double-imaged root metaphor in Chinese.

<i>Conceptual metaphor:</i>	<i>Plant</i>	→	<i>House</i>	→	<i>Event/Thing</i>
<i>Spatial features:</i>	<i>leaves</i>		<i>roof</i>		<i>non-essential features</i>
	<i>Branches</i>		<i>ceiling</i>		<i>relevant influencers</i>
	<i>trunk/stem</i>		<i>wall/window</i>		<i>more important factors</i>
	Root	+	Foundation	=	Essence

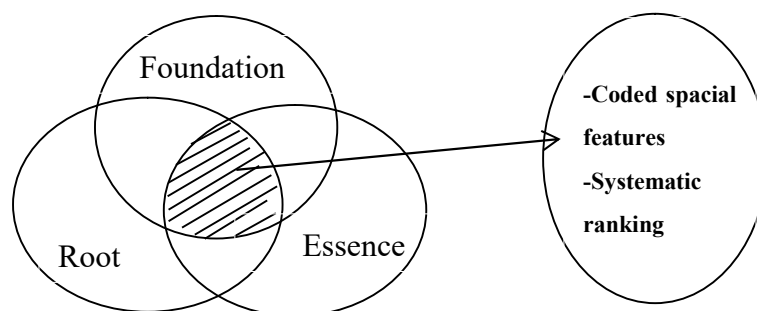


Figure 2. The multiple metonymies embedded in the double-imaged metaphorical projection (gen ji).

Specifically, the meaning “root=cause/origin” is not enhanced and focalized through the paralleled analogy between the concept of a “plant” and a “river”, the vertical hierarchical cognition of a plant is complemented with the horizontal development of a river. In this way, the more time-oriented meaning “root=cause” is underscored. Figure 1 shows the formation of the Chinese ROOT metaphors: “根基 gen ji (root+ foundation)” is usually used to emphasize the importance of things, while “根源 gen yuan (root+origin of a river)” is applied to refer to the cause of some events. It can be seen from Figure 1 the connotative meaning of 根 (gen=root) in Chinese has a more or less balanced distribution between “importance” and “cause”, since “root” is both the most essential part of a plant and the very beginning of a plant. The focalization on either of these two relies on the feature accumulation by juxtaposing another image with “root”, thus enhancing certain features of root to achieve the cognitive metaphorical projection between “root” and “essence” or “root” and “cause”. The metaphorical projection is realized through the accumulation of metonymies construed between different concepts through proximities in certain spatial features and ranking within each correspondent conceptual system. In other words, the metaphor is realized by building “metonymic blocks to shorten the distance between the concrete “root” and abstract concepts such as “essence” or “cause” (Shu, 2011). The double-imaged metaphor is also a common way of word formation in Chinese, the accumulation of “metonymic blocks” is itself another evidence to the hypothesis that Chinese is generally more space-oriented in cognition.

Without the integrated image, simply 根 (gen=root) can be used to refer to both reason and the essence. Examples can be found in the online Modern Chinese Corpus:

e. 打归打，骂归骂，究**根儿** (gen er=root) 都是为儿女有前程！(1982-8-5, *Hua Xi Magazine*)

The **root** of all the scolding from parents is to ensure a promising future for the children.

f. 倒是太行山、盘山、家乡的土丘、荷塘更令他激动不已，他发现这才是他的**根**(gen=root)。

Yet what excites him the most are the Tai-hang Mountains, winding roads, hills and lotus ponds of his homeland, this is when he realizes what is his **root** (1990-6-19, *Tianjin Daily*).

In sentence e, “root” is the metaphorical expression for reasons, while in sentence f, “root” should be understood as “the essence” of the man according to the context. It is evident that without being combined with other images, the connotative meaning of “root” is flexible and largely depends on the context. However, according to the statistics of Table 1, a larger number (59.1%) of the root metaphors are double-imaged metaphors when the root metaphors are enhanced with features from the constructional concept-“foundation”, which is in line with the hypothesis in this paper, that Chinese conceptualization of PLANT metaphor is more space-oriented. Yet we have to admit that although less frequently, a plant can also be perceived from a temporal perspective in Chinese such as the “根源 (root+origin=cause) (32.6%)”, the way of forming this metaphor, as illustrated in Figure 1, is the same “metonymic block-building” process adopted in generating a spatial PLANT metaphor, as shown in Figure 2. The formation of double-imaged metaphors relies on the proximity in the spatial features and the similar ranking of these images in their conceptual system. Therefore, only concepts that share a similar hierarchical spacial structure can be easily integrated and used as one metaphorical reference to another more abstract image. The fact that double-imaged metaphor occupies the majority of root metaphors not provides evidence of the space-oriented conceptualization of plants in Chinese, but also implies a possible space-oriented cognition of other concepts in general.

Conclusion

Through the analysis of “root” metaphor translations drawn from the two English translations of *Dream of Red Mansion*, it is proved that the translation strategies adopted by the two translators are closely associated with the different focus in plant conceptualization between English and Chinese. More cognitive efforts are made in understanding, categorizing, and building a hierarchical structure composed of the spatial features of various components of a plant in Chinese, whereas relatively more attention is paid to the involvement of the spatial features of a plant as a whole from a temporal perspective. The argument is proved by the translation choices made by Hawks and Yang. The fact that some plant metaphors are not reserved in Hawks’ translation yet maintained in Yang’s translation can be reasonably explained by the gap between the cognitive efforts distributed to space-oriented characteristics between English and Chinese in the conceptualization process. When the gap is small, it’s very likely the metaphor can be reserved in the English translation, such as the “root of disease” metaphor. However, when the gap is large, there is a good chance that the metaphorical form would be deserted in the translation, for example: “the root of the family” and “the root of life”. The cognitive reasons behind the translation strategies support the argument that Chinese is more space-oriented in plant conceptualization and English is more time-oriented.

The argument has been further proved with statistical analysis of the corpus search results. The “root” metaphor that accounts for the largest proportion in Chinese is the “root+foundation=importance” metaphor, which emphasizes the spatial features of a plant, and the hierarchical correlation between the components of a plant. On the contrary, the “root” metaphor of the largest number in English is “root=cause”, which emphasizes the changes in spatial features from a temporal perspective. Besides, the formation process of relevant root metaphors in Chinese is a feature accumulation process through combing two concepts, which relies more on space-oriented quantitative cognition. Whether the space-time cognition contrast also exists in the conceptualization of other objects and the reason for the contrast still needs further investigation.

References

- Cao, X. Q. (2001). *A dream of red mansions* (four volumes). (X. Y. Yang & N. D. Dai, Trans.). Beijing: Foreign Language Press.
- Cao, X. Q. (2013). *A dream of red mansions* (two volumes). Beijing: People's Literature Publishing House.
- Eco, U. (1985). The semantics of metaphor. In R. E. Innis (Ed.), *Semiotics, an introductory anthology*. Indiana: Indiana University Press.
- Grady, J. (1997). *Foundations of meanings: Primary metaphors and primary scenes*. Berkeley: University of California.
- Hawks, D. (1986). *The story of stone*. Great Britain: Penguin Books Ltd.
- Hu, K. B. (2011). *An introduction to corpus translation*. Shanghai: Shanghai Jiaotong University Press.
- Kovecses, Z. (2005). *Metaphor in culture: Universality and variation*. Cambridge: Cambridge University Press.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: Chicago University Press.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. New York: Basic Books.
- Langacker, R. (1987). *Foundations of Cognitive Grammar*. Stanford, CA.: Stanford University Press.
- Langacker, R. (2013). *Essentials of Cognitive Grammar*. Oxford: OUP.
- Liu, Z. G., & Xu, H. Q. (2019). Differing conceptualizations of time-space in English and Chinese: Time-space distinction vs. time-space conflation. *Foreign Language Teaching and Research*, 51(2), 163-175.
- Liang, Ma. C., Li, W., & Xu, J. J. (2010). *Course on corpus application*. Beijing: Foreign Language Teaching and Research Press.
- Liu, Z. Q. (2010). A corpus-based study of translator style and translation strategies—A case study of reporting verbs and English translation in *Dream of Red Mansions*. *Journal of PLA Foreign Languages Institute*, 33(4), 87-92.
- Mao, Z. C. (1982). The Wild Chrysanthemum behind the grass. *Huaxi Magazine*.
- Ren, S. Z. (2006). Conceptual metaphor and discourse coherence. *Foreign Language Teaching and Research*, (2), 91-100.
- Shu, D. F. (2011). *Metaphor and metonymy*. Shanghai: Shanghai Foreign Language Education Press.
- Shu, D. F. (2008). *Cognitive semantics*. Shanghai: Shanghai Foreign Language Education Press.
- Talmy, L. (2000). *Toward a cognitive semantics*. Cambridge: The MIT Press.
- Wang, Y. (2012). Cognitive translation studies. *Chinese Translation*, (4), 17-23.
- Xu, S. H. (2014). The origin, occurrence and construction of metaphor. *Foreign Language Teaching and Research*, (3), 364-374.