

Silk Metaphors in Chinese Characters

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Abstract

Within the framework of cognitive linguistics, the research introduces the image-based feature of Chinese characters and explores metaphor motivations behind Chinese characters containing images of silk. By studying the existing earliest constructions of those characters and analyzing the corresponding form-meaning connections, three conceptual metaphors are put forward, namely, "LINK IS SILK"; "END IS KNOT", and "THOUGHT IS SILK". There are altogether seven characters with the "LINK IS SILK" motivation, and their character meanings form a coherent system in terms of different aspects of "LINK". The metaphor "END IS KNOT" seems to be consistent with the metaphor "LINK IS SILK" and only one character is found motivated by the former. The metaphor "THOUGHT IS SILK" is reflected in the sound form and meaning connection of the Chinese character "思", and the sound form is connected with the silk image. All the three metaphors are also reflected in Chinese words and literature, which shows the consistency of Chinese thought patterns. Comparison study with English reveals the three silk metaphors are probably specific to the Chinese language and culture.

Key words: Chinese characters; Character constructions; Image; Conceptual metaphor; Silk

1. INTRODUCTION: CHINESE CHARACTERS AND IMAGE THOUGHT

As one of the oldest ideographic systems in the world, the Chinese script has gone through more than 3,400 years' evolution since the oracle bone script stage, and is still full of vitality. Chinese characters originated from image thought, and conveying meaning through images embodied in character structures is an important method of forming Chinese characters. According to *Shuowenjiezi*, an ancient dictionary of Chinese characters compiled in the Eastern Han Dynasty by Xu Shen (58A.D. – 147 A.D.), Chinese ancestors created Chinese characters by drawing the images they found in their bodies and their environment, and those picture writings imitating images in people's cognition are the earliest Chinese characters and they form the base of the Chinese script.

In his postscript to *Shuowenjiezi*, Xu Shen generalized the origin of Chinese characters with the following words:

古者庖羲氏之王天下也,仰则观象于天,俯则 观法于地,视鸟兽之文与地之宜,近取诸身,远取 诸物,于是始作易、八卦,以垂宪象。及神农结绳 为治而通其事, 庶业其繁, 饰伪萌生。黄帝之史仓 颉,见鸟兽蹄远之迹,知分理可相别异也,初造书 契。(In the primitive times when Fuxi was the leader of the Chinese people, up he observed the celestial bodies in the sky, down the natural regular patterns on the earth, and contemplated the images of birds, beasts and natural scenes; form near he drew materials from the human body while far from the other things, and hence he created the Eight Trigrams to signal various things, beings and changes in the world. Then it came to the times of Shennong, people began to tie knots to record what had happened to help communication; they prospered on the earth and were engaged in many different occupations, so more and more man-made things came into existence. As the official historian of the Yellow Emperor, Cangjie watched the foot prints of birds and beasts, knowing those can be used to identify different animals, and got the inspiration to create carved graphs.)

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This passage holds that Chinese ancestors got the inspiration for creating characters from the observation of their surroundings and the human bodies, that is, from their interaction with the world. Also in the postscript to Shuowenjiezi Xu Shen explains that Chinese characters of the first stage are "文" (single-element Chinese characters), which consists of self-explanatory characters and pictographs, and "文"(single-element Chinese characters) developed and combined to construct more complex "字" (composite characters). This view has been proved by the study of Zhu Minshen in Chinese Paleography and Shuowenjiezi (Zhu, 1998, p.110). According to Zhu Minshen's study, self-explanatory characters and pictographs comprise the earliest Chinese characters. Although self-explanatory characters are classified as a different type from pictographs, both types are picture writings. Tang Lan, an eminent scholar in Chinese character study, points out that self-explanatory characters and pictographs are picture writings (Tang, 2005, pp.48-56) and those are primitive Chinese characters which were developed and combined to construct more complex characters (Tang, 2005, pp.64-65).

Self-explanatory characters and pictographs belong to the "six categories of Chinese characters" (六书). The famous theory "six categories of Chinese characters" in Shuowenjiezi classifies Chinese characters into six types: ① pictographs (象形), ② self-explanatory characters (指 事),③ associative compounds (会意),④ pictophonetic characters (形声), ⑤ mutually explanatory characters (转 注), ⑥ phonetic loan characters (假借). The first four types are four basic manners of creating new Chinese character structures, while the last two types are about "the connections between characters", with mutually explanatory characters (转注) referring to characters which are similar in meaning and therefore can be used to explain each other, and phonetic loan characters (假借) from recording one character without an original written form by virtue of another character sounded similar. (Ding, 2005, pp.277-281) So pictographs (象形), selfexplanatory characters (指事), associative compounds (会 意), and pictophonetic characters (形声) are four major patterns of forming Chinese character structures.(Zhang, 2000, p.25)

In Chinese paleography, Chinese characters of the first stage consist of pictographs and self-explanatory characters. Ancient pictographs such as \bigcirc (sun), \mathcal{D} (moon), \mathfrak{G} (water), \mathfrak{G} (fire), \bigstar (tree), \checkmark (human being), \mathfrak{G} (hand), \mathfrak{G} (heart), \bowtie (mouth) display the features of corresponding images through their visual forms, and they are just simple pictures of what they represent. " \perp " (up) and " \mathbb{F} " (down) are categorized as self-explanatory characters by Xu Shen in *Shuowenjiezi* and their oracle bone inscriptions are \doteq and \frown respectively. \doteq (up)

and \frown (down) represent the concepts "up" and "down" through the space relationship of a short line relative to a

longer line, and they are just like the image schemata of the two concepts, of which the longer line can be regarded as the landmark, while the short one is the trajectory. Although the modern character forms " \pm " (up) and " \mp " (down) have changed a lot compared with their oracle bone inscriptions, their way of signifying corresponding meanings is about the same.

Pictographs and self-explanatory characters are single-element characters that can be further combined to form another type of ideograms, namely, associative compounds. Most associative compounds are also like pictures with more complex structures. The following are some examples: A person leaning upon a tree makes the character $\mathcal{T}(\text{rest})$; an adult carrying a baby on the back constructs the character $\mathcal{T}(\text{protect})$; a hand on a tree \mathcal{T} means "pick". Those associative compounds are just extension to pictographs and their forms are closely related to their meanings due to the similarity between them.

From the beginning, the invention of Chinese characters is not merely for the purpose of recording language sounds, but for representing meanings. The close connection between structures and meanings of characters is one characteristic of the Chinese script, and images are essential for Chinese characters' signifying meanings by structures. Although picture writings can imitate images in people's minds, it's difficult for them to express abstract ideas, which compels Chinese characters to evolve towards phonography. But it seems that Chinese people prefer employing images to express meanings or concepts, so they created pictophonetic characters as a compromise to solve the problem facing typical ideograms such as picture writings. A pictophonetic character is composed of two elements: the idea component which retains the ideogrammatic feature by indicating the relevant meaning of the character, and the sound component that indicates the pronunciation of the character. "江" (large river) and "河" (river) are typical pictophonetic characters, and the "i" in them signifies that the referents of the two characters are about water, while the symbols "工"and"可"indicate the pronunciations of them respectively. The idea components of pictophonetic characters are always pictographs and self-explanatory characters, which reflect the traditional expressing method of the Chinese people – "embody meaning by images".

2. CONCEPTUAL METAPHOR THEORY

Lakoff and Johnson put forward the conceptual metaphor theory (CMT) in *Metaphors We Live By* first published in 1980, which brought about a revolution in metaphor study. Contrary to traditional view that metaphor is a rhetorical device with a decorative function, CMT claims that metaphor is essentially a cognitive mechanism constructing man's conceptual system, and it is ubiquitous in our everyday life. Since the introduction of CMT the cognitive metaphor study has attracted many scholars' attention, and much research has been done in this field so that the theory has advanced greatly in theory construction and research methodology (Lakoff, 1987; Lakoff & Turner, 1989; Lakoff, 1993; Grady, 1997; Yu, 1998; Lakoff & Johnson, 1999; Kövecses, 2000, 2005, 2010, 2020; Deignan, 2005; Gibbs, 2017).

"Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature." (Lakoff & Johnson, 1980, p.4)

"The essence of metaphor is understanding and experiencing one kind of thing in terms of another." (Lakoff & Johnson, 1980, p.5)

Standard CMT assumes that metaphor is a systematic mapping from the source domain to the target domain, of which the source domain is usually more concrete and more clearly delineated than the target domain, and the metaphoric mapping is restricted by the properties of the target domain according to the Invariance Principle. Kövecses modifies the two-domain approach theory and defines conceptual metaphor as "a systematic set of correspondences between two domains of experience" (Kövecses, 2020, p.2), and this adjusted definition is more inclusive because it doesn't emphasize the unidirectionality of metaphorical mapping.

As a basic cognitive mode, conceptual metaphor emerges from man's physiological functions and the interaction with their physical and cultural environment. According to Yu (2008), metaphor emerges from the interaction of our sensorimotor experience and cultural experience. In the process of metaphor conceptualization, culture functions as a filter to determine which aspects of sensorimotor experience work in metaphorical mapping.

Kövecses has done much in-depth research in the relationship between metaphor and culture. According to Kövecses, embodiment and context are two simultaneous pressures in shaping metaphors. Context is determined by local culture and it may be characterized by many factors such as physical, social, cultural and discourse aspects (Kövecses, 2010, p.204). Near-universal or potentially universal conceptual metaphors emerge from commonality in physiological experience, namely, universal embodiment. When cultural specificity plays the more important role in molding metaphors, culturespecific metaphors result. Besides cross-cultural variations, metaphors may vary within cultures "along a number of dimensions including the social, regional, ethnic, style, subcultural, diachronic and individual dimensions" (Kövecses, 2010, p.217).

3. RESEARCH METHOD

As illustrated above, Chinese characters originated from image thought, and images play an important role in constructing Chinese characters. Even abstract concepts are expressed through images, which are realized mainly in two ways, namely, metonymy and metaphor. One common type of metonymy in Chinese characters' conveying abstract meanings is "A SITUATION / THING FOR ITS CHARACTER". Here are two examples The oracle bone inscription of the character " \ddagger "is \nexists , whose visual form shows the image of a vessel containing high-piled food, and the character meaning is "abundant, plenty." The oracle bone inscription of the character "高" is 员, which depicts the image of a tall tower, while the character meaning is "high, tall". Metonymy seems more common in forming Chinese characters while metaphor is more interesting, and it is metaphor that gives birth to the poetic quality of Chinese characters. For instance, the oracle bone inscription of the Chinese character "永" is \mathcal{M} , which is a sketch of a flowing river with the open part on the left as its branch, and it has two meanings in ancient Chinese literature: "long flowing water" and "forever". Both usages of "永" appear in The Book of Songs (《诗经》, about 1100 BC - 600 BC), and the latter meaning became fixed while the former was buried in history, which reflects the underlying metaphor "TIME IS A FLOWING RIVER".

As metaphors emerge from man's physiological functions and the interaction with their physical and cultural environment, research on metaphors underlying the structure and meaning connections of Chinese characters can help us explore the cognition mode of the Chinese people, and shed some light on the universality and cultural variety of conceptual metaphor. Chinese characters are rich in images that come from Chinese people's observation and experience of themselves and the world, and using concrete images to deliver abstract ideas is a habitual thinking mode of the Han people; so it is a reasonable method to explore metaphors in Chinese characters through images, which can be performed systematically and is convenient for comparison with metaphors in Chinese literature.

The theme of this paper is researching metaphors in Chinese characters with the silk image as the source, which involves all the characters containing images of silk in *Shuowenjiezi*. There are al- together 254 such characters, including 248 characters subsumed under the radical "\$``, and other characters that are not under the radical "\$``, and other characters that are not under the radical "\$``, and other characters that are not under the radical "\$``, and other characters that are not under the radical "\$``, and other characters that are not under the main research method is as follows: First, trace the existing earliest form of the character containing the image of silk; second, analyze the meaning and structure connection of the earliest character form according to the explanation given in *Shuowenjiezi* and other character books; third, judge whether there is metaphor motivation in the meaning and structure connection; fourth, if there is metaphor motivation, identify the relevant metaphor and search Chinese literature to see whether it is also reflected in the Chinese language; fifth, try to find English metaphors similar to those identified Chinese metaphors by consulting English dictionaries, metalude¹ and searching the English corpus BNC, and then compare the English metaphors with those Chinese metaphors.

Metaphor study in Chinese character forms is a relatively new field both in China and abroad. But similar studies on Egyptian hieroglyphs have been done by Goldwasser systematically in her work *From Icon to Metaphor, Studies in the Semiotics of the Hieroglyphs*, which was published as early as in 1995, and is illuminating for our research in Chinese character metaphors. However, the Chinese script and hieroglyphs are two different writing systems and there are surely much difference as to metaphor study. It is expected that the study can reveal a tiny tip of Chinese culture psychology and provide some insights into the nature of metaphor.

4. THE CHARACTER METAPHOR "LINK IS SILK"

Chinese ancestors used silk thread to sew clothes and tie accessories, and a large part of their cognition about abstract relation emerges from such daily experience of silk, which is reflected in the structures and meanings of the following characters: "系", "孫", "聯", "繼", "續", "斷", "絕". What needs noting is that those characters are traditional Chinese characters which are closer to the original forms and more complex than simplified characters used in China now, and their simplified forms are "系", "孙", "联", "继", "续", "断", "绝" respectively. The structures of all those seven characters are related to silk, as is shown by the constituent signs "糸", "坛 ", and "#" that represent silk in those characters; and the meanings of them involve abstract relation as well as concrete connection. However, the forms of "系", "孫", "聯", "繼", "續", "斷", "絕" and are still quite different from their original constructions. So if we want to research into Chinese ancestors' cognitive style and culture psychology in creating those characters, we need to trace those characters' evolution in history and analyze the connections between their early forms and meanings, which is the main work of this section.

 upper part of which is a pictograph of a hand, and the lower part is the image of two or three bundles of silk linked together. Bronze characters follow oracle characters in Chinese history and most bronze characters have the same structures as their oracle forms, so are the bronze forms of "系": $\overset{\circ}{R}$ or $\overset{\circ}{R}$. As the existing earliest forms of the character "系", the two oracle bone characters $\overset{\circ}{R}$ and $\overset{\circ}{R}$ evolved into $\overset{\circ}{R}$ in the Qin Dynasty (221 BC – 207 BC), which is a character in the small seal style. Small seal characters adopted in the Qin Dynasty have simpler structures than the original ones, as a result, they are not so pictographic as the oracle characters. $\overset{\circ}{R}$ at last changed into its modern form "系", which retains very little pictographic element.

The form of "系" has changed several times in history, while its meaning has been more or less constant. In the Grand Dictionary of Chinese Characters (2010, p.3582), the first sense listed under the entry "系" is "联属,连 接"(connect, link), of which the example presents an abstract use of "系". In the Grand Dictionary of Chinese Characters, most of the 11 senses listed under "系" are abstract, and only the seventh, the eighth and the eleventh senses are concrete. Although the original form of "系" depicts a concrete action, as a character its meaning in use involves both abstract and concrete sides, and that reflects the Chinese way of expressing the abstract through the concrete. The following are two examples of "系" being used to refer to abstract link in ancient Chinese: (1) "系之 以姓而弗别。" (linked together by the surname of the same ancestor, they are not different) The sentence comes from the Book of Rites (《礼记》, 202 BC - 8 AD); (2)"逸乐,顺性者也,斯实之所系矣。"(Comfort and pleasure conform to human nature, and that is related to reality.) The sentence comes from Lie Zi(《列子》, 450 BC - 375 BC).² In the two examples, the English words in bold correspond to the Chinese characters in bold respectively. Analyzed in light of the concept metaphor theory, the relation between the abstract meaning of the character "系" and its concrete structure is metaphorical.

4.2 The Character "孫"

In Shuowenjiezi, the character "孫" is subsumed under the Chinese character radical "系", and it is followed by such an explanation: "孫, 子之子曰孫。从子从 系。系, 续也。"("孫" means "grandson", who is the son of one's son. Its structure consists of "子" and "系", and here "系" means "follow, continue".) The oracle bone character of "孫" is **%**, which is comprised of two pictographs; the left one is the image of a swaddled baby with two arms outside, and the right one is the image of a bundle of silk. The two parts of the regular

¹ Metalude means "Metaphor at Lingnan University, Department of English, Hong Kong"; it is an interactive database of conventional, lexicalized metaphors in English, compiled mainly by Andrew Goatly.

² Both Chinese examples are retrieved from the ancient Chinese corpus in "语料库在线". http://corpus.zhonghuayuwen.org/ACindex.aspx

4.3 The Character "聯"

The sense of the Chinese character "聯" is similar to that of "系", meaning "connect, join". The structure of "聯" contains "坛" as its component, and "坛" evolves from a pictograph meaning "silk". According to the explanation of "聯" given by Xu Shen in *Shuowenjiezi*, the Chinese ancestors employ the pictographic symbol "坛" to indicate the meaning "connect, join".

Figure 1 below illustrates the etymology of the character "聯". The one on the left marked with "1" is the original form of the modern character "聯", which is an oracle bone character in the Shang Dynasty (1600 BC – 1046 BC), assuming the image of three bundles of silk linked together. The character form marked with "2" is a bronze character in the Western Zhou Dynasty (1046 BC - 771 BC), which retains the image of linked silk, only the number of silk bundles being two. The number 3 character form appeared in the Warring States Period (475 BC - 221 BC), and it includes a new component "**A**", which is an image of a ear, and is used here to suggest the pronunciation of the whole character. The first three ancient forms of the character "聯" all employ the image of linked silk to express the character meaning "connect, join", and in actual use its meaning is not confined to concrete things, but also involves abstract link. The number 4 form is a small seal character in the Qin Dynasty (221 BC - 207 BC); the number 5 is a

clerical script character in the Han Dynasty (202 BC - 8 AD; 25 AD - 220 AD); and the last one is a regular script character. In the last three characters, the link between the two bundles of silk is omitted and the character has become a pictophonetic character.



Figure 1

The evolution of the Chinese character "聯" (Li, 2013, p.1047)

4.4 The Character "繼"

The Chinese character "繼" means "continue, follow, succeed", and its earliest recorded form is a oracle bone character, which is the picture of two bundles of silk, and the three transverse lines mean the silk are continued at those parts. As figure 2 below shows, the oracle bone character evolved into the bronze character $\frac{1}{2}$; $\frac{1}{2}$; depicted two bundles of silk come to the end, and are continued by two other bundles of silk, with the "=" as an ellipsis. $\frac{1}{2}$; evolved into the small seal character $\frac{1}{2}$, of which the left part is a pictograph depicting silk, and here it is added to emphasize the meaning of

the character is "continue". The right part of 繼 still retains the pictographic characteristic of its early form,

and 繼 changed into the modern form "繼". Although the construction of "繼" is based on the image of joining silk, its actual use has never been confined to concrete connections since it was created, and in ancient Chinese literature, the meaning of "繼" is often abstract, as is the case with the previous mentioned characters "系" and "聯".



Figure 2

The evolution of the Chinese character "繼"³

4.5 The Character "續"

continuing silk

"續" and "繼" are synonyms. "續" is a pictophonetic character with the idea component "系" indicating the meaning of the character, and the sound component "賣" indicating the pronunciation of the character. The idea

component "**½**" originated as the pictograph **》**, which shows the image of a bundle of silk, and **》** later changed into "糸", the latter further simplified into "**¾**" in modern Chinese. The construction of the character "續" illustrates that Chinese people just prefer to use the image of silk when they express the meaning "continue, follow".

³ The figure is made according to the character information retrieved from "汉典网", a website devoted to Chinese classics. https://www.zdic.net/hans/%E7%BB%A7

4.6 The Character "斷"

The characters "斷", "絕" mean the opposite of "繼", "續", and their constructions are just motivated by the same metaphorical thought as "繼", "續". The small seal form of "斷" is ", According to the explanation given in *Shuowenjiezi*, the left part in in an ancient form of the character "絕", which is a pictograph depicting cutting a bundle of silk with a knife (see the interpretation of "絕" in the next paragraph), and the right part evolved from the meaning "hatchet". Was added to be to emphasize the meaning "cut, sever". So "斷" and "絕" are cognates with the same meaning.

4.7 The character "絕"

The Chinese character "絕" means "sever, cut off", ε_1 its earliest recorded form is an oracle bone character """ ", which comprises two parts, the right part """ being a pictogram of a bundle of silk, and the left part """ meaning "knife". evolved from """, and the former leaves of the blade of the latter. So the oracle bone character is shows an image of a knife being used to cut off a bundle of silk, and thr "th this image it cut reys the meaning "sever, cut off". "S" changed into """ in the Warring States Period, and the latter depicts two bundly of silk being cut off by a knife. The bronze character "" " developed into "^A", a small seal character, which became the modern form "絕" at last. All the different forms of "絕" have "silk" and "knife" as their elements, and its meaning in use involves not only concrete actions but also abstract situations.

4.8 Summary

"The forms of Chinese characters are constructed according to the meanings of those Chinese words they recorded correspondingly, and that has been one feature of Chinese ideographs since oracle bone characters." ("汉字是靠着它记录的汉语的词的词义来构形的,这 正是表意文字的特点。这一点从甲骨文时就是如此 了。") (Wang, 1994, p.10) The Chinese characters "系", "聯", "繼", "續", "斷", "絕" can not only mean concrete connections, but also mean abstract relations. When Chinese ancestors created those characters, they employed pictographs of silk to express both concrete and abstract meanings of the corresponding words in the Chinese language, which shows they understood and expressed abstract ideas through concrete images. Sericulture originated in China and has been a major industry ever since. In ancient China, most women were occupied in silk weaving besides housework, they spun and wove deep into the night to make silk cloth. Ancient Chinese people were so familiar with silk that silk had become an indispensable element in their lives and thought. The Chinese characters "系", "聯", "繼", "續", "斷", "絕" are what Chinese people use in their everyday life to express their personal relationships, and it seems that the Chinese people understand their personal relationships mainly through the image of silk.

As illustrated above, the structures of the Chinese characters "系", "孫", "聯", "繼", "續", "斷", "絕" reflect the underlying concept metaphor: "LINK IS SILK". Those Chinese characters constitute a coherent system based on the same metaphorical thought, and they are characters Chinese people use in their everyday life to express abstract relation and concrete connection. This system arose from Chinese ancestors' experience in producing and using silk. Reeling off raw silk from cocoons, spinning silk thread, weaving silk cloth, and sewing silk clothes, all those activities involve repetitive connecting and cutting. Chinese ancestors were so familiar with silk in their everyday life that they gained a deep understanding of the continuous quality of silk, and silk became a prototype of their schema of link. The concept metaphor "LINK IS SILK" is not only embodied in the structures of the Chinese characters "系"(系), "孫"(孙), "聯"(联), "繼"(继), "續"(续), "斷"(断), "絕"(绝), but also expressed in Chinese words and literature. In Chinese people' eyes, various abstract links in their lives are just like silk, which can be "联系"(connected, tied), "继 续"(continued, resumed) or "断绝"(cut off). The Chinese idiom "千丝万缕"(thousands of silk thread) is always used to describe complex connections between things, and it usually collocates with "联系"(as a noun this word means link, connection) to form the expression "千丝万 缕的联系"(thousands of silk thread links), as the result of searching the modern Chinese corpus shows⁴.

In the metaphor "LINK IS SILK", abstract link is understood and expressed through mapping the image schema contained in silk onto abstract connections, and the image schema contained in silk is the LINK image schema. Johnson (Johnson, 1987, pp. 117-119) lists the LINK schema as one of those basic image schemata in people's cognition, which is acquired through people's experience with various links in their lives: umbilical cords of newborn babies, children's being hand in hand with their parents, electric wires connecting table lamps to power supply, the continuity of events in time, causal relationships, and so on. All those experiences share a common LINK schema, which can be depicted as the - B, of which A and B represent the diagram: A •-two sides of the link, and the line between them stands for the link.

The common LINK schema shared by abstract link and the image of silk makes it possible for Chinese characters to express abstract connections through the image of silk. The same schema is also the motivation behind the meaning shift of the English word "tie" from the concrete "string or cord" to abstract "connections". Although

⁴ The corpus website: http://corpus.zhonghuayuwen.org/, and the word searched for is "千丝万缕".

the LINK schema is universal, the metaphor "LINK IS SILK" seems to be specific to Chinese culture, and it is a traditional thought pattern of the Chinese originated from Chinese people's experience with silk and passed down through the Chinese language and culture.

5. THE CHARACTER METAPHOR "END IS KNOT"

The previous section shows that abstract relations and the continuity of events can be understood and expressed as "silk" through the metaphor "LINK IS SILK" in Chinese culture, and the "silk" mainly means "silk thread"; interestingly, there exists another character metaphor that seems consistent with the "LINK IS SILK" metaphor, which is "END IS KNOT".

The oracle bone character \bigwedge is the original form of two characters "终" and "冬", "终" meaning "end, finally, in the end", and "冬" meaning "winter". According to *the Etymology Dictionary of Chinese characters* (2008, p.766), the form of \bigwedge is like a silk thread with two knotted ends.



Figure 3

The evolution of the Chinese character "终"⁵

Figure 3 above illustrates the etymology of the Chinese character "终" from its oracle bone form in the Shang Dynasty to its small seal form in the Han Dynasty, which shows the radical \$ was added to the original structure to reinforce the meaning "connection with silk". The right part of the fifth form $\frac{1}{320}$ in the figure is $\frac{1}{2}$, which is the same as the small seal form of the character "冬", and the "仌" below is a pictograph meaning "ice". So unlike its original form, $\frac{1}{320}$ has become a pictophonetic character with $\frac{1}{2}$ as its sound component and $\frac{1}{3}$ as its idea component. $\frac{1}{320}$ at last changed into its modern form "終", and the latter was further simplified into "终".

Both " \mathfrak{B} " and " \mathfrak{B} " evolved from the oracle bone character Λ , which expresses the meaning "end" and "winter" through the image of a silk thread with two knotted ends, and the "end" meaning mainly involves ends of time or events. Why did the Chinese ancestors employ such an image to express abstract ends? One possible explanation is that they knotted the end of thread after spinning. Besides, when they finished sewing clothes, the thread end would be knotted. So the connection between knotted thread ends and completed work motivated them to choose the image of knots to express the meaning "end, finally, in the end" or "winter", as winter is the end of a year. The knotted ends in \bigwedge correspond to ends of time or events, reflecting the underlying metaphor "END IS KNOT".

The metaphor behind the creation of the character Λ is even clear in light of the same thought pattern lexicalized in Chinese words such as "结局", "结束", "了 结", and "结算", to name but a few. The character "结" in those words means "knot, tie". "结局"(knot situation) means "ending"; "结束"(knot bind) as well as "了 结"(finish knot) means "end, bring to an end"; and "结 算"(knot calculate) means "settle accounts", which is also connected with "end".

Associated with the metaphor "LINK IS SILK", the "END IS KNOT" metaphor can end a link with a knot, as shown in the Chinese sentence: "完成一定任务后即**结束** 合同关系"(word for word: *tie bind contract relation link;* English meaning: *end the contract relation*)⁶. So the "END IS KNOT" metaphor is consistent with the metaphor "LINK IS SILK".

6. THE CHARACTER METAPHOR "THOUGHT IS SILK"

The Chinese character "思" means "think" or "miss", and its ancient form dated back to the Qin Dynasty is .The upper part of $\overset{\otimes}{\Leftrightarrow}$ is " \boxtimes ", which means fontanel at the top of the head; its lower part is " \oint ", a character form that evolved from the oracle bone inscription $\langle \mathcal{Y} \rangle$, meaning "heart", and $\Diamond \Im$ is a pictograph of a heart. The pronunciation of "思" or $\$ is the same as the Chinese character "丝"(meaning silk), which is motivated by Chinese folk knowledge of "think". Duan Yucai (1735 AD - 1815 AD), a famous Chinese philologist in the Qing Dynasty, explained the motivation for the character "思" adopting the pronunciation of "22" in his Annotation on Shuowenjiezi (《说文解字注》):"自囟至心如丝相贯不 绝也"(The connection from the fontanel to the heart is like continuous silk). Similar explanation can be seen in Kangxi Dictionary of Chinese characters(《康熙字 $(\oplus, \mathbb{R})^{\prime}$. Ancient Chinese people believe humans use both the head and the heart to think, and when one thinks, his or her thought is just like continuous silk through the head to the heart. So the Chinese pronounce "思"(meaning "think") as "丝"(meaning "silk").

⁵ This figure is made according to the character information in *Character Etymology* (Li ,2013, p.766).

⁶ This example is retrieved from the modern Chinese corpus in "语料库在线". http://corpus.zhonghuayuwen.org/CnCindex.aspx

⁷ Both Annotation on Shuowenjiezi(《说文解字注》) and Kangxi Dictionary of Chinese characters(《康熙字典》) are retrieved from "汉典网". https://www.zdic.net/

The characters "思" and "丝" have the same sound, and in history "丝" appeared earlier than "思", as there are oracle bone inscriptions of "丝", but no oracle bone inscriptions of "思". Therefore it is reasonable to assume that "思" took the sound of "丝" and not the other way around, and the explanation given by Chinese philologists is credible.

The motivation for "思" taking the sound of "丝" reflects the metaphorical thought "*THOUGHT IS SILK*", and there are more instantiations of the concept metaphor in Chinese words and poems.

The Chinese word "思绪" means "train of thought, thinking", or "feelings", and the "绪" following "思" means "丝端也" (the head of a silk thread), as recorded in *Shuowenjiezi* by Xu Shen in the Eastern Han Dynasty. The left part of the character "绪" is "纟", which is a radical representing "silk" in Chinese characters. "纟" is originally a pictograph showing the image of a bundle of

silk, and this point is clear in its bronze inscription §. So "思绪" literally means "thought silk", and as a whole its basic meaning is "train of thought, thinking"; the meaning connection between the separate characters and the integrated word reflects the metaphor "THOUGHT IS SILK". Besides "思绪", The Chinese four-character idiom "思绪万千" (literally "thought silk thousands") is also a lexicalized expression of the thought silk metaphor, meaning "thousands of thoughts (come to one's mind)".

In ancient Chinese poems, "丝" (silk) is sometimes used as a pun to mean "思". For example, a famous line by Li Shangyin (813 AD - 858 AD), a poet in the Tang Dynasty, is written like this:

"春蚕到死丝方尽, 蜡炬成灰泪始干。" (A spring silkworm keeps spinning silk until death, a candle's tears dry only when it is burned down to ashes.)

The poem line expresses that the poet's love for his lover is lifelong, just as the silkworm' silk is not exhausted until it dies, or a candle keeps shedding melting wax like tears until it is burned out. The "丝"in "春蚕到死丝方 尽" is a pun referring to "思" (missing) with the same sound. So metaphorically "春蚕到死丝方尽" means "I will not stop missing you until the end of my life". Here the poet compares his missing for his lover to "丝" (silk), and in Chinese "missing" is also a kind of "thought", so the poem line also reflects the underlying metaphor "THOUGHT IS SILK". In *the Contemporary Chinese Dictionary*, The first sense of "思" is "think", and the second sense of "思" is "miss", which is derived from the first sense as when one "miss" an object, one will think of the object in his or her mind.

Besides being used as a pun meaning "思" metaphorically, in some ancient Chinese poems, "丝"(silk) is also associated with "思" in similes. Here is an example: "可怜欲织未织时,思君意绪如乱丝。" (She is about to weave but stop upset, her *missing thought* for her lover is like *disturbed silk*). This is a poem line

by Xu Jie in the Song Dynasty (920 AD - 1279 AD), which describes a woman missing her lover when she is weaving.

As illustrated in this section, the pronunciation of the Chinese character "思" is motivated by the concept metaphor "THOUGHT IS SILK", and the metaphor is also reflected in Chinese words and poems, which indicates that the character metaphor is not a single shot, but a consistent metaphor in Chinese culture.

7. CONCLUSION

Within the framework of cognitive linguistics, the research introduces the image-based feature of Chinese characters and explores metaphor motivations behind Chinese characters containing images of silk. Three conceptual metaphors are put forward through analyzing the form-meaning connections of the original character constructions, namely, "LINK IS SILK", "END IS KNOT", and "THOUGHT IS SILK". There are al-together six characters with the "LINK IS SILK" motivation, and their character meanings form a coherent system in terms of different aspects of "LINK". The metaphor "END IS KNOT" seems to be consistent with the metaphor "LINK IS SILK" and only one character is found motivated by the former. The metaphor "THOUGHT IS SILK" is reflected in the sound form and meaning connection of the Chinese character "思", and the sound form is connected with the silk image. All the three metaphors are also reflected in Chinese words and literature, which shows the consistence of Chinese thought patterns.

Among the 254 characters studied, only a few characters are identified as metaphorically motivated. It seems that metaphor is not so ubiquitous in Chinese characters as in our everyday life, and this is probably due to the characteristic of metaphor. Lakoff and Johnson points out that the primary function of metaphor understanding while the primary function of metonymy is a referential device. (Lakoff & Johnson, 1980, p.36; Lakoff & Turner, 1989, p.103) As Chinese characters are signs and their basic function is reference, theoretically metonymy can serve this end more effectively than metaphor and our further research on 540 Chinese radical characters also supports that metonymy is more common than metaphor in Chinese characters.

From the perspective of character etymology, the written forms of Chinese characters change from picture writings to conventionalized symbols, and there also exist changes in character sounds. Consequently, it seems that metaphors in Chinese characters are clearer in the original character constructions than in their later forms, especially modern forms. As for the three silk metaphors revealed in this research, "LINK IS SILK" and "END IS KNOT" are clearer in the original character structures; because the modern sound is the same as the ancient sound of the

character "思", the "THOUGHT IS SILK" metaphor is just as opaque in its modern form as before, and without corresponding etymology knowledge, one will not know the metaphor behind this character.

By consulting English dictionaries, metalude and searching the English corpus BNC, it is found that metaphors similar to "LINK IS SILK" also exist in English. For example, according to the Oxford Advanced Learner's English-Chinese Dictionary (OALED), the first meaning of the word "tie" as a noun is "strip of decorative material worn round the neck under the collar and knotted in front"; its second meaning is "piece of cord, wire etc used for fastening or tying things"; and figuratively it means "thing that unites people, bonds". It is obvious that the figurative meaning of the word "tie" is derived from the concrete meanings above through metaphor. In spite of similar metaphors, the "LINK IS SILK" metaphor isn't found in the English language, and the search result demonstrates that the "LINK IS SILK" metaphor is at least rare in English if there is any, while it is a common metaphor in Chinese. The metaphor "END IS KNOT" is not found in English either. Although no expression of the metaphor "THOUGHT IS SILK" is found in English, there is a similar mapping pattern from "thread" to "idea" as in the meaning development of the word "thread", whose figurative meaning is "line of thought connecting parts of a story" (OALED). It seems that the three silk metaphors revealed in this research are specific to the Chinese language and culture, but more cross-language research is needed before reaching this conclusion.

Silk production originated from China. The Chinese ancestors were so familiar with processing silk that silk became assimilated into their thought patterns. Silk metaphors in Chinese characters are just based on such experience and knowledge of silk, although they are not so rich as silk metaphors in the Chinese language, they reveals some thought patterns at a different level, which can help us get a deeper understanding of Chinese characters and the Chinese culture.

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