

# Spatial Metaphors of Time in English and Chinese from the Perspective of Cognitive Linguistics

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**Abstract:** *In Linguistics, metaphor is not only a rhetorical case, but also a cognitive means. The whole conceptual systems of human beings are built on metaphor. Through the analysis and comparisons, we can find that there are similarities and differences of the expressions of time metaphor in both English and Chinese. The commonness is from the similar cognitive ability and the sharing of the same "time as space" metaphor, and the differences result from the different socio-cultural backgrounds.*

**Key words:** *Time; space; metaphor; cognitive ability; socio-cultural backgrounds*

## 1. Introduction

Traditional metaphor theory only regards metaphor as a rhetorical device in language and a means of linguistic ornamentation. With the development of cognitive science, modern metaphor theory, marked by the book *Metaphors We Live By* co-authored by Lakoff and Johnson, has emerged. This theory has completed the "cognitive turn" in metaphor research. It holds that metaphor is not only a rhetorical device existing in literary works, but more importantly, it is a cognitive means existing in everyday language: "Metaphor is everywhere, and the entire conceptual system of human beings is built on the basis of metaphor" (Lakoff, G. & M. Johnson, 1980).

When human beings come to know things, they use familiar concepts to describe or talk about new things or concepts, and this is metaphorical cognition. It is a cognitive activity in which human beings use experience from one domain to explain or understand experience from another domain. In terms of its working mechanism, metaphor is typically a mapping from a more familiar source domain to a less familiar (or unknown) target domain. Cognitive linguistics holds that our understanding of time is rarely purely temporal; rather, it relies more on our understanding of motion in space.

Space and time have always been objects of study and research in disciplines such as philosophy, physics, and psychology. Since the emergence of cognitive linguistics in the late 1970s and early 1980s, space and time have also attracted the interest of many cognitive linguists and have become one of the hot topics in cognitive linguistics research (Zhang Keding, 2008). Space can be perceived by the human visual system, whereas time is invisible and intangible to people, and it must be understood and expressed by means of other concrete concepts.

Spatial orientation has an important influence on the understanding of time, and people usually understand time metaphorically through spatial concepts. From an experiential perspective, any perceivable motion event in the world always includes space, time, and motion (or change in the state of things), and the three have an experiential correlation, which is also the reason why they are often intertwined (Lakoff, 1999; Moore, 2006, 2011, 2014, 2016). This paper attempts to conduct a comparative analysis of the spatial metaphors of time in English and Chinese from the perspective of cognitive linguistics, aiming to discover the similarities and differences between them and to explore the reasons for those similarities and differences.

## 2. The Motion Characteristics of Time

Cognitive linguists Gluckberg, Keysar, and McGlone argue that "a universal feature of human language, or even of human thought, is the systematic use of spatial concepts and vocabulary to refer to time concepts" (Gluckberg, Keysar & McGlone, 1992). Different cultures around the world may have different understandings of time: some view time as a one-dimensional straight line, some view time as a two-dimensional circle, and others view time as a three-dimensional spiral. However, in essence, all

these views are spatial (Zhang Jianli & Ding Zhanping, 2003). The primary model used by both English and Chinese speakers to conceptualize time is the one-dimensional linear time, which means that time is an object moving in a straight line, continuously flowing from the future through the present to the past or from the past through the present to the future. This model can be divided into two cases:

- (1) time moves along the horizontal axis (front/back orientation);
- (2) time moves along the vertical axis (up/down orientation).

### **3. The Horizontal Level (Time Moving Along the Horizontal Axis): A Contrastive Study of Spatial Metaphors of Time in English and Chinese**

Lakoff proposes two variants of the spatial metaphor of time in English, namely "TIME PASSING IS MOTION": "Time Moving" and "Ego Moving" (Lakoff, G. & M. Johnson, 1980). These two variants are also applicable to Chinese.

#### **3.1 "Time Moving"**

The "Time Moving" metaphor refers to the following: the observer is stationary relative to time, and time is an object moving from the future toward the past in the direction of the observer. Along the direction of motion, time has its own front and back, meaning that future time is in front of the observer, the stationary observer represents the present, and past time is behind the observer. People map the reasoning pattern of spatial object motion onto the concept of time, thus forming spatial metaphors of time. Many such examples exist in both English and Chinese:

Expressing the future:

- (1) the coming year (the future, days to come, the coming year, the next life)
- (2) to look forward to (looking forward to the future)

From the examples above, it can be seen that future time is conceptualized as an object that "has not yet arrived but is moving toward the stationary observer."

Expressing the present:

- (3) at the present, at the moment (the present, now)

From the examples above, it can be seen that present time is regarded as co-occurring with the observer, that is, it occupies the same position as the observer.

Expressing the past:

- (4) in past years, in years past (last year, past years)
- (5) to recall, to review, to recollect (to look back, to look back on, to recall, to reminisce, to remember with emotion)
- (6) The year went by quickly. (This year passed quickly.)

From the examples above, it can be seen that past time is conceptualized as an object that "has left the stationary observer and is slowly moving away from the stationary observer."

In summary, it can be observed that both English and Chinese, in their various expressions of "the future," "the present," and "the past," follow the metaphorical concept of "the future is in front, and the past is behind," which is constructed by the "Time Moving" metaphor.

#### **3.2 "Ego Moving"**

"Ego Moving" means that time is a fixed position and a measurable finite space, while the self (the observer) is moving from the past through these fixed positions toward the future. The self passes the past, goes through the present, and will enter the future, which means that the future is in front and the past is behind. The "Ego Moving" metaphor has the following implications: the observer's location is the present. Time is aligned along the observer's movement. If Time 1 follows Time 2, then relative to Time 1, Time 2 is the future. Time can be extended and measured. Extended time is like a

spatial region and can be regarded as a finite territory (Chen Yu & Wu Lan, 2008). For example:

Expressing the past:

(7) to recall, to review, to recollect (to look back, to look back on, to recall);

(8) Mary finished her assignment within a week. (The republic has gone through an extraordinary journey of fifty-five years.)

(9) journey, course, past events.

From the above examples, it can be seen that the past is regarded as the path that the observer has already walked or the traces that he has left behind.

Expressing the present:

(10) The project runs over a period of 18 months. (Humanity has stepped into the new century.)

(11) To this day, thirty years later, I vividly remember the experience. (To this day, even though it is thirty years later, I still clearly remember the experience at that time.)

From the above examples, it can be seen that the observer has moved out of the past and arrived at the present.

Expressing the future:

(12) future, prospect, outlook;

(13) From this time forward I' ll work harder. (From now on I will work hard.)

From the above examples, it can be seen that future time is regarded as the journey, road, or scene ahead of the moving observer; the future refers to the observer' s future.

The above examples show that both English and Chinese speakers adopt the "Ego Moving" metaphor and follow the metaphorical concept of "the future is in front, and the past is behind" in their expressions of time. The two variants of "TIME PASSING IS MOTION" at the horizontal level (time moving along the horizontal axis), namely "Time Moving" and "Ego Moving", are applicable to both English and Chinese. This indicates that although English and Chinese speakers differ greatly in culture and language, they share the metaphorical concept of "time as space", and that metaphor has cross-cultural and cross-linguistic universality. However, due to the influences of their respective cultural values, beliefs, historical traditions, living environments, customs, and other factors, there are also significant differences in the metaphorical cognition of time between the two languages. In English culture, the cosmological view of "separation of man and nature" dominates; Westerners value rationality, are adept at logical thinking, and advocate the separation of subject and object. Influenced by these values, English-speaking people more frequently adopt the "Ego Moving" metaphor, forming a metaphorical concept dominated by "the future is in front, and the past is behind".

(14) I look forward to your letter. (I look forward to your letter.)

(15) A new road lay ahead of him. (A new road that lies ahead of him.)

(16) the time behind us (the time that has passed)

In examples (14)-(16), events that are about to happen in the future are all expressed with words implying the "front" orientation, while events that have already happened are expressed with words implying the "back" orientation, which reflects the metaphorical concept of "the future is in front, and the past is behind." Chinese people, on the other hand, are accustomed to adopting the "Time Moving" mode of thinking. Time is like flowing water, with the back wave pushing the front wave; time moves toward us, and what goes in front is the past and what has already happened, while what follows behind is the future and what is yet to come (Zhou Rong & Huang Xiting, 1999).

When using the front/back orientation in the spatial domain to express the temporal domain, the Chinese people have formed a metaphor of "the past is in front, and the future is behind." Therefore, in Chinese, there are expressions such as "the day before yesterday," "the year before last," "unprecedented," "predecessor," "a lesson from the past," "unparalleled," "the day after tomorrow," "future," "younger generation," "an up-and-coming young person," and "there will be successors to carry on the cause." These are all metaphorical expressions that use spatial front/back orientation to indicate temporal sequence. Such expressions are difficult for English speakers, who adopt the "Ego

Moving" time metaphor, to understand and accept, but they are consistent with the metaphorical behaviors of the Chinese people, who revere ancestors, respect the elderly, value experience, esteem age, and emphasize seniority. However, Chinese also has linguistic expressions that represent the metaphorical concept of "the future is in front, and the past is behind," such as "future prospects" and "looking back."

The conflict between these two metaphorical concepts reflects a conflict between two value systems: the conflict between past-oriented values and future-oriented values. In the same society, different value systems belong to the mainstream culture and the subculture respectively, and the contradiction between the two value systems reflects the different priorities that different cultures give to value systems (Lakoff, G. & M. Johnson, 1980). In China, past-oriented values belong to the mainstream culture, and their influence far exceeds that of future-oriented values.

#### **4. The Vertical Level (Time Moving Along the Vertical Axis): A Contrastive Study of Spatial Metaphors of Time in English and Chinese**

In the Chinese language, there are particularly many usages of "up/down" (shang/xia), such as: morning/first half of the day/ancient times/previous generation/last year/first ten days of a month/first half of the night/last week; second half of life/last ten days of a month/afternoon/second half of the day/second half of the night/not to be repeated, and so on. When using time to express "morning/afternoon," Lan Chun believes that the emergence of this metaphor may be related to the movement of the sun: the sun rises above the horizon in the morning and reaches its highest point at noon, so "morning" (shangwu, literally "up-noon") indicates the earlier period or earlier time; after noon, the sun gradually descends until it falls below the horizon in the evening, thus giving rise to the word "afternoon" (xiawu, literally "down-noon") (Lan Chun, 1999). Liu Yunhong (2011) found in her research that the metaphorical meanings of "inside/within/interior" (li, zhong, nei) are generally related to time, scope, state, and so on.

In Chinese culture, time is sometimes considered to be moving from top to bottom. This movement pattern is related to such metaphors as the "long river of history" and "time flowing like water." Comparing time to a river is a relatively fixed image in traditional Chinese culture. Confucius' famous saying, "It passes on like this, never ceasing day or night," is a clear example of this. Phrases such as "Since the Tang and Song dynasties" and "Since the Song and Yuan dynasties" give people the feeling that a certain period of time is like water falling from a high place. Due to the Earth's gravity, water always flows downward, and it takes time to flow from the upper reaches to the lower reaches; therefore, water passes through the upper reaches first and then the lower reaches. People have projected this understanding of the characteristics of flowing water onto their understanding of time, thus producing this special metaphorical representation of time.

In Western culture, such spatial metaphors of time also exist. We can see this metaphorical concept in English family trees, where the older generation, "ascendants," is at the top, and the younger generation, "descendants," is at the bottom. In addition, there are linguistic forms in English that use "up" to express earlier time and "down" to express later time, such as:

(17) We will move the meeting up a week. (We will move the meeting up a week.)

(18) a story that has come down from medieval times. (A story that has come down from medieval times.)

However, Western culture is a culture rooted in Christianity. According to Christianity, God is the creator of heaven, earth, and all things. God is in heaven; people associate "up" with the almighty God and firmly believe that God will lead them, even though they do not know when or how God will lead them. Because God is in heaven, high above, "up" represents the unknown. Therefore, in English, a metaphorical concept of "the future is up, and the past is down" (UNKNOWN IS UP; KNOWN IS DOWN) has been formed (Chen Xiaoping, 2007). For example:

(19) Up to the end of last year (Until the end of last year)

(20) This year went down in business history. (This year has passed in business history.)

What deserves our attention is that, within the conceptual metaphor of "time is space," another difference between English and Chinese lies in the metaphorical expressions of age. In both English and Chinese, "long" and "short" can be used to express human lifespan, for example, "short-lived"

(short-lived). However, in Chinese, people also use the spatial terms “high” and “low” to express age, such as “high longevity” (gaoshou) and “low age trend” (dilinghua). In contrast, “high” and “low” cannot be used to express age in English. This special metaphorical expression reflects the traditional Chinese cultural concept of respecting the elderly. The elder generation is always above, while the younger generation is always below; older people have a relatively higher status, while younger people have a lower status. The Chinese people have integrated this traditional concept into their metaphorical expressions of age, thus forming expressions different from those in English.

## 5. Conclusion

Modern metaphor theory holds that people’s understanding and expression of abstract concepts are, to a considerable extent, realized through spatial concepts. People who use different languages often rely on concrete spatial concepts to understand and express the abstract concept of time. Through a comparative analysis, this paper finds that the metaphors of the concept of time in English and Chinese have both similarities and differences. These similarities arise from the similar cognitive abilities of English and Chinese speakers and their shared metaphor of “time as space.” The spatial metaphor of time has cross-cultural and cross-linguistic universality, whereas the differences stem from their respective sociocultural backgrounds. By analyzing these similarities and differences, we can gain a deeper understanding of the two different cultures. This has extremely important and positive significance for overcoming cross-linguistic communication barriers, promoting English learning and research, and facilitating exchanges among different national languages and cultures.

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