Space and Time in Chinese: Separated or Integrated?

Lingling Jia
Suzhou Industrial Park Xinghui School, China

Abstract

Chinese encodes space and time in rather complex ways. While some scholars claim that Chinese is characterized by spatiality and English by temporality, other scholars disagree by presenting proofs that Chinese is better described as a language of time-space conflation. This paper, by focusing on Chinese single characters and larger-than-character clusters, tries to show that Chinese is encoded in terms of space and time at different levels in diversified ways. Space and time seem to be two sides of a coin, which are interrelated and also relatively separated; space and time are two distinct concepts and two ways of constituting language and the world. Depending on different perspectives and purposes of research, we perceive language in quite different ways.

Keywords: Chinese, space/time, temporality, spatiality, perspective

1. The Debate on Spatiality and Temporality in Language Studies

The space/time issue in language can be studied at a variety of levels. Cognitive linguistics holds the fundamental view that time, as an abstract concept or one that cannot be directly perceived or understood, must be interpreted in terms of space, the primary and most basic part of a human being’s experience of the world (Lakoff & Johnson, 1980; Langacker, 1987). This view is situated at the core of embodied philosophy, which treats spatial perception as the starting point of all our perceptions throughout our life, including, quite naturally, the perception of time, a concept that
comes late in life. This line of perception is universal among all cultures and firmly embedded in both thoughts and language of humankind. Here, space and time are understood at the most abstract level as an essential guiding principle of people’s experience of the world. For example,

(1) You’re wasting my time.
(2) I don’t have the time to give you.
(3) How do you spend your time these days?
(4) I’ve invested a lot of time in her.
(5) He’s living on borrowed time.

(Lakoff & Johnson, 1980, pp. 8-9)

In the above examples, time is understood or encoded in terms of money, because both time and money share the property of “a valuable commodity” (Lakoff & Johnson, 1980, p. 9). To summarize these instances, we come up with a more general metaphor or, more precisely, conceptual metaphor, i.e., time is money. But if we try to study this conceptual metaphor more closely we would find that what is called money is something that can be more easily understood in everyday life; it is not only a part of our personal and collective experience, but what deserves more attention is that money (the banknote and coin) is something we can see, touch, carry, or in simple words, handle directly, because money exists in space, and in space close to us. Considering this, it is right for us to say that time is understood in terms of money that stays in the space around us. So, here, the relationship between space and time is that space serves as an environment for people’s understanding of simple, concrete, and adjacent things, on the basis of which more complex, abstract and distant (in both time and space) concepts can be understood.

In contrast to the understanding of space and time in general, especially in the domain of cognitive linguistics, in recent years space and time have been studied as distinct properties reflected in different language systems. Since our study mainly focuses on Chinese, the reviewed literature would mostly come from Chinese scholars’ studies.

There are three basic views about the nature of Chinese in terms of spatiality and temporality.

Firstly, some scholars (e.g. He & Wang, 2015, 2016a, b; Wang, 2013a, b; Wang
& Yu, 2016) hold that Chinese is a language characterized by spatiality, as opposed to English as a language featuring temporality. Wang W. B. and his collaborators (including He Q. A., Yu S. Z., Cui L., Zhao C. Y., etc.) have published a series of research papers since 2013, and the basic ideas have been summarized as “The Theory of Temporal and Spatial Differences between English and Chinese” (Wang, 2018, p. 44), we address all these studies as “Wang’s research” in what follows to distinguish from other related studies. According to Wang’s research, Chinese is a typical spatiality-oriented language at the graphic/lexical and sentential/textual levels. Besides, nouns are predominant in Chinese (Guo, 1985; Jin, 1996; Shen, 2007, 2009, 2010), and nouns are conceptualization of spatial properties of things in the world in contrast to verbs which imply temporality; thus Chinese is deemed a spatial language.

A thorough review of Wang’s research would reveal that their arguments are mainly based on two presuppositions: the formation of characters and character-clusters, and the predominant use of nouns. Chinese was derived from pictography, one of the earliest forms of writing in human history that features the direct imitation of actual things in the world. Even in modern Chinese, traces of pictorial symbols of characters are still quite conspicuous, as in 日 (sun), whose form imitates the shape of the sun, or 月 (moon), which is much like the shape of a crescent moon, or 明 (bright), where both a sun and a moon are present. In fact, most strokes (if not all) in forming Chinese characters are meaningful and their meanings are motivated, such as 亻, which is a modified form of 人 (person), indicating the character containing 亻 (e.g. 仁, 任, 仕, 你) is related to people. The stroke of 艹 is a direct imitation of grass that grows out of the soil, so the characters containing 艹 are more often than not related to grass or related plants, such as in 草 (grass), 萍 (reed), 芽 (bud), 花 (flower), 芹 (celery). Chinese characters make the most use of spatial format to express meaning and we can reasonably take a Chinese character as a picture which can be divided into several spatial formats, such as up-down structure (e.g. 志, 苗, 胃), right-left structure (e.g. 炊, 休, 沙), left-middle-right structure (e.g. 湖, 脚, 谢), up-middle-down structure (e.g. 奚, 禱, 宴), half-closed structure (e.g. 句, 司, 庙), etc. So, as far as the format of Chinese characters is concerned, Chinese can be said to be a spatial language. Meanwhile, as Chinese sentences to a large extent lack explicit grammatical markers (Pan, 1997), they seem to be simple juxtapositions of characters, like similar concrete objects put together without being connected by any obvious links, characterized by being scattered or diffused at the surface level. This feature is said to be a reflection of
spatiality instead of temporality according to Wang’s research.

Another claim for Chinese spatiality in Wang’s research is the rather frequent use of nouns. It is generally believed that “If verbs refer to actions, processes, states, and generally eventualities, nouns refer to ‘things’, including concrete and visual objects” (Ursini & Acquaviva, 2019, p. 55). Nouns typically identify object concepts, or are used to conceptualize concrete objects that are located in space. So nouns are of spatial property and verbs of temporal property (He & Wang, 2016, p. 439). Although nouns may also be used to refer to something that are not defined by physical existence, such as non-spatial entities, collective entities or abstract entities (Taylor, 1989; Zhang, 1994), the fact that they are nouns makes it possible for people to regard them as something “situated” in space, though just figuratively. Chinese is deemed as a language featuring nouns instead of verbs or any other word classes; noun-centeredness (Guo, 1985) or “super-noun” theory (Shen, 2007, 2009, 2010) has been widely accepted among Chinese academics. Here is a large gap between the use of nouns and the general claim that Chinese is a spatial language, because nouns or even word class are just one small section compared with the overall language system. The linguistic feature of a part of the whole system is absolutely inadequate or insufficient for reaching a strong conclusion.

The second view about the nature of Chinese concerning spatiality and temporality is just the opposite of the first view, that is, Chinese is temporal in nature. Proofs for this view are mainly found at the larger-than-character level, because only when two or more sense relations are concerned can a certain chronological change be specified. For example, in the study of binomials it is found that if two terms denote time and time change they normally observe chronological order, such as Spring and summer, before and after, past and future, etc. (Mollin, 2012). It is not acceptable to reverse the order of the two parallel terms, as in *summer and spring, *after and before, *future and past. It is the same case in Chinese: we always say春夏 (spring and summer), 夏秋 (summer and autumn), 秋冬 (autumn and winter), 冬春 (winter and spring), or 前后/先后 (first and second/past and present/future), 过去和将来 (past and future), etc., and the reversed patterns are not allowed. The word order of the binomials is in line with the natural order of actual events. This is what is called sequencing iconicity in cognitive linguistics. Many scholars think that we acquire the rules of language in a predictable order (Krashen, 1985), and this order mainly refers to the chronological order of natural events. According to some researchers, in the ordering of clauses in
a sentence the psychologically important factor is whether the linguistic clause order is in agreement with the temporal order of the events involved (Jou & Harris, 1990; Osgood, 1980). For example,

(6) Since her car broke down, she walked to her office.
(7) She walked to her office since her car broke down.

(Jou & Harris, 1990, p. 22)

In (6), the subordinate-to-main clause structure follows the natural order of events, but some researchers think that the main-to-subordinate clause order, as shown in (7), is simpler than, and preferred over, the first one (Clark & Clark, 1977; Jou & Harris, 1990). This has also been confirmed by Quirk et al. (1985, p. 1107), who studies the cause-effect sentences introduced by because, and finds that among a total of 425 because-clauses, 407 clauses appear at the end of the sentence, 14 in the beginning and 5 in the middle. However, different from English which allows two opposite clause orders, with the main-clause-first type to be used more frequently, Chinese overwhelmingly relies on natural temporal order. In the study of Mengzi, for example, it is found that among altogether 185 cause-effect sentences, there are 142 sentences in which the cause is put before the effect, and 43 sentences belong to the effect-first type (Lishi, 2002). This is one of the most important pieces of evidence for supporting the viewpoint that Chinese, compared with other alphabetic languages, has a much stronger tendency of iconicity (Shi, 2000; Tai, 1985).

The third view about the nature of Chinese is an integrated one, that is, space and time can hardly be separated. Analytic philosophy in the West is inclined to take a thing as being relatively independent from other things. A clear-cut borderline in the form of category or concept is set up between any two things. The result of this philosophical ideology is that people prefer to go deeper and deeper into any possible fine details, or more specific things, no matter how small the thing in focus is. This is possibly why microscope was invented and employed in physics and chemistry on a large scale in the early stages, all the way to the present time. Similar to microscope as a sign for western analytic philosophy, as well as science and technology, the sign for the Chinese mode of thinking is the telescope, by using which one must keep a certain distance away from the intended target, and consequently fine details are unable to be detected. But this way of observing or thinking is advantageous in that the relations
between different things can be evaluated holistically. In the conceptualization of space and time in the Chinese context, the Chinese people tend to put them together, taking them to be dependent on each other. According to Liu and Xu (2019), Chinese characters may exhibit both spatial and temporal traits of formation all at the same time. The spatial trait of Chinese characters has been demonstrated in the previous section, so now we will just focus on the temporal section. Take the following characters with the component of 日至 (sun) for example (Liu & Xu, 2019, pp. 166-167),

- **日照** (sunray in the morning)
- **晰** (bright, clear)
- **晞** (dawn)
- **日上** (morning)
- **旦** (early in the morning)
- **早** (early)
- **日右** (old, out of use)
- **旭** (the last moment of sunrise)
- **日下** (dusk)
- **暮** (dusk, late in the day)

Looking at the above instances, we would find that when 日 appears on the left or at the top of the character, the word would indicate an early time of the day; if 日 appears on the right or at the bottom, the word would suggest the late time of the day. The movement of the sun is a temporal event. When the sun is high in the sky, it is the brightest moment of the day; in contrast, when the sun is going to disappear below the western horizon, it is in a lower position, indicating lateness of the day. Besides, the movement from left to right is deemed as a natural temporal event, as is found in the process of writing. The above instances really show an integrated pattern of space and time, but this way of research is highly problematic. We will return to this point later.

Another kind of proof for the integrated space/time argument is related to some typical Chinese clause patterns. For example (Liu & Xu, 2019, pp. 167-168),

(8) 你女儿 都大姑娘了。

you daughter already big girl Asp
‘Your daughter is now a big girl.’

(9) 老王 好 脾气。
Lao Wang good temper
‘Lao Wang is good-tempered.’

(10) 一人 之下，百人 之上。
one person below hundred people above
‘The second most powerful person, and the head of hundreds of people.’

(11) 一手 粮，一手 钱。
one hand grain one hand money
‘I give you the money only when you give me the grain.’

Sentences like (8) and (9), where there are no verbs, are very common in Chinese. This kind of sentence is called a “noun-predicate sentence”, as opposite to “verb-predicate sentence” in English. The use of nouns in subject and predicate positions, and the way of juxtaposing the nouns without explicit grammatical links, suggest a sense of spatiality. This is what Wang’s research often uses for supporting their argument of spatiality. But according to Liu and Xu (2019), even with the absence of verb, the noun-predicate can also reveal some sense of change, a reflection of temporality: in (8), 都大姑娘了 (is now a big girl) implies a change from a little girl to a big girl; and in (9), 好脾气 (good-tempered) implies a shift of knowledge of his temper, from knowing nothing about him to knowing now he is good-tempered. The two examples contain the factor of temporality, not the kind of temporality as is explicitly expressed by action verbs, but the one in a hidden manner; they contain “weak temporality”. (10) and (11) are called “verbless sentences”, which are also very popular in Chinese. Both of them contain a parallel structure, and the temporality-based logical relation is the point: in order to be the head of hundreds of people, one must be in the position of the second most powerful person (being the most powerful person has the same effect, though); the pre-condition comes first, and then the consequence. In the same case, in (11), only when the grain is received, would the money be given over, not the reversed way.

2. A Purpose-Driven Analysis

Any research must entail a certain purpose, and based on this particular purpose
supportive data would be collected, and consequently, a pre-designed hypothesis would be confirmed. This mode of research has often been conducted, and sometimes may come up with impressive results and conclusions, but the problem is that the final results or conclusions may not hold true when unbiased and more comprehensive data are secured for scrutiny, or other purposes of research are considered. To demonstrate this, in what follows we would just focus on the feature of temporality in three larger-than-character clusters: compounds, whole-part relation and verb-resultative construction, to see how strong the force of temporality in Chinese is. Then we would comment on how spatiality is expressed in these three structures.

2.1 Temporality in compounds
Ancient Chinese is characterized by using a single character for a single word, as in 路遥知马力 (distance tests a horse’s stamina), where the five characters are five independent words, meaning “road” (路), “distant” (遥), “know” (知), “horse” (马), and “power” (力) respectively. However, in modern Chinese, especially in formal or written Chinese, most of them would be expressed as two-character words or compounds without adding or losing any sense: 路—道路, 遥—遥远, 知—知道, 力—力量. This double-character word formation trend in the history of Chinese language development has also facilitated the use of compounds which typically use the two-character/word pattern. For example,

**Temporality:** 春夏 (spring and summer), 秋冬 (autumn and winter), 早晚 (morning and evening), 前后 (before and after), 远近 (remote time in the past and recently)....

**Masculinity/status:** 男女 (man and woman), 老幼 (old and young), 父母 (father and mother), 兄妹 (elder brother and younger sister), 兄弟 (elder brother and younger brother), 姐弟 (elder sister and younger brother)....

**Social/physical status:** 官兵 (officer and soldier), 军民 (military and the public), 干群 (cadre and mass), 子孙 (son and grandson), 人马 (man and horse), 上下 (up and down), 高低 (high and low), 山水 (mountain and water)....

**Power:** 胖瘦 (fat and slim), 高矮 (tall and short), 强弱 (strong and weak), 大小 (big and small), 亿万 (100 million and ten thousand), 粗细 (thick and thin)....
In the study of parallel structure, Bettinsoli et al. find strong evidence from both linguistic and social-psychological research that “binomial word order is not random, and that the first element conveys, among others, a relative advantage in terms of agency, power, status, and masculinity” (2015, p. 145). The same is true for Chinese as found in the above examples. Why is it like this? Does it have any relationship with what Mollin (2012) claims that “the first element of fixed-order binomials tends to be chronologically antecedent to the second...and the cause rather than the effect”?

To answer this question, we have to distinguish two temporal concepts: natural temporality and conventionalized temporality. By natural temporality, it is meant that the word order of semantic components is in conformity with what the actual event develops, such as in 春夏 (spring and summer), or 因果 (cause and effect). However, in terms of masculinity, social/physical status, power, etc., where there is no obvious natural temporality, since there is a relatively fixed sequence within each binomial as a result of conventionalization of observation, either physical, social or psychological, we can also regard them as following temporal order, though not a natural one. Conventional temporality is a result of metaphorization, which means that through the metaphor mechanism natural temporality can be transformed into physical, social, and psychological relations.

Due to gravity, an object falls from a high place to a low place, and water flows from a higher position to a lower position. These are typical movement involving the change of time. Also, plants grow higher and stronger as time lapses. Based on these natural phenomena where time flow is a central factor, status at the social, physical and psychological levels is encoded along a relatively fixed order. The factor of time is not lost in conceptualizing the non-natural phenomena; it is in fact further enhanced by means of people’s repeating the order again and again. What is noticeable in most of the writing systems in the world is that the order of writing goes from the left to the right, like a river running all the way to the unknown. For example,

(12) The preparation of slides or writing our words will flow very naturally if our planning is done consciously.

(13) Use commas around nonessential words, phrases, and clauses that interrupt the flow of the sentence.

(Retrieved from http://www.youdao.com)
“Flow” is a term that is used to describe the running of water, and here used metaphorically to refer to the succession of words, phrases or sentences. This is the same with Chinese, as the Chinese often use the term of 流畅 (flow smoothly) to describe the fluency of expression. So, in 男女 (man and woman), for example, although the two terms are simply juxtaposed, the one (男) on the left seems to be in a higher position of the “flowing water”, and to metaphorically (at the second stage) have a higher status. The process of metaphorical conceptualization is shown below:

Through two stages of metaphorization, the factor of time gradually transfers from the natural event to the social life, and, at last, to the writing system. This is the ultimate reason why we say 男女 also contains the factor of time. If there is no such essential time constraint, both 男女 and 女男 would mean the same thing, but the fact is that 女男 in Chinese is a weird collocation. Parallel structure suggests equality in linguistic status, the same word class, the same semantic field, or the same or similar linguistic structure. On the other hand, when non-linguistic factors are involved, such as masculinity, power or social roles, inequality between the components will emerge, which is shown in the strict linear order of the parallel components. As was analyzed in the above section, it is the time factor which is embedded in the juxtaposed relation that determines the stable compounding structure.

2.2 Temporality in whole-part relation

Part-whole or whole-part, this is not simply an issue of the difference in terminology; this reflects the different ways of perceiving the world for Asians and Westerners. In the English literature concerning cognition, psychology, and even linguistics, “part-whole” has been a term used as an unmarked expression referring to the phenomenon involving part and whole relations. Even when we use a whole to stand for a part, such as in using America to stand for the United States, we may also call this a part-whole relation in general. But in order to be more specific, we would prefer to use the
expression of whole-part relation. However, in Chinese the unmarked expression for part and whole relation is more often than not expressed as 整体-部分 (whole-part), instead of 部分-整体 (part-whole). Although both 整体-部分 and 部分-整体 are used in Chinese research papers, it seems that when talking about Chinese linguistic phenomena scholars prefer the term of 整体-部分 (e.g. Lu, 2010; Wang, 2012), while when talking about similar things in English, scholars prefer to use 部分-整体 (e.g. Xie, 1992), which suggests an influence of English lexical structure in the process of translation. The biased preference for part-whole in English and whole-part in Chinese is supported by Nisbett and Miyamoto, who claim that, in terms of attention and perception, “people in Western cultures focus on salient objects and use rules and categorization for purposes of organizing the environment. By contrast, people in East Asian cultures focus more holistically on relationships and similarities among objects when organizing the environment.” (2005, p. 467) Considering this disparity in perception and attention, we may rightfully use the expression of “Focal Culture” to label the Western ideology, and “Relational Culture” the Asian ideology. Focal Culture initiates perception by focusing on a part of something that deserves attention, following the procedure of part-to-whole, while Relational Culture starts perception from evaluating a general situation (the whole) to moving as a second step to a focal point (the part). As perception as a process takes time, both whole-part and part-whole perceptions are temporal in nature.

Since Chinese is a language that is characterized by iconicity, especially temporal iconicity (Shi, 2000; Tai, 1985), the whole-part perception inclination can be said to be in line with the natural temporal order. But this natural temporal order is different from the one observed in actual events. For instance, when a car accident takes place, every stage of the accident just goes in a way that cannot be stopped or reversed; manpower can slow down the process but is unlikely to turn it back. But when describing the accident, one can choose to follow the process or narrate from the end or middle to the beginning. However, in whole-part or part-whole perception, the thing or matter itself which contains part and whole has nothing to do with any process; it is people’s eyes or thoughts that move from one part to another, so it is only in this sense temporal factor sets in, and Chinese adopts a natural temporal order.

According to Shen (1996), modifier+head construction is temporal in nature. In both English and Chinese, it is always the target that is used as head and context as modifier, as in 弟弟的书包 (younger brother’s schoolbag) or 紫色的裙子 (purple
(62x34) skirt). While Chinese has a relatively fixed linear sequence, i.e., from whole to part, English may adopt two distinct strategies, either the whole-part order or the part-whole order (e.g. the schoolbag of the younger brother’s, or the skirt that is purple). For those Chinese modifier+head constructions that contain natural temporal order, such as 从学校回来 (lit., from school come back) or 下班后回家 (lit., after work go home), English usually adopts an inverted order, i.e., come back from school, and go home after work, which is a direct reflection of Focal Culture.

The preference for whole-part perception can also be demonstrated in a type of compounds in which the whole is placed on the left and the part on the right, and this kind of word formation is rather productive in Chinese. For example,

猪: 猪肉, 猪头, 猪耳, 猪心, 猪肝, 猪蹄....
(Pig: pork, pig’s head, pig’s ear, pig’s heart, pig’s liver, pig’s feet....)

仁: 果仁, 瓜仁, 杏仁, 桃仁, 枣仁, 核桃仁....
(Kernel: pip, melon’s seed, almond, peach kernel, jujube kernel, walnut kernel....)

Although in the above examples most of the English equivalents follow the same whole-to-part order, they are either single-morpheme word (port, pip) or phrases (e.g. pig’s head, melon’s seed) or compounds (e.g. peach kernel, walnut kernel). But the Chinese words are all two-character compounds, uniform and concise, showing a strong tendency or a well-established pattern for encoding concepts along temporal order.

2.3 Temporality in verb-resultative construction

In Chinese, as a direct reflection of natural temporal order, the verb-resultative construction must observe the temporal order principle. (Dai, 1988, p. 12) There are two kinds of resultative construction in Chinese: resultative de (得) construction and the resultative construction without de. For example,

(14) Resultative de construction

他 学 得 很累。
he learn de very tired
‘He is very tired with learning.’

(15) deless resultative construction

他 学 累 了。
he learn tired Asp
'He is tired with learning.'

The verb-resultative construction is a cause-effect relation, where the verb expresses the cause and the adjective the result. As Chinese emphasizes relation, especially natural temporal relation, it is no wonder that in most cases the verb-resultative construction follows a temporal order. However, in some particular cases, specifically in some regional dialects, the normal temporal order can be reversed. In the dialect of some northern area in China, for example, people prefer to use inverted sentence structures, such as 他很累学得, or 很累他学得, in which 很累 (very tired) is moved in front of 学 (learn) or even to the very beginning of the sentence. This inverted order of Chinese is in line with the English translation, but they differ in one major point: the Chinese inverted structure is unmarked (that is, no proposition or article is used) and is used only in spoken language; it is simply a shift of linear positions of the two components, while in English the proposition with is used to mark the relation between tired and leaning.

3. Separated or Integrated?

The three Chinese structures above seem to show that Chinese obviously favors temporality in juxtaposing compounds and phrases. But if we take it as a conclusion that Chinese is temporal in nature, we might be mostly wrong. Space and time are two distinct concepts and dimensions that determine people’s conception and the state of affairs of the world; they are two sides of a coin that are interrelated but separated in some way. Let us now examine what will happen when we try to focus on the spatiality factor among the above structures.

In the discussion of the compounds above, the temporal trait has been specified when we focus on the semantic relations. However, their feature of spatiality is equally obvious. According to the claim of nouns that denote spatiality (He & Wang, 2016a, b; Ursini & Acquaviva, 2019), all noun+noun components, such as 春夏 (spring and summer), 男女 (man and woman), 官兵 (officer and soldier), reveal spatiality in both Chinese and English. Even in non-noun+noun compounds, such as 前后 (before and after), 远近 (remote time in the past and recently), 胖瘦 (fat and slim), Chinese very often treats or uses them in text or discourse as compounds functioning as nouns. Besides, the left to right positioning of the compounding elements, and the internal
spatial structuring of each character all indicate spatiality. Spatiality is concerned with *structure* which poses sharp contrast with *semantics*, especially “flowing semantics”, which involves the change of meaning, a matter of temporality.

Whole-part relation can be discussed from both semantic and structural perspectives. Temporality favors semantics, or more precisely, the semantic flow from the perception of the whole to the conception of the part. However, in spatial observation whole-part is a typical spatial organization, an abstraction of spatial relationship. In 房间里的桌子 (table in the house), for example, in terms of semantic flow people’s attention goes from the house (房间) to the table (桌子), following the temporal order; but no doubt this phrase involves spatial organization, where the table is located in the house. What’s more, the left to right linear order and each character’s internal formal structure all suggest spatiality. Different from the concrete spatial organization as reflected in 房间里的桌子, in 弟弟的书包 (younger brother’s school bag) 弟弟 (younger brother) and 书包 (school bag) form another type of spatial relation: *younger brother* serves as a domain that comprises all actual and semantic components related to him, including his *school bag*. So this is a domain-component relation, and also abstracted or metaphorical spatial relation.

In line with the above two cases, it would be easy to detect the spatial factor in the verb-resultative construction, inside each character, in the left to right juxtaposition, and even in the domain-based whole-part structuring. Let us focus on the last point: In 学得很累 (very tired with learning) and 学累了 (tired with learning), *learning* (学) is a domain that is quite rich in contents, and *tired* (累) is just one of many consequences of learning. So it involves a whole-part relation, and, according to the above analysis, an abstracted spatial relation.

Space and time are two interrelated but distinct properties of things that exist in the world. We must admit that, from a philosophical viewpoint, all things that exist in the universe are moving and changing in the dimension of time. Meanwhile, all things must be relatively stable in the dimension of space, whether physically or psychologically. This is one of the major ways to know what they are. So in some sense we can rightly say that space and time stand for two perspectives to know a certain thing. One single perspective brings us only limited knowledge of the thing in focus, and if we want to get more comprehensive knowledge, a second, third or more perspectives must be needed. In order to understand space and time of the things in the world, and more specifically of language, we must distinguish two disparate situations:
the objective state of existence and the subjective way of observation. An apple placed on the table is static, which is a fact nobody can deny. But for an apple that is thrown into the sky, its state of moving in the air is definitely dynamic. This is once again something no one can deny. By the objective state of existence, it means that the state of the thing in focus, static or dynamic, can be acknowledged unanimously. However, the subjective way of observation indicates that by taking different perspectives people would find that a normally specifically-defined state of existence can be interpreted in a totally different way. To take the apple for example once again, just now we regarded the apple on the table as being stable, for the fact that no movement can be detected by any observer. But if an observer looks at the apple for a much long time, maybe two days or five days, if the temperature around is not low enough and the air is not too dry, the process of decay would be noticed; conspicuous change occurs on the surface or inside of the apple. Even in one second, there is still some change of state on the apple, though totally unnoticed, as the initial part of the whole process of decaying. In this case, the observer, if he likes, has every reason to think the apple is in the process of decaying. The point we want to make here is that when the factor of time is considered even a seemingly stable object could be dynamic. Coming back to the language issue, and considering the three views about spatiality and temporality of Chinese, we can conclude that the disparate views are subject to how the observer approaches the language, or what biased perspective he takes.

Being biased is not a problem *per se*; it is a problem when one takes his own biased view as a criterion to evaluate other biased views. A reasonable strategy for tackling the issue of spatiality and temporality is, first, to specify one biased view clearly and definitely, and, second, to take an objective-state-of-existence stance.

**Notes**

1. Both graphic and lexical features of Chinese are concerned with the word in general, and the word in Chinese can be understood from the character’s structure, which exhibits the formal features of pictograph, and the minimum grammatical unit, i.e., word. As character and word are so closely interrelated in Chinese, we put them, for the time being, into one category for the sake of convenience in analysis, that is, the graphic/lexical level. Besides, it is quite often rather difficult to define a Chinese sentence; in other words, the borderline between sentence and text is often elusive, so we treat sentence and text as belonging to one category, that is, the sentential/textual level.
By using the term *character-cluster*, we try to avoid such terms as *word, phrase, sentence,* and so on, which would indicate some semantic or governing relation among characters or words. What we want to express here is that when characters go one after another to form a larger-than-one-character sequence it would just seem to be some characters put together, like some independent blocks arranged in a horizontal manner; no inside governing relations can be detected at first sight.

“Super-noun” is a term used by Jin Lixin (2019, p. 32) to refer to “verbs included in nouns” (名包动), a general claim proposed by Shen Jiaxuan, about the noun-verb relationship in Chinese, in which verbs are often expressed in the form of nouns. For example, 打是亲, 骂是爱 (lit., hit is show intimacy, curse is love). This way of using verbs directly in the position of subject or object, a grammatical position for nouns, is widespread in Chinese expressions.

*Mengzi* (《孟子》) is a collection of stories of the Confucian philosopher Meng Ke (孟轲) and his discussions with rulers, disciples and adversaries.

In modern Chinese, most words for ordinary animals contain one character only, in sharp contrast to other semantic words that contain two characters. For example, 狗 (dog), 猫 (cat), 狼 (wolf), 羊 (sheep), 牛 (bull), 鸡 (chicken), 鸭 (duck), etc.

In order to reveal the semantic relation of the compounding components, we have adopted a word-for-word translation method, whose result may not be in agreement with what the Chinese compounds actually mean. For example, 粗细 is here translated as “thick and thin”, in which “thick” corresponds to 粗, and “thin” to 细, despite the fact that in most cases粗细 actually means “thickness”.

For example, in the monograph *Cognitive Linguistics: An Introduction* written by Evans and Green (2006), the term “part-whole” has appeared 16 times, and “whole-part” just once, which is used as a contrast with “part-whole”.

*Domain* is a term used in Cognitive Linguistics and Cognitive Semantics, similar to the concepts of *frame, scenario, script, mental modal, mental space,* etc., referring to all the related components and actions belonging to a certain field. For example, *restaurant* is a domain which includes *table, menu, waiter, food,* and ordering food, serving food, paying the bill, etc.

**Acknowledgements**

I would like to extend my sincerest gratitude and appreciation to Professor Wang Jun
for his patient instruction and inspirational suggestions in the process of my writing this paper.

References


*(Copy editing: Alexander Brandt)*

**About the Author**

Lingling Jia (jocelynjll@163.com) obtained her M.A. degree in the School of Foreign Languages, Soochow University in 2019. Her research interests include SLA, applied linguistics, contrastive linguistics, and cognitive linguistics.