

Chapter 1

Cognitive Relativism in Chinese Lexicon and Their Relevance for the Acquisition of Chinese



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1.1 Introduction

There are three approaches to the study of language. Formal approach deals with structural patterns in phonology, syntax, and semantics. Conceptual approach focuses on the organization of conceptual content with linguistic structures. Psychological approach investigates the processing of linguistic structures from the perspectives of cognitive mechanisms such as memory, attention, perception and reasoning in both comprehension and production. The three approaches are succinctly summarized in Talmy (2000a, 2000b). They are interlocked for a comprehensive theory of human language, and each of them bears relevance to language learning and teaching.

The conceptual approach has been adopted to uncover the principles of structuring categories of space and time, entities, events, and their relationships in linguistic patterns of Chinese (Tai 1984, 1985, 1993, 1999, 2003). In this chapter, we take the conceptual approach to understand some fundamental aspects of linguistic structure in Chinese lexicon and their relevance in teaching and learning Chinese.

1.2 Conceptual Approach and Linguistic Relativism

Conceptual approach to grammar constitutes the core of cognitive linguistics as articulated in Lakoff (1987), Langacker (1987, 1991), Talmy (2000a, 2000b), among others. Cognitive linguistics takes the position that meaning is central to language, in stark contrast with generative grammar which views syntax as being central to language. The main function of language is for humans to communicate with each other through meaning construed in the lexicon and other parts of the grammar in a

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given culture. In evolution terms, the grammatical structure, from simple words to phrases to complex syntax emerged from communication needs, from iconic gestures to full grammar (Tomasello 2008). This evolutionary view applies both ontogenetically as in child language acquisition (Goldin-Meadow 2005), and phylogenetically in the development of iconic gestures to full-fledged sign language (Armstrong and Wilcox 2007). Sign language, in visual-gestural modality, can represent three dimensions in reality, and is therefore much more iconic than spoken language in both lexicon and syntax (Klima and Bellugi 1979; Myers and Tai 2005). Spoken language, in auditory-vocal modality, is one dimensional in time and takes on arbitrary mapping relationship between form and meaning (Saussure 1916/1959; Tai 1993). Nonetheless, iconicity can be easily detected in grammars of spoken language (Haiman 1980, 1985). The iconicity in Chinese grammar has been identified by this author (Tai 1985, 1993, 1999, 2011).

Meaning in cognitive semantics is a subjective construal of reality. The construal serves the purpose of affective and effective communication in different situations. For affective communication, one must be able to be empathetic and helpful (Davidson 2012). For effective communication, the choice of vantage points and orientation is not only desirable but also necessary. Metaphorical expressions in different cultures also serve affective and effective communication. They translate the abstract concepts with more concrete and embodied references (Lakoff and Johnson 1980). Metaphors built on imaginative resemblance and similarities are therefore iconic in nature.

Metaphor is a special case of blending of mental spaces (Fauconnier 1994 ; Fauconnier and Turner 2002) for meaning construal in nature language. In essence, meaning construal is to conceptualize the reality with different perspectives in different physical as well as cultural settings, and the expressions on different structural levels, from words to idioms to phrases to sentences to paragraphs are the default ways for affective and effective communication. Thus, in both first language acquisition by the child and second language acquisition by the adult, the purpose is to learn to achieve affective and effective communication, and the linguistic expressions at different structural level are the tool for the purpose.

Cognitive linguistics can be viewed as a contemporary version of linguistic relativism (Lakoff 1987; Tai 2003), which has been espoused by cultural anthropologists in the well-known Boas-Sapir-Whorf tradition. While rigorous psycholinguistic experiments have largely failed to validate the strong version of the Sapir-Whorf hypothesis, that is, linguistic determinism which assumes that linguistic patterns represent different embodied conceptualizations of reality, and thus will affect the thinking and behaviors of the language users. However, the weak version of the Sapir-Whorf hypothesis which assumes that linguistic patterns are not arbitrary and autonomous, but motivated by different ways of conceptualization of reality in different cultural settings for the purpose of communication. In a series of this author's research on Chinese grammar, it can be seen that the weak version of the Sapir-Whorf hypothesis can be maintained and the spirit can be implemented to facilitate the teaching and learning of Chinese language. Furthermore, Chinese is abundant in homophones. Homophones play an important role in Chinese practice of customs

and behaviors. For instance, buildings and elevators in Chinese cultural settings avoid using fourth floor for the reason that *sì* 四 ‘four’ is treated as homophonous with *sǐ* 死 ‘to die’. Likewise, for auspicious affairs and events, *júzi* 橘子 ‘orange’ is among the most proper gifts because it is homophonous with *jílì* 吉利 ‘be auspicious’ (Sung 1979).

The practice is closely tied up with a common belief by Chinese people that language use will lead to the realization of events, bad or good. The practice is behavioral and thus confirms the strong form of the Whorfian hypothesis. The fact here indicates that the past psycholinguistic experiments to validate the Whorfian hypothesis might be poorly designed with improper instructions to the participants, as in the case of child language acquisition experiments, which often conflict the observational studies of child language development (Diessel 2004).

It is the view of this author that both the strong and the weak versions of the Sapir-Whorfian hypothesis should be introduced within the framework of the conceptual approach to Chinese pedagogy.

1.3 Categorization in Relativism

1.3.1 Lexicalization Patterns of Nouns

Categorization is the most important cognitive ability of human beings for making decisions and carrying out actions in life. Linguistic structures, be words or sentence patterns, are essentially based on categorization in different cultural contexts. Words are more susceptible to cultural needs. For instance, the verb *tiāo* 挑 in Chinese has no equivalent in English, and can only be translated as “to carry two baskets with a pole on the shoulders”. Similarly, *xiào* 孝, a key word in Chinese culture, is often translated in Chinese-English dictionaries as ‘filial piety’, a Latin derived phrase, is unfamiliar even to most English speakers.

‘Basic level’ words play a key role in the lexicon, with ‘superordinate’ words at the above level and ‘subordinate’ words at the below level (Rosch et al. 1976). For example, ‘car’, ‘bus’, and ‘truck’ are words of basic level in English, with ‘vehicle’ as their superordinate, and with different kinds of car, bus and truck as their subordinates. Words on this level are mostly simple lexical items, most frequent, and acquired by children earlier than words on the two other levels. However, basic level words in English are systematically rendered as compound words in Chinese. They are constructed with monosyllabic superordinates as the head with modifiers, as illustrated below.

- a. *chē* 車 ‘vehicle’: *huǒchē* 火車 ‘train’, *qìchē* 汽車 ‘car’, *kǎchē* 卡車 ‘truck’, etc.
- b. *yú* 魚 ‘fish’: *guīyú* 鮭魚 ‘salmon’, *xuēyú* 鱈魚 ‘cod’, *zūnyú* 鱒魚 ‘trout’, etc.
- c. *huā* 花 ‘flower’: *lánhuā* 蘭花 ‘orchid’, *méiguīhuā* 玫瑰花 ‘rose’, *mǔdānhuā* 牡丹花 ‘peony’, etc.

- d. *cài* 菜 ‘vegetable’: *bāoxīncài* 包心菜 ‘cabbage’, *qíncài* 芹菜 ‘celery’, *huāyécài* 花椰菜 ‘cauliflower’, etc.

Semantically, the head designates the category and the modifier specifies the members of the category. Yet, *chē* 車 is not the genuine equivalent for English ‘vehicle’ either. A closer equivalent is *chēliàng* 車輛, a compound constructed with the classifier *liàng* 輛. While ‘vehicle’ in English could include ‘airplane’, ‘ship’, and other means of transportation, *chēliàng* 車輛 in Chinese exclude them. Therefore, the closest one is *jiāotōng gōngjù* 交通工具 ‘tools of transportation’. Similarly, the superordinate words ‘furniture’, ‘vegetable’, ‘fruit’ in English can find their equivalent as *jiājù* 家具, *shūcài* 蔬菜, *shuǐguǒ* 水果, respectively. In the same vein, *huāhuì* 花卉 and *yúxiān* 魚鮮 or *hǎixiān* 海鮮 can be treated on a par with the three former superordinates in Chinese lexicon. There appears to exist another level of categorization as in *zhuōyǐ* 桌椅 ‘table and chair’, *yúxiā* 魚蝦 ‘fish and shrimp’, *huācǎo* 花草 ‘flower and grass’, *huāmù* 花木 ‘flower and tree’, etc., which are coordinate compounds, and are collective terms below the superordinate words for ‘furniture’ and ‘sea food’.

It appears that we cannot straightly apply the level structure proposed by Rosch et al. (1976) to Chinese lexicon. First, if we use the simple lexical item as a criterion, then the monosyllabic words in the above examples, the number of which is less than 30, should be treated as words of the basic level. However, it is counter intuitive to assume with that small number of words that they are words of the basic level in Chinese.¹ Second, if we use the frequency factor, compound words are more frequently used in communication. Third, and more importantly, it is obvious that there are more levels of categorization for purposes of communication in Chinese culture. Future psycholinguistic experiments aside, the main point here is that categorization of objects and entities are for daily living, and cannot be independent of cultural contexts.

In addition to coin words with different levels of categorization of objects and entities, Chinese also uses other cognitive strategies to coin compound nouns. The most salient is the whole-part relationship. For example, the parts of a tree *shù* 樹 are *shùgēn* 樹根 ‘root’, *shùgàn* 樹幹 ‘trunk’, *shùzhī* 樹枝 ‘branch’, *shùyè* 樹葉 ‘leaf’. The word order of these compound words is whole-before-part, which is a central principle of word order in Chinese compounds, phrases, and syntactic structure (Tai 1985, 2005). The whole-part cognitive schema also underlies various kinds of metaphorical projections based on body parts. For example, *shāntóu* 山頭 ‘head of mountain’, *shānyāo* 山腰 ‘waist of mountain’, and *shānjiǎo* 山腳 ‘foot of mountain’. This kind of projection reflects human’s biological make-up, and has been referred to as ‘anthropocentrism’ and ‘anthropomorphism’ (cf. Lyons 1977: 690–703). Similarly, *guǒpí* 果皮 ‘skin of fruit’, *guǒròu* 果肉 ‘flesh of fruit’, and *guǒrén* 果仁 ‘kernel’, and many others are coined by means of the whole-to-part schema.

¹ Even though adults would use the reduplication of the monosyllabic word to toddlers, e.g. *chēchē* 車車, *càicài* 菜菜, etc., children still have to learn those compound words in daily life.

In Chinese, names of sea animals are adopted from those of animals living on the land, but with *hǎi* 海 ‘sea’ and *hé* 河 ‘river’ as the modifiers. For example, *hǎigǒu* 海狗 ‘sea dog = seal’, *hǎitún* 海豚 ‘sea pig = dolphin’, *hémǎ* 河馬 ‘river horse = hippopotamus’, *hétún* 河豚 ‘river pig = puffer fish’. The mapping involved is a cognitive mapping between two mental spaces (Fauconnier 1994). In this case, the mapping is from land to water. There are also iconic motivations based on perceptual similarities with respect to sound, shape, and size as possible associations. For instance, seals do bark as dogs, and *hǎimǎ* 海馬 ‘sea horse’ has a shape of horse, and *hǎixiàng* 海象 ‘walrus’ is big in size with tusk like the ivory of an elephant.²

Chinese has a rich set of kinship terms. It is overwhelming for the learners of Chinese. But, the Chinese kinship terms are fundamentally important in cognition and interaction among the members of the extended families, especially in rural areas of Chinese culture. The terms have to be learned in early child language acquisition in order for Chinese children to behave and function properly in their entire life. The Chinese kinship terms present a formidable task for the learners. In contrast, the kinship terms in English are much simpler, but it does not mean that they are easier to command for Chinese learners of English. While *xiōngdìzǐmèi* 兄弟姊妹 ‘sibling’ is relatively easy for Chinese speakers to learn, it is often confusing for them to comprehend the ‘in-law’ expressions. For instance, ‘father-in-law’ and ‘mother-in-law’ are distinctive enough, but not ‘brother-in-law’ and ‘sister-in-law’. Their lack of finer distinction causes a cognition problem for Chinese speakers, who are often confused about the person concerned in the discourse.

While English is relatively simple in kinship terms, it has an extremely rich vocabulary of color and shape terms, with more than three thousand color terms (Miller 1991: 205). For instance, just for the ‘red’ category, it has ‘scarlet’, ‘crimson’, ‘vermilion’, etc. Again, their Chinese equivalents are rendered in compounds with *hóng* 紅 ‘red’ as the head with modifiers, *xīnghóng* 猩紅, *chìhóng* 赤紅, *zhūhóng* 朱紅, respectively, for the above three terms of the red color. Basic color terms in Chinese can also be modified by *shēn* 深 ‘deep’ or *qiǎn* 淺 ‘shallow’, which are equivalent to ‘dark’ and ‘light’ in English color terms, respectively. For example, *shēn-lán* 深藍 refers to ‘dark blue’ and *qiǎn-lán* 淺藍 ‘light blue’ in English. Chinese color terms such as *táohóng* 桃紅 and *júhuáng* 橘黃 are projected from colors of nature objects to make distinction among different shades of colors.

It can be observed that while Chinese culture focuses more on the family and social relationships, in contrast, English culture more on the colors and shapes of objects. In fact, based on a series of psychological experiments, Nisbett (2003) has proposed that Asians and Westerners do think differently. While children in Chinese culture have to learn the set of kinship terms, Children in Japanese culture have to learn to use different giving and receiving verbs in accordance with different social

² The mapping from land territory to water territory is a kind of modeling in nature. Iconicity is in essence a modeling of X based on Y. In human conceptualization of the reality, modeling and iconicity play a key role. In the same vein, cognitive psychologists and cognitive neuropsychologists have metaphorically treated the human brain as a computer, and the psycho-neural processing as computation.

relationships (Kuno 1973). Thus, it is hard for us not to take cognitive relativism seriously in thinking and behaviors.

In a nutshell, nouns in Chinese lexicon are full of compounds consisting of mono-syllabic morphemes or words. The lexicalization patterns are based on the conceptualization perspectives within the Chinese culture. They affect the native speakers' cognition and behaviors. The relative semantic transparency of the internal composition of nouns along with their iconic and metaphorical mappings, if properly implemented in textbooks and teaching materials, can be very helpful to the teaching and learning of Chinese as a second language.

1.3.2 Numeral Classifiers

While all languages have measure words, in some languages like Chinese and Thai have a subset of measure words which also categorize nouns according to their salient physical or functional features. While the main function of numeral classifiers is to count, like measure words, they also assume the function of categorization. Numeral classifiers have to co-occur with number, as in *sān tiáo yú* 三條魚 'three fish' and *liǎng zhāng zhǐ* 兩張紙 'two sheets of paper'.

The classifier *tiáo* 條 categorizes long, thin, and flexible animals and objects such as *sān tiáo shé* 三條蛇 'three snakes' and *liǎng tiáo shéngzi* 兩條繩子 'two ropes' as its prototypical members, but also extends to perceptually similar objects such as *yī tiáo hé* 一條河 'a river', *yī tiáo gōnglù* 一條公路 'a highway', and *yī tiáo tiělù* 一條鐵路 'a railroad'. In this extension, the 'winding' is perceived as 'flexible'. The classifier *tiáo* 條 can also be metaphorically extended to *yī tiáo fǎlǜ* 一條法律 'a clause of law' and *yī tiáo rénmìng* 一條人命 'one human life' through mental space mapping. In short, the classifier *tiáo* 條 categorizes entities perceived as one-dimensional, perceptually or metaphorically. Other one-dimensional classifiers include classifier *gēn* 根 'root' and *zhī* 枝 'branch' (Tai and Wang 1990). They categorize long and rigid objects but with different core members and extended members. These three classifiers sometimes overlap in memberships due to family resemblance (Wittgenstein 1958), thus also inviting variations in usage.

The classifier *zhāng* 張 categorizes two-dimensional entities. Its prototypical members are *yī zhāng zhǐ* 一張紙 'one sheet of paper', *yī zhāng chāopiào* 一張鈔票 'a banknote', *yī zhāng zhàopiàn* 一張照片 'a photo', and other thin and flat objects. Other classifiers of the *zhāng* 張 family include classifier *fú* 幅 for *huà* 畫 'picture', *dìtú* 地圖 'map', etc. The classifier *fú* 幅 is also metaphorically used in *yī fú fánróng de jǐngxiàng* 一幅繁榮的景象 'a prosperous scene', the classifier *miàn* 面 for *yī miàn jǐnqí* 一面錦旗 'a silk banner', *yī miàn jìngzi* 一面鏡子 'a mirror', etc. The classifier *piàn* 片 for *yī piàn yèzi* 一片葉子 'a leaf', *yī piàn miànbāo* 一片麵包 'a slice of bread', etc. It can also be extended to refer to a vast area as in *yī piàn shātān* 一片沙灘 'a beach', and *yī piàn sēnlín* 一片森林 'a forest'. Extending the meaning of 'vast', it can also be metaphorically used as in *yī piàn hǎoyì* 一片好意 'full good intention' and *yī piàn rèchén* 一片熱忱 'full enthusiasm'.

The classifier *zhāng* 張 is also used to group *zhuōzi* 桌子 ‘table’, *chuáng* 床 ‘bed’, *yǐzi* 椅子 ‘chair’, and other furniture with flat surface. Although these objects are three-dimensional in space, their function relies on the flat surface. It is interesting to note that while the classifier *tiáo* 條 has a nominal origin of ‘branch’, the classifier *zhāng* 張 has a verbal origin of ‘to stretch’, therefore, it is also used for *yī zhāng zuǐ* 一張嘴 ‘one mouth’, *liǎng zhāng gōng* 兩張弓 ‘two bows’, and *sān zhāng yúwǎng* 三張魚網 ‘three fishing nets’ (Tai and Chao 1994).

Chinese classifiers for three-dimensional objects include *kuài* 塊 ‘chunk’, *kē* 顆 ‘grain’, and *lì* 粒 ‘pellet’, etc. (Tai 1992).

In sum, Chinese classifiers can be analyzed in terms of schemata of dimensionality in conjunction with a small set of object properties such as ‘count’ vs. ‘mass’, ‘rigid’ vs. ‘flexible’, ‘aggregate’, ‘parts of whole’, and others. The dimensionality and object properties can be treated as an important subset of conditions underlying language learnability (Pinker 1989). On the other hand, the perceptual and metaphorical extension can better be treated as human categorization which are subject to perspective taking and metaphorical and mental space mapping in the Chinese cultural tradition. In terms of second language acquisition, it appears that universal object properties are much easier to be grasped than cultural-specific applications of metaphors and mental spaces.

1.3.3 Lexicalization Patterns of Verbs

Concepts and words are different. Concepts are constructs we form based on sensory stimuli, emotions, experiences, and imaginations. Words are formed to represent and express concepts through lexicalization. Some concepts are universal, but many others are language particular. For instance, six basic universal emotions are ‘fear’, ‘anger’, ‘happiness’, ‘sadness’, ‘disgust’, and ‘surprise’ (Ekman 1970). They are expressed in Chinese as *pà* 怕, *nù* 怒, *xǐ* 喜, *āi* 哀, *è* 惡, and *jīng* 驚. Each of the six basic emotion terms also have their variations, representing different degrees, shades and dimensions of emotions. Thus, there are nuances in meaning in the following pairs of compounds: *hàipà* 害怕 ‘be afraid’ and *kǒngjù* 恐懼 ‘be frightened’; *fènnù* 憤怒 ‘wrath’ and *bàonù* 暴怒 ‘fury’; *xǐyuè* 喜- ‘jubilant’ and *kuàilè* 快樂 ‘happy’; *āishāng* 哀傷 ‘grieved’ and *bēiāi* 悲哀 ‘sorrowful’; *yànwù* 厭惡 ‘be disgusted’; *ěxīn* 噁心 ‘feel like vomiting’; *jīngyà* 驚訝 ‘be shocked’ and *jīnghuāng* 驚慌 ‘panic-stricken’. The nuances in these pairs can only be acquired through contexts. It should also be noted that even though the six basic emotions are universal, their renditions in different languages are varied and therefore, and their translations from one language to another represent only gross equivalents.

In addition, there are many emotion terms which exist only in certain cultures. For instance, the Dutch word ‘uitwaaien’ describes a specific feeling for the revitalizing effects of taking a walk in the wind which appears to be absent in English and Chinese. Similarly, the emotion term ‘mbuki-mvuki’ in Swahili expresses the feeling of dancing without clothes on. The German word ‘schadenfreude’ is well known for

expressing the pleasure of seeing misfortunes of others. This word is now adopted in English. The closest equivalent in Chinese would be the idiom *xìngzāilèhuò* 幸災樂禍.

Emotions motivate us to move and to act. In Chinese, there are many compounds constructed with the monosyllabic word *xiào* 笑, the meaning of which is somewhere between ‘to smile’ and ‘to laugh’. While ‘to smile’ is closer to *wéixiào* 微笑, ‘to laugh’ is to *dàxiào* 大笑. Chinese compounds containing *xiào* 笑 include *cháoxiào* 嘲笑 ‘to laugh at’, *lěngxiào* 冷笑 ‘to sneer’, *kǔxiào* 苦笑 ‘wry smile’, *xīxiào* 嬉笑 ‘to laugh playfully’, *shǎxiào* 傻笑 ‘to giggle’, and many others.

The actions expressed by ‘to hit’ and ‘to break’ are probably universal. There are many ways ‘to hit’ as there are many ways ‘to break’ as listed in English dictionaries. However, as pointed out in Fillmore (1970), while the verb ‘to break’ implies the change of state after the action, the verb ‘to hit’ does not. He therefore named the verb ‘to break’ and its class members, such as ‘to bend’, ‘to fold’, ‘to shatter’, ‘to crack’, as belonging to verbs of change of state. In contrast, the verb ‘to hit’ and its class members, such as ‘to slap’, ‘to strike’, ‘to bump’, ‘to stroke’, as verbs of impact. To account for the differences in syntactic behaviors between ‘to break’ and ‘to hit’, Fillmore thus analyzed ‘to break’ into break-1, break-2, and break-3 as illustrated by sentences (1–3), respectively.

- (1) The stick broke.
- (2) John broke the stick (with a rock).
- (3) A rock broke the stick.

In contrast, there are only hit-1 and hit-2 as illustrated by (4–6).

- (4) John hit the tree (with a rock).
- (5) A rock hit the tree.
- (6) *The tree hit.

In Chinese, ‘to hit’ is *dǎ* 打, but ‘to break’ has to be expressed as *dǎpò* 打破 or *dǎduàn* 打斷 ‘hit-broken’, a resultative verb compound constructed under the ‘action-result’ semantic template. Thus, the proper Chinese translations of the English sentences in (1–3) are (7–9), respectively.

- (7) 棍子(打)斷了。

gùnzi (dǎ) duàn le.

- (8) a 約翰(用石頭)打斷了棍子。

John (yòng shítou) dǎduànle gùnzi.

b* 約翰(用石頭)斷了棍子。

John (yòng shítou) duànle gùnzi.

- (9) a 石頭打斷了棍子。

shítou dǎduànle gùnzi.

b* 石頭斷了棍子。

shítou duànle gùnzi.

Note that in (7) the action verb *dǎ* 打 can be omitted to express the resultative state of ‘being broken’. In (8), however the verb *dǎ* 打 cannot be omitted due the presence of agent John, thus the ungrammaticality of (8b). In (9a) the action verb *dǎ* 打 implies the absent agent, thus grammatical. But the sentence without *dǎ* 打 in (9b) is ungrammatical.

The concept of ‘change of state’ is fundamentally important in human cognition, therefore human communication. Notice that in sentences (7–9), the final particle *le* 了, which has the communication function of indicating ‘change of state’ or ‘change of situation’, needs to be distinguished from the perfective aspect *le* 了 (PFV). The communication function of the final particle *le* 了 is ‘to signal a currently relevant state’ (CRS) which covers a plethora of situations (Li and Thompson 1981: 240–300), presenting recalcitrant problems for linguistic analysis as well as learning Chinese as a second language.

Chinese lexicon abounds in resultative verb compounds (RVC), of which the first element signals the action, and the second, the result. RVCs express different kinds of relationship between the two elements as illustrated by the following sentences with RVCs underlined (Li and Thompson 1981: 54–68).

(10) 我把茶杯打破了。

wǒ bǎ chá-bēi dǎ-pò le
I BA tea-cup hit-broken PFV/CRS
I broke the teacup.

(11) 他把門拉開了。

tā bǎ mén lā-kāi le
he BA door pull-open PFV/CRS
He pulled the door open.

(12) 我把那個字寫清楚了。

wǒ bǎ nà-ge zì xiě-qīngchǔ le
I BA that-CL character write-clear PFV/CRS
I wrote that character clearly.

(13) 他買到了那本字典。

tā mǎi-dào-le nà-běn zìdiǎn
he buy-arrive-PFV that-CL dictionary
He managed to buy that dictionary.

(14) 他跳過去了。

tā tiào-guò-qù le
he jumped-across-go PFV/CRS
He jumped across.

(15) 他們跑出來了。

tāmen pǎo-chū-lái le

they run-exit-come PFV/CRD
They came running out.

(16) 他的錢用完了。

tā-de qián yòng-wán LE
he-GEN money use-finish PFV/CRS
His money is all used up.

(17) 把電視關掉。

bǎ diànshì guān-diào
BA TV close-away
Turn off the TV.

Li and Thompson (1981: *ibid*) noticed that there are different kinds of results expressed in the above sentences. They grouped sentences (10–11) as ‘cause’, sentences (12–13) as ‘achievement’, sentences (14–15) as ‘direction’, and sentences (16–17) as ‘phase’. They also pointed out that ‘direction’ and ‘phase’ RVCs have structural properties different from those of ‘cause’ and ‘achievement’.

In his seminal work, Chao (1968: 435–480) has provided a detailed discussion on structural and semantic properties of various kinds of RVCs under the heading of Verb-Complement (V-R) Compounds. In Chao’s categorization of complements, in addition to ‘ordinary resultative complements’, there are ‘directional complements’, ‘phase complements’, and ‘potential complements’ (e.g., *gǎndéshàng* 趕得上 ‘can catch up’ and *gǎnbúshàng* 趕不上 ‘cannot catch up’). Chao (1968: 444–446) also gave a long but not exhaustive common list of resultative complements (around 160 items). It appears that the resultative category is centered around the action-result schema with ‘causative relationship’ as the core concept extending to various aspects of action-result schemata expressed according to the temporal sequence principle (Tai 1985).

RVCs in Chinese lexicon is extremely complicated. Given the limited space, this paper opts to approach the Chinese RVCs from typological perspectives. Vendler’s (1967) time schemata of verbs and Talmy’s (2000b) typological distinction between ‘verb-framed’ and ‘satellite-framed’ languages are concerned here.

In his study of time schemata of verbs in English, Vendler (1967) has arrived at four classes of verbs. They are activities (e.g., run and walk), accomplishments (e.g., kill and build), achievements (e.g., die and understand), and states (e.g., know and love). Dowty (1979) has examined the four classes of verbs in greater detail and correctly pointed out that the whole predicate with object and adverbial modifications must be involved. For example, while ‘to run one hour’ is an activity, ‘to run a mile’ is an accomplishment with a terminal point. Accomplishment verbs in English, in past or perfect tenses, necessarily imply an attainment of the goal. However, as pointed out by Tai (1984), accomplishments in Chinese must be expressed by VRCs. Thus, ‘to kill’ in English necessarily implies the death of the patient as attested in the ungrammaticality of (18b).

(18) a John killed his enemy.

b* John killed his enemy dead.

The commonly accepted Chinese translation of ‘to kill’ is *shā* 殺 or *shāsǐ* 殺死, as treated in almost all English-Chinese and Chinese-English dictionaries. Yet, the monosyllabic *shā* 殺 does not necessarily imply the death of the patient, as shown in the grammatical sentence (19) and the ungrammaticality of its English translation.

(19) 張三殺了李四三次, 都沒殺死他。

zhāngsān shāle lǐsì sāncì, dū méi shāsǐ tā

John kill asp Lee three-times, all not kill-dead

* John killed Lee three time, but didn’t kill him.

(19) shows that *shā* 殺 fails the cancellation test for a genuine ‘accomplishment’ verb, whereas the English verb ‘to kill’ passes the cancellation test as seen in the ungrammaticality of (18b) and the English translation of (19) Chinese sentence. It is clear that *shā* 殺 is an activity verb, only RVC *shāsǐ* 殺死 can express the accomplishment. Other English accomplishment verbs such as ‘to build’, ‘to write’, ‘to learn’ and others in past or perfect tense need to be translated by RVCs such as *gàihǎo* 蓋好 ‘to build-finish’, *xiěwán* 寫完 ‘to write-finish’, and *xuéhuì* 學會 ‘to learn-able’ in order to ensure the attainment of goal. Therefore, it is argued in Tai (1984) that there is an absence of monosyllabic accomplishment verbs in Chinese. Only RVCs can express accomplishment in Chinese.

Furthermore, the instruments used to perform the action *shā* 殺 are prototypically knife and gun. If a stick or a stone is the instrument used, the action verb *dǎ* 打 is more appropriate. Different ways of ‘to kill’ in Chinese can be seen in *qiāsǐ* 掐死 ‘choke-die’, *dúsi* 毒死 ‘poison-die’, *mēnsǐ* 悶死 ‘suffocate-die’, and many others. In search of the equivalent of ‘to kill’ in English, Tai and Chou (1975) concluded that there is no perfect equivalent in Chinese, the closest one being *nòngsǐ* 弄死 ‘do-die’.

It should also be noted that among all the activity verbs, *shā* 殺 has the strongest illocutionary force for the death of the recipient of the action. First, if the context is clear, *shā* 殺 can imply the death of the recipient. Second, in imperative expression *shāletā* 殺了他! *bātāshāle* 把他殺了! ‘kill him!’, it is clear that the attainment of goal is the death of the person to be killed, even though the goal may not be accomplished.

Talmy (1985, 2000b) has proposed a well-known distinction between ‘verb-framed’ and ‘satellite-framed’ languages. While French and Spanish are ‘verb-framed’ languages, English and German are ‘satellite-framed’ languages. In the verb-framed languages, the conceptual components of MOTION and PATH conflate into one verb root in motion events, for example, French ‘entrer’ and Spanish ‘entrar’. In contrast, in the satellite-framed languages, PATH needs to be spelt out separately as a verbal particle as ‘into’ in ‘go into’ in English or ‘hineingehen’ in German. On the other hand, the satellite-framed languages tend to incorporate MOTION and its co-event MANNER or CAUSE together. Thus, in English, most of the motion verbs incorporate manner, except verbs such as ‘to enter’ and ‘to exit’ which are borrowed from French. Thus, to translate the English motion verbs such as ‘to run’, ‘to fly’ and ‘to swim’, Spanish needs to use gerunds to specify the manner of ‘to enter’ as illustrated in (20) (Talmy 2000b: 114).

(20) Entro corriendo/volando/nadando/a la cueva.

He-entered running/flying/swimming to the cave

Talmy classifies Chinese as ‘satellite-framed’ language, putting Chinese resultative complements on a par with verbal particles in English (Talmy 2000b: 102). However, as discussed earlier, Chinese resultative complements are of different semantic functions, with the action-result as the core schema. More importantly, the so-called ‘resultative complements’ in Chinese can be verbs. For instance, the verb *jìn* 進 means ‘move forward’ as in *xiàngqiánjìn* 向前進. It also means ‘to enter’ as in *jìnqù* 進去 ‘go into’ and *jìnlái* 進來 ‘come in’. These two expressions are RVC’s with direction complements *lái* 來 and *qù* 去. It appears that the core meaning of *jìn* 進 is ‘to enter’ as in French and Spanish. Therefore, *jìn* 進 can be further compounded by verbs expressing MANNER such as *zǒu* 走 ‘to walk’, *pǎo* 跑 ‘to run’, *pá* 爬 ‘to crawl’, and many others. Sentences in (21–23) show that *jìn* 進 is the main verb in the *zǒujìnqù* 走進去 ‘to walk into’, *pǎojìnqù* 跑進去 ‘to run into’, and *pájìnqù* 爬進去 ‘to crawl into’.

(21) a 他走進了教室。

tā zǒujìnle jiàoshì

He walk enter-ASP classroom

He walked into the classroom.

b 他進了教室。

tā jìnle jiàoshì

He entered the classroom.

c* 他走了教室。

tā zǒule jiàoshì

He walked the classroom.

(22) a 他跑進了教室。

tā pǎojìnle jiàoshì

He run enter-ASP classroom

He ran into the classroom.

b 他進了教室。

tā jìnle jiàoshì

He entered the classroom.

c* 他跑了教室。

tā pǎole jiàoshì

He ran the classroom.

(23) a 他爬進了教室。

tā pájìnle jiàoshì

He crawl enter-ASP classroom

He crawled into the classroom.

b 他進了教室。

tā jìnle jiàoshì

He entered the classroom.

c* 他爬了教室。

tā pále jiàoshì

He crawled the classroom.

In the same vein, the perceived complement *chū* 出 can function as ‘to exit’ in French and Spanish.

As a matter of fact, the *dú* 毒 ‘poison’ in verb compound *dúsǐ* 毒死 ‘poison-die’ is a noun, and not a verb as shown in the ungrammaticality of (24b) and (24c).

(24) a 他把敵人毒死了。

tā bǎ dírén dúsǐ le

He BA enemy poison-die ASP

He killed his enemy with poison.

b* 他毒了敵人。

tā dúle dírén

c* 他把敵人毒了。

tā bǎ dírén dúle

From the above discussion, it is clear that Chinese differs from ‘satellite-framed’ languages like English and German as it can incorporate PATH into motion verbs which does not incorporate MANNER, for instance, *jìn* 進 ‘to enter’ and *chū* 出 ‘to exit’. On the other hand, it also differs from ‘verb-framed’ language like French and Spanish in which MANNER has to be expressed with verbal gerunds or adverbials and to be placed after the main verbs of motion (Ungerer and Schmid 2006: 234–242). Slobin (2004) has also questioned the validity of treating Chinese as a ‘satellite-framed’ language, and proposes that Chinese like other serial verb languages can be more appropriately classified as ‘equipollently-framed’ languages, a third type of language. While Tai (2003) has questioned Chinese as a ‘satellite-framed’ language, he has missed Slobin (2004). In his later work on Chinese from typological perspectives, Tai and Su (2013) has accepted Slobin’s trichotomized rather than Talmy’s dichotomized typologies, treating Chinese as an ‘equipollently-framed’ language.

1.4 Concluding Remarks

As pointed out by Langacker (2008), cognitive grammar advances a conceptual account of linguistic meaning, showing how alternative expressions construe the same situation in subtly different ways. Cognitive grammar offers a natural and promising basis for language instruction because it focuses on the meaning to be conveyed in human communication. In this paper, the author takes a further step in showing how Chinese, as a target language, can be learned more effectively on the basis of Chinese conceptualization with cognitive principles adopted within the Chinese cultural tradition. We have shown that lexicalization patterns in Chinese

are derived from categorization of entities and events based on different perspectives optimal to the Chinese conceptualization of reality. This paper focuses on the lexicalization patterns of the Chinese language. Other aspects of Chinese grammar are beyond the scope of this paper. Notwithstanding, the author also takes the position that learning the lexicon is prerequisite to learning syntactic patterns, be it first language or second languages. With a firm grasp of the lexicon, syntactic knowledge and performance can be acquired in a natural developmental course.

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