Dan Xu
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Space in Languages of China

Cross-linguistic, Synchronic and Diachronic Perspectives

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Dan Xu
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Preface

This collective work began in 2004 thanks to Grant Number 03326 awarded by the Research Department of the French Government to the project entitled *L'Espace et ses représentations en Asie orientale à travers divers langages*. The participants are from universities and institutions in several countries, working in various domains. They all have the same strong interest: investigating 'Space' in languages of China. Over the past decade, this topic has been the subject of debate in many disciplines including linguistics and psychology, but there have so far been few studies of Chinese and related languages.

My gratitude goes to the authors, who have supported this project and given their contributions to this book. Our collaboration over the years has been enjoyable and fruitful. We have shared our experiences and exchanged our points of view, which are not always the same. Without their indispensable help and constructive observations, this book would never have been completed.

Many thanks to Craig Baker for his efficient help with editing work in English.

I take responsibility for any remaining mistakes.

Dan Xu
Paris

INTRODUCTION: HOW CHINESE STRUCTURES SPACE

Dan Xu

INALCO/CRLAO, France

Space has long been a popular topic in linguistic research. Numerous books on the subject have been published over the past decade. However, none of these books were based on linguistic data from Chinese. The Chinese language is an "atypical" SVO language[1] and deserves more attention and study. In this volume, contributors working in different specialties present and analyze the expression of space in languages of China. Not only Mandarin Chinese (the standard language) is investigated; several other dialects, as well as a minority language of China and Chinese Sign Language are studied. Cross-linguistic, synchronic and diachronic approaches are used to investigate phenomena related to space. This work does not claim to challenge or revise ongoing theoretical proposals, since the contributors are aware that problems explaining the expressions of space in Chinese have been largely neglected in past research. Even the available data is not very well described. In this book, we try to provide general linguists and those who are interested in the Chinese language with a reliable presentation and description of spatial expressions in Chinese. The papers collected here are empirical, descriptive and sometimes tentative. Our aim throughout has been to stimulate discussion rather than to offer solutions.

In this book, some contributors focus on spatial structures, while others concentrate on spatial terms. In section 1 of the Introduction, the language situation in China is presented. Then, we introduce some important recent debates about the Chinese language. Finally, we give a summary of the articles which study the expression of space using different approaches. As the contributing scholars argue, Chinese shares many common features with other languages, but also presents some particular properties.

1. Language Situation in China

What does "Chinese" mean? It is not easy to give a short answer. The language situation in China is very complex, not only for those who do not know this language, but also for linguists who have been working on it for many years.

Generally speaking, "Chinese" refers to Mandarin[2], or rather the "standard language" based on Beijing dialect, which is spoken on TV. In almost every province, educated people are bilingual; they speak a dialect and the standard language. Most people can at least understand Mandarin. The Chinese dialects are classified into ten groups[3]:

(1) Mandarin: mainly spoken in north of the Yangtze River, and in southern provinces including Sichuan, Yunnan, Guizhou, etc. More than 662 million[4] people speak Mandarin.

D. Xu (ed.), *Space in Languages of China*: *Cross-linguistic, Synchronic and Diachronic Perspectives,* 1–14.

(2) Jin: spoken in Shanxi province and zones contiguous with this province, for instance some regions of Hebei, Inner Mongolia, Henan and Shaanxi. (45 million)
(3) Wu: spoken in Shanghai, Zhejiang, etc. (69 million)
(4) Min: distributed in Fujian, Taiwan, etc. (55 million)
(5) Hui: attested in Huizhou, Anhui province. (3 million)
(6) Gan: spoken in Jiangxi. (31 million)
(7) Hakka: located in zones between Fujian, Guangdong and Jiangxi. (35 million)
(8) Yue: used in Guangdong, Guangxi, Hongkong, Macao. (40 million)
(9) Xiang: spoken in Hunan. (30 million)
(10) Pinghua: found in Guangxi. (2 million).

While people in the North understand each other when they travel across provinces, people in the South cannot communicate easily when they visit a neighboring village. Cantonese is almost as much a "foreign language" for people from Beijing as the Breton language (spoken in Bretagne of France) is for people from Paris. In other words, the mutual intelligeability among Chinese dialects is low. In the South, ancient Chinese pronunciation is better preserved. The evolution source has been in the North, since most capitals in history were located in the North. However, a common cultural and historical background, as well as the same written form, have united the different ethnic groups and dialects for millennia. Recent excavated texts from different provinces show us that as early as the Warring States period (475–221 BC), a large majority of the written forms were similar and had the same origin; only some particles had variant forms. Unfortunately, we do not know their pronunciation since Chinese characters do not directly reflect sounds. Nevertheless, researchers have attempted to reconstruct them using the *Qièyùn*, the first rime dictionary from 601 BC, the *Shījīng* (Odes) dated from around the eleventh to sixth centuries BC, and phonetic series of characters (see Karlgren, 1957, Fanggui Li, 1980, Pulleyblank, 1991, Baxter, 1992, Sagart, 1999 among others). Works based on these three data sources, especially the eminent research of the Qing Dynasty (1644–1911) scholars, clearly describe the pronunciation around the time of the *Qièyùn*. The reconstruction of Old Chinese (11th century BC to first century AD) began in the last century. As expected, there are still many problems and divergent points of view.

The complexity of the Chinese languages is evidently due not only to the vast geographic region where they are spoken; the long time period for which data is available means that assigning different time periods to the history of Chinese is also often a subject of debate. The earliest texts, divinatory texts inscribed on bones and shells (usually called "inscriptions on bones"), can be traced back to the 14th century BC. The style of characters changed over time, but the continuity of the writing system is evident. Scholars working on phonology and syntax, including the contributors to this book, often have different points of view on the division of the history of Chinese into time periods[5].

Scholars generally agree that Chinese belongs to the Sino-Tibetan language family. However, comparative studies "are still at a relatively primitive level" (Norman, 1988, 13); many problems remain unclear and data is unavailable for many languages. Comparative methods used for Indo-European languages some-times cannot be used because descriptions of languages are incomplete or non-existent. Moreover, investigation of the Sino-Tibetan family is much more complex than Indo-European, because a large portion of the languages have been never investigated and have never had written forms. These non-Han language speakers have permanent contact with Han people (Chinese people) in the South and Southwest. This situation also causes complication in the dialects. Geneticists[6] propose a continuous southward movement of Han people. Southward migrations "occurred during almost all periods in the past two millennia" (Bo Wen *et al*. 2004, 304). "Studies on classical genetic markers and microsatellites show that the Han people, like East Asians, are divided into two genetically differentiated groups, northern Han and southern Han, separated approximately by the Yangtze river." (302). Their genetic observation suggests that the Chinese dialects in the North may be less heterogeneous then those in the south. The vast regions of the North have had language contact with the Altaic languages: Mongolian within China, and Manchu spoken in some villages in Heilongjiang province[7], while in the south contact has been with the Tibeto-Burman family in the West and Southwest, and the Miao-Yao and Tai languages in the South. This presents an intricate situation. The geneticists conclude that "the massive movement of the northern immigrants led to a change in genetic makeup in southern China, and resulted in the demographic expansion of Han people as well as their culture" (304).

Tone systems are characteristic of Chinese and many other Asian languages. However "there is now considerable evidence to suggest that the various tone systems within Sino-Tibetan may not be directly cognate, i.e. that tone systems have developed independently in various branches of the family." (DeLancey, 1987, 805). The rise of the tone system in Chinese was partially caused by the loss of voiced stops. This process was repeated in other Asian languages such as Thai and Vietnamese (Haudricourt, 1954). Tones evidently compensated for the loss of the distinctive feature of voiced stops. Old Chinese may have possessed clusters. "If the morphology in OC [Old Chinese] was wiped out, the reason seems to be that the one character–one syllable development, urged perhaps by the rise of tones, was not favorable to recording a morpheme containing more than one syllable or clusters." (Dan Xu, 2006, 2).

Today researchers know that structural resemblances do not imply genetic relationship, and vice versa. Typologically speaking, Chinese has the word order SVO while "all TB [Tibetan-Burman] languages are OV, except for Bai and the Karen languages, which are VO (and more specifically SVO)." (Dryer, 2003, 43; see also Jingqi Fu and Lin Xu in this volume). Dryer has identified "a number of characteristics that are highly atypical of VO languages" in Mandarin. In fact, there seems to be a strong correlation for VO languages to have prepositions and OV languages to have postpositions. In Mandarin, however, both prepositions and postpositions are common (see Dan Xu, 2006, Danqing Liu in this volume).

With this schema in mind, readers will understand why in this book, the topic "Space in languages of China" comprises many approaches and perspectives.

2. Different Approaches to Space in Languages of China

The intent of this volume is for authors working on different domains to focus their investigation on one topic: the expression of space in various languages in China, both oral language and sign language, Mandarin and other Sinitic languages, as well as other languages of China.

In this book, many dialects are examined, including Wu and Yue dialects (Liu Danqing), Waxiang of an unidentified dialect spoken in Hunan (very little research on this dialect has been done, see Yunji Wu), and Jizhou of Hebei province, which is a Mandarin-speaking region (Lamarre). The Bai language, spoken in some regions of Yunnan province, is also investigated (Jingqi Fu and Lin Xu). The linguistic affiliation of Bai has been a topic of debate. Sign language is not ignored in this study (Shun-chiu Yau), whereas previous investigations of space mainly focused on oral language. Almost the entire history of China is covered, from Old Chinese to Middle Chinese, Modern Chinese, and contemporary Mandarin (Chappell and Peyraube, Fuxiang Wu, Chaofen Sun, Qingzhi Zhu and Wenjie Chen, Lamarre, Dan Xu, etc.).

If we can take the vast geographic area of China as a projection of time, we will see that the dialect varieties represent different depths in time. In other words, the different dialects form continuums corresponding to historic periods. The Wu and Xiang dialects still preserve the voiced stops, while in most other Chinese dialects these sounds have disappeared or become distinctive tones. The "entering tones," which are in fact syllables ending in the stops -p, -t, -k, are well preserved in Yue, Min and Hakka, while in most regions they have been lost (except in some Jin dialects, which are isolated by mountains and seem more conservative for northern dialects). Current dialects present fine-grained patterns to diachronic analyses.

In this book, the following topics are discussed. They are also subjects of current investigations in general linguistics:

- grammaticalization
- typology of motion events (satellite-framed vs. verb-framed languages)
- adpositions (prepositions and postpositions)
- phonological change and its impact on syntax.

2.1. Grammaticalization

Almost all authors in this book have dealt directly or indirectly with the process of grammaticalization. It consists of a lexical item becoming a grammatical item, or a less grammatical element becoming a more grammatical one. The Chinese language offers rich examples of this process, and studies on this subject have flourished for two decades. The Chinese language has always been a serial verb construction language. Almost all prepositions originated from verbs. Some conjunctions also came from verbs. For example, the preposition *zài* grammaticalized from an existence verb (see Danqing Liu, Chaofen Sun in this volume). Evidently, the localizers (particles following an NP and indicating location in space) in Chinese

grammaticalized from a subclass of nouns, and changed from a specific and prototypical meaning of localizers to a general one through grammaticalization (see Chappell and Peyraube in this book). The locative term *hòu* 'back' in Chinese, however, came from a verb via grammaticalization (see Fuxiang Wu in this volume). In many other languages investigated by some linguists, the body part 'back' is mainly a source of locatives. It is clear that grammaticalization is a general phenomenon in human languages. The locatives have developed into object markers via a dative stage in Bai (See Jingqi Fu and Lin Xu). In sign languages as well, grammaticalization is reported (by Armstrong, 2002, cited by Yau in this volume). Some morphemes may currently be undergoing this process in standard Mandarin; for example *jìn* 'enter', according to Danqing Liu (see in this book), "is halfway in grammaticalization from a full verb to a spatial goal marker". The verb *zǒu* can be also used as a directional 'away' (see Lamarre in this book). In standard Mandarin, the motion verbs 'come' and 'go' are found as main verbs, satellites (grammaticalized), and bound morphemes (see Dan Xu in this volume).

2.2. Typology of motion events

According to Talmy's (2000) framework, the conceptualization of a motion event can be realized as set of different conceptual components in human languages. Thus two main types "Verb-framed languages" (V-languages) and "Satellite-framed languages" (S-languages) are found. In V-languages, path is expressed by the main verb, while in S-languages, path is indicated by a verb-sister position (verb affixes, verb particles). With his empiric investigation, Slobin (2004) proposes a third type, the "equipollently-framed language". In this type, path and manner are expressed by equivalent grammatical forms. Wälchli (2001, cited by Berthele, 2004, 98) refines previous theories (Tesnière, 1959, Talmy, 2000) with three models of encoding the path, i.e. Verb encoding (by the verb stem), Adnominal encoding (by prepositions, postpositions or case marking) and Adverbal encoding (by verb affixes or verb particles). Generally speaking, Chinese and Japanese confirm the two typological differences established by Talmy: Chinese behaves as an S-language, and Japanese as a V-language. Lamarre notes that this categorization cannot account satisfactorily for the expression of deictic path. These typological features do however "exert an indirect influence on the strategies available to a language to combine deictic path, nondeictic path and the manner or cause of motion in a same verb complex" (Lamarre in this volume). Dan Xu (2006) proposes that the Chinese language has undergone a typological change from a V-language to an S-language. In contemporary standard Chinese, some motion verbs cannot match the S-language pattern because they behave as main verbs when an agent is the Figure (see Talmy, 2000) and must be considered as satellites when a patient is the Figure moved by an outside force (see Dan Xu in this volume).

2.3. Adpositions

As has been mentioned, prepositions in Chinese often originated as the grammaticalization of verbs. This point of view is widely adopted by the linguistic community. However, for some locative particles attached to an NP in Chinese, there

is disagreement. They can be viewed as "postpositions" (see Danqing Liu in this volume), localizers (see Chappell and Peyraube in this volume), "locative terms" (see Fuxiang Wu in this volume) or "NP enclitics" (see Chaofen Sun in this volume). Even the term "postposition" has only begun to be used in recent research of the Chinese language due to advanced typological investigations in general linguistics. Linguistic typology shows a clear-cut correlation between VO order with prepositions and OV order with postpositions. Standard Chinese is classified as a VO language, and the term "postposition" troubles some scholars. This paradox cannot be avoided if we are limited to the existing descriptions and approaches to Chinese. Personally, I think that the Chinese language should not be treated as homogeneous because of its long history and permanent contacts with other non-Han languages. The two orders VO and OV coexisted in Old Chinese (Dan Xu, 2006), and some OV vestiges are found in frozen expressions. Modern English is a VO language, though 15th century English was an OV language. In consequence, many examples of OV order remain in words such as 'book-seller', 'easter-egg-hunt' and so forth (see Givón, 1971). The same thing happens in Chinese. Though it is considered to be a VO language, in some expressions OV order is required (see Ren Zhou, 2006)[8].

This means that an expected pure order is difficult to find in Chinese, which is undergoing steady often "invisible" evolution. If the status of these locative particles or postpositions is in disagreement, at least scholars agree that most of them arose from nominal elements. Actually, "postposition" implies a syntactic treatment, while "enclitic" implies a morphological interpretation. In other words, the former is freer while the latter is more bound. Perhaps these observations reflect scholars' different perceptions of the degree of the grammaticalization of these locative particles. The debate remains open.

In sign languages, the "adpositions" are expressed by hand movements and facial expressions. The general tendency is that the Ground (see Talmy, 2000) precedes Figure; "locatives preceding the subject and predicates from SL [sign language] are abundant" (see Yau).

2.4. Phonological change and its impact on syntax

In presenting the languages in China in section 1, it has been suggested that Old Chinese phonology might have had clusters, voiced and unvoiced distinctions, which are completely unknown in standard contemporary Mandarin. Phonological change, often arising from phonetic modification in the first place, affects the morphology and even the syntax of a language. Scholars have long noted that the Chinese language in transmitted versions shows more and more dissyllabic words starting in the Han (206 BC–220 AD). Evidently this adjustment helped the language to avoid too many homophones. This innovation has multiple consequences in morphology as well as in syntax. Let us observe a few examples relative to spatial expressions. In Old Chinese, a single verb indicated both manner and path. However, starting in the Han, a growing number of verbs could only follow another verb, and expressed path. The satellite was no longer optional. These V-V compounds are often called verb-resultative compounds. Some of them became lexicalized dissyllabic words, while others remained at the syntactic level as a main verb plus a

satellite. The localizers evolved in the same way. Qingzhi Zhu and Wenjie Chen point out that in contemporary standard Chinese, the dissyllabic localizers come from monosyllabic ones. Their meaning has become more and more abstract and their function has specialized as locative markers. This morphosyntactic change corresponds to phonological needs since the Han. Chaofen Sun notices that the spatial terms that behave more like clitics form a phonological unit with an NP[9]. Scholars have noted that these locative terms or postpositions play a more important role in indicating space than the preposition *zài,* since *zài* can be omitted while postpositions cannot. Lamarre indicates that standard Chinese shows a strong tendency to use bipartite path verbs (nondeictic path + deictic path) in motion events. All these mentioned facts suggest that syntactic choices are often triggered by phonological changes and constraints.

3. Organization of the Book[10]

In Section A "Space: a Cross-linguistic Perspective", comparative investigations are made between several Chinese dialects, standard Mandarin, and other languages. Waxiang, a dialect almost unknown to linguists, and Bai, a language that is very controversial in linguistic discussions, have also been studied.

Chappell and Peyraube's paper investigates localizers (*fāngwèicí*). Localizers express the relative spatial positions of objects. They can be monosyllabic or dissyllabic. Usually monosyllabic localizers follow ordinary nouns, changing them into "place words" (*chùsuǒcí*) as in: *zhuōzi shang* (table-on) 'on the table'. This is especially true for the two localizers *shàng* 'on' and *lǐ* 'in', the versatility of the others being quite low in spoken language. Disyllabic localizers are formed by adding a suffix (usually *biān*, *miàn* or *tóu*) or a prefix (*yǐ* or *zhī*). Unlike monosyllabic localizers, they can be used alone as place words and can be subjects or objects, and can be combined with nouns to express position. The paper draws a general outline of the evolution of the localizer system through the different stages of the Chinese language and their use and meaning in different Sinitic languages.

As Danqing Liu points out, Modern Chinese marks a spatial role for head verbs syntactically. The word order "preposition + NP + postposition" is common. When a verb or NP has a spatial meaning, the preposition and/or postposition can be absent. The rule of omission varies between dialects: postpositions are more easily omitted in Mandarin and Cantonese than in Wu dialects, while pre-verbal prepositions are more easily omitted in Wu. Spatial prepositional phrases tend to occur pre-verbally in all modern Chinese dialects, but they more often occur post-verbally in Mandarin than in Wu dialects. In Cantonese, spatial NPs without prepositions are more inclined to follow the verb than in Mandarin or Wu dialects.

Lamarre's paper examines two typologically opposite languages: Chinese, a satellite-framed language and Japanese, a verb-framed language (according to Talmy's framework). She discusses the linguistic encoding of deictic motion in Chinese and Japanese, focusing on clauses where the verb complex expresses the manner or the cause of motion and/or non-deictic path, with deictic direction (toward or away from the speaker). She demonstrates that Japanese and Chinese, despite their different typological status, both rely heavily on deictic directionals, i.e. spatial deixis (vs.

person deixis). She points out that Chinese also frequently uses path verbs, behaving like a Verb-framed language.

In her study on locative expressions in the Waxiang dialect, spoken in Western Hunan, China, Yunji Wu shows that the locative words in Waxiang do not share much in common with either Mandarin or the Xiang dialect group, the main dialects spoken in Hunan. In the Waxiang dialect, 'mountain' and 'river' are used as references for directions or locations. There are more distinctions among objects than in Mandarin and the Xiang dialects. There is a three-way, sometimes described as even a four-way system of demonstrative pronouns. There are three words for 'up'. There is a distinction for the word 'side': $p^{h}iɛ^{55}ta$ refers to a place close to the object or person referred to, while $p^{h}iɛ^{55}la$ refers to a place closer to the speaker.

Jingqi Fu and Lin Xu studied the diachronic pathways of object markers from locative markers in Bai, a Sino-Tibetan language spoken in Yunnan, China. Bai has a pair of postpositions that are used as both locative and object markers with contrastive meanings. The authors have shown the path of grammaticalization of the locative into object markers via a dative stage. The critical contrast of 'on X' vs. 'around X' has evolved into 'central participant' vs. 'peripheral participant'. Crucial to this development is the notion of contact vs. absence of it. This contrast within the locative permits a split into direct vs. indirect roles, unlike in other languages where the Dative- Locative affinity is reflected with a single morpheme. Developments of the two postpostions in different dialects of Bai are also discussed.

Shun-chiu Yau analyzes space with another approach. He reveals how Sign Language (SL) has taken advantage of its visual-spatial particularity to develop independently and rapidly within a very short period. The chapter also argues that there is a strong link between SL and gestures. Gestures are common to all humans, and not exclusively practiced by deaf signers. At the theoretical level, insistence on this gestural link is of utmost importance for those who are convinced that gestures once played a crucial role in the emergence of human language. Thus, SL observations and analyses are of theoretical interest not only to sign researchers, but also to those working on general linguistics.

In Section B. Space in Synchronic and Diachronic Chinese, four works have investigated space in Chinese from synchronic and diachronic approaches.

Dan Xu shows that contemporary Chinese is likely a satellite-framed language, while Old Chinese was a verb-framed language. Motion verbs do not fit very well into this dichotomy because some of them have kept their verbal features in the serial verb construction, in which other verbs [-motion] are grammaticalized as satellites. Asymmetry is one of the characteristics of human language. The Chinese language also presents numerous asymmetrical cases. The asymmetry in language reflects the speaker's asymmetric perception of space. The motion verbs *lái* 'come' and *qù* 'go', the spatial terms *qián* 'before, front' and *hòu* 'back', *shàng* 'above' and *xià* 'down' are asymmetrical at both the syntactic and semantic levels. These issues are treated from a cognitive point of view.

Chaofen Sun has proposed three types of Chinese locative: definite, specific and general. The grammaticalization of the Chinese locative construction is a renewal process involving two conditions: a selectional restriction and a multi-syllabic