Studies of
Chinese Linguistics
Functional Approaches

Edited by Janet Zhiqun Xing

Hong Kong University Press is honoured that Xu Bing, whose art explores the complex themes of language across cultures, has written the Press's name in his Square Word Calligraphy. This signals our commitment to cross-cultural thinking and the distinctive nature of our English-language books published in China.

"At first glance, Square Word Calligraphy appears to be nothing more unusual than Chinese characters, but in fact it is a new way of rendering English words in the format of a square so they resemble Chinese characters. Chinese viewers expect to be able to read Square Word Calligraphy but cannot. Western viewers, however are surprised to find they can read it. Delight erupts when meaning is unexpectedly revealed."

— Britta Erickson, *The Art of Xu Bing*

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Introduction

Janet Zhiqun Xing

The aim of this book is to gather the most recent studies of Chinese linguistics within the framework of functionalism. Although the term "functionalism" can apply to a wider range of studies, the current volume limits its scope to Chinese typology, morphology, semantics, syntax, and discourse. Two central questions are repeatedly raised by the contributors of this book: (1) What function does a linguistic form—be it word, sentence or discourse—serve in communication? (2) Does Chinese behave the same or differently than other languages (especially those genetically unrelated to Chinese) and, if so, how and why? Through the discussions surrounding these two central questions, we hope that students and researchers interested in Chinese linguistics gain a better understanding of where Chinese functional linguistic study stands at the time this book is published.

It seems to me that students who wish to study Chinese linguistics, first and foremost, must have a good understanding of Chinese typology, specifically the characteristics of Chinese word order (e.g. Is Chinese a Topic-Comment or SVO language?). They must also recognize the similarities and differences between Chinese word order and typology and those of genetically unrelated languages, such as Indo-European languages. Once students have a comprehensive knowledge of the reasons/motivations for categorizing Chinese as a "hybrid" (Chappell, Li, and Peyraube 2007) or a topic-comment language (e.g. Chao 1968, Li and Thompson 1976), it becomes easier to avoid a pitfall that is often seen in modern Chinese linguistic research, viz., blind applications of newly developed approaches by Western linguists. For this reason, Section One of this collection includes two articles devoted to the discussion of Chinese typology and word order variations. Randy LaPolla provides naturally occurring data showing that all Chinese sentences base their structure on the pragmatic relations of the topical vs. the focal component, with the topical component preceding the verb and focal component following the verb, and that Chinese preverbal components have not developed the grammatical

properties of "subject" in English. Therefore, he concludes that Chinese is a topic-comment language, rather than a topic prominent language or an SVO language. To complement LaPolla's study, Bingfu Lu and Xiaozhou Wu focus their discussion on word order variations among Chinese and VO languages, such as English. Lu and Wu argue that because of certain characteristics of the Chinese language (e.g. the topic-comment construction), its word order variations are more sensitive to natural information flow, or rather to the identifiability hierarchy (such as whole-part relation, definiteness, animacy, old-new information, and background-foreground segregation) than typical VO languages. In other words, if an entity expresses whole, definite, animate, old or background information, this entity appears earlier in a sentence than an entity which expresses the opposite information—part, indefinite, inanimate, new and foreground information. Lu and Wu point out that although the identifiability hierarchy is realized in all human languages, its effect on Chinese word order is greater than on most, if not all, VO languages. They conclude that while most VO languages place neutral (neither topical nor focal) constituents at the end of a sentence, Chinese places them between the topic and the verb, thus widening the distance and segregation between the topical and the focal elements.

At the morphological level, Chinese has been traditionally considered a language without any morphology (Packard 2000:1), a conclusion most likely drawn by Western linguists using criteria developed from the morphological study of Western alphabetical languages. With the increasing understanding of the difference between the word formation of logographic Chinese and alphabetical Western languages, the aforementioned traditional view of Chinese morphology is undergoing changes as well. Shengli Feng's chapter on the prosodic structure and function of wordhood presents the most recent development in the study of Chinese word formation. With his focus on compound words, Feng defines verb-object (VO) compounds and adjective-noun (AN) compounds as prosodic words (PrWd) and suggests that disyllabic compounds can all be considered compound words, whereas tri-syllabic ones cannot, regardless of whether they have become lexicalized and/or idiomaticalized. He then extends his analysis of compound structure to sentence structure saying that when a VO phrase in a sentence meets the PrWd requirements, it has the potential to become a compound word since Chinese is a language that, in comparison with other languages, is extremely sensitive to the prosodic domain. In literature, it has been claimed that today's morphology is yesterday's syntax (Givón 1971). Feng's study seems to suggest that today's morphology not only reflects yesterday's syntax but also predicts tomorrow's lexicon. This duo-fulfillment undoubtedly encourages future analysis and discussion of the interaction between morphology and syntax from both synchronic and diachronic perspectives.

Semantics has traditionally been a weak area of Chinese linguistic research in comparison with syntax and phonology. We are pleased to have included three chapters in this book that discuss various aspects of semantic functions and their interaction with syntax, cognition and pragmatics. Janet Xing studies seven of the most frequently used basic color terms (*bái* "white," *hēi* "black," *hóng* "red," *huáng* "yellow," *lǜ* "green," *lán* "blue" and *zǐ* "purple") in modern Chinese (cf. National Chinese Language Committee 1989) with an attempt to find a general tendency for the development of various functions of these color terms and as well as to find similarities and differences between the functions of Chinese colors terms and those of their English counterparts. The results of Xing's study show that although Chinese color terms have used the same mechanisms as English (e.g. metaphor, metonymy, sense of opposite relation, and pragmatic inference) in the development of their extended and abstract meanings, Chinese color terms have obtained many different functions compared with their English counterparts. Xing argues that these differences have systematically been built on the early developed semantic properties and cognitive functions of any given color term. As a result, the seniority of semantic functions determines the scope and characteristics of new meanings of color terms. Based on these findings, Xing concludes that the development of color terms' extended meanings have been consistently and undeniably triggered by people's perception of the physical world.

Chengzhi Chu investigates the semantic contents and structure of a different domain from a different angle, namely, how a motion event, especially the path of motion, is conceptualized and represented in Chinese. Drawing on a wealth of evidence, Chu argues that to express a motion event, the path element, that is, the route followed by the moving object in a motion event with respect to reference objects, has to be clearly profiled. Path properties in Chinese can be transliterated separately from complement verbs (rich in Chinese), prepositions, or main verbs of clauses. Built on Talmy's conceptual framework (2000), Chu develops a Path Complex of Motion system consisting of five conceptual components: Vector, Conformation, Direction, Dimension, and Perspective. He demonstrates that some of these components are expressed and construed in the same manner cross-linguistically, whereas others are expressed and/or construed differently in Chinese as compared to other languages. Chu's results show that Deictic Perspective is more widely used in motion conceptualization and expression in Chinese than their counterparts in English, while Horizontal Direction cannot be expressed with a satellite element to the main verb in Chinese.

Instead of examining another set of elements in Chinese, Feng-hsi Liu focuses her study on one familiar lexical item, *zài* 在 "be located/at," the sixth most frequently used character in modern Chinese (cf. National Chinese Language

Committee 1989) due to its multiple syntactic, semantic, and pragmatic functions (e.g. it can be located in either the preverbal or post-verbal position). This is probably why Chinese researchers have made numerous attempts to investigate this apparently simple character, yet no one has come up with a uniformed analysis to account for *zài*'s behaviors in modern Chinese. In this collection, Liu attempts to fit another piece into the puzzle. She points out that the post-verbal *zài* does not have a uniform function. Rather, it performs different functions depending on the aspectual properties, e.g., (a) telic, stative, and dynamic, of the verb to which it is attached. In particular, *zài* specifies a locative boundary of the events with a telic verb, adds a boundary to the events and turns the predicate into a telic predicate with a dynamic atelic verb and specifies the location of a state with a stative verb. Turning to the verbs that cannot be used with the post-verbal *zài*, Liu traces *zài*'s historical development and finds that semantic extension and reduction in the process of *zài*'s grammaticalization have contributed to the restriction that dictates that *zài* can be used with certain types of verbs but not with other types in Modern Chinese.

Section Four focuses on linguistic forms and functions in naturally occurring Chinese discourse. Being another traditionally neglected area of study in Chinese linguistics research, discourse analysis has drawn an increasing amount of attention among Chinese grammarians and Western trained Chinese linguists in the last two decades. This development seems to be accompanied by the understanding of the impact of discourse properties on all levels of linguistic form (e.g. lexicon, word formation, and syntax) as well as on the interrelationship between current discourse functions and their historical evolutions. The three discourse articles included in this book all address a theoretical issue established by Halliday (1994), namely the formation of grammar and its relationship to discourse functions.

Yung-O Biq investigates the discourse functions of locative particles in the variety of Mandarin Chinese spoken in Taiwan. Using quantitative and naturally occurring data, she first singles out the functional difference between the six monosyllabic spatial terms (i.e. *shàng* "above/over/on/top," *lǐ* "inside," *xià* "below/underneath," *qián* "front," *hòu* "behind/back," *wài* "outside") and those disyllabic spatial expressions that pair the six monosyllabic spatial terms with the clitic particle *–miàn*. It appears that the simple form (i.e. those without *miàn*) is most likely to be used for non-spatial references, whereas the complex form (i.e. those with *miàn*) is most likely to be used for spatial references. Then she probes the two most high-frequency pairs *shàng(miàn)* "above/over/on/top" and *lǐ(miàn)* "inside" and concludes that *shàng* and *lǐ* are mostly used with monosyllabic hosts while *shàngmiàn* and *lǐmiàn* are mostly used with multisyllablic hosts. Her results show that the reason these two pairs are more frequent in discourse than the other four pairs is that both forms, simple (i.e., *shàng* or *lǐ*) and complex (*shàngmiàn* or *lǐ*

miàn), have undergone a process of grammaticalization: the simple form has developed into a suffix and the complex form has obtained the function of suffix or phrasal enclitic, whereas the other four pairs have not grammaticalized into suffixes or clitics. These findings are not only important to our understanding of the versatile functions of the spatial terms concerned, but are also encouraging and exciting in that they provide yet another look at the interrelationship between discourse analysis and word formation. Furthermore, Biq's finding provides live support for the hypothesis suggested by Feng (in this book) that disyllabic compounds can all be considered compound words.

Tomoko Endo and Hongyin Tao's study also analyzes naturally occurring discourse; however their focus is on synchronic variation and functional difference between two volitional verbs *ài* "love" and *xǐhuān* "like." Drawing on evidence from lexical, semantic, and morphological structure, and syntactic functions in contemporary conversational Chinese, Endo and Tao argue that *ài* has become grammaticalized into an auxiliary and its semantic function has shifted from expressing volition to habituality whereas *xǐhuān* has remained a volitional verb, a claim challenging the well-known Chinese grammarian Yuen Ren Chao's view that both *ài* and *xǐhuān* have evolved into auxiliary verbs in modern Chinese. What makes Endo and Tao's proposal even more intriguing is that the database they use for their analysis is not from diachronic texts; instead, they use contemporary recorded conversations to draw a type of conclusion that has traditionally been based exclusively on examples from diachronic texts. Thus, Endo and Tao's study not only provides strong evidence supporting Hopper's layering and divergence principles of grammaticalization (1991), but, more importantly, demonstrates that synchronic discourse-based study can serve different needs for linguistic research.

Liang Tao investigates the development and disappearance of the generic classifier *ge* and the morpho-syntactic change of the noun phrase in which *ge* is used in both written (from the fourteenth to nineteenth centuries) and contemporary spoken discourse. She suggests that the noun phrase with the classifier *ge* has undergone three stages of evolution: (1) development of the classifier *ge* in noun phrases with numeral *yi55* "one," namely [*yi55* + *ge51* + Noun], (2) reduction of the numeral *yi55* "one" from the form in (1) to "*ge51* + Noun," and (3) reduction of the classifier *ge* from the form in (1) to [*yi35* + Noun]. By comparing narrative with direct speech, Tao argues that both the reduction of the numeral *yi55* "one" in (2) and the reduction of the classifier *ge* in (3) are the results of high frequency and phonological reduction or sound erosion (i.e. loss of stress, tone, and vowel) in everyday language use. In other words, both changes are usage-based changes. She points out that with the increasing use of classifier-free noun phrases in spoken Chinese, Chinese might be changing, with a new coding system emerging to fulfill

the need for singularizing and individualizing a nominal referent — a role that has traditionally been filled by classifiers. It is evident that Tao's study has made a great contribution to our understanding of the formation and development of the classifier system in Chinese. In particular, without her analysis of recorded conversations, it would be impossible to detect the phonological reduction the generic classifier *ge* has undergone in discourse.

The nine articles included in this book cover a wide range of topics and each of them offers genuine explanations for grammatical elements either important in Chinese grammar or unique cross-linguistically. Nonetheless, this volume, just like any other similar ones, has its limitations. For instance, none of the articles investigate and compare any of the seven mutually unintelligible dialects in Chinese. We leave this to future collections. This limitation notwithstanding, we hope that these essays provide some ground work for students and researchers interested in Chinese functional linguistics and encourage them continue their pursuit of Chinese linguistics research.

Notes

Chapter 1

1   The following abbreviations have been used in the chapter:

ADV	Adverbial	INCHO	Inchoative
ASSOC	Associative (and nominalizer)	LOC	Locative
BA	Auxiliary verb *bǎ*, used for distinguishing the semantics of two preverbal nouns	NEG	Negative
CL	Classifier	NEG.PFV	Negative perfective
CSM	Change of state	ONOMA	Onomatopoetic sound
DUR	Durative / simultaneous action	ORD	Ordinal number prefix
EXP	Experiential aspect	PFV	Perfective
HORT	Hortative	PN	Personal name

2   See LaPolla (2006) on the nature of grammatical relations. It is important to keep semantic roles, pragmatic roles, and grammaticalized roles distinct; actor is not "subject" (to the extent that we can use this word), and topic is not "subject."

3   This is a bit of an oversimplification, as the verb and often preposed modifiers of the verb are generally part of the focal material, but as we are talking about noun phrases and their grammatical and pragmatic statuses, I will use this way of talking about the distribution.

4   Ideally we should use natural, spoken data, as this is more representative of the true nature of the language, but I wanted to use a text that was familiar and accessible.

5   An often-made (but incorrect) assumption in works on Chinese is that position before the verb marks "definiteness" (identifiability) and position after the verb marks "indefiniteness" (non-identifiability). Yet, the specificity/identifiability ("definiteness") of a noun phrase and its use as topic or focus are two independent (though often overlapping) phenomena (see Lambrecht 1994 and LaPolla 1995 for discussion).

6   The formal difference between a location-type phrase that has the function of topic, as in (12), and a location-type phrase that simply has a scene-setting function, as in (13) is the use of a locational marker, such as *lǐ* "within" in (13), in the latter.

7   In this sort of construction, the primary topic is the possessor of the secondary topic or total structure of which the secondary topic is part, but the representation does not take

the form of a possessive construction; it appears as two separate noun phrases (see Teng 1974). The assumption of a possessive relationship is an inference from context.

8   See LaPolla and Poa (2006) on why the whole practice of referring to languages as "SVO," "SOV," etc. is problematic.

Chapter 2

1   Lyons (1999: 278) expresses this relation in a different way, i.e., "definiteness is the grammaticalization of identifiability."

2   Further evidence of the clustering of animacy and definiteness includes noun incorporation and verb agreement. Cross-linguistically, the least definite and/or animate arguments are most likely to be incorporated into verbs, and least likely to trigger the verb agreement (Lyons 1999: 207–214, Croft 2003: 128–132, among others).

3   The editor of this volume noticed that when *suoyou* takes the modification marker *de*, (3a) sounds better. We agree with this intuitive judgment. The reason may be that *de* is a descriptive marker (Lu 1999) in nature. *Suoyou-de* therefore emphasizes the descriptive meaning, "with no left-over, complete, entire," thus differing from the more referential *suoyou* meaning *all*, which is more often used as determiners than as adjectives. The syntactic difference between *all* and *entire*, *whole* can be seen in their respective distribution as well.

4   American English speakers tend to omit the definite article before *one* in 8a, but British English speakers allow *the* before *one*.

5   The cross-category identifiability hierarchy order is: noun > verb > adjective > functional words. The order is consistent with the order of language acquisition.

6   Few native speakers whom I consulted accept this sentence if the comma between *in May* and *last year* is omitted. In such a case, the two time units function as a phonological chunk, which can be regarded as the contracted variant of *in May of last year*.

7   One may ask why the Chinese counterpart of *May of last year* is *qùnián de wǔyuè*, the order of which is opposite to that in English. This may be attributed to the fact that English uses the preposition *of* here while Chinese uses the postpositional clitic *de*, which equals to the English *'s*. In other words, the Chinese *qùnián de wǔyuè* syntactically equals to the English *last year's May*.

8   For ease of comparison, the glosses focus only on word order. The morphological details, such as the fact that *nel* in 13e is the combined form of *in el* (lit. "in the"), are omitted.

9   German is a so-called V2 (Verb Second) language. It is not a strict SVO language. It has many SOV language features, especially in subordinate clauses.

10   Looking at all the data from (9) to (16), we find an interesting pattern: the words meaning "May" tend to take an adposition while the words meaning "last year" do not, except in Russian and Chinese, where both take or do not take an adposition respectively.

11   Some new treatments of adverbial placement have emerged since then. For example, Nakamura (1997: 266–270) views the pre- and post-verbal adverbials as "subject-oriented adjuncts" vs. "process adjuncts," within the frame of Cognitive Grammar. To Nakamura, the post-verbal adverb characterizes the manner of the process, in the sense that the speaker mentally scans the process sequentially, while the preverbal adverb

characterizes the entire verbal process, "converting sequential scanning into summary scanning." For example, *He foolishly answered the question* means "it was foolish for him to answer the question" or "the very fact that he answered the question was foolish" while *He answered the question foolishly* means "the manner/reply with which he answered the question was foolish." In other words, the post-verbal adverb is a "salient figure," whereas the preverbal one becomes a "background." The terminology has been changed, but the basic dichotomy between old and new information still holds.

12 When a reply is an indirect quote, "say" is felicitously required. Liu (2004) treats it as a complementizer in Chinese.

13 In a marked case, *huàihuà* can be referential, such as in *Tā shuōle wǒ shénme huàihuà?* (*"What bad things did he speak of me?"*). Notice, *sān-tiān* is unlikely to appear when *huàihuà* is referential. Thus, the effect of identifiability hierarchy on word order remains.

14 For example, Zhu (1981: 110–124) regards all post-verbal nominal units including duration/frequency objects as "existential objects." Similarly, he also treats the post-verbal nouns in existential sentences as "existential objects."

Chapter 3

1 Note that the result of this reasoning may end up with a simple statement like: "A minimal word is just a foot." Why, then, do we need the notion of "minimal word" if it is indeed a foot? Note that, without the Foot/PrWd alignment, there is no explanation for why the size of a word (morphology) should coincide with a foot (prosody). Here, following McCarthy and Prince (1990, 1998), I will assume that the P >> M is the fundamental hypothesis in Prosodic Morphology.

2 For example, in Chinese there are many trisyllabic as well as quadrisyllabic compounds which are obviously beyond the size of a PrWd. While it is not the purpose of this chapter to discuss the variety of compound formations, it is important to point out that it is entirely possible to derive polysyllabic compounds in Prosodic Morphology within the Optimality Theory. For example, the Parse-all-Syllable requires that every form be fully footed. This demands multiple feet in longer words. Yet, the ALL-Foot-Left requirement will never be completely satisfied in words which have more than one foot. Now, under minimal violation of All-Foot-Left, a multifoot form is allowable but it must have its feet as close to the beginning of the word as possible (see McCarthy and Prince, 1998: 298). Given this and the language-specific constraint that every syllable is a morpheme in Chinese, polysyllabic compounds are allowable and probably predicted: The trisyllabic $(\sigma\sigma)\sigma$ compounds will be more optimal than $(\sigma(\sigma\sigma)$ because only in the former is the initial foot closer to the beginning of the compound and therefore the better candidate in competition with the $(\sigma(\sigma\sigma)$ forms.

3 For example, Huang (1984) proposed a Phrases Structure Condition (PSC) demanding that no two constituents be allowed after the main verb. This works perfectly in cases where a VO (or VR) co-occurs with an object (or a duration/frequency expression). That is, if a VO/VR can take an object (or a complement) like (8a'-b'), it must be a compound and if it cannot, it is a phrase. However, as Zhang (1992) has pointed out, the PSC cannot determine whether a VO/VR is a compound or a phrase if there is no second constituent (complement) after it. The present theory, however, predicts a categorical

distinction: all trisyllabic VOO (as well as VRR) are phrases regardless of whether there is a second constituent or not. As we can see below, the present analysis generalizes a prosodic condition of what can (if not must) be compounds and what must be phrases (or at least have phrasal properties) in the language.

4　In Wang's study, there is a total of twenty-five VO forms examined by native speakers. In addition to the ones given in Table 3.1, they are *shàng bān* "go to work," *jié hūn* "get married," *xià bān* "off work," *zhuǎn shēn* "turn the body," *luò dì* "fall on the floor," *tán huà* "talk words, chat," etc. The total average of word-judgments is 95.6%, giving only 4.4% of phrasal-judgments among all twenty-five forms. It would not be surprising if the judgments varied, even tremendously, when other forms and methods were used. However, for the present purpose, it is enough to see how extremely the native speaker's judgments deviate from linguistic analyses, and how highly the judgments converge upon the disyllabicity.

5　For example, by Huang's PSC (see note 3), all of the VO forms, except the last one, are phrases because no second constituent is allowed after the four VO forms, for example:

　　i　* 他 睡觉　　　了　一　天。
　　　　* *Tā shuì-jiào　　le　yi　tiān*
　　　　　He sleep-wake Asp. one day
　　　　"He slept for a day."

　　ii.　* 他 洗澡　　了　三　次。
　　　　* *Tā xǐ-zǎo　　le　sān　cì.*
　　　　　He　take-bath Asp. three times
　　　　"He took bath for three times." ("He took a bath three times" or "He took three baths.")

　　iii.　* 他 跑步　　了　两次。
　　　　* *Tā pǎo-bù　le　liǎng cì.*
　　　　　He run-feet Asp. two　times
　　　　"He jogged twice."

　　iv.　* 他 念书　　　了　三个　　头。
　　　　* *Tā niàn-shū　　le　sānge zhōngtou.*
　　　　　He read-book ASP three　hours.
　　　　"He read books for three hours."

　　v.　他　　担心　　　　情况　　　会有　　变化。
　　　　Tā dān-xīn　　qíngkuàng huì yǒu　biànhuà.
　　　　He carry-heart situation　　will have change
　　　　"He worried that the situation would change."

6　There are exceptions to this generalization. However, these exceptions do not affect our analysis here, because none of them is able to form a VO compound in the language.

7   This is to say that the ones that can (if not yet) be lexicalized as compounds must all
     be PrWds. What is important to note here is this: polysyllabic VO forms have never
     been tested as lexicalized compounds in the language, because, according to the present
     theory, they violate the Templatic Constraint: VO-Compd = PrWd.

8   For example, the trisyllabic forms such as *pào-mógu* "soak mushroom, use delaying
     tactics," *jǐ yágāo* "squeeze toothpaste out of a tube, be forced to tell the truth bit by bit,"
     etc., are highly idiomatized, but they can never function as compounds when examined
     using transitivity, aspect making, the PSC test, as well as native speakers' intuition.

9   This may lead us to the following conclusion reached in Feng (1997). In Chinese, a
     compound must be a PrWd, while a PrWd may not, by necessity, be a compound. This
     raises an important question about whether or not the MinWd effect can go beyond the
     hypothesis of $P \gg M$. The facts given in this chapter suggest a positive answer. That is,
     $P \gg S$ (prosody dominates syntax). If this is so, the next question is to what extent this
     hypothesis can hold, a question that has been raised in previous studies (Zec and Inkelas
     1990; Truckenbrodt 1995; Feng 1995; Zubizarreta 1998; among others) and intensively
     investigated in Feng (2000, 2005).

10   This analysis allows us to conclude that the disyllabic VO forms are not a single syntactic
     category in the language because they contain prosodically minimal words (compounds)
     and prosodically minimal phrases (including idiomatized and free phrases). On the other
     hand, the trisyllabic (or polysyllabic) VO phrases belong to a purely syntactic category,
     because they can only be phrases and can never interact with morphology through
     prosody, which is a crucial difference between the disyllabic and trisyllabic phrases.

11   The double "VV" used here refers to a "disyllabic V," henceforth, "NN" for a "disyllabic
     N", etc.

12   The auxiliary *ke* can also be analyzed as an affix like "-able" as seen in (14). In this case
     the Templatic Constraint can still hold, because only disyllabic [*kě*+V] can function
     as an adjective, and all longer forms fail to do so. Thus, there are no lexical items like
     *[*fēicháng kě*-VV] in the language. The reason why I analyze the [*kě*+V] forms as a
     case of category changing is illustrated in examples like the following:

> i. 这 种 人 可 靠 可 不 靠 / 可 信 可 不 信。
>   *zhè zhǒng rén kě kào kě bu kào / kě xìn kě bu xìn.*
>   This type person can rely can not rely/ can trust can not trust
>   "This type of person can either be or not be reliable/trustworthy or not."

> ii. 我们 现在 只 可 靠 自己的 努力不 可 靠 别人 的 助。
>   *Wǒmen xiànzài zhǐ kě kào zìjǐ de nǔlì bu kě kào biérén de bāngzhù.*
>   We now only can rely on self 's endeavor not can rely on other 's help.
>   "Now we can only rely on our own endeavors and not on the help of others."

> iii. 我 的 朋友 非常 可靠 / 可信。
>   *Wǒ de péngyou fēicháng kě-kào / kě-xìn*
>   I 's friend extremely reliable/trustworthy.
>   "My friends are extremely reliable/trustworthy."

Thus, *kě-kào/xìn* can be used as a phrase (i–ii) and also can be lexicalized as a compound through category changing (iii) according to the present analysis.

13   Similar to the Aux+V forms discussed above, the process of category changing can also be observed in VO forms. For example:

埋头   (*脑袋)   念书
mái-tóu   (-nǎodài) niàn-shū*
bury-head (head)   read-book
"To study in a manner of immersing oneself in it, to immerse oneself in the study."

并肩   (*-肩膀)   战斗
bìng-jiān   (-jiānbǎng) zhàndòu*
parallel-shoulder (shoulder)   fight
"To fight shoulder to shoulder (side by side)."

挨户   (* - 门户)   调查
āi-hù   (-ménhù)   diàochá*
touch-door (door)   investigation
"To investigate from door to door." ("door-to-door investigation")

变法儿   (*-方法)   捣乱
biàn-fǎr   (-fāngfǎ) dǎoluàn*
change-method (method) disturb
"To disturb in various ways"

These examples show that a VO form can be used as an adverb only if it is a PrWd. This is so because all trisyllabic VO forms used in this way will cause an ungrammatical consequence as seen above. Thus, the Templatic Constraint is: VO → Adverb/[VO]$_{PrWd}$, i.e., "a V+O form undergoes a process of category changing, if it is a prosodic word." This provides additional evidence for the Templatic Constraint on Category Changing in Chinese.

14   ">" means "X precedes Y" or more specifically, "X is further from the head than Y" in Sproat and Shih's study. The pronominal adjectival modifiers examined by Sproat and Shih (1996a) actually include a successive hierarchical schema: QUALITY > SIZE > SHAPE > COLOR > PROVENANCE. Here, since only the order of [SIZE > COLOR] is directly relevant to the present analysis, other relations are omitted.

15   One possibility is to use "frozen compound" vs. "lexicalized compound" to capture this difference, which is plausible under the classifications of different types of lexicalization, that is, the ones that have lost their internal structures (frozen compound) and the ones that retain their internal structures (lexical compounds), as discussed in Liberman and Sproat (1992: 514–515). In this respect, once again, the same prosodic pattern observed in the present study holds. No trisyllabic AAN lexicalized compounds (retain internal structures) can be frozen and the frozen ones (lost internal structures) can only be disyllabic.

16   The assumed syntactic compounds are analyzed as being formed in syntax through X0 adjunction in Feng's (2001) study. The analysis of two levels of compounds in Chinese is supported by distinctions between lexical and post-syntactic compounds in Japanese

proposed in Shibatani and Kageyama's study (1988) and between ordinary compounds and construct state nominals in Hebrew observed by Borer (1988), who argues that the ordinary compounds are formed in the lexicon whereas the construct state nominals are built in the syntax where the components are visible to syntactic processes.

Chapter 4

1   The following abbreviations are used in example annotations in this chapter: ASP "aspect marker," CL "classifier," PL "plural suffix."

2   The analysis here of the constructional meaning shared by (2) and (1b) obviously owes much to theories of Construction Grammar (Goldberg 1995; Taylor 1998, etc.). Construction Grammar claims that constructions have a basic status in language. Certain conventionalized aspects of both meaning and use are directly associated with particular syntactic constructions. Furthermore, "constructions that correspond to basic simple sentence types encode as their central senses, event types that are basic to human experience" (Goldberg 1998). In this sense, we say that the meaning of the construction instantiated in both (1b) and (2) is identically "someone doing something at some place" rather than "someone changing location through space."

3   Adopting the perspective of Construction Grammar, we could say that the fact of motion is suggested by the construction rather than by the individual lexical items. However, it is still clear that a Path expression is indispensable for representing motion events. As (1b) and (2) show, without Path, the construction would not be a motion event construction.

4   The prominence of Arrival and Departure in Path conception is consistent with the general tendency of human cognition to view the starting and ending portions of a process or event as more salient—and more attended to—than the other parts.

5   G_1, G_2 etc. in the formulas stands for different Ground objects represented in expressions. Chinese instantiations of Vector component combinations can be seen later in this section. To save space, I do not give examples here.

6   Similar to the Chinese instantiations of the three Vector components in (5) and their English equivalents are examples from many other languages in such studies as Aske (1989), Talmy (2000), and Slobin (1996) for Spanish; Choi and Bowerman (1991) for Korean; Asher and Sablayrolles (1994) for French; and Narasimhan (2003) for Hindi.

7   The representation of Conformation types of Surface, Beside, Above and Beneath involves some complicated morpho-syntactic devices which will be discussed later in this chapter.

8   The Path complement 进 *jìn* "into" in (10a) not only conveys the Conformation property of Inside, but also conflates it with the Vector element of Arrival. This kind of Path component conflation and lexicalization will be considered later.

9   Of course, English *over* is also polysemous. "Traversal + Above" is only one central sense of *over* (R.A. Jacobs 2004, personal communication. For details see Lakoff 1987, Tyler and Evans 2001).

10 Clearly, Backward can be viewed as a "compound" Direction which incorporates Forward and Returning properties. See the definition for Returning below.

11 English also categorizes a Side Direction in which the Figure moves in a direction perpendicular to the Figure's Facing Direction. The Side Direction is realized as the

particle *sideways*, as in *Harry walked sideways into the room, facing his father the whole time*.

12   The word *ascatter* is borrowed from Talmy (2000, vol. II: 109) who created it for translating Chinese 散 *san* which specifies the Divergent Path we discussed here.

13   The examples in (20) are taken from Langacker (1990) in his discussion of "subjective motion" in cognition.

14   In the cognitive linguistics literature, when a static scene in reality is conceptualized as motion, it is called "subjective motion" (Langacker 1998) or "fictive motion" (Talmy 1996).

15   Langacker (1990) proposes that the difference between (20a) and (20b) is in the Direction of the Path. He claims that, for (20a), the conceptualizer "mentally scans" the static situation by means of a subjective Up motion. In (20b) the conceptualizer changes the direction of her mental scanning from "upward" to "downward." However, I consider the directionality difference between (20a) and (20b) to be secondary to the Perspective difference. If the Anchorage and Region of Attention are selected, then the direction of the Path is decided. This point is even clearer when the Path is a Horizontal one, in which the "Upward" to "Downward" Direction properties are not involved. See the Chinese examples in (21).

16   We may recall that in an earlier discussion we showed that the Path complements 进 *jìn* "into" in (21a) and 出 *chu* "out" in (21b) also render the Vector and Conformation properties of the Path. This is the semantic conflation of Path elements to be discussed later in this chapter.

17   Of course, as one anonymous referee correctly points out, it is not the case that Chinese always integrate a deictic perspective when conceptualizing and representing Path of motion. For example, the Deictic marker 来 *lai* "Hither" in (24a) can be omitted as in (25) when rendering the same scene:

> (25) 汽车开进校园了。
>   *Qìchē kāi   jìn   xiàoyuán   le*
>   car   drive into campus   ASP
>   "The car drove into the schoolyard."

What is characteristic in Chinese, in contrast to English, is that it utilizes more frequently the Deictic perspective when representing the Path of motion. As the translational equivalents of (24a)–(24d) show, Deictic perspective is not admitted in English when expressing the Path of motion of these referred scenes. Obviously, the windowing and gapping of the Deictic perspective in Path expressions in Chinese, English and other languages should be an area for further research.

18   Kuno (1987) explains the deployment of Deictic Perspective in a case similar to (33b) with an "empathy" function in communication. In factive motion we also observe like cases:

> (34) a. 房价又升上去了。
>   *Fáng-jià   yòu   shēng shàng-qu   le.*
>   house-price again rise   up-Thither ASP
>   "Real estate prices rose again."

b. 房价又升上**来**了。

*Fáng-jià   yòu   shēng shàng-**lai**   le.*

house-price again rise   up-Hither ASP.

"Real estate prices rose again."

19 The Deictic Perspective phenomenon has attracted much attention in linguistics circles from a variety of researchers, e.g., Kuno (1987), Langacker (1987: 126–129), and Duchan et al. (1995).

Chapter 5

1 The seven colors are the most frequently used in modern Chinese based on the frequency counts by Chinese National Language Committee (*Xiandai hanyu Changyongzi Pindu Tongji* 1989) with the following order: *bái* "white," *hóng* "red," *hēi* "black," *huáng* "yellow," *lù* "green," *zǐ* "purple," and *lán* "blue." It should be noted that these seven colors are not necessarily the most commonly used terms in classical Chinese. In addition, historically one hue (e.g. red) might be referred to by different terms (*chì, zhū, hóng*).

2 Some earlier studies provide different explanations to *bái*'s original meaning: *Shuowen Jiezi*, written by Xu Shen during the second century, noted that *bái*, as a Western color used to refer to things or objects with that color. Zhang (1991) suggests that *bái* is a phonetic word, while Wieger (1965) believes that *bái* was derived from the similar pictograph *rì* 日 "sun." This study simply considers "white" as its original meaning.

3 Many of the color terms studied in this chapter extend their lexical meanings to phrasal meanings. Since these two types of meanings are closely related, they are not classified into two different types in this study.

4 Professor Jiang Shaoyu of Beijing University pointed out that *hēi* "black" was favored by Emperor Qin (221BC–207 BC) who often used *hēi* for clothes and army flags. However, this favorable usage did not continue later on.

5 It should be noted that Chinese *liánlǐng* 蓝领 was borrowed from English "blue collar," but it is unlikely for *liánshān* 蓝衫 "poor-quality clothes" to be borrowed from English as well because *lián* developed the "inferior" meaning as early as the fourth century.

6 I am grateful to Jacqueline Hawkins who provided some of the English examples.

7 Chinese uses *chì* as in *chì zì* 赤字 "red character" to express the English equivalent meaning *in the red*. However, as mentioned earlier in this chapter, *chi* has become obsolete in modern Chinese except for it usage in frozen/fixed expressions.

8 Randi Hacker (personal communication) suggests that Chinese *huáng*'s pornographic meaning may be related to the sensationalism expressed by "yellow journalism" in English.

9 It should be noted that Chinese does have an expression, *yí kuài qīng, yí kuài zǐ* 一块青，一块紫 "one piece dark-blue, one piece purple" to refer to the skin color after a blow. However, the character for dark-blue is *qīng* which is not commonly used in modern Chinese any more.

Chapter 6

1   The following abbreviations are used throughout the chapter: CL=classifier, EMP=emphatic, IMPERF=imperfective, NEG=negative, NOM=nominalizer, OBJ=object marker, PERF=perfective, PROG=progressive, PRT=particle, RES=resultative.

2   These verbs are accomplishments on the basis of the following object. Thus while *chi* "eat" by itself is atelic, *chi nàge dàngāoo* "eat that cake" is telic.

3   Fan (1982) actually provides two lists: a list of monosyllabic verbs that do not occur with the post-verbal *zài* and a list of di-syllabic verbs that do occur with *zai*. The verbs are simply listed without classification. However, not all of the verbs in the list are attested to occur with *zài*.

4   The contrast between (18) and (19) also shows that a predicate with an overtly marked boundary, as in (18a) behaves differently from a predicate with an inherent, but unmarked boundary, as in (19a). This is indicative of gradience of telicity (Liu 2006).

5   The date of *Zuǒzhuàn* is not clear, neither is its author. Scholars have held different views on this issue. It is now generally believed that *Zuǒzhuàn* was not written by one person alone, but was the work of a number of people between the third and fourth century BC.

6   The dates and author of *Shuǐhǔzhuàn* are under much controversy. The various dates which have been proposed range from the end of Yuan dynasty (the mid-fourteenth century) to the middle of the Ming dynasty (the mid-sixteenth century). Here I adopt the later dates.

Chapter 7

1   A small number of spatial orientation terms, such as 中间 *zhōngjiān* "in the middle" and 底下 *dǐxià* "below, beneath," would not go along with any of the optional particles. These cases do not concern us and are excluded from our discussion.

2   The complex form can also be used as a free word serving as a modifying element in a noun phrase (e.g., 外面的门 *wàimiàn de mén* "the door outside"). In this study, however, we do not make further distinctions but lump all of the free word uses together into one group—the free word category—as opposed to the other category, the particle category.

3   Both the simple and the complex locative expressions can be preceded by locative prepositions, e.g. 往下看 *wǎng xià kàn* "look down," 从外面进来 *cóng wàimiàn jìnlái* "come in from outside." This type of use is also excluded from our discussion.

4   Whether locative particles are post-positions or enclitics has been controversial in Chinese (historical) syntax (e.g., Li and Thompson 1981; Liu 2003; Sun manuscript), but the issue is beyond the scope of this chapter. Theoretically neutral terms, e.g., "particles" or "expressions," are thus used to refer to the forms in this chapter.

5   For easier reading, the intonation details in the spoken data are not provided here. The gloss conventions used in this chapter are: CLFT—*shì* . . . de cleft construction, NEG – negation, POSS – possessive, PRT – sentence-final particle.

6   The suffix -边*biān* also co-occurs frequently with the determiners, 这*zhè* and 那*nà*, and the question word 哪*nǎ*, forming spatial deictic nominals, 这边*zhèbiān* "here," 那边 *nàbiān* "there" and 哪边*nǎbiān* "where." See Biq (2007) for the incipient idiomatization of the distal locative phrase 在那边*zài nàbiān* "over there" in spoken Taiwan Mandarin.

7   In the rest of the chapter (except for section headings), Chinese characters are not provided for the six sets of key terms when they are mentioned in the text. However, Chinese characters are provided along with Pinyin for example phrases or sentences.

8   Each of the six LOC1s participates as a morpheme in some other disyllabic spatial terms. For example, the following expressions all involve *xià*: 之下*zhīxià* (6 tokens), 以下*yǐxià* (6 tokens), and 底下*dǐxià* (5 tokens). All three expressions can be used as a particle and each has its own distinct meaning: 之下*zhīxià* (just like *xià*) for conditional relationship (e.g., 在相同平等的条件之下*zài xiāngtóng píngděng de tiáojiànzhīxià* "under the same, equal conditions"), 以下*yǐxià* for quantity and degree (e.g., 六岁以下 *liùsuìyǐxià* "under six years old"), and 底下*dǐxià* for spatial relationship (e.g., 桌子底 下*zhuōzidǐxià* "under the table"). While these disyllablic expressions can be particles as the examples show, they cannot work further with the optional LOC2s such as *-miàn*. Therefore, we do not discuss these cases (across the six LOC1s) in our study.

9   The particle use of *shàng* here refers strictly to those cases in which it follows a nominal host. Therefore, its other uses, e.g., as verbal complement, are excluded from consideration here.

10 Notice that while these expressions have spatial reference as their basic meaning, they can all refer to abstract, non-spatial relationship too. In our analysis, we identify the spatial vs. non-spatial categorization according to the interpretation most appropriate for the context, not according to the meaning of the host expression.

Chapter 8

1   Unless otherwise marked, the examples are all taken from the spoken corpus to be detailed later.

List of abbreviations used in the gloss:

1sg	first person singular	COP	copula
1pl	first person plural	EMP	emphatic
2sg	second person singular	INJ	interjection
3sgf	third person singular female	NAME	proper name
3sgm	third person singular male	NEG	negation
3sgn	third person singular neutral	POSS	possessive
3plm	third person plural male	PTC	utterance-final particle
CL	classifier		

List of major transcription conventions in the spoken examples:

,	continuing intonation unit
。	terminal intonation unit
[ ]	overlapping speech
<X X>	uncertain hearing
^	stressed syllable
=	lengthening
…	short pause
(2.1)	long pause and its length in seconds

-	truncated speech
@	laughter or laughing quality

2 V-O compounds such as *chànggē* "sing-song, singing" are treated here as bare verbs, even though we acknowledge that their status as single verbs can be controversial because of their internal V-O structure.

3 The object could also be argued to be in an SVO structure if *zhuāngkù* "act cool" is analyzed as a syntactic VO structure, but for our purpose here the difference is negligible.

4 A comparison with the written corpus data would be an interesting project in its own right. However, as our chief interest here is grammaticalization, which would be most directly observed in the spoken language, we will leave this for another occasion.

Chapter 9

1 Aikhenvald's study (2000) is based on data from other researchers, which are sometimes flawed. For instance, the citation on the pairing of the plural marker *-xie* and the numeral was wrongly attributed to the numeral higher than one, but not the fact that the indefinite measure word/quantifier *yi51xie55: a few* constitutes a fixed quantifier without the concept of the numeral *yi55: one* (e.g. **san55xie55*: **three few) (2000: 208).

2 The parentheses indicate optional phonemes in the syllable.

3 There is a fifth pattern: N+Numeral+Classifier used in Chinese, e.g. 傻瓜一个 *sha214gua55 yi35ge51*: fool-one-CL: an utterly complete fool. This pattern is only used for some specific emphatic utterances and is not related to this study; it is therefore not discussed here.

4 Procedural knowledge also explains what it entails when high fluency of a foreign language has been attained. Speakers do not have to decompose each sound in a word or a sentence structure before making an utterance.

5 Wang cited a few supplements to his data from *Heroes and Heroines*, but he did not restrict his citations to the quotations of direct speech from this fiction, believing the author, Wen Kang, wrote the fiction by using spoken Mandarin.

6 Standard tone marks are used when citing references. For instance, the four tones in the syllable *yi* are: *yī*, *yí*, *yǐ*, and *yì*. This standard practice does not mark tone sandhi changes; therefore it is not used in data presentation of this study.

7 Chinese words are usually formed with one to two characters (up to seven, strictly speaking). In printed texts words are not separated in a sentence, and people often disagree as to what constitutes a word as opposed to a grammatical phrase; therefore the best method for counting texts is by characters. Transcriptions of the spoken data, on the other hand, tried to group most obvious words into one unit by using Pinyin, a spelling system using the Roman alphabet, as presented in this chapter.

8 One may notice that none of the NPs in question are found in the initial position of the sentence. The way how indefinite NPs tend to be presented in discourse can be explained by Information Flow (e.g. Chafe 1994).

9 Wang postulates that this pattern most likely appeared after the mid-antiquity, an era spanning from the third to ninth centuries.

10 See Tao (2006) for a detailed discussion of this change.

11 Adapted from Tao (2006).

12 Also from Tao (2006).
13 Step 3 reflects a common practice in spoken Beijing Mandarin: intervocalic consonant reduction, by which a stop or an affricate may be produced as a fricative or a glide.
14 The two sets of NPs presented in (12) actually came from experiment 1 (Tao 2000). A full report of this set of experiments has been summarized into an article, which will appear in the *Journal of Chinese Linguistics*.
15 The author has also noticed that older speakers who did not use this pattern ten years before (in the earlier recordings) began to use this pattern now.

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