

3 Minimal word and its function in Mandarin Chinese

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The notion of Minimal Word (MinWd) has always been a fundamental concept in the Prosodic-Morphological systems developed since McCarthy and Prince (1990). It is a prosodically circumscribed domain which may be selected as the locus of morphological transformation in lieu of the whole domain (McCarthy and Prince 1990, 1993, 1998). Theoretically, the notion of MinWd is derived from the interaction of both Prosodic Hierarchy and Foot Binariness, as stated in the following (taken from McCarthy and Prince 1998: 284):

1. Prosodic hierarchy

Prosodic Word	PrWd
Foot	Ft
Syllable	σ
Mora	μ

2. Foot binarity: Feet are binary under syllabic or moraic analysis.

The Prosodic Hierarchy impinges on every prosodic word to contain at least one foot, while the Foot Binariness demands that every foot be bimoraic or disyllabic. As a result, a prosodic word must contain at least two moras or syllables according to the transitivity of the Prosodic Hierarchy. The Minimal Word is therefore a single PrWd in the system.¹ As we will see below, the Minimal Word is of singular importance in characterizing a wide range of Prosodic-Morphological phenomena not only in languages known in previous studies, but also, as I would like to argue in this chapter, in Mandarin Chinese.

Of course, we are fully aware that in Chinese morphology, there are complexities which may not be accounted for only by the MinWd hypothesis.² However, what I am going to demonstrate is this: there are phenomena that can *only* be explained in terms of a Minimal Word analysis. This is the very purpose of the present study.

This chapter is organized as follows. The section titled “Minimal word as a condition for VO compound” consists of a study on the verb-object structure and shows that among all VO forms in the language, only the ones that meet the minimal word requirement exhibit word properties while longer forms are all on a par with phrases. The section, “Minimal word as a condition for category changing,” shows that a process of category changing from a [Aux V] verbal expression to a [Aux-V]_{adjective} compound is conditioned strictly on whether or not the [Aux V] is a minimal word. “Minimal word as a condition for morphosyntactic operation” demonstrates that there is a clear distinction between MinWd and non-MinWd [A+N] forms differentiated syntactically as well. The last section is a summary of this study.

Minimal word as a condition for VO compound

In Chinese traditional linguistics, it has long been a problem to distinguish VO compounds from VO phrases. For example:

- | | |
|---|--|
| <p>3 a. 关心
guān-xīn
concern heart
“concern”
a'. 我关心他。
Wǒ guān-xīn tā
I concern him
“I am concerned about him.”
a". 你关什么心?
Nǐ guān shénme xīn?
You concern what heart
“What on earth are you concerned about?”</p> | <p>b. 担心
dān-xīn
carry heart
“worry”
b'. 我很担心他。
Wǒ hěn dān-xīn tā
I very worry him
“I am very much worried about him.”
b". 他担了三年心?
Tā dān le sān nián xīn?
he carry ASP three years heart
“He has been worried for three years.”</p> |
| <p>c. 跑步
pǎo-bù
run-feet,
“jog”</p> | <p>d. 睡觉
shuì-jiào
sleep-wake
“sleep”</p> |

- | | |
|--|---|
| <p>c'. 他跑了三次步。
Tā pǎo le sān cì bù
he run ASP three time feet
“He went jogging three times.”</p> | <p>d'. 他睡了一天的觉。
Tā shuì le yì tiān de jiào
he sleep ASP one day POSS wake
“He slept for a day.”</p> |
|--|---|

As we can see from the above examples, a VO form can sometimes be separated as a phrase and sometimes be used as a word. This situation has motivated Chao (1968) to characterize the alternative forms in terms of *ionization*. Since then, great efforts have been devoted to the study of a variety of conditions by which compounds and phrases can be distinguished (see Lu 1964, Huang 1984, Dai 1992, Zhang 1992, Duanmu 1998, and Packard 2000). However, even though various proposals have been made and each of them may work in certain areas for certain cases, there is no overall generalization and constraint on what is a compound and what must be a phrase.³ This difficulty has made linguists wonder if there is indeed a clear-cut distinction at all. Hu (1999), for example, recently claimed that since there is no overall satisfactory conclusion after years of theoretical investigation, linguists should consult with native speakers about what a word is. This suggestion was carried out by Wang (1998) in a study of a total of 647 questionnaires. The informants were asked to make judgments about the number of words in a ten-sentence sample in which twenty-five VO forms are distributively used. The results, as we can see from Table 3.1, are somewhat surprising (taken from Wang 1998, only 5 forms are given here).

Table 3.1 Judgments on wordhood for VO forms⁴

VO forms	word (%)	phrase (%)
shuì jiào “have a sleep, sleep”	95.97	4.03
xǐ zǎo “take a bath, bathe”	92.52	7.48
pǎo bù “run feet, jog”	99.34	0.66
niàn shū “read books, study”	96.84	3.16
dān xīn “carry heart, worry”	97.01	2.99

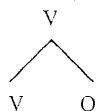
As seen in Table 3.1, the informants’ judgments are far different from linguists’ because according to linguistic analysis, the first four forms should all be analyzed as phrases.⁵ However, the native speakers’ judgments converge to form one conclusion: disyllabic VO forms (or more specifically, VO idioms) are overwhelmingly considered words. For traditional linguists these results create more puzzles than solutions because what are analyzed as phrases by linguists are treated as words by native speakers. On one hand, linguists cannot rely on a layman’s conception of what a word is. On the other hand, linguists cannot ignore

native speakers' intuition about what a word is, especially when there is a strong agreement among speakers on the issue. It seems that the notion of "word" as used by non-linguists may not be the same as the one used by linguists. At present, we are left with two fundamental questions that need to be considered immediately. First, why are native speakers more likely to consider disyllabic forms to be words, even if some of them are linguistically tested as phrases? Second, are there any clear-cut distinctions at all between what must be considered compounds and what must be considered phrases?

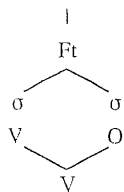
Given the minimal word theorem and the fundamental hypothesis $P \gg M$ (prosody determines morphology) in Prosodic Morphology, I would argue that the study of Chinese morphology will make a great deal of progress once the PrWd is taken into account. As we will see later, the prosodic analysis proposed here not only gives us an entirely new insight into Chinese morphology, but also enables us to determine a prosodic-morphological domain in which every form is legitimate to be or become a compound within that domain and every form beyond (bigger than) the domain is a phrase, strictly within VO and similarly within other structures as well. In other words, there indeed exists a clear boundary demarcating what *can be* a compound and what *must be* a phrase or at least have phrasal properties, defined by a prosodic qualification of being a minimal word—a new discovery which could explain quite a wide range of phenomena in Chinese morphology and syntax.

To see how prosody works in Chinese VO compounds, let us assume, first, that within a structure of two sister nodes labeled as in (4a), if every syllable of the two sister nodes (V and N) is footed (by Parse-all-Syllable requirement) and the left edge of every foot aligns with the left edge of some PrWd (All-Foot-Left requirement), then the two sister nodes will satisfy the requirements of being a MinWd, provided that every syllable in Chinese is a morpheme.⁶ This is shown in (4b):

4. a.



b. PrWd



Second, it is well-known that the VO compounds in Chinese are all formed with a left-headed structure, exactly like VO phrases. That is to say, the internal argument of a verb must be located on the right side of the V in both phrases and compounds. Given this, if prosody indeed determines morphology in Chinese, we would expect the interaction to give rise to a Templatic Constraint for compounding. That is,

5. Templatic constraint on VO compounds

VO-Compd = PrWd

"The VO-compound is a prosodic word."

This is expected because a prosodically circumscribed domain (MinWd) can be taken as the locus of morphological transformation required by $P \gg M$, and because compounding is the most productive morphological process in the language. As a result, if PrWd is the most harmonic prosodic unit in the language and if it affects morphology at all, then compounding will be the very target inevitably impinged upon by the PrWd engaged in prosodic-morphological operations. As we will see below, this is indeed the case.

First, we have discovered that even if not all VO forms can take an object, the ones that can are all disyllabic (i.e., PrWd). For example:

6. 负责	他负责保卫工作。
<i>fù-zé</i>	<i>Tā fù-zé bǎowèi gōngzuò</i>
carry-responsibility	he carry-responsibility security affairs
"be responsible for, be in charge of"	"He is in charge of security affairs."
关心	他不关心 / 别人。
<i>guān-xīn</i>	<i>Tā bù guān-xīn biérén</i>
concern heart	He not concern-heart others
"concern, care for"	"He does not care about others."
担心	他担心情况会有变化。
<i>dān-xīn</i>	<i>Tā dān-xīn qíngkuàng huì yǒu biànhuà</i>
carry heart	he carry-heart situation will have change
"worry"	"He worries that the situation will change."

There is no doubt that when it takes an object, the VO must be considered a compound, because the internal verb+object structure is syntactically opaque as far as the phrase-structure condition is concerned. Given this, all of the above VO forms are doubtlessly compounds. We are aware of the fact that not all disyllabic VO-compounds can take an "outer" object. However, what is important to note here is a categorical behavior of the trisyllabic (or polysyllabic) forms. No polysyllabic VO forms can take an "outer" object. For instance,

7. *他负责保卫工作。
 *Tā fù-zérèn bǎowèi gōngzuò
 he carry-responsibility security affair
 "He is in charge of security affairs."

 *我开玩笑他。
 *Wǒ kāi-wánxiào tā.
 I make-joke he
 "I make fun of him."

The contrast between (6) and (7) shows that *only* disyllabic VO forms can have an object, while *all* trisyllabic forms cannot. A question rises immediately: Why can trisyllabic forms not take an object in the way that disyllabic forms can? Whatever the reason, there is no question that there exists a categorical distinction between disyllabic VO forms on the one hand, and trisyllabic VO forms on the other.

Of course, one may wonder if the trisyllabic VO forms are intransitive verbs because, if they are, they do not take an object. However, even if this is so, the same question still remains: Why is it that *only* disyllabic but *not* trisyllabic forms can be transitive? It appears that the same conclusion will still pertain. There must be a distinction between disyllabic and trisyllabic VO forms in the language. The question, then, is: Why is there a distinction and how does it come about? Obviously, an explanation is called for.

Furthermore, examples given below show that the trisyllabic VO forms cannot simply be considered intransitive verbs because they cannot take aspect makers like VO verbs do.

8. a. 他负责过保卫工作。
 Tā fù-zé -guo bǎowèi gōngzuò
 he carry-responsibility ASP security affair
 "He has been in charge of security affairs."
 b. *他对保卫工作负责任过。
 *Tā duì bǎowèi gōngzuò fù zérèn -guo
 he to security affair carry responsibility ASP
 "He has been in charge of security affairs."
 b'. 他对保卫工作负过责任。
 Tā duì bǎowèi gōngzuò fù-guo zérèn.
 he to security affair carry ASP responsibility
 "He has been in charge of security affairs."

- c. 他担心着你的健康。
 Tā dān-xīn -zhe nǐ de jiànkāng
 he carry-heart ASP you POSS health
 "He is worrying about your health."
 d. *他开玩笑说……
 *Tā kāi wánxiào -zhe shuō: ...
 He make joke ASP say ...
 "He is making jokes while talking"
 d'. 他开着玩笑说……
 Tā kāi -zhe wánxiào shuō...
 He make ASP joke say
 "He is making jokes while talking."

As a general rule, a VO compound, like all other verbs in the language, can naturally co-occur with an aspect maker. Thus, in (8a) *fù-zé* can occur with an experience aspect marker *-guo* and in (8c) *dān-xīn* is with a progressive aspect marker *-zhe*. What is remarkable in the above examples is that *all* the ones that can take an aspect marker are disyllabic while *all* of the forms that cannot are trisyllabic. It is clear that the ones that can take aspect markers must be compound verbs and the ones that cannot must *not* be compounds because there is no reason for a compound verb not to be able to co-occur with an aspect marker. Given this, we see that all compounds are disyllabic and all trisyllabic forms are not compounds. Put differently, all trisyllabic VO forms, unlike the disyllabic ones, cannot function as a single (or a zero-level) verb, hence cannot be considered a compound. Thus it can be concluded that trisyllabic VO forms must all belong to the category of phrases.

The contrast between (8c) and (8d) therefore suggests a prosodic categorization in the Chinese morphological system. That is, *only* disyllabic VO forms can be compounds while *all* trisyllabic VO forms lack the ability to be compounds. As seen above, the disyllabicity perfectly meets the definition of the prosodic word, thus, can be clearly seen that, for all VO forms, only the ones that meet minimal word requirements are qualified to be compounds (through regular word formation or lexicalization),⁷ while those whose size is bigger than a PrWd are not qualified to be compounds.

Finally, separability can also be used to manifest the distinction between disyllabic and trisyllabic VO forms. That is, only disyllabic forms cannot be separated, while all other polysyllabic forms are separable. For example ("de" is a possessive marker in Chinese):

9. 得罪	得罪 他	*得他的罪
dě-zuì	dě-zuì tā	*dē tā de zuì
get-offense	get-offense he	get he POSS offense
"offend"	"To offend him."	"To offend him."
开玩笑	*开玩笑他	开他的玩笑
kāi wánxiào	*kāi wánxiào tā	kāi tā de wánxiào
make joke	make-joke he	make he POSS joke
"joke, make fun of"	"To make fun of him."	"To make fun of him."

As shown in the separability test above, we see, again, that there is a clear distinction between what is revealed in the disyllabic forms and what is lacking in the trisyllabic VO forms.

The evidence above leaves no doubt that the minimal word (PrWd) is indeed very active in the language, otherwise there would be no explanation for why trisyllabic VO forms are systematically different from disyllabic ones. That is to say, within the VO structure, if the verb and its object are formed by exactly two syllables, then the VO form will construct a minimal prosodic unit. Since the minimal prosodic unit is the most harmonic PrWd in the language, by P >> M, all compounds that are formed by verb+object must first be a PrWd. This is captured by the Templatic Constraint given in (5).

Under the above analysis, we now begin to understand why disyllabic VO forms such as *nìn-shū* "read books, study," *shuì-jiào* "have a sleep, sleep," etc., in Table 3.1 are treated as "words" by native speakers. It is because they represent the most harmonic prosodic category of PrWd, even though they are not lexicalized or idiomatized. On the other hand, longer VO forms such as *kāi wánxiào* "joke," *fū zérèn* "be in charge of," etc., have never been perceived as words by native speakers because they do not meet the definition of a PrWd, hence they can never be lexicalized as compounds regardless of how highly they are idiomatized.⁸ This suggests that the native speaker's intuition about "words" in Wang's study is in fact a prosodic notion of PrWd, which is different from the syntactic notion of word used by traditional linguists.

This calls for a further explanation about disyllabic VO idioms. By syntax, the disyllabic idioms are not compounds; by prosody, however, they belong to the same category of foot, hence they satisfy the requirement of being a PrWd, even if they are not (yet) lexicalized as a compound in the lexicon. The native speaker's word-judgments about the disyllabic idioms clearly suggest that in Chinese, even phrases are distinguished prosodically. That is to say, there are apparently two types of phrases: one consists of disyllabic idiomatized phrases which meet the MinWd requirements perfectly and have the potential to become compounds, and so can be interpreted by

native speakers as a single unit (i.e., a "word" in an undefined usage, but a PrWd in a strict sense). The second one consists of freely constructed polysyllabic phrases that are beyond the Templatic Constraint, and hence can never become compounds in the language.⁹ This indicates further that the native speaker's intuition about the disyllabic forms is not based on an innate grammar of syntax (which sometimes can best be detected by linguists), but primarily on an innate grammar of prosody.

In fact, if *pǎo bù* "jog," *niàn shū* "read books, study," etc., in Table 3.1 are indeed phrases, the only way to explain the native speakers' word-intuition about these phrases is to admit that the function of minimal word is also active in syntax (at the PF level or before Spell-Out as suggested in Zubizarreta 1998). Nevertheless, the fact shows clearly that PrWd also circumscribes phrases in syntax. Given this, we may suggest that the notion of PrWd defined in terms of prosody could function at different levels of grammar, that is, it can apply to both morphology and syntax, though the ways it works may be different. In morphology, every VO compound must be PrWd. In syntax, every VO phrase that meets the PrWd requirements has the potential to become a compound depending on its semantics and pragmatic usage in the language, but importantly, those whose shapes are beyond the control of minimality constraint will never be compounds. This gives rise to the distinction between disyllabic idioms that are treated as words and trisyllabic idioms that are not considered words by native speakers. Thus, the linguistic intuition of PrWd by Chinese speakers provides strong evidence that the minimal word constraint applies not only to morphology but also to syntax.¹⁰

Minimal word as a condition for category changing

The minimal word effect can also be observed in auxiliary+verb compounds in Chinese. The auxiliary *ke* "can" can be used to form a compound with a verb, meaning "V-able," for example:

10. 可笑 *kě-xiào* "can-laugh, laughable"
 可怜 *kě-lián* "can-sympathize, pitiable"
 可靠 *kě-kào* "can-trust, trust-able, reliable"
 可怕 *kě-pà* "can-terrify, terrible"
 可耻 *kě-chǐ* "can-sham, shame-able, shameful"
 可行 *kě-xíng* "can-do, doable"
 可爱 *kě-ài* "can-love, lovable, lovely" (ALSO "cute"?)
 可恨 *kě-hèn* "can-hate, detestable, hateful"
 可疑 *kě-yí* "can-suspect, suspect-able"

In Chinese, the ordinary *kě+V* compounds all consist of two syllables. Of course, there are Aux+VV trisyllabic forms used in the language, too.¹¹ For example:

11. 可造就的人
kě-zàojiù DE rén
 can-train's person
 "a person who can be trained, a trainable person"
- 可加工的材料
kě-jiāgōng DE cáiliào
 "can-process's material" "material that can be processed, process-able material"
- 可阅读的书籍
kě-yuèdú DE shūjí
 "can-read's book" "books that can be read, readable books"

However, the following contrasts show that the trisyllabic *kě+VV* forms are different from the disyllabic *kě+V* compounds. Compare:

- | | |
|--|--|
| 12. a. 可怕的事
<i>kě-pà de shì</i>
terrible 's thing
"a terrible thing" | *可以怕的事
<i>*kěyǐ-pà de shì</i>
terrible 's thing
"a terrible thing" |
| b. 可疑的人
<i>kěyí de rén</i>
suspect-able 's person
"a suspect" | *可以疑的人
<i>*kěyǐ yí de rén</i>
suspect-able 's person
"a suspect" |
| c. 可加工的材料
<i>kě jiāgōng de cáiliào</i>
can be processed 's material
"process-able material" | 可以加工的材料
<i>kěyǐ jiāgōng de cáiliào</i>
can be processed 's material
"process-able material" |
| d. 可造就的人
<i>kě zàojiù de rén</i>
can be trained 's person
"a trainable person" | 可以造就的人
<i>kěyǐ zàojiù de rén</i>
can be trained 's person
"a trainable person" |

Within disyllabic compounds, the auxiliary *kě* 可 cannot be substituted with the free standing counterpart *kěyǐ* in the language, as seen in (12a-b), however within trisyllabic *kě+VV* forms, *kě* and *kěyǐ* are interchangeable. The fact that only in disyllabic forms, *kě* cannot be changed into *kěyǐ* indicates that only disyllabic forms are compounds whereas the trisyllabic ones are equivalent to phrases. The following examples show even more clearly that the trisyllabic *kě+VV* and the disyllabic *kě+V* are not simply different but indeed belong to two distinct syntactic categories.

13. a. 他非常可疑。
Tā fēicháng kě-yí
he extremely suspect-table
"He is extremely suspect-able (suspicious)."
- a'. *他非常可怀疑。
**Tā fēicháng kě-huáiyí*
he extremely suspect-able
"He is extremely suspect-able."
- b. 他非常可靠。
Tā fēicháng kě-kào
he extremely trust-able
"He is extremely reliable."
- b'. *他非常可依靠。
**Tā fēicháng kě-yīkào*
he extremely trust-able
"He is extremely reliable."
- c. 他非常可信。
Tā fēicháng kě-xìn
he extremely trust-able
"He is extremely trust-able (reliable, trustworthy)."
- c'. *他非常可相信。
**Tā fēicháng kě-xiāngxìn*
he extremely trust-able
"He is extremely trust-able."
- d. *这个东西非常可加工。
**Zhège dōngxi fēicháng kě-jiāgōng*
this thing extremely process-able
"This thing is extremely process-able."

As we can see, only disyllabic *kě+V* forms can be used as adjectives whereas all longer *kě+V* adjective are either not found in the language, or are ill-formed by this type of process, even if the verbs used in these two forms are synonyms (i.e., *yí* = *huáiyí* "doubt," *kào* = *yīkào* "rely" *xìn* = *xìnrèn* "trust"), as seen in (13). This shows clearly that all longer forms are incapable of undergoing a category change from [Aux V] verbal expressions to [Aux-V] adjectives. In other words, *only* disyllabic [Aux-V] forms are allowed to form adjectives while the trisyllabic ones are prohibited from doing so. This is clear-cut evidence that trisyllabic forms are differentiated from the disyllabic [AuxV] forms in the language and cannot be properly explained according to traditional morphology. In fact, this phenomenon was discovered only recently by the application of minimal word effect in the language (Feng 2000).

Given the minimal word theorem and the analysis above, a Templatic Constraint is therefore expected to be formulated in order to capture the category changing within all Aux+V forms. It can be seen in (14).

14. Templatic constraint on categorial change¹²

$[k\bar{e}+V] \rightarrow \text{Adjective} / [k\bar{e}+V]_{PrWd}$

"A $k\bar{e}+V$ form undergoes a process of category changing, if it is a prosodic word."

Obviously, without the notion of MinWd (PrWd), the contrast between the disyllabic $k\bar{e}-V$ and the trisyllabic $k\bar{e}-VV$ forms revealed in the language will be lost, and most importantly, the grammar, which would make a strict distinction by the Templatic Constraint for the morphological process to take place, will be lacking.¹³

Minimal word as a condition for morphosyntactic operation

In Mandarin Chinese, there are many A(djective)+N(oun) compounds such as *dàmǐ* "big+rice, rice," *dàhàn* "big+man, burly fellow," *xiǎobiàn* "little+plait, pigtail," etc. Traditionally, most of the A+N forms such as *dà lāohǔ* "big tiger," *xiǎo yǔsǎn* "little umbrella," etc., have always been considered phrases, rather than compound words, even if it has been recognized that the A+N combinations are not freely constructed (Zhu 1980), as shown in the following contrasts (*de* in Chinese is a possessive marker and a relative clause complementizer):

15. Semantic gap

白紙	白的紙
<i>báizhǐ</i>	<i>báidezhǐ</i>
"white paper"	"white 's paper, white paper, a paper that is white"
*白手	白的手
* <i>báishǒu</i>	<i>báideshǒu</i>
"white hand"	"white 's hand, white hand, the hands that are white"

Alternative forms (but semantically not equivalent)

大米	大的米
<i>dàmǐ</i>	<i>dàdemǐ</i>
big rice	big 's rice
"rice"	"the rice that is big"

大車	大的車
<i>dàchē</i>	<i>dàdechē</i>
big vehicle	big 's vehicle
"cart"	"the vehicle that is big"

Recently, Shih (1986), Dai (1992), Sproat and Shih (1991, 1996a), Duanmu (1998), Chen (2000) and others have argued that the bare A+N forms exemplified above should all be considered compounds, rather than phrases. Among the evidence supporting this analysis, the strongest is this: the A in all A+N forms cannot take a modifier like *hěn* "very," for example:

16. *很大樹	很大的樹
* <i>hěndàshù</i>	<i>hěndàdeshù</i>
"very big trees"	"very big 's tree, very big trees"
*很大車	很大的車
* <i>hěndàchē</i>	<i>hěndàdechē</i>
"very big vehicle"	"very big 's vehicle, very big vehicle"
*很小雨傘	很小的雨傘
* <i>hěnxǎoyǔsǎn</i>	<i>hěnxǎodeyǔsǎn</i>
"very small umbrella"	"very small 's umbrella, very small umbrella"

Such syntactic behavior, therefore, forces one to conclude that the A+N forms are not phrases because there is no reason why the A cannot be modified if the [A+N] is a phrase, as compared with English.

17. little umbrella	very little umbrella
blackboard	*very blackboard
small-pox	*very smallpox

In English, the A of an [A+N] form cannot be modified if the [A+N] is a compound. In Chinese, however, the A in all of the A+N forms is not allowed to be modified. Thus, it is reasonable to consider them as N^0 modifiers (Sproat and Shih 1991: 571). However, what we found is a clear distinction between different prosodic entities with different syntactic behaviors among all A+N forms. That is, disyllabic AN forms (if not all) behave differently from the longer ones systematically. To see this, let us begin with Sproat and Shih's (1991) generalization about the adjective ordering of "SIZE" and "COLOR" in noun phrases.¹⁴ First, to observe:

18. SIZE	COLOR	NOUN	
little	black	umbrella	*black little umbrella
<i>xiǎo</i>	<i>hēi</i>	<i>yǔsǎn</i>	* <i>hēi xiǎo yǔsǎn</i>
小	黑	雨伞	
big	white	plate	*white big plate
<i>dà</i>	<i>bái</i>	<i>pánzi</i>	* <i>bái dà pánzi</i>
大	白	盘子	

Based on mounting evidence in different languages, Sproat and Shih (1991) generalized an Adjectival Ordering Restriction (AOR), which says essentially that the AOR – [SIZE > COLOR] – obtains if the adjectives involved are hierarchical direct modifiers. This is argued to be a universal constraint for the ordering of multiple adjectival modifiers, not only in English but also in Chinese (and many other languages; see Sproat and Shih 1991).

Given this constraint, a clear-cut distinction emerges between disyllabic AN forms and trisyllabic AN forms. For example (taken from Feng 2000):

19. Trisyllabic AN	Disyllabic AN
* COLOR > SIZE	COLOR > SIZE
* 白大 盘子	红小 兵
* <i>bái dà pánzi</i>	<i>hóng xiǎo-bīng</i>
“White big plate”	“red small-soldier, the red guard”
* 红小 雨伞	黑大 汉
* <i>hóng xiǎo yǔsǎn</i>	<i>hēi dà-hàn</i>
“red small umbrella”	“black big-man, a black bully”
* 红小 计算机	黑小 辫儿
* <i>hóng xiǎo jìsuànjī</i>	<i>hēi xiǎo-biànr</i>
“red small computer”	“black little-plait, a black pigtail”
* 黑大 熊猫	黑大 雁
* <i>hēi dà xióngmāo</i>	<i>hēi dà-yàn</i>
“black big panda”	“black big-goose, wild goose”
* 白大 萝卜	白大 米
* <i>bái dà luóbo</i>	<i>bái dà-mǐ</i>
“white big radish”	“white big-rice, white rice”

* 紫小 蕃茄	绿小 葱
* <i>zǐ xiǎo fānqié</i>	<i>lǜ xiǎo-cōng</i>
“violet small tomato”	“green small-scallion, green scallion”

Clearly, only (if not all) disyllabic AN forms can violate the universal constraint of [SIZE > COLOR] whereas three (or more) syllable AAN forms must *all* obey this constraint. Once again, we see that the trisyllabic AAN forms, like all other trisyllabic forms (V+OO, Aux+VV and V+RR), inherently lack the properties exhibited in disyllabic forms. Why is this? Traditional grammarians would answer this question immediately by saying: because the ones that can violate the general constraint are compounds. This is indeed correct because in English the [SIZE > COLOR] order can also be violated if the [SIZE+N] is a compound. For example,

20. red smallpox
black bigfoot

The compound status of the disyllabic AN forms in (19) can also be seen from the fact that the ones that can violate the ordering requirement are all inseparable, which shows the inherent property of being a compound. For example,

21. 黑大 汉	* 大的 汉
<i>hēi dà-hàn</i>	* <i>dà de hàn</i>
black big-man	big 's man
“black bully”	
黑小 辫儿	* 小的 辫儿
<i>hēi xiǎo-biànr</i>	* <i>xiǎo de biànr</i>
black little-plait	little 's plait
“a black pigtail”	
绿小 葱	* 小的 葱
<i>lǜ xiǎo-cōng</i>	* <i>xiǎo de cōng</i>
green small scallion	small's scallion
“green scallion”	

The inseparability of the [SIZE+N] forms in the [COLOR+[SIZE+N]] environment confirms the analysis that the [SIZE+N] forms in (19) and (21) must all be compounds, which makes a reasonable exception to the general constraint on ordinary phrases, as we would expect in English.

However, a question arises once we adopt the above analysis, because it would imply that the ones that must obey the general constraint are phrases. This must be so, or there is no reason why they would behave differently from the ones that violate the [SIZE > COLOR] constraint if both AN and AAN are compounds. In other words, if only compounds can violate the constraint (cf. red smallpox), the ones that must obey it should not be compounds (cf. *red small umbrella).¹⁵ However, as we have seen above, there is evidence that all A+N forms in Chinese are compounds, because none of them can be modified by a degree adverb like *hěn* “very” (cf. *very blackboard). Given this, we are left with a paradoxical situation: according to the [SIZE > COLOR] constraint, the ones that obey it must not be considered compounds because only compounds can disobey it; but according to the modifier *hěn* test, all AN forms must be compounds regardless of whether they obey the [SIZE > COLOR] restrictions or not.

How can we resolve this dilemma? While other analyses are plausible (see note 15), I would like to suggest, first, that the ones that disobey the [SIZE > COLOR] constraint are unquestionably compounds. However, they are not compounds in general, rather a specific kind, say, lexical compounds. By lexical compound I mean one that is generated in the lexicon governed by (prosodic) morphological rules.

What about the ones that must obey the [SIZE > COLOR] constraint? Regarding the *hěn* “very” test given above, they cannot simply be treated as phrases, but they cannot be lexical compounds either. Following Feng (2001), I would like to suggest that they are syntactic compounds, which means that they are formed in syntax,¹⁶ and are therefore visible to the syntactic restriction of [SIZE > COLOR]. In fact, whatever they are is not the central issue to be addressed here. The point which I am making concerns the following fact: only (if not all) disyllabic forms are able to take the [COLOR+SIZE] structure, while polysyllabic forms all fail to do so. The question then is: Why are the trisyllabic ones different from the disyllabic ones? Why must the difference be made by different numbers of syllables? Furthermore, how can we characterize the difference? Juxtaposed with the analyses in the previous sections, it is clear that the difference is due to whether an AN form is a PrWd or not. Thus, it can only be explained in terms of prosody. Similar to the minimal word effect on VO and AuxV forms discussed above, this phenomenon (SINGULAR) can best be accounted for in the same way as minimal word effect. That is,

22. Minimal word constraint on AN forms in Chinese
 AN-Compd = PrWd
 A AN (lexical) compound is a PrWd.

Here, we do not exclude the possibility that the polysyllabic AN forms are (syntactic) compounds, but they must be different from lexical compounds. If we adopt the classification of lexical compounds and syntactic compounds, we have good reason to say that the requirement of [A+N]_{PrWd/Compound} in the [COLOR+[SIZE+N]] structure follows directly from the minimality constraint: a lexical compound of [A+N] forms must be a PrWd. Thus, in the environment of [COLOR+SIZE+N], the application of the Prosodic-Morphologic constraint (22) will give rise to the following result: [COLOR [size+N]_{PrWd/Compound}]. The present theory also predicts that trisyllabic AAN forms cannot be lexical compounds, their components are still visible to certain syntactic processes (i.e., the phrasal restriction of [COLOR > SIZE]).

If the above analysis is correct, it provides additional evidence for the argument that the minimal word in Chinese is the most harmonic prosodic word which is extremely active in a variety of constructions in the language.

Theoretical implications and empirical consequences

We have discussed several different syntactic and morphologic constructions in the present study: the Verb+object, the Auxiliary+Verb and the Adjective+Noun. We have also seen that all these different syntactic forms share a common property. That is: the trisyllabic ones are syntactically different from the disyllabic ones systematically. To be more specific, only the disyllabic ones exhibit lexical properties, and therefore only the disyllabic ones can be (lexical) compounds. Thus, for VO forms, only the disyllabic ones can take an object; for AuxV forms, only the disyllabic ones can be modified by a degree modifier like *fēicháng* “extremely”; for AN forms, only the disyllabic ones can violate the [SIZE+COLOR+N] phrasal constraint. Contrary to the case of disyllabicity, all trisyllabic forms of each of the three constructions syntactically deviate from the properties of being a (true) lexical item, for example: the separable property and the inability to take a (post-verbal) object for all trisyllabic VOO forms; the inability to undergo the process of category changing for all trisyllabic AuxV forms; and the obligation to strictly follow the phrasal constraint [SIZE+COLOR+N] for all trisyllabic AN forms.

It is possible, however, for one to suggest a different analysis for the trisyllabic forms and that is the AAN forms may reasonably be treated as phrases with a [SIZE+COLOR+N] order, or compounds using the *hěn* test. However, it does not matter how one analyzes them, the distinction between the disyllabic and the trisyllabic structures will still pertain. The syntactic contrast cannot be explained

away by any analysis that overlooks the disyllabic and the trisyllabic distinctions. The facts brought to light in this study are quite striking: the distinctions among all three types of forms are not only syntactic, but also prosodic. In fact, their different syntactic behaviors were not discovered and will not be fully understood until the prosodic distinction is brought to light. In this sense, it is reasonable to say that the study of prosody has revealed some important prosodic-syntactic phenomena that would otherwise be a mystery in the language.

As we have seen, the prosodic distinction in all three different structures is centered upon the basic domain of disyllabicity. Why is this so? The minimal word theorem provides the best explanation and it is simply the legitimacy of being a PrWd in the language. The Chinese language is, therefore, a language that is extremely sensitive to the prosodic domain. Actually, it is the domain that permits only disyllabic forms to have the priority to be or become compounds, and it is also the domain that prevents trisyllabic forms from entering into the realm of lexical compounding. As a result, a boundary in Chinese morphology can be set between what is a compound (PrWd applies in morphology) or permitted to be a compound (PrWd applies in syntax), and what is forbidden from being a lexical compound, or at most a syntactic compound.

It is well known that in Prosodic Morphology, the core area of previous investigations has focused mainly on reduplication and infixation. The present study, however, extends the notion of PrWd into the area of compounding and its interaction with syntax. For all three types of forms discussed above, we have seen that the minimality constraint indeed controls the word formation of compounding in Chinese. That is, a compound (or more specifically a lexical compound) must first be a PrWd, even if a PrWd is not, by necessity, a compound. This conclusion has several implications in Prosodic Morphology. First, the Templatic Constraint not only determines morphological operations like reduplication and infixation, but also controls the word formation of compounding in languages like Chinese. This raises a question for future study as to why and how the Templatic Constraint could also control compounding. Furthermore, it is clear, by now, that the minimal word requirement functions in Chinese. Yet, when it does, it not only affects word formation, but also syntactic structures in a way that influences the formation of well-formed sentences. Surprisingly, it seems that the MinWd may also circumscribe certain syntactic phrases, so that the native speaker's intuition about what is considered a "word" is unquestionably affected by the prosodic notion of MinWd. The final question then is how and to what extent prosody affects syntax, this question is extremely important for theoretical as well as empirical inquiries in future research.

4 Path of motion: Conceptual structure and representation in Chinese

*Chengzhi Chu**

With the understanding that language is an experientially-based product of the human mind as well as a reflection of how speakers of a language structure the perceptions of reality, this chapter presents a characterization of the conceptual structure for Path of motion events and illustrates how the conceptualization of Path of motion is represented in Mandarin Chinese. Path is the route followed by the moving object (i.e., Figure) in a motion event with respect to the reference objects (i.e., Ground) (Talmy 1985; Chu 2008). For motion conceptualization and representation, Path is the central and defining property. In human cognition, Path is a conceptual complex consisting of several basic elements. In representing Path properties on the linguistic surface, Mandarin Chinese demonstrates a number of language-specific properties.

Path as the defining property of motion

By claiming here that Path is the defining property of motion, it means that only when the Path of the motion is profiled and overtly represented on the linguistic surface is it an event construed and realized in language as a motion event. Otherwise, it may be conceptualized as a different type of event but not as a motion event, despite the assertion of movement of some kind. Compare the two sentences in (1):

- (1) a. 孩子跑进了屋子里。
Háizi pǎo jìn le wūzi li.
 child run into ASP¹ room inside
 "The child ran into the room."

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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 *qūnián 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 *qūnián 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 *nei* 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 multfoot 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 yī 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 zhōngtóu.
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 yáogǎo* "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 >> M. The facts given in this chapter suggest a positive answer. That is, P >> 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 帮助。
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, *kē-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 (*-jiānbāng) zhàndòu
 parallel-shoulder (shoulder) fight

“To fight shoulder to shoulder (side by side).”

挨户 (*-门户) 调查
āi-hù (*-ménhù) diào chá
 touch-door (door) investigation

“To investigate from door to door.” (“door-to-door investigation”)

变法儿 (*-方法) 捣乱
biàn-fār (*-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

- The following abbreviations are used in example annotations in this chapter: ASP “aspect marker,” CL “classifier,” PL “plural suffix.”
- 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.”
- 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.
- 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.
- G₁, G₂ 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.
- 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.
- 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.
- 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.
- 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).
- Clearly, Backward can be viewed as a “compound” Direction which incorporates Forward and Returning properties. See the definition for Returning below.
- 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