An Empirical Study of Motion Expressions in Mandarin Chinese

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Abstract

There are different views concerning the typology of Chinese. Based on the study of Motion events, Talmy (1985, 1991, 2000) categorises Chinese as a satellite-framed language, but Slobin (2004, p. 228) proposes Chinese belongs to what is called "equipollently-framed languages". Following an empirical study of Motion expressions in Mandarin Chinese, more evidence is found that Chinese speakers rely strongly on serial verb constructions. The Manner verbs in Chinese stories are not as varied as those in English stories while Path verbs are more varied in Chinese than in English. The result suggests that Chinese follows what Slobin (2004) categorises an equipollently-framed language.

Keywords: serial verb construction, equipollently-framed language, Manner verb, Path verb

1. Theoretical Background

1.1 Talmy's (1985, 1991, 2000) Linguistic Typology

Talmy (1985, 2000) proposes a two-way typology differentiating satellite-framed languages from verb-framed languages on the basis of the characteristic pattern of encoding the information about the Path of movement. "Languages that characteristically map the core schema into the verb will be said to have a framing verb and to be verb-framed languages"; and "languages that characteristically map the core schema onto the satellite will be said to have a framing satellite and to be satellite-framed languages" (Talmy, 2000, p. 222). English, Russian, German, etc. are examples of satellite-framed languages and examples of verb-framed languages include Italy, French, Spanish, etc. Chinese is categorised as a satellite-framed language taking the second element in Chinese serial verb constructions similar to English satellite. Talmy explains that Path verbs often lose some features of independent verbs; as a result, they often do not function as full verbs. In addition, there is a small closed set of Path verbs.

1.2 Slobin's (2004, 2006) Revised Language Typology

There is still no agreement, however, regarding Talmy's (2000) dichotomy of verb-framed languages and satellite-framed languages (but see Hendriks et al., 2008; Beavers, Levin, and Tham, 2009). There are some problems with this classification (Peyraube, 2006). Firstly, the Chinese satellites listed by Talmy (2000) are optional. The main verb can express the meaning very well without them. For example, 掉*diao4* "off", which Talmy (2000, p. 109), considers to be a satellite follows a Manner verb and takes the second position in serial verb constructions. For example in (1a), 掉*diao4* follows the Manner verb 跑*pao3* "run". While it is natural and grammatical to say (1b) without the satellite 掉*diao4* and the sentence meaning is not changed.

(1) a. 他跑掉了.

     Ta1 pao3 diao4 le0.

     He ran off PFV

     "He has run off."

   b. 他跑了.

     Ta1 pao3 le0.

     he ran PFV

     "He has run off."

Secondly, Chinese satellites can stand alone as independent verbs, which is not possible with English satellites. Gao (2001, p. 62) points out that "these satellites in Chinese can also function as independent verbs themselves." In (2a), for example, the word 来 *lai2* "come" is used in the Manner + Path combination, with 跑 *pao3* "run" being the Manner verb and 来 *lai2* "come" being the Path verb. In this case, a serial verb construction is formed, which is called 连动式 "*lian2 dong4 shi4*" (Gao, 2001, p. 62) in Chinese grammar. In (2b), 来 *lai2* "come" is used independently as the main Path verb. And it is the same case with many other "satellites", e.g., 去 *qu4* "go", 回 *hui2* "return", etc.

(1) a. 从东边跑来一只鹅.

      Cong2   dong1bian1   pao3   lai2   yi4zhi1   e2

      from   east   run   come   one-CL   goose

      "A goose runs from the east."

    b. 从东边来一只鹅.

      Cong2   dong1bian1   lai2   yi4zhi1   e2.

      from   east   come   one-CL   goose

      "A goose comes from the east."

Slobin treats serial verb constructions in Chinese as a different case, where two or more verbs, with or without arguments, co-occur in the same clause and express the same event. Because Path verbs can occur alone in Chinese, they cannot be regarded as satellites. Satellites are verb particles and affixes that do not occur alone. Slobin observes that in Chinese and other serial verb languages both Path and Manner receive equal weight. He proposes that it may be appropriate to have a third typological category to include serial verb languages like Thai and Chinese, which cannot be allocated to satellite-framed or verb-framed. Slobin (2004, p. 228) proposes the third type, which is called "equipollently-framed languages." In these languages, "both Manner and Path are expressed by 'equipollent' elements," which refer to those elements "that are equal in formal linguistic terms, and appear to be equal in force or significance" (Slobin, 2004, p. 228). Slobin (2006, p. 64) further explains *equipollently-framed* as "a kind of framing in which both Path and Manner have roughly equal morphosyntactic status." So he revises the definitions of verb-framed and satellite-framed by adding a third type—to have a trichotomy rather than Talmy's (1985, 2000) dichotomy typology. The following trichotomy has therefore been proposed (Slobin, 2004, p. 249). Equipollently-framed languages (Slobin, 2006, pp. 64-65) include:

(i) Serial-verb languages include Niger-Congo, Hmong-Mien, Sino-Tibetan, Tai-Kadai, Honkhmer and some Austronesian. In serial verbs languages, it is difficult to tell which verb is the main verb. The typical construction type is Manner verb + Path verb.

(ii) Bipartite-verb languages include Algonquian, Althabaskan, Hokan and Klamath-Takelman. Bipartite verbs consist of two morphemes, one expressing Manner, and the other expressing the Path. The typical construction type is [Manner + Path] verb.

(iii) Generic verb languages include Jaminjungan languages. There are only a small group of function verbs in these languages. The typical construction type is Manner coverb + Path coverb + generic verb.

Slobin points out two caveats concerning this revised typology. One is to place "languages on a cline of Manner salience (Note 1), rather than placing them into dichotomized or trichotomized typologies" (Slobin, 2004, p. 228). Manner salience is "the level of attention paid to Manner in describing events." Another is that "typological characterizations often reflect tendencies rather than absolute differences between languages" (Berman & Slobin, 1994, p. 118). Naigles et al. (1998) investigate the verb use in adult English and Spanish in the descriptions of static and dynamic Motion events. On the one hand, they find that English speakers and Spanish speakers differ from each other in the degree of mentioning Manner of Motion and in the use of the preferred sentence frames, but not in the number of verb types. On the other hand, they find that Spanish speakers prefer Manner verbs to describe vertical Motions, which is contrary to the general assumption that Spanish speakers favour the use of Path verbs (Naigles et al., 1998, p. 543). They emphasise the importance of contexts on the manifestation of typological differences and call for "relevant parameters of language differences" (Naigles et al., 1998, p. 548). And interestingly, some researchers (Huang & Tanangkingsing, 2005) propose a four-way typology based on Talmy's two-way typology. The vertical axis represents Path salience and the horizontal axis represents Manner salience. Chinese is considered having the highest Manner salience compared with six western Austronesian languages: Saisiyat, Malay, Tagalog, Tsou, Cebuano and Squliq. Ji (2009) approves of Slobin's proposal that Chinese is an equipollently-framed language in that it has the representative characteristics of both satellite-framed languages and verb-framed languages.

1.3 Serial Verb Construction in Chinese

Chen and Guo (2008, pp. 7-8) point out that "the serial verb construction normally allows a maximum of three verbal components side by side in the order of Manner + Path + Deictic. Any of these three verb types can also form two-component constructions, or occur alone…" They list eight verb construction types: M + P + D, M + P, M + D, P + D, P + P, M, P, and D. In addition to the eight types of verb constructions, another serial verb construction, P +P + D and P + P + P should be added to Chen and Guo's (2008) groupings (see examples 3i and 3j) (Note 2). For the purpose of the present study, the verb constructions are broadly categorised into three types: (a) those with single verbs including M, P, and D, (b) serial verb constructions with a Manner verb, which include such types as M + P + D, M + P, M + D, and (c) those without a Manner verb, which include P + D, P + P, P + P +D, and P + P +P constructions. Examples of (3a), (3b), and (3c) employ single verbs to express Motion events. Examples from (3d) to (3j) employ serial verb constructions for the encoding of Motion events (examples are from the present study).

(3)   a.   M

但是到了晚上，那个青蛙竟然偷偷地从瓶子里<u>跑</u>了. (IC 125)

Dan4shi4	*dao4*	*le0*	*wan3shang4,*	*na4*	*ge4*	*qing1wa1*	*jing4ran2*
but	arrive	PFV	evening	that	CL	frog	actually

tou1tou1	*de0*	*cong2*	*ping2zi0*	*li3*	*pao3*	*le0.*
stealthily	AdvM	from	bottle	in	run	PFV

"But when evening came, the frog ran out of the bottle stealthily."

    b.   P

这个小男孩跟着他的家人<u>到</u>了这个餐馆. (IC 103)

Zhe4	*ge4*	*xiao3*	*nan2hai2*	*gen1*	*zhe0*	*ta1de0*
this	CL	small	boy	follow	DUR	his

jia1ren2	*dao4*	*le0*	*zhe4*	*ge4*	*can1guan3.*
family members	arrive	PFV	this	CL	restaurant

"This small boy arrived at this restaurant with his family members."

    c.   D

后来警察来了，把劫匪带<u>走</u>了. (IC 109)

Hou4lai2	*jing3cha2*	*lai2*	*le0,*	*ba3*	*jie2fei3*	*dai3zou3*	*le0.*
then	policeman	come	PFV	BA	robber	take away	PFV

"Then the policeman came and took the robber away."

Sentences (3d), (3e) and (3f) list those serial verb constructions with a Manner verb.

    d.   M + P + D

父亲忽然间把他的手杖往河里边扔过去，然后那条小狗就迅速地<u>跑过去</u>把那手杖叼回来. (IC 117)

Fu4qin1	*hu1ran2jian1*	*ba3*	*ta1de0*	*shou3zhang4*	*wang3*
father	suddenly	BA	his	cane	to

he2	*li3bian1*	*reng1*	*guo4*	*qu4,*	*ran2hou2*
river	in	throw	pass	go	then

na4	*tiao2*	*xiao3*	*gou3*	*jiu4*	*xun4su4*
that	CL	small	dog	then	quickly

de0	*pao3*	*guo4*	*qu4*	*ba3*	*na4*
AdvM	ran	pass	go	BA	that

shou3zhang4	*diao1*	*hui2*	*lai2.*
cane	hold in mouth	return	come

"Suddenly, father threw the cane into the river and then the small dog ran to it quickly and held it back

with its mouth."

e.   M + P

这个时候，一个人闯进了银行. (HC 214)

Zhe4ge4	*shi2hou4,*	*yi1*	*ge4*	*ren2*	*chuang3*	*jin4*	*le0*	*yin2hang2.*
this	time	one	CL	person	rush	enter	PFV	bank

"At this time, a person rushed into the bank."

f.   M + D

就看那个他们的那条爱犬飞快地向海中心<u>游去</u>. (IC 119)

Jiu4	*kan4*	*na4*	*ge4*	*ta1men0*	*de0*	*na4*	*tiao2*
then	see	that		their	GEN	that	CL

ai4	*quan3*	*fei1kuai4*	*de0*	*xiang4*	*hai3*	*zhong1xin1*
beloved	dog	quickly	AdvM	towards	sea	centre

you2	*qu4.*
swim	go

"Then it can be seen that their beloved dog swam to the centre of the sea quickly."

Sentences from (3g) to (3j) are examples of serial verb constructions without a Manner verb.

g.   P + D

结果就<u>出来</u>了一只猫头鹰. (IC 117)

Jie1guo3	*jiu4*	*chu1*	*lai2*	*le0*	*yi1*	*zhi1*	*mao1tou2ying2.*
result	then	exit	come	PFV	one	CL	owl

"As a result, an owl came out."

h.   P + P

好不容易小宝<u>回到</u>了自己的房间. (IC 101)

Hao3	*bu1*	*rong2yi4*	*xiao3*	*bao3*	*hui2*	*dao4*	*le0*	*zi4ji3*	*de3*	*fang2jian1.*
fairly	not	easy	small	child	return	arrive	PFV	own	GEN	room

"The child finally went back to his room."

i.   P +P +D

当蜂巢<u>掉下来</u>的时候，小黄还没有意识到它已经处于危险之中. (IC 126)

Dang1	*feng1chao2*	*diao4*	*xia4*	*lai2*	*de0*	*shi2hou4,*	*Xiao3 Huang2*
when	bee hive	fall	descend	come	NOM	time	Xiao Huang

hai2	*mei2you3*	*yi4shi2dao4*	*ta1*	*yi3jing1*	*chu3yu2*	*wei1xian3*	*zhi1zhong1.*
yet	not	realise	it	already	exist	danger	in

"When the bee hive fell down, Xiao Huang did not realise that it was already in danger."

j.   P + P + P

一家人欢快地<u>进入到</u>了饭馆里. (IC 108)

Yi1jia1 ren2	*huan1kuai3*	*de0*	*jin4*	*ru4*	*dao4*	*le0*	*fan4guan3*	*li3.*
family members	happily	AdvM	enter	enter	arrive	PFV	restaurant	in

"The family entered the restaurant happily."

As can be illustrated in the previous examples, there are normally three verbal components in a serial verb construction, while there are cases that more than three Motion verbs are used together without any interruptions. For example in (3k), the serial verb construction consists of M + P + D + P + P. In such cases, the construction can be treated as a combination of two serial verb constructions of M + P + D and P + P.

k. 于是它就静悄悄地从瓶子里爬出来溜走了. (HC 228)

Yu2shi4	*ta1*	*jiu4*	*jing4qiaoqiao1*	*de0*	*cong2*	*ping2zi0*	*li3*
so	it	then	quietly	AdvM	from	bottle	in

pa2	*chu1*	*lai2*	*liu1*		*zou3*	*le0.*
climb	exit	come	sneak off		leave	PFV

"So it stealthily climbed out of the bottle and sneaked off."

Another point to notice is that some verbs in Chinese are polysemic; therefore it is necessary to distinguish whether they are Manner verbs, Path verbs, Cause of Motion verbs, non Motion verbs or even other parts of speech rather than verbs on the basis of the contexts in which the words are used. For example, 闯 *chuang3* "rush" in (4a) is a Motion verb and in (4b) is not.

(4) a. 他突然被一个闯进银行的人绊倒了. (IC 115)

Ta1	*tu1ran2*	*bei4*	*yi1*	*ge4*	*chuang3*	*jin4*	*yin2hang2*	*de0*	*ren2*	*ban4dao3*	*le0.*
he	suddenly	BEI	one	CL	rush	enter	bank	NOM	person	stumble	PFV

"He was stumbled over by a man rushing into the bank."

b. 小青蛙一看闯了祸, 就赶快逃跑呀. (IC 106)

Xiao3	*qing1wa1*	*yi1*	*kan4*	*chuang3*	*le0*	*huo4,*
small	frog	once	see	cause	PFV	trouble

jiu4	*gan3kuai4*	*tao2pao3*	*ya0.*
then	hurry	escape	interj

"Seeing that it had caused some trouble, the small frog escaped in a hurry."

The word 飞 *fei1* is a Manner verb in (5a) with the meaning of "fly" and it is an adverb with the meaning of "fast" in (5b).

(5) a. 因此蜜蜂全都飞了出来. (HC 218)

Yin1ci3	*mi4feng1*	*quan2dou1*	*fei1*	*le0*	*chu1*	*lai2.*
so	bee	all	fly	PFV	exit	come

"So all the bees fly out."

b. 这时候小狗就飞快地跑过去. (IC 130)

Zhe4	*shi2hou4*	*xiao3*	*gou3*	*jiu4*	*fei1*	*kuai4*	*de0*	*pao3*	*guo4*	*qu4.*
this	time	small	dog	then	fast	quickly	AdvM	run	pass	go

"At this time, the small dog ran to it quickly."

走 *zou3* means "walk" in (6a) and it means "leave" in (6b), so it is a Manner verb in the former sentence and it is a Path verb in the latter.

(6) a. 小比特走到自己的房间. (IC 107)

Xiao3	*Bi3Te4*	*zou3*	*dao4*	*zi4ji3*	*de0*	*fang2jian1.*
small	Peter	walk	arrive	own	GEN	room

"Small Peter walked to his own room."

b. 然后一家人就气呼呼地走了. (IC 104)

Ran2hou4	*yi1jia1ren2*	*jiu4*	*qi4hu1hu1 de*	*zou3*	*le0.*
then	whole family members	then	angrily	leave	PFV

"Then the whole family left angrily."

Similarly, 翻 *fan1* is a Manner verb in (7a). It functions as a Path verb in (7b). The difference is that the first 翻 *fan1* in (7b) follows a neutral verb 打 *da3* "strike" and the second 翻 *fan1* functions independently as a Path verb.

(7) a. 他悄悄地翻过了那根枯木. (HC 225)

Ta1	*qiao1qiao1*	*de0*		*fan1*	*guo4*	*le0*
he	quietly	AdvM		climb over	cross	PFV

na4	*gen1*	*ku1*	*mu4.*
that	CL	rotten	wood

"He climbed over that rotten wood quietly."

   b. 座位和桌子都被打翻了，酒杯也翻了. (IC 112)

Zuo4wei4	*he2*	*zhuo1zi0*	*dou1*	*bei4*	*da3*	*fan1*	*le0,*
chair	and	table	all	BEI	strike	topple	PFV

jiu3 bei1	*ye3*	*fan1*	*le0.*
wine cup	also	topple	PFV

"Both tables and chairs toppled over and the wine cups toppled over as well."

From the current literature, we can find that there is no agreement concerning the linguistic typology of Chinese. The serial verb construction in Chinese does attracts attention in the categorization.

2. The Present Study

2.1 Hypothesis

According to Slobin (2004, 2006), Chinese is an equipollently-framed language, which means that Manner and Path are expressed by equipollent elements in Chinese. In other words, Manner verbs and Path verbs are equal in formal linguistic terms and appear to be equal in force or significance (Slobin, 2004, p. 228). This proposal elaborates on Talmy's (2000) dichotomized typology, according to which Chinese is a satellite-framed language, in which Path verbs lose some features of independent verbs so that they often do not function as full verbs, and there is a small closed set of Path verbs. Slobin assumes that languages cannot easily be divided into dichotomized or trichotomized typologies: instead they should be placed "on a cline of Manner salience (Note 3). If Manner is salient in one language, such as English, language users will pay more attention to it and consequently the number of Manner verbs will increase in the process of language development.

In Chinese, Path verbs can stand alone as independent verbs and they have the same force and status as Manner verbs. It is hypothesized that Chinese speakers will strongly rely on serial verb constructions, in which Manner and Path are expressed by equivalent grammatical forms. However, in Chinese Manner is not as salient as in English; therefore it is also hypothesized that there will be less variation in Manner verb types in Chinese than in English. On the other hand, if Chinese is an equipollently-framed language, in which Manner and Path are both expressed with verbs which have a full lexical meaning, we can expect informants to make use of a great variety of Path verbs in the Chinese. In English by contrast, Path is more frequently expressed with satellites so that there is only a small closed set of Path verbs in this language. Consequently, Path verbs are more varied in Chinese than in English. The hypothesis can be summarised as follows:

Chinese speakers will rely strongly on serial verb constructions. The Manner verbs in Chinese stories will not be as varied as those in English stories while Path verbs are more varied in Chinese than in English.

2.2 Subjects

The subjects include 30 grade one (IC group) and 30 grade four (HC group) university students from Beijing Institute of Technology (BIT), who come from all over China, but all speak Mandarin as the first language.

2.3 Materials

The materials used include two father-and-son comics (Plauen 1976), which will be called the *Bank story* (story one) and the *Dog story* (story two). There are two additional frog stories (Mayer, 1969): *Frog, where are you*? (story three) and *Frog goes to dinner* (story four).

Frog, where are you? has been analysed in many Motion event research in many languages including English and Chinese (e.g., Berman & Slobin, 1994; Slobin, 1996, 1997, 2000;Chen, 2005). This material is adopted for the comparison with previous research. *Frog goes to dinner* (Mayer, 1969) is a book which depicts a lot of movements of the frog in the restaurant so that it provides an excellent material for the description of Motion events for every subject. Father-and-son comic strip about a *Bank story* (Plauen, 1976) has been used for the investigation of language proficiency and Motion events descriptions by several researchers, e.g., Daller, Van

Hout and Treffers-Daller (2003); Treffers-Daller, Özsoy and Van Hout (2007).

2.4 Tasks

Each subject was presented with a task explanation written in English to ensure every student obtained exactly the same instructions. The subjects were informed that they were going to tell stories based on materials from Mayer (1969) and Plauen (1976), and that these would be tape-recorded. The subjects were expected to tell the stories in as much detail as possible.

We gave an anonymous number to each subject and decided to split groups in half. The first half of the participants of both HC group and IC group, that is HC201-HC215 and IC301-IC315, told the story *Frog goes to dinner* and *Bank story*. The other half, that is HC216-HC230 and IC316-IC330 toll the story *Frog, where are you?* and *Dog story*.

2.5 Transcriptions and Coding

The stories were first tape-recorded and then transcribed by the investigator. Then the data were transformed into CHAT format, the transcription and coding format developed by MacWhinney (2000). The results were subsequently analysed with the help of statistical tools.

3. Results

Slobin (1997) proposes that regarding Motion event descriptions, satellite-framed languages possess a larger and more diverse lexicon of Manner verbs compared with verb-framed languages. And Manner verbs in satellite-framed languages are more fine-grained than those in verb-framed languages. The hypothesis consists of two parts: (a) Manner in Chinese does not receive the same salience as in English, and (b), Chinese speakers will strongly rely on serial verb constructions. To test this hypothesis, firstly, the types and tokens of both Manner verbs and Path verbs in all four Chinese stories are presented to illustrate the frequency and diversity of the Motion verbs in Chinese. Secondly, since Chinese speakers can express Motion both in the use of bare verbs and the use of serial verb constructions, a comparison between bare verbs and serial verb constructions is made to reveal to what degree Chinese speakers rely on serial verb constructions. This is interesting from a typological perspective because Chinese and English differ very much at this point. Thirdly, a further distinction is made among the different serial verb constructions on the basis of whether they contain Manner verbs or not.

3.1 Use of Manner Verbs

Eleven Manner verbs in the *Bank story* are used by Chinese native speakers (CC1). The frequency of the verb use reveals that the Manner verb 冲 *chong1* "dash" is employed with the highest frequency, and is twice as frequent as the Manner of Motion verb 跑 *pao3* "run". The word 冲 *chong1* "dash" indicates the rapid action of the movement, therefore it can reflect the movement of the robber into the bank more vividly as is depicted in picture 1 of the comic. Other words employed to describe the same scene include 闯 *chuang3* "rush", 奔 *ben1* "gallop", and 走 *zou3* "walk".

There are twelve types of Manner verbs in Chinese native speakers *Dog story* in Chinese (CC2). Speakers use 走 *zou3* "walk" and 跑 *pao3* "run" with similar frequency in this story. But these two words describe different scenes. When 走 *zou3* "walk" functions as a Manner verb in this story, it overwhelming describes the scene that the gentleman/father and son come to the bank of the river. 跑 *pao3* "run" describes the Motion of the dog into the river, while some speakers employ Manner verbs such as 游(泳) *you2(yong3)* "swim", 跳 *tiao4* "jump", and 冲 *chong1* "dash" to describe this scene.

There are 21 types of Manner verbs in story three *Frog goes to dinner* (CC3). The emphasis of the description is on the Motion of the frog; therefore subjects use a variety of Manner verbs in the description of the scene, which include 跳 *tiao4* "jump", 钻 *zuan1* "make one's way into", 跑 *pao3* "run", 躲 *duo3* "hide", 跃 *yue4* "jump", 蹦 *beng4* "jump", 冒 *mao4* "pop up", 藏 *cang2* "hide", 飞 *fei1* "fly", 爬 *pa2* "climb/crawl", 扑 *pu1* "throw oneself on", 蹿 *cuan1* "leap", 扎 *zha1* "plunge", and 滑 *hua2* "slide". 跳 *tiao4* "jump", 跃 *yue4* "jump", 蹦 *beng4* "jump", 蹿 *cuan1* "leap" have similar meanings in Chinese. According to the *Contemporary Chinese Dictionary (Chinese-English Edition)* (2002), 跳 *tiao4* means "jump, leap, bounce, skip"; 跃 *yue4* means "jump, leap, bounce, spring"; 蹦 *beng4* "leap, jump, spring", 蹿 *cuan1* means "leap up, leap forward", but the word 跳 *tiao4* "jump" is used with a much higher frequency than other words. 走 *zou3* is used as a Path verb rather than a Manner verb when it describes the Motion of the frog in this story because it follows other Manner verbs such as 跳 *tiao4* "jump" and 飞 *fei1* "fly" as in (8a) and (8b).

(8)　a.　小青蛙又飞走了. (HC 206)

Xiao3	*qing1wa1*	*you4*	*fei1*	*zou3*	*le0.*
small	frog	again	fly	leave	PFV

"The small frog flew away again."

　　b.　青蛙又高高兴兴地跳走了. (HC 209)

Qing1wa1	*you4*	*gao1gao1xing4xing4*	*de0*	*tiao4*	*zou3*	*le0.*
frog	again	happily	AdvM	jump	away	PFV

"The frog jumped away happily again."

There are 27 types of Manner verbs used in *Frog, where are you?* (CC4). The word 爬 *pa2* is used with the highest frequency in this story. It should be noted that this word has two translation equivalents in English, namely *climb* and *crawl*. Therefore it can denote both the Motion of moving upwards/downwards and forwards/backwards. For example, 爬 *pa2* equals to "crawl" in (9a) and it means "climb" in (9b). It can be widely used to describe the Motion of the boy, the dog, the frog, and the mole. 跑 *pao3* "run" appears with a relatively high frequency in this story as well because it can describe the Motion of a number of different protagonists—the boy, the dog, and the deer.

(9)　a.　但是却有一只地鼠从洞里爬了出来. (HC 218)

Dan4shi4	*que4*	*you3*	*yi1*	*zhi1*	*di4shu3*	*cong2*	*dong4*	*li3*	*pa2*	*le0*	*chu1*	*lai2.*
but	but	exit	one	CL	mole	from	hole	in	crawl	PFV	exit	come

"But a mole crawled out of the hole."

　　b.　小狗也爬上了窗户. (HC 216)

Xiao3	*gou3*	*ye3*	*pa2*	*shang4*	*le0*	*chuang1hu4.*
small	dog	also	climb	up	PFV	window

"The small dog also climbed up the window."

There are 36 types of Manner verbs in total. These words appear with different frequencies, with 跳 *tiao4* "jump" being used with the highest frequency followed by Manner verbs such as 跑 *pao3* "run", 走 *zou3* "walk", and 爬 *pa2* "climb/crawl". All these Manner words are very common in Chinese. Since *frog* is the main character in the two frog stories and 跳 *tiao4* "jump" is the most common way to describe its Motion, this explains the reason for the highest frequency of this word. On the other side of the frequency rank, seven words are only used once in the four stories, which indicates that they are not the common way to describe the Motion events in the four stories.

Table 1 provides all the Manner verbs in the four Chinese stories from 30 Chinese EFL learners (CC1234). There are 36 types of Manner verbs in total. These words appear with different frequencies, with 跳 *tiao4* "jump" being used with the highest frequency followed by Manner verbs such as 跑 *pao3* "run", 走 *zou3* "walk", and 爬 *pa2* "climb/crawl". All these Manner words are very common in Chinese. Since *frog* is the main character in the two frog stories and 跳 *tiao4* "jump" is the most common way to describe its Motion, this explains the reason for the highest frequency of this word. On the other side of the frequency rank, seven words are only used once in the four stories, which indicates that they are not the common way to describe the Motion events in the four stories.

Table 1. Manner verbs in the four stories of Chinese EFL learners (CC 1234) (36 types)

Order	Character	Pinyin	Meaning	Frequency
1	跳	*tiao4*	"jump"	199
2	跑	*pao3*	"run"	152
3	走	*zou3*	"walk"	109
4	爬	*pa2*	"climb/crawl"	104
5	钻	*zuan1*	"make ones way into"	75
6	冲	*chong1*	"dash"	54
7	躲	*duo3*	"hide"	31
8	飞	*fei1*	"fly"	31
9	奔	*ben1*	"gallop"	23
10	蹦	*beng4*	"jump"	20
11	跃	*yue4*	"jump"	18
12	冒	*mao4*	"pop up"	14
13	游(泳)	*you2yong2*	"swim"	12
14	绊	*ban4*	stumble	10
15	赶	*gan3*	"hurry through"	9
16	蹿	*cuan1*	"leap"	8
17	藏	*cang2*	"hide"	7
18	扑	*pu1*	"throw oneself on"	6
19	撞	*zhuang4*	"bump"	6
20	闯	*chuang3*	"rush"	6
21	遛	*liu4*	"stroll/walk an animal or a bird"	4
22	扎	*zha1*	"plunge"	3
23	滑	*hua2*	"slide"	3
24	浮	*fu2*	"float"	3
25	溅	*jian4*	"splash"	2
26	流	*liu2*	"flow"	2
27	攀	*pan1*	"clamber"	2
28	踩	*cai3*	"trample"	2
29	漂	*piao1*	"float"	2
30	翻	*fan1*	"climb over"	1
31	踏	*ta4*	"tread"	1
32	涉	*she4*	"wade"	1
33	跨	*kua4*	"stride"	1
34	趟	*tang1*	"wade"	1
35	乘	*cheng2*	"travel by vehicle"	1
36	迈	*mai4*	"stride"	1

3.2 Use of Path Verbs

The Path verbs used in the four Chinese stories can be categorised into three sub-groups according to the constructions they are used in the stories: (a) those only used in serial verb constructions but cannot stand alone

as main verbs, (b) those which can stand alone as main verbs but are not used in serial verb constructions, and (c) those which can be used both in serial verb constructions and stand alone. There are 16 types of Path verbs in story one (CC1), 14 in story two (CC2), 25 in story three (CC3), and 27 in story four (CC4). Concerning the use of Path verbs in CC1, 下 *xia4* "descend", 翻 *fan1* "topple", 起 *qi3* "rise", 入 *ru4* "enter", 转 *zhuan4* "pass on", and 回 *hui2* "return" only appear in serial verb constructions. 围 *wei2* "surround" stands alone as a main verb. 进 *jin4* "enter", 出 *chu1* "exit", 走 *zou3* "leave", 上 *shang4* "ascend", 摔 *shuai1* "fall down", 倒 *dao3* "fall down", 到 *dao4* "arrive", 掉 *diao4* "fall", and 过 *guo4* "pass" function both in serial verb constructions and stand alone. Among the Path verbs in CC2, 回 *hui2* "return" is used with the highest frequency and it is most frequently used following such verbs as 叼 *diao1* "hold in mouth", 捡 *jian3* "pick up", 送 *song4* "deliver", 衔 *xian2* "hold in the mouth", 拿 *na2* "hold". These verbs in Chinese are similar to verbs of conveyance in English (Berman and Slobin 1994), which constitute serial verb constructions with 回来 *hui2lai2* "return come". 下 *xia4* "descend" can also function alone as the main verb in story two. 开 *kai1* "part/open" and 离 *li2* are frequently used together, that is 离开 *li2kai2*, meaning "leave". There are some cases that 掉 *diao4* "fall/go away" appears in the first slot of a serial verb construction. 跟 *gen1* "follow" and 随 *sui2* "follow" are independent Path verbs. 起 *qi3* "rise" appears in the same construction of 回 *hui2* "return". 跑 *pao3* usually functions as a Manner of Motion verb, meaning "run", but it is a Path verb in this story, meaning "leave the original place". For example, in (10), 跑 *pao3* indicates that father and son leave their original place and come to the beach. It does not mean that they come here by "running".

(10)   父亲带着儿子还有他们的爱犬跑到沙滩上去遛狗. (IC 119)

Fu4qin1	*dai4zhe0*	*er2zi0*	*hai2you3*	*ta1men0de0*	*ai4*	*quan3*
father	lead DUR	son	also	their	beloved	dog

pao3	*dao4*	*sha1tan1*	*shang2*	*qu4*	*liu4*	*gou3.*
leave	arrive	beach	on	go	stroll	dog

"Father, son, and their beloved dog went to the beach to stroll the dog."

There are altogether 32 types of Path verbs in the four Chinese stories. They are categorised according to the construction types they are used in these stories. (11) are Path verbs that are used only in serial verb constructions; (12) are Path verbs that only stand alone as main verbs; and (13) are those that can be used in both constructions.

(11) (11 types)

溜 *liu1* "leave sneakily", 离 *li2* leave/part", 开 *kai1* "open/part" (Note 4), 入 *ru4* "enter", 散 *san4* "scatter", 跑 pao3 "leave", 坠 *zhui4* "fall", 绕 *rao4* "go around", 迂 *yu1* "bypass", 转 *zhuan4* "pass on", 起 *qi3* "rise"

(12) (4 types)

退 *tui4* "retrieve", 围 *wei2* "surround", 凑 *cou4* "approach", 跟 *gen1* "follow"

(13) (17 types)

到 *dao4* "arrive", 出 *chu1* "exit", 回 *hui2* "return", 进 *jin4* "enter", 下 *xia4* "descend", 过 *guo4* "pass", 掉 *diao4* "fall", 走 *zou3* "go away", 上 *shang4* "ascend", 摔 *shuai1* "fall down", 追/追逐 *zhui1/zhui1zhu2* "pursue" (Note 5), 逃 *tao2* "escape", 倒 *dao3* "fall down", 落 *luo4* "fall", 跌 *die1* "fall", 随 *sui2* "follow", 翻 *fan1* "topple"

To summarise, the number of Manner and Path verb types are 36 and 32 respectively in the four Chinese stories of Chinese EFL learners. The ratio of Manner versus Path verb types within total number of Motion verb types is 1.125:1 (36/32).

3.3 Serial Verb Constructions

As Chen and Guo (2008) have demonstrated, Chinese speakers rely strongly on the use of serial verb constructions to express Motion events rather than one single Manner verb, Path verb, or deictic Motion verbs. To investigate this, one scene is chosen from each of the four stories (see the appendix) and coded according to different Motion verb types: (a) single Manner verbs, (b) serial verb constructions with Manner verbs, (c) single Path verbs, and (d) serial verb constructions with Path verbs. These scenes chosen are very important for the development of the corresponding stories and therefore are described by most subjects. These scenes include

(i). Picture 1 in story one—robber goes into the bank

(ii). Picture 2 in story two—dog goes into the river

(iii). Picture 2 in story three—frog goes into the boy's pocket

(iv). Picture 2 in story four—frog goes out of bottle

In seven cases these four scenes are described by one single verb and in 85 cases by serial verb constructions. That is, the frequency of the use of serial verb constructions is as high as 92%, as against 8% percent of single Motion verbs.

The previous four scenes all involve a boundary crossing. If we turn to non boundary-crossing events, we can get the same result. For example, for the description of the scene that the frog falls on the saxophonist's head, where the frog does not cross a boundary, except for four cases in which the informants avoid expressing the event, all the Chinese speakers choose serial verb constructions rather than single Motion verbs.

5. Analysis and Discussion

To summarise, there are 11, 12, 21, and 27 Manner verbs and 16, 14, 25, and 27 Path verbs respectively in the four Chinese stories. There are 36 types of Manner verbs and 32 types of Path verbs in total in the four Chinese stories. This indicates that the types of Manner verbs are only slightly more varied than those of Path verbs. This can be explained by the high frequency of serial verb constructions in the four representative scenes of the four stories to encode Motion events rather than single verbs, which is 92% against 8%. The serial verb constructions include such types as M + P + D, M + P, M + D, P + D, P + P, P + P + D and P + P + P constructions. This indicates that Path verbs in serial verb constructions often take the second slot when used with a Manner verb or take the first slot when used with deictic Motion verbs. The serial verb constructions with a Manner verb amount to as high as 96%.

The study finds that the classification of Chinese as an equipollently-framed language as proposed by Slobin (2004, 2006, Hendriks et al. 2008) is more appropriate for the current study. It provides evidence that the lexicon of Manner verbs in Chinese is not as rich as English Manner verb lexicon, especially with respect to the second tier Manner verbs. Since Chinese possesses serial verb constructions, in which Manner verb and Path verb have equipollent status, there is a richer lexicon of Path verbs in Chinese than in English. According to Slobin (1996), if Manner (or Path) is always readily encodable in one language, speakers will pay more attention to it and in turn Manner (or Path) verbs will become even richer. Chinese, as an equipollently framed language, Manner and Path are equally expressed in serial verb constructions. Therefore, Chinese speakers will pay attention to both Manner and Path so that the range of Path verbs increases with time. The study supports Hypothesis that Chinese speakers rely strongly on serial verb constructions and that Chinese is on a lower rank in the cline of Manner salience than English.

6. Conclusion

The result provides evidence that Chinese speakers rely strongly on serial verb constructions, which is in accordance with previous research about Chinese (Chen & Guo, 2008). The Manner verbs in Chinese stories are not as varied as those in English stories, especially the use of second tier Manner verbs, whereas Path verbs are more varied in Chinese than in English. Considering that Path verbs can occur alone in Chinese and that the Chinese satellites listed by Talmy (2000) are optional, they cannot be regarded as satellites. Therefore, the present study provides evidence for Slobin's (2004) revised typology of treating serial verb languages as an equipollently-framed language (see also Hendriks at al. 2008).

Acknowledgements

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Notes

Note 1. Slobin (2006: 70) has made assessments of manner salience across languages from various aspects of language use, such as ease of lexical access, imagery and understanding of manner verbs, conversational use, child language acquisition, use in elicited oral narratives, use in creative fiction, translation of creative fiction, metaphoric extensions of manner verbs, etc.

Note 2. In the present study, following Slobin (2002), the words like *fall* and its equivalent 掉 *diao4* in Chinese are categorised as path verbs, while Chen and Guo (2008) categorise *fall* as a manner verb.

Note 3. Slobin (2006: 70) comes to this conclusion on the basis of assessments of manner salience across languages from various aspects of language use, such as ease of lexical access, imagery and understanding of manner verbs, conversational use, child language acquisition, use in elicited oral narratives, use in creative fiction, translation of creative fiction, metaphoric extensions of manner verbs, etc.

Note 4. 开 *kai1* is polysemic in Chinese. When used as a motion verb, it functions both as a cause of motion verb and a path verb. It appears in the second slot in serial verb constructions indicating separation or dissemination when it is a path verb.
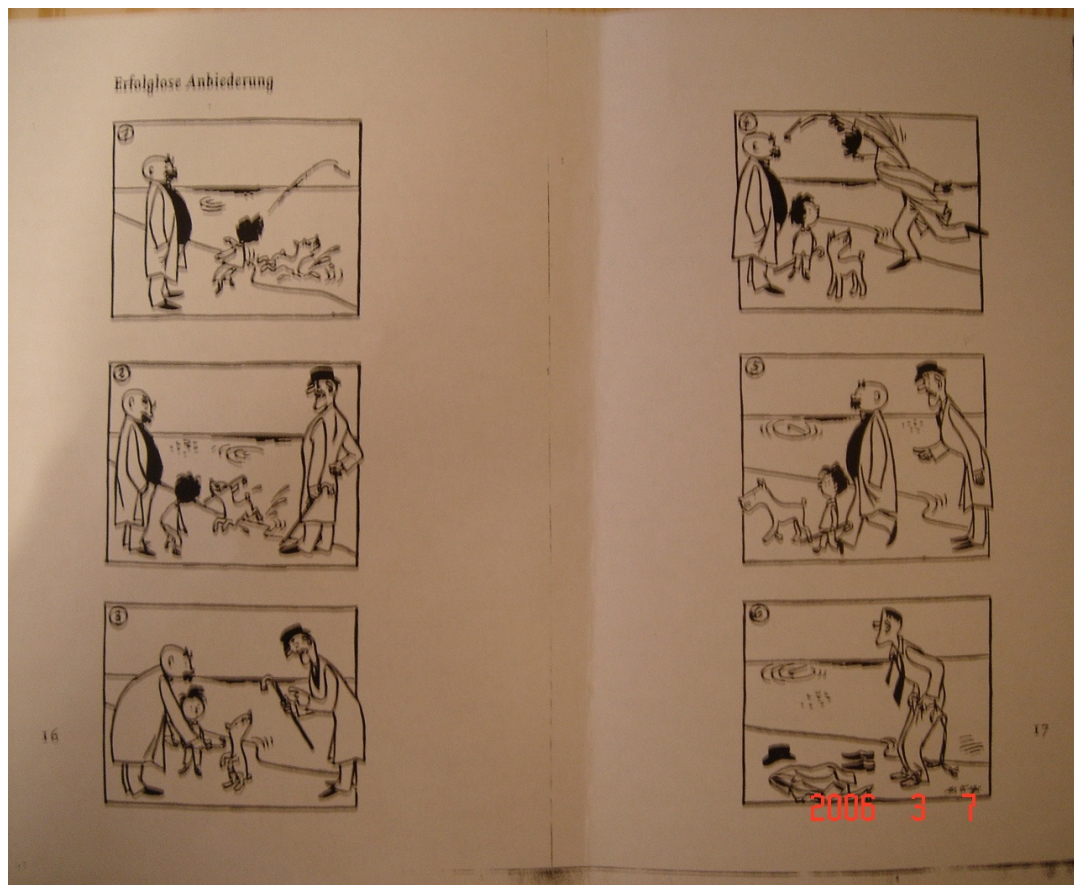
Note 5. 追逐 *zhui1zhu2* is a fixed phrasal verb treated as the equivalent of 追 *zhui1* meaning "pursue".

Appendices

Appendix 1. Bank story

Appendix 2. Dog story

Appendix 3. Picture 2 and 3 of Frog goes to dinner

Appendix 4. Picture 2 and 3 of Frog, where are you?

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