

EVENT CONCEPTUALIZATION AND GRAMMATICAL REALIZATION:
THE CASE OF MOTION IN MANDARIN CHINESE

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ABSTRACT

Observed within a fully-specified framework developed on the basis of Talmy's (1985/2000) 'Figure-Ground-Move-Path' formulation of motion, the conceptualization and grammatical realization of motion in Mandarin Chinese demonstrate a number of typologically significant properties.

When assigning the conceptual elements Figure and Ground of motion, Chinese exhibits a 'movability effect': The Figure role is regularly assigned to the entity standing higher in the experience-based 'movability hierarchy', while the Ground is assigned to the entity with the lower movability rating. The linguistic result of the conceptual contrasts between Figure and Ground is a saliency mapping relationship between these two conceptual elements, along with hierarchically organized syntactic roles in Chinese.

For packaging Path and Manner of motion with Move, both the satellite-framed pattern and the verb-framed pattern are available in Chinese. But the two patterns exhibit differences with regard to their construal, their communicative functions, and their applicability for expressing different types of motion events.

Path is the defining property for motion conceptualization and representation. The conceptual structure for Path consists of five components: Vector, Conformation, Dimension, Direction, and Perspective. In Chinese, Path properties can be expressed as verb complements, prepositional phrases, and main verbs of clauses; Deictic

Perspective is normally utilized in Path conceptualization and representation; Horizontal Path and certain Path Conformation are not expressed with complement verbs; ‘Non-Deictic + non-Deictic’ Path complement accumulation is not licensed in this language.

Satellite-framed lexicalization, which licenses [Manner + Move] conflation for a verb, has to observe the cross-linguistic constraint of inseparability between the relevant Manner and Move as well as certain language-specific limitations. The conflation constraints are stronger for Chinese than English.

Our findings concerning motion conceptualization and representation in Chinese clearly point to the basic tenets of cognitive linguistics, which views language as an experientially-based product of the human mind, and a reflection of how speakers of a language structure their perceptions of reality. The observations and findings also afford significant insights into motion expressions for Chinese L2 teachers and learners, thereby facilitating both teaching and learning.

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LIST OF ABBREVIATIONS

BA	pretransitive marker 把 <i>ba</i>
CL	classifier
DE	attributive particle 的 <i>de</i>
DUR	durative aspect 正 <i>zheng</i> /正在 <i>zhengzai</i> /在 <i>zai</i>
LE	perfective aspect 了 <i>le</i>
NP	noun phrase
PL	plural suffix 们 <i>men</i>
PP	prepositional phrase
ZHE	continuative aspect marker 着 <i>zhe</i>

CHAPTER 1

INTRODUCTION

This dissertation is a study of the conceptualization and linguistic representation of motion events in Mandarin Chinese. The focus is on the correlation between the ways in which Mandarin speakers conceptualize motion events in everyday experience and the ways in which they render them in this language. In this case study, I hope to demonstrate some of the ways in which language reflects our conceptualizations of the world.

In this chapter, I will briefly introduce the theoretical framework adopted in the present study, and elucidate the concept of motion and its role in human conception and language. In addition, I will sketch the scope and structure of this dissertation and introduce the data that I use for analysis.

1.1 Theoretical Stand

This study adopts the theoretical perspective of what has come to be known as ‘cognitive linguistics’, viewing language as both a product of the human mind and an instrument for construing experience and conveying information. In many respects, this study draws upon insights and proposals from various publications within cognitive linguistics extending over the past two decades, especially those by Talmy (2000 vol. I and II), Langacker (1987, 1991, 1999), Lakoff (1987), Lakoff and Johnson (1980, 1999), Jackendoff (1983, 1990), Goldberg (1995), Fillmore (1982,

1985), Fillmore *et al.* (2001), Fauconnier (1997), and Svorou (1994). I also draw upon certain insightful observations on the syntax-semantics interface made within the framework of lexical semantics and other paradigms as presented in such work as Levin (1993), Levin and Rappaport Hovav (1995) and Pinker (1989) in related discussions.

From the perspective of cognitive linguistics, the relationship between language and reality is mediated by human cognition. Human categories and constructions as realized in language are neither objectively manifested in the physical world nor external to human beings. They are largely motivated by our bodily and mental experiences of the world and the ways we perceive and conceptualize the world. There is not a direct correlation between language and the physical or objective world, as assumed in traditional truth-conditional semantics.

Furthermore, cognitive linguistics views language as an integral facet of human cognition sharing certain fundamental organizational properties with all other cognitive systems, such as perception, reasoning, attention, and affect. Linguistic categories and structural patterns reflect human ‘general conceptual organization, categorization principles, processing mechanisms, and experiential and environmental influence’ (Geeraerts, 1997: 7). Therefore, there is no need or justification for posting a separate module of language or autonomous syntax in the human brain, as postulated in contemporary generative linguistics.

As for the mediation of human cognition between language and the physical world, cognitive linguistics views language categories and structures as inherently

embodied and schematic. First, language categories and structures are embodied in nature. On the one hand, grammatical categories and constructions emerge from the structure of our early bodily experiences, which are generally pre-linguistic. On the other hand, based on the embodied experiences, our conceptual imagination plays a central role in establishing linguistic categories and structures. As noted in much recent literature, the conceptual imagination constitutes a fundamental part of the human language capacity. Imaginative conceptualizations, such as metaphorical projections, prototype and radial categorizations, windowing of attention, mappings between mental spaces, and conceptual blending are pervasive in language categories and constructions (see, for example, Lakoff and Johnson 1980, 1999, Johnson 1987, Lakoff 1987, Talmy 1996a, Fauconnier and Turner 1996, 1998a, and Fauconnier 1997). Second, language categories and structures are schematic in representing things and events in the physical world. It is neither necessary nor possible for a conceptualizer to perceive, or for language to render every detail of any referred thing or event in the real world. On the contrary, what the conceptualizer perceived and the language expressed is a schematized version of the thing or event. That is to say, the language speaker's conceptualization is selective. It systematically selects certain aspects of the referent thing or event and overtly rendered with certain language categories and structures, while disregarding the remaining aspects (Talmy 2000, I: 177, Langacker 1987: 68, Taylor 2002: 23). The schematization is based on our daily experience. Aspects which are prominent, repetitively appearing, or currently relevant in communication are prone to being perceived in cognition or focused in attention

and overtly expressed in language. Repetitively co-occurring aspects of experienced things or events form patterns in conceptualization and become language speakers' mental image schemas for those things or events, and are rendered in language as corresponding categories or constructions (Johnson 1987, Lakoff and Johnson 1999, Goldberg 1998).

Because of its conceptual grounding in bodily experience, grammar is anything but an autonomous module consisting of a set of formal rules. It functions as the core means for the construal of experience and the organization and communication of that experience. All valid grammatical constructs, including lexical, morphological, and syntactic categories and constructions have conceptual import. They are assemblies of symbolic structures (form-meaning pairings), 'consisting of patterns for imposing and symbolizing particular schemas of conceptual structuring' (Langacker 1998:2; see also Lakoff and Johnson 1999). Correspondingly, grammatical universals are more than just universals of form: they are universals of the symbolic relations pairing form and meaning. Moreover, conceptual universals such as primitive spatial relations, universal conceptual metaphors, and distribution patterns of attention constitute an important part of human language universals (see Lakoff and Johnson 1999:506, Talmy 2000, vol. I and II.).

Fundamental to cognitive linguistics is its recognition of our capacity for conceiving and portraying the same objective situation in alternate ways. It claims that the ways in which we conceptualize situations substantially determine the structures of grammar and the meaning of linguistic units. We are able, for example, to

conceptualize the same situation from different perspectives at varying levels of specificity with different deployments of attention over different parts of the situation (cf. Talmy 1988:194-195, Langacker 1998:3-11). Different languages demonstrate typological differences (and universals, of course) in conventional patterns of construal. A particular language may provide different options for presenting a given situation. There is no purely formal rule and no completely objective meaning in language, since there is no completely neutral or objective way of construing a situation. 'Our concepts cannot be a direct reflection of external, objective, mind-free reality because our sensorimotor system plays a crucial role in shaping them.' (Lakoff and Johnson 1999:44)

With the conception of language briefly outlined above, cognitive linguistics rejects notions of syntactic autonomy and any purely formal treatment of an assumed narrow core of language structure. It rejects the traditional objectivist paradigm which assumes a direct correspondence between real world entities and linguistic categories. Instead, it treats as central to linguistic study the analysis of the experiential and conceptual basis of linguistic categories and structures. Cognitive linguists seek to explain grammar in terms of basic human cognitive systems and abilities such as perception, attention, and categorization (see, for example, Lakoff 1987, Langacker 1987, Talmy 2000, vol. I and II). Since the experiential and conceptual basis of language structures determines that the formal structural patterns of language are themselves imbued with meanings (Goldberg 1998, Kay and Fillmore 1996), meaning plays a central role in the cognitive treatment of language structure. To 'show how

aspects of form can follow from aspects of meaning' is thus one primary goal of cognitive linguistics (Lakoff 1987:491).

1.2 Motion: The Concept and Its Role in Human Conception and Language

Motion is one of the earliest, most basic and most pervasive experiences in our life. We move around the world every day, and have been experiencing the movements of other entities ever since our early childhood (Johnson 1987).

The term 'motion' is an umbrella label. It covers a wide range of situations that involve changes of spatial configurations. In its prototypical sense, motion is understood as a change of location of an object with respect to other object(s) successively from one point to another along a spatial extent over a period of time, as shown in the sentence 珍珠从里屋走上阳台 *Zhenzhu cong liwu zou-shang yangtai* 'Zhenzhu went to the balcony from the back room.' The distinctive feature of this type of motion is the translation through space of the whole body of the entity under consideration, which Talmy (1985, also 2000 vol. II) calls 'translational motion.'¹

In contrast, an entity can also experience a 'self-contained motion' exhibiting dynamic spatial properties in the entity itself, but without displacement of its whole

¹ With the emphasis put on different facets of its conceptualization, translational motion has also been termed in different ways, such as 'spatial motion' (Langacker 1987: 176), 'locomotion' (Miller and Johnson-Laird 1976:529), 'linear motion' or 'locomotion' (Fillmore 1983), 'external motion' (Jackendoff 1991), 'extrinsic motion' (Kersten 1995), 'directed motion' (Fellbaum 1998), 'translative motion' (Tenny 1995), and 'transition motion' (Song 2002).

body. Situations of self-contained motion include rotary changes in orientation (e.g., 旋转 *xuanzhuan* ‘rotation’), to-and-fro changes in orientation (e.g., 摇摆 *yaobai* ‘sway’, 振动 *zhendong* ‘oscillation’, 颤抖 *chandou* ‘shudder’), changes in shape or size (e.g., 膨胀 *pengzhang* ‘expansion’, 收缩 *shousuo* ‘contraction’), and local wandering (e.g., 徘徊 *paihuai* ‘hover, lingering’) (cf. Talmy 2000, vol. II: 35, Miller and Johnson-Laird 1976: 529, and Fillmore 1983). In addition to translational motion and self-contained motion, the motion event family manifests certain more peripheral cases, such as bodily internal movements (e.g., 低头 *di-tou* ‘bow one’s head’, 弯腰 *wan-yao* ‘stoop’, 举手 *ju-shou* ‘raise the hand(s)’, 张嘴 *zhang-zui* ‘open the mouth’, 笑 *xiao* ‘smile’) and changes of posture (e.g., 站起来 *zhan-qilai* ‘stand up’, 躺下 *tang-xia* ‘lie down’, 蹲 *dun* ‘squat’).²

Within the big family of motion events, translational motion constitutes the central case or ‘best exemplar.’ Compared with other types of motions, translational motion has two important and distinctive properties. First, while every type of motion is common in our daily experience, translational motion is the most basic and most pervasive one.³ When we think of motion, translational motion is normally the type

² Motion, like most categories of human cognition and natural language, is also a prototypical category with the property of ‘family resemblance’ (cf. Section 3.2 of Chapter 3). Therefore, it is impossible for us to give a list of all and only motion types (cf. Miller and Johnson-Laird 1976:530). Some complicated situations will be touched on in later chapters.

³ One may think that bodily internal motion and changes of postures are also pervasive in our life. But self-contained motion is undoubtedly less basic and pervasive.

that immediately comes to mind, rather than, say, self-contained motion. Second, with regard to its spatio-directional features, translational motion demonstrates a clear, simple, and well-demarcated structure (Lakoff 1987: 278). With its change of locations in space, a translational motion event has a natural starting point to begin the motion, a clear path consisting of an intermediate sequence of locations to follow in the motion, an intended end point to stop the motion, and an inherent direction pointing from the starting point to the intended end point. This kind of spatio-directional structure is unique to translational motion.

Due to its pervasiveness in human experience and its well-understood spatio-directional structure, the way in which we perceive translational motion plays an especially prominent role in our conceptualization of the world. It is not only a fundamental domain of human basic cognition, but also a basis for understanding other conceptual domains, especially abstract domains. Our ways of talking about translational motion play an important role in imaginative representation and are mapped onto expressions representing other, more abstract situations, such as purpose, time, possession, change of state, love and marriage, life, and argumentation (see, for example, Jackendoff 1978, 1990; Lakoff and Johnson 1980, 1999; Johnson 1987; Lakoff 1987, 1993; Langacker 1990; Talmy 1996b, also 2000 vol. I, ch.5; Matsumoto 1996).⁴

⁴ For example, in Chinese, 新年就要来了 *Xinnian jiuyao lai le* ‘The New Year is coming’ exhibits a projection from translational motion to time; 中国正在逐步走向法治 *Zhongguo zhengzai zhubu zou-xiang fazhi* ‘China is gradually moving toward (a society) ruled by law’ shows an mapping from translational motion to change of state.

For linguists, motion provides an important window to look into human cognition and language. With translational motion as one of the most basic human concepts, all languages need ways to represent it and to project it onto other conceptual domains. As demonstrated in the pioneering work of Talmy (1975, 1983, 1985, 1991, etc.) and other following cross-linguistic studies (e.g., Slobin 1996, Svorou 1994), human languages demonstrate fascinating typological universals and differences in the ways translational motion is conceptualized and expressed.

In contrast to translational motion, self-contained motion does ‘not imply traversal of path’ (Jackendoff, 1990:88). Its internal change with regard to spatial relations is less clearly structured for perception.⁵ In our cognition, self-contained motion is normally summarily conceptualized from the outside. We usually do not (or cannot) pay the same kind of attention to its internal configuration.⁶ For this reason, self-contained motion is less suited to serve as a source domain for conceptual mapping and thus is less fundamental in the study of human conception and language. In fact, even in psychological and linguistic publications, most discussions of ‘motion’ confine themselves to ‘translational motion’ (cf. Goddard 1998: 200).⁷ In

⁵ For example, we cannot and usually do not identify where a rotation begins and at which point it stops.

⁶ Jackendoff (1990:88) considers verbs of self-contained motion to be ‘a sort not easily decomposable into features.’ They are ‘not the business of conceptual structure at all.’

⁷ Due to the human ability to construe a situation in different ways, movement through space in the physical world is not necessarily conceptualized and rendered in language as translational motion. For example, an event in which a person is running in a yard can be construed as a translational motion as in

the present study, as discussed above, my focus is also on ‘translational motion.’ Unless clearly indicated, the term ‘motion’ will be used in later chapters to refer to ‘translational motion.’ Other types of motion will be discussed when relevant phenomena are under consideration.

Because of the fundamental role motion plays in human cognition and its corresponding language organization, motion conceptualization and linguistic representation has drawn considerable attention in cognitive science and cognitive linguistics.⁸ Classic examples are the series of pioneering studies by Talmy (1975, 1983, 1985, 1988, 1991, 1996a, 1996b, 2000 vol. I and II) on the cognitive semantics of motion and space, the ground-breaking work by Miller and Johnson-Laird (1976) on language and perception, the discussions of the path schema and its importance in cognition by Lakoff and Johnson (Lakoff and Johnson 1980, 1999, Johnson 1987, Lakoff 1987), the basic work on conceptual semantics by Jackendoff (1983, 1990,

他跑到了院子中间 *Ta pao-dao le yuanzi zhongjian* ‘He ran to the center of the yard’, with the path of running being highlighted (in this sentence, 到院子中间 *dao yuanzi zhongjian* ‘to the center of the yard’ highlights the end part of the path). The event can alternatively be holistically viewed as a ‘process’ as in 他在院子里跑 *Ta zai yuanzi-li pao* ‘He is running in the yard’, without overt mention of the path. ‘Translational motion’ is a conceptual and linguistic category which does not directly express an ‘objective’ real-world scenario. I will go back to this point in detail in Chapter 4.

⁸ The term ‘cognitive science’ here refers to what Lakoff and Johnson call ‘the second generation’ of cognitive science, which assumes an ‘embodied mind’ and the experiential basis of human cognition. In contrast, the ‘first generation’ of cognitive science assumes ‘tenets of formalist analytic philosophy’, and centers on ideas about symbolic computation. See Lakoff and Johnson (1999: 75-78).

1991), Langacker's (1987, 1991) model of Cognitive Grammar (originally named Space Grammar), and the cross-linguistic study of the grammar of spatial relationships by Svorou (1995). The present study on motion cognition in Chinese draws heavily on these previous explorations.

1.3 The Scope and Arrangement of the Dissertation

The primary focus of this dissertation is to ascertain the cognitive processes of conceptualization of the basic type of motion event (i.e., translational motion) and the corresponding grammatical representation in Chinese. To achieve this goal, I will consider a framework for the analysis of motion conceptualization and expression, and examine in detail the conceptual structure and each component of motion as well as the linguistic realization of the structure and components in Chinese. The arrangement of this dissertation is as follows. In Chapter 2, I present a review of five different characterizations on motion proposed by Talmy (1983, 2000), Fillmore *et al.* (1997-2002), Jackendoff (1983, 1990), Langacker (1987, 1991), and Wierzbicka (1996) respectively. I show that Talmy's 'Figure-Ground-Move-Path' formulation exhibits a more comprehensive view on motion and is cross-linguistically more applicable. Thus it should be adopted as a good reference framework for the study of motion conceptualization and representation in Chinese. The next four chapters, Chapters 3, 4, 5, and 6 will be devoted to a comprehensive elaboration of the conceptual structure and constituents of motion and their grammatical realizations in Chinese. In Chapter 3, I address the contrasting properties of the Figure and Ground of motion in conception

and syntactic representation in Chinese. The underlying cognitive motivation for Figure/Ground assignment in Chinese is also explored in depth. Chapter 4 considers from the perspective of Chinese the typology Talmy has proposed in terms of the lexicalization pattern of the motion elements of Path, Manner and Move. In Chapter 5, I examine the concept of Path, and illuminate a new framework for a fully-specified treatment of the conceptual structure of Path. Many properties of Path conceptualization and representation in Chinese are discussed within this framework. Chapter 6 is an exploration of properties of Manner, the primary external element of self-motion. I particularly illustrate certain cross-linguistically observable or language-specific constraints on the lexicalization of Manner on linguistic surface. In Chapter 7, the last chapter, in addition to a summary of observations and findings made in this dissertation, I will also present a brief discussion of the implications of our findings for the teaching and learning of motion expressions in the Chinese as a Second Language classrooms.

1.4 The Data

This dissertation is not intended to be a corpus-linguistics-like investigation of the issue to be discussed. However, I believe that a suitable database of representative authentic language materials is very helpful for a comprehensive observation of the relevant phenomena in question. For this reason, besides using examples from the author's introspection or from previous linguistic work and Chinese dictionaries (such as Liu *et al.* 1998, Meng, Zheng *et al.* 1999 and Lü *et al.* 1980), I have also constructed

a computerized Chinese corpus as a major resource for the Mandarin data in the present study. This corpus consists of five types of written and spoken discourses of modern Mandarin Chinese varying from formal to casual styles. The size of the corpus is 3,013,992 characters.

The first type of discourses in the corpus is 45 stories and novels, amounting to 1,552,114 characters, written by 20 contemporary writers.⁹ The second type is newspaper articles, including all of the *People's Daily* articles of two days (July 7 and 9, 1998) and 182 sample articles from January and June 1994 *People's Daily*.¹⁰ The newspaper article data are 464,529 characters in total. The third type consists of 21 literary essays, totaling 156,247 characters. The fourth type of data comprises 43 scripts and transcribed dialogue discourses of motion pictures, TV plays and stage plays. Among these discourses, nine are full texts and 34 are fragments (about 1500 characters each).¹¹ They are 419,573 characters in total. The last type, the Beijing vernacular, contains transcriptions of dozens of casual spoken narratives by local Beijing people from various areas of the city of Beijing.¹² These narratives of Beijing vernacular were recorded and transcribed in the early 1980s, totaling 421,529 characters.

⁹ The 45 stories and novels were downloaded from two Internet Chinese libraries at www.xys.org and www.yifan.net in January 2000.

¹⁰ The 182 *People's Daily* sample articles were provided by Honglin Sun.

¹¹ This type of data was provided by Yu Li.

¹² This type of data was offered by Dekun Sun.

Besides the above data resources, for the purpose of discussing issues of acquisition and pedagogy of motion expressions in Chinese as a Second Language, I also utilize certain interlanguage instances drawn from the *Corpus of Chinese Interlanguage* by Chu and Chen *et al.* (1995) for analysis.¹³

Except for those directly borrowed from other linguistic works, examples appearing in the text are usually not specified with their origins. All Chinese examples used in this study are transcribed into *pinyin* romanization with English translations.

¹³ *Corpus of Chinese Interlanguage (CCI)*, known as 汉语中介语语料库系统 *Hanyu Zhongjieyu Yuliaoku Xitong* in Chinese, is a large collection of samples of L2 Chinese texts written by foreign Chinese learners on computer in order to observe learner language performance and the acquisition process. It comprises 1,731 texts, amounting to 1,041,274 Chinese characters. The corpus was built by Chengzhi Chu, Xiaohe Chen, Wangxi Zhang, Wei Zhang and Qi Zhu at the Beijing Language and Culture University from 1993-1995. The corpus is now a major resource for L2 Chinese studies.

CHAPTER 2

FORMULATION OF MOTION: FILLMORE, TALMY, LANGACKER, JACKENDOFF, AND WIERZBICKA

In Chapter 1, the concept of motion—prototypical motion—was defined as ‘a change of location of an object with respect to other object(s) successively from one point to another along a spatial extent over a period of time.’ For a more formal account of the image schema of motion, it is necessary to ascertain the structuring of the conceptual content of motion. To be specific, we need to identify what kinds of recurring aspects and patterns of motion are perceived through human cognition, and how those aspects and patterns are schematically construed and represented in language.

Traditionally, the motion schema has been characterized as a Source-Path-Goal configuration (Fillmore 1968, Fillmore *et al.* 1997-2002, Lakoff 1987, Johnson 1987, Lakoff and Johnson 1999, Radden 1988, among others). Talmy rejects this characterization, replacing it with his Figure-Move-Path-Ground formula. Talmy’s many cognitive semantics publications offer probably the most fully specified treatment of motion (1975, 1983, 1985b, 2000 vol.I, ch. 1, 3, & 5). A number of other proposals have also been presented, e.g., Jackendoff (1983, 1990), who argues for a function-argument organization in his conceptual semantic framework, Wierzbicka (1996), who argues for a ‘Natural Semantic Metalanguage’, and, of course, Langacker

(1987, 1991), who provides a specified characterization within the frame of his Cognitive Grammar.

In this chapter, I will review these five proposals, and examine their plausibility, especially their applicability for analyzing motion in Chinese.

2.1 Fillmorean Source-Path-Goal Formulation

The Source-Path-Goal formulation of motion is most closely associated with Fillmore's studies of the Deep Cases or Semantic Roles of noun phrases in a sentence (more accurately, of arguments to predicates) in the framework of his Case Grammar in the late 1960s (Fillmore 1968). At that time, Fillmore's goal was to provide a 'deep-structure valence description' of verbs in terms of the semantic roles of their associated arguments (Fillmore 1982). The semantic roles of the arguments associated with a verb form the 'case frame' for that verb. Source, Path, and Goal are three cases that Fillmore identified for verbs expressing movements.

Since the 1970s, Fillmore, recognizing that the 'theory of semantic roles fell short of providing the detail needed for semantic description', argued that, to understand the meaning of a verb (and other lexical item) one must first have knowledge of the conceptual structure of the experiences which the verb presupposes (Fillmore 1982). He refers to the conceptual structure presupposed by a word as the 'semantic frame' for that word. Along the line of understanding semantic relations in conceptual structure, Fillmore developed a theory of Frame Semantics (Fillmore 1982, 1985, Fillmore *et al.* 1997-2002).

In Frame Semantics, a particular word evokes a frame providing a specific coherent schematization of the experience or knowledge required for an understanding of the word. The word itself profiles (i.e., highlights or foregrounds) some element or aspect of that frame. This profiled component is called a ‘frame element’ (FE) of the particular frame.¹⁴ A frame usually motivates the existence of a set of lexical items, with each item profiling a different part (i.e., FE) of the frame (Fillmore *et al.* 1997-2002, Fillmore, Wooters and Baker 2001, Cristobal 2001).

In the current Frame Semantics framework, motion is treated as a fairly abstract and general frame. The motion frame specifies that ‘some entity (Theme) starts out in one place (Source) and ends up in some other place (Goal), having covered some space between the two (Path).’ Thus, the three semantic roles in Case Grammar, Source, Path and Goal, together with the Theme which profiles the entity that moves, are now four basic frame elements of motion. Following the description used in the FrameNet project by Fillmore’s research group (Fillmore *et al.*, 1997-2002), the four frame elements of motion are shown in the Mandarin examples below, with the frame elements in brackets in the examples:¹⁵

¹⁴ In Frame Semantics, a word which represents an element of a frame is not necessarily an NP. This is different from the Deep Cases in Case Grammar. See examples below.

¹⁵ FrameNet is a research project based at the University of California at Berkeley, with Charles Fillmore being the primary investigator. The goal of the project is to produce ‘frame-semantic descriptions’ of thousands of ‘English lexical items’ and back up ‘these descriptions with semantically annotated attestations from contemporary English corpora.’ The frame-semantic description of a lexical

Theme: Theme is the entity that changes location.

(1) 听到爆炸声, [人们]迅速跑开了。

Ting-dao baozha sheng, [renmen] xunsu pao-kai le.

Listen to explosion sound, people quickly run away LE.

‘As soon as they heard the explosion, the people ran away in a hurry.’

Source: Source is the location the Theme occupies initially before its change of location.

(2) 警察冲[出门], 向人群跑去。

Jingcha chong-[chu men], xiang renqun pao-qu.

Police rush out door, toward crowd run-go.

‘The policeman rushed away from the door, and ran toward the crowd.’

Path: Path refers to (a part of) the ground the Theme travels over or to a landmark the Theme travels by.

item ‘identifies the frames which underlie a given meaning and specifies the ways in which FEs, and constellations of FEs, are realized in structures headed by the word.’ (Baker, Fillmore, and Lowe 2002)

(3) (他)下了山岭，走[过一个村落]，便到了农场。

(Ta) xia le shanling, zou [-guo yi ge cunluo],

She go-down LE mountainside, go past one-CL village,

bian dao le nongchang.

then reach LE farm

‘She went down the hill, past a village, then came to the farm.’

Goal: Goal is the location the Theme ends up in.

(4) 小车驶[进小镇]，引起了人们的注意。

Xiao-che shi [-jin xiao zhen], yinqi le renmen de zhuyi.

Car drive into small town cause LE people DE attention.

‘The car drove into the small town, and attracted the attention of the
local people.’

In FrameNet, a general frame and a set of more specific frames form a ‘domain.’ In a domain, the general frame captures the basic conceptual structure (roughly, frame elements) that the specific frames of the domain have in common and ‘maps’ the basic conceptual structure onto each specific frame. On the other hand, the specific frames ‘inherit’ the conceptual structure of the general domain and, at the same time, demonstrate certain specific semantic-profilings besides the conceptual inheritance from the general frame.

Motion is identified as a general frame in FrameNet. It constitutes a ‘motion’ domain with 12 more specific frames: Arriving, Cause-to-motion, Cotheme, Departing, Emptying, Filling, Motion_Noise, Path-shape, Placing, Removing, Self-motion, and Transportation.¹⁶ Compared with the general motion frame, each of the 12 specific frames overtly profiles one aspect of a motion event, but they also share in common the basic semantic structure of the general motion frame. For example, in (5)

(5) 新娘子进了洞房。

Xinniangzi jin le dongfang.

Bride enter LE nuptial-chamber

‘The bride has entered the nuptial chamber.’

the verb 进 *jin* ‘enter’ semantically implies the existence of the Goal (i.e., 洞房 *dongfang* ‘the nuptial chamber’ in this sentence) of the motion. Therefore, it evokes an Arriving frame of the motion domain. Simultaneously, this verb triggers the activation of the conceptual structure of the general motion frame (i.e., the Theme-Source-Path-Goal configuration) as well. In this sense, the Arriving frame is seen as inheriting the basic motion frame and adds Goal-profiling to the semantic structure.¹⁷

¹⁶ For some reason that is unclear to me, ‘Motion_Noise’ in Fillmore (1997-2002) is not labeled as ‘Motion-noise’, a way more consistent with, for example, ‘Path-shape’.

¹⁷ To focus our attention on the general formulation of the conceptual structuring of motion, I will not go into details of the 12 specific frames listed in FrameNet at this point. Certain related issues will be discussed later.

In FrameNet, in addition to the four basic frame elements of motion—Theme, Source, Path, and Goal—the following ten frame elements are also identified in the specific frames of the motion domain (Fillmore *et al.*, 1999-2002):¹⁸

Area: Area is the setting in which the Theme’s movement takes place.

(8) 孩子们[在院子里]乱跑。

Haizi-men [zai yuanzi-li] luan pao.¹⁹

Children at yard-inside randomly run

‘The children are running here and there in the yard.’

Manner: Manner expression describes a property of motion which is not directly related to the trajectory of motion. Manner properties include speed, steadiness, grace, means of motion, and other things.

¹⁸ Besides these ten FEs, FrameNet also identifies another one, Self-Mover, which is the living being that moves under its own power. But Self-mover is not a new FE. It is simply a mapping of the Theme of the general motion frame onto the Self-motion frame and Co-theme frame, as is the case with ‘Pat’ in (6) and (7):

(6) [Pat] ran five miles today. (Self-motion frame)

(7) [Pat] accompanied me for five miles in a blue Toyota. (Cotheme frame)

¹⁹ Again, I follow Fillmore *et al* (1997-2002) here in my description of the frame elements and show them in the Mandarin examples with the frame elements in brackets.

(9) 夕阳正[缓慢地]坠向怒江西岸。

Xiyang zheng [huanman-de] zhui xiang Nujiang xi'an.
setting-sun DUR slowly fall toward Nujiang-river west-bank.
'The setting sun is falling to the western bank of the Nujiang River.'

Agent/Cause: Agent/Cause is the FE whose action causes the Theme to move.

Agent is generally the External Argument. ²⁰

²⁰ In Fillmore *et al* (1997-2002), Agent is listed as an FE for the frames of Cause-to-move, Emptying, Filling, Placing, and Removing in the motion domain (such as "Pat" in *[Pat] threw the china at the wall*, an example of the Cause-to-move frame), with Cause being separately recognized as an FE of the Motion_Noise frame (like "Pat" in *[Pat] thumped the books down on the table*). But in the explanations, Agent is defined as the FE whose action causes the Theme to move, and Cause is left undefined. It is hard to see the differences between the two in FrameNet according to the given explanations and examples (such as 'Pat' in the two examples above). Therefore, I simply combine the two here as one FE. However, as Roderick Jacobs taught me (personal communication, Dec. 2002), in some formulations of generative semantics, although the Agent is profiled as the responsible entity, it is the action she/he took or the state or process she/he was involved in that is the immediate Cause. Therefore, the sentence *[Pat] thumped the books down on the table* would have 'Pat' as the Agent and 'Pat's thumping the books' as the Cause (note that FrameNet treats 'Pat' as the Cause in this sentence and thus ignores the subtle difference).

(10) [一个老人]扔给她一块黑饼子。

[Yi ge laoren] reng gei ta yi kuai hei bingzi.

one CL old man throw to she one CL black cake

‘An old man threw her a black cake.’

(Cause-to-move frame)

(11) [Jo] clattered the plates into the sink.²¹

(Motion_Noise frame)

Distance: Distance is any expression characterizing the extent of motion of the Theme.

²¹ In Chinese, Motion and Noise are not packed into one lexical item as English does. Thus the Motion-Noise frame as characterized in FrameNet is not valid in Chinese. (11) here is the original English example used in Fillmore *et al* (1997-2002). The way in Chinese to express the meaning of (11) is like this:

(12) 乔把盘子噼里啪啦地扔进了洗碗池。

Qiao ba panzi pilipala-de reng jin le xinwanchi.

Qiao BA plate clatteringly throw into LE sink

‘Jo put the dishes into the sink clatteringly.’

Compared with (10), it is clear that *Jiao* in (12) should be considered as Agent but not Cause of the plates’ motion.

(13) 四连后撤了[二十米]。

Si lian houche le [ershi mi].

four company retreat LE 20 meter

‘The Company IV retreated by 20 meters.’

Driver: Driver is the being, typically human, that controls the Vehicle as it moves. Driver is an FE of the Transportation frame.

(14) [田平原]把大客车开进了科学院。

[Tian Pingyuan] ba da keche kai-jin le Kexueyuan.

Tian Pingyuan BA big bus drive-into LE science-academy

‘Tian Pingyuan drove the bus into the Science Academy.’

Cargo + Passenger: Cargo + Passenger is the goods or people being moved by a Driver in a Vehicle. Driver is also an FE of the Transportation frame.

(15) [行李]我们会用卡车运到北京。

[Xingli] women hui yong kache yun-dao Beijing.

Luggage we will use truck transport-to Beijing

‘As for the luggage, we will ship it to Beijing with a truck.’

Vehicle: Vehicle is the means of conveyance controlled by the Driver. It can move in any way and in any medium. Vehicle is also an FE of the Transportation frame.

(16) 这些年他开着[那辆破桑塔纳]走了不少地方。

Zhexie nian ta kai zhe [na liang po Santana] zou le bushao difang.

These year he drive-ZHE that CL broken Santana go LE not-few place

Driving that old Santana, he has gone to many places these years.'

Cotheme: Cotheme is the second moving object, expressed as a direct object or an oblique.

(17) 方书记陪[丈母娘]到县城看病去了。

Fang shuji pei [zhangmuniang] dao xiancheng kanbing qu le.

Fang secretary accompany mother-in-law to county-town see-illness go LE

'Secretary Fang has accompanied his mother-in-law to the county town to see doctor.'

Road: Road identifies the physical path of a motion. This is an FE of Path-shape frame.

(18) [游廊]从东门沿湖边延伸到万寿山下。

[Youlang] cong dongmen yan hubian yanshen dao Wanshou-shan xia.

Corridor from east-door along lake-side extend to Wanshou-Mountain below

‘The corridor extends from the eastern gate along the lake side to the
foot of the Wanshou Mountain.’

Scholars embracing the basic Source-Path-Goal formulation of motion include Hawkins (1985), Lakoff (1987), Johnson (1987), Lakoff and Johnson (1999), and Radden (1988), among others.²² Gruber (1976) also recognized the roles of Theme, Source, Goal, Path, and Direction in his study of ‘thematic relations’ involving ‘motional verbs.’²³

In a recent discussion, Lakoff and Johnson describe the Source-Path-Goal schema as having the following elements:

A trajector that moves

A source location (the starting point)

A goal, that is, an internal destination of the trajector

A route from the source to the goal

²² In Hawkins (1985), Source is called Origin; Goal is termed ‘Terminus’. In Lakoff (1987), Goal is called ‘destination’.

²³ Gruber (1976, Part I) originates from his 1965 MIT dissertation, which appeared before Fillmore’s (1968) work on Case Grammar.

The actual trajectory of motion

The position of the trajector at a given time

The direction of the trajector at that time

The actual final location of the trajector, which may or may not be the intended destination

Additionally, Lakoff and Johnson also point out the possible extensions of motion schema, including ‘a vehicle, the speed of motion, obstacles to motion, forces that move along a trajectory, additional trajectors, and so on.’ (Lakoff and Johnson 1999: 33)²⁴

Obviously, except for recognizing several new ‘elements’, Lakoff and Johnson’s trajector, source, route, and goal, are roughly translatable into the Fillmorean frame elements of Theme, Source, Path, and Goal. But Lakoff and Johnson separate ‘the position of the trajectory at a given time’ from the ‘route.’ The two are holistically labeled as Path in Fillmore’s FrameNet. A second noteworthy difference is

²⁴ Unlike many scholars whose research on motion primarily focuses on the motion conceptualization *per se*, Lakoff and Johnson are mostly interested in the nature and qualifications of the Source-Path-Goal schema as one of the most fundamental source domains for metaphorically mapping its conceptual structure onto the conceptualization of other more abstract domains. See Section 1.2 of Chapter 1 for relevant discussions and examples.

that Lakoff and Johnson highlight the ‘direction’ of the Theme’s moving at a given time as a separate element, which is not identified in FrameNet.²⁵

A closer examination of Fillmorean Frame Semantics reveals that several aspects of the characterization of the Source-Path-Goal formulation as shown in examples require further consideration. First, due to its methodology of identifying the frame elements which underlie a given word (mostly verbs), the frame-semantic description of the word does not explore the conceptual contents packed in the word itself. Fillmore basically carries on the spirit, developed in Case Grammar of finding semantic roles in ‘deep structure’ for a certain word. The given word is merely the starting point and focus of study. The task and goal of description are limited to finding the frame elements around this word and the ways these elements are expressed in sentences containing this word. But what kind of ‘frame element’ the word *per se* profiles is a question left untouched.

This limitation of frame-semantic analysis has two noticeable consequences. The first is that the ‘conceptual structure of experience or knowledge’ for a given word as described in FrameNet is only a partial picture. For example, for each specific

²⁵ With regard to the other four elements—the actual trajectory, position of the trajector, direction of the trajector, actual final location of the trajector, Lakoff and Johnson do not illustrate what exactly those elements refer to and what is the relation of each of the four elements to all the other elements. For this reason, I cannot discuss the statuses of these four elements within Lakoff and Johnson’s framework. But related issues will be touched on later.

frame of motion domain, the ‘fact of motion’ is undoubtedly a necessary and core ‘frame element.’ Without this element, a frame cannot be called a motion frame. However, because motion is usually indicated with verbs—the frame-evoking words—it is not identified as a separate frame element in FrameNet. In a similar spirit, although Manner, Vehicle and other FEs are recognized as separate frame elements for some motion frames, the frame-semantic description ignores their existence if they are incorporated in the meaning of verbs. The following example:

(19) Kim ran up the hill.

illustrates the Self-motion frame in Fillmore *et al.* (1997-2002). Obviously the frame-evoking verb *ran* overtly lexicalizes both the ‘fact of motion’ and the ‘manner (and/or speed, as compared with *walked* and *crawled*)’ of the motion. But according to the FrameNet treatment, only the Theme (foregrounded by the word *Kim*) and the Path (foregrounded by the phrase *up the hill*) are recognized as the profiled FEs in (17).

This problem with the complex Fillmorean Source, Path and Goal becomes even more obvious in languages which have polysynthetic verbs, such as Cora and Atsugewi. Cora is a Uto-Aztecan language spoken in a state of Mexico. In Cora, ‘paths can be part of the semantic representations of both verb stems and locative prefixes, no single one of which can be simply glossed “path” or “source” or “goal”’ (Casad 1993:634). A similar situation is also reported in Atsugewi, an Indian language spoken in Northern California (Talmy 2000: II, 199-206). In both Cora and Atsugewi,

the path, source, and/or goal elements of motion can be conflated into the verb root. In this case, if we do not analyze the conceptual contents represented in verb root, we have no way to access the motion frame, especially the ‘core elements’ of Source, Path and Goal evoked by the verb.

The second consequence of the limitation of frame-semantic analysis is the complexity it involves in describing motion events. As can be seen, the establishment of a frame in FrameNet is based on the frame-evoking words of the English language. For example, since English has ‘noise verbs’ used to characterize motion (such as *roar* in *The car roared out of the garage.*), then an independent Motion_Noise frame is established in FrameNet. Similar are the frames for Arriving, Departing, Path-shape etc. Establishing frame categories in this way makes it very difficult to provide adequate descriptions of the possible frames of a domain. Obviously, there are many more varieties of lexicalization patterns of verbs evoking motion than the twelve types associated with the twelve kinds of specific frames of motion listed in FrameNet. However, we cannot establish a specific frame for each particular type of motion verb. For instance, FrameNet establishes Arriving and Departing frames, but it does not have frame categories like Passing, Following, or Circling, for which we can give examples as in (20)-(22):

(20) 那条小河就流[过我家的庄稼地]。

Na tiao xiao he jiu liu [-guo wo jia de zhuangjia di].

That CL small river exactly flow-through I family DE cropland.

‘That river passes right through our farm.’

(21) 我们循着[小径] 走到山顶。

Women xun zhe [xiaojing] zou dao shan ding.

we along ZHE trail walk to mountain top

‘We followed the trail to the top of the hill.’

(22) 那颗卫星一直[绕着地球]飞行。

Na ke weixing yizhi [rao zhe diqiu] feixing.

That CL satellite always move-around ZHE earth fly

‘The satellite circles around the earth all the time.’

According to my understanding of the frame system of FrameNet, it is inappropriate to place the frames evoked by verbs like *pass*, *follow* and *circle* under any existing frame labels for motion.²⁶

More importantly, to establish frame categories based on lexicalization patterns of a specific language (such as English in FrameNet) also causes difficulty in cross-linguistic applications. For instance, Chinese has neither ‘noise verbs’ nor ‘path-shape’ verbs expressing motion (as in English sentences *The train **rumbled** through the tunnel* and *The old man **zigzagged** towards the gate*). However, Chinese does have

²⁶ Recall that the twelve specific frames of motion recognized in FrameNet are Arriving, Cause-to-move, Cotheme, Departing, Emptying, Filling, Motion_Noise, Path-shape, Placing, Removing, Self-motion, and Transportation.

ways to express the semantic contents of the corresponding English sentences, as exemplified in (23) and (24):

(23) 火车轰鸣着穿过了隧道。

Huochē **hongming-zhe** **chuan-guo** le suidao.

train rumble-ZHE pass-through LE tunnel

'The train rumbled through the tunnel.'

(24) 老人歪歪扭扭地走向大门。

Laoren **waiwai-niuniu de zou** xiang damen.

Old-man crookedly walk toward gate

'The old man zigzagged towards the gate.'

The following problem therefore arises for the frame-semantic analysis: Does Chinese have a Motion_Noise frame and a Path-shape frame? If we follow the frame-semantic analysis procedure, the answer must be negative since the verbal phrase 穿过 *chuan-guo* 'pass-through' in (23) does not evoke the 'noise' of motion, nor does the verb 走 *zou* 'walk' in (24) evoke 'path-shape.' However, this simple negative response is far from satisfactory. Even if we think that the conceptual content of the two Chinese sentences is not exactly the same as that of their English translational equivalents, the connections and correspondences between the sentences of the two languages are

obvious, and we need a way to explain these correspondences. In this regard, Frame Semantics lacks simple and clear devices for cross-linguistic analysis.

In short, due to its methodology of identifying frames and frame elements according to a given word (or phrase) and its lack of analysis of the conceptual content of the frame-evoking word itself, frame-semantic analysis presents problems for achieving descriptive adequacy, simplicity, and cross-linguistic applicability for characterizing motion.

A further aspect of the inappropriateness of the Source-Path-Goal formulation of motion is the coarse granularity of its three frame elements: Source, Path, and Goal. Consider these three examples from FrameNet:

(25) The policeman moved [away from the door].

(26) The scouts hiked [through the desert].

(27) The bus approached [the corner].

In FrameNet, the phrase *away from the door* in (25) is regarded as expressing the Source of the motion, *through the desert* in (26) expresses the Path of the motion, and *the corner* in (27) expresses the Goal of the motion. Notice that the three phrases in these three sentences demonstrate three different types of linguistic and conceptual complexity. *The corner* in (27) is an NP representing a simple conceptualization of location in space. *Through the desert* in (26) is a PP which activates at the concept level not only a physical place, but also a dynamic spatial relationship between an

implied object and that place. In (25), the phrase *away from the door* is more complicated. It consists of a particle *away* and a PP *from the door*. Conceptually this expression profiles a dynamic spatial relationship between an implied object and a place and also foregrounds the direction of motion.

The Fillmorean frame elements Source, Path and Goal encapsulate several different types of conceptual content under one term. They are conceptual complex but not basic ‘elements’ of motion. There are two problems with such conceptual complexes. First, their conceptual contents are not consistent with each other in different sentences. A Source (or Path or Goal) may only be a place; it may be a place and its spatial relation to a moving object; or it may also contain a directional elements, as in (25)-(27). Second, the Fillmorean frame elements Source, Path and Goal are difficult to use for the analysis of cross-linguistic data of motion. In Chinese, the spatio-directional specifics and a referent location or place of motion may be separately expressed:

(28) 大伙儿从院子里跑出来。

Dahuor cong yuanzi-li pao chulai.

crowd from yard-inside run out-hither

‘The crowd ran out of the yard.’

In (28), the spatio-directional specifics of the motion are separately expressed by the preposition 从 *cong* ‘from’ and the verbal-particle 出来 *chulai* ‘(come) out’. For the

English translational equivalent in (28), we may follow the Fillmorean system in treating the phrase *out of the yard* as expressing Source. Nevertheless, it is problematic to regard the separate Chinese expressions 从院子里 *cong yuanzi-li* ‘from the inside of the yard’ and 出来 *chulai* ‘(come) out’ in the sentence as jointly representing a single Source role.

2.2 Talmy’s Figure-Move-Path-Ground Characterization

The Figure-Move-Path-Ground formula is a different formal account of motion developed by Talmy within his cognitive semantics framework (1975, 1983, 1985b, 2000, vol.I, ch. 2, 3, & 5, vol. II, ch. 1). In Talmy’s system, Figure, Move, Path, and Ground are identified as four ‘internal’ components of a motion event. The Figure and Ground are a conceptual pair: ‘The Figure is a moving or conceptually movable object whose path or site is at issue. The Ground is a reference frame, or a reference object stationary within a reference frame, with respect to which the Figure’s path or site is characterized’ (2000, vol. II: 26).²⁷ The component Move ‘refers to the presence per se of motion or locatedness in the event’, i.e., the fact of motion or locatedness. The Path ‘is the path followed or site occupied by the Figure object with respect to the

²⁷ Talmy’s notions of Figure and Ground originated from Gestalt psychology which recognizes the figure/ground segregation of objects in a situation in terms of their prominence in human perception (cf. Boring 1950).

Ground object' (2000, vol. II: 25).²⁸ Besides the four internal components of motion, a motion event can be associated with some 'external co-event' components, most frequently the Manner or Cause of the motion.²⁹ To illustrate Talmy's notions of these motion elements, let us look at (29) and (30) below:

(29) a. The pencil rolled off the table.

b. The pencil blew off the table. (Talmy 2000, vol. II: 26, 4)

(30) a. 树叶飘到了地上。

Shuye piao-dao le di-shang.

leaf float-to LE land-on

'The leaves floated onto the land.'

²⁸ Notice that Talmy treats 'locatedness', i.e., maintenance of a stationary location as a type of 'motion event'. The motivation for this treatment is that, according to Talmy, a located state fits into the same 'Figure-Move-Path-Ground' conceptual schema of motion. In this dissertation, I depart from Talmy's investigation procedure in restricting my study to motion. I consider located state to share with motion only the rough 'skeleton' of the conceptual structure. Specifically, motion differs from location in significant respects, especially the directional and deictic properties of Path, the reference objects involved, and the mapping effect on abstract domains. Since inclusion of location is likely to involve different issues, it seems advisable to avoid complicating the analysis and therefore location is excluded.

²⁹ Talmy does not formally define the components of Manner and Cause in his discussions of motion. But it seems clear that he uses the two terms in accordance with the conventional understanding of the terms, i.e., roughly speaking, Manner is the way in which the Figure object moves, and Cause is the force that makes the Figure object move.

b. 树叶吹到了地上。

Shuye chui-dao le di-shang.

leaf blow-to LE land-on

‘The leaves were blown onto the land.’

In (29), *the pencil* is the Figure that moves. *The table* is the Ground, which remains stationary. *The pencil*’s motion is located against the ground of the table’s motionlessness. *Off* indicates the Path of *the pencil*’s motion. The fact of motion is expressed by the verbs *rolled* in (29a) and *blew* in (29b), with *rolled* also describing the Manner of motion in (29a) while *blew* indicates the Cause of the motion in (29b). Similarly, in the Chinese examples in (30), 树叶 *shuye* ‘leaves’ functions as the Figure and 地上 *di-shang* ‘land-surface’ as the Ground. The verbs 飘 *piao* ‘float’ in (30a) and 吹 *chui* ‘blow’ in (30b) specify the Move. Additionally, 飘 *piao* ‘float’ also describes the Manner, while 吹 *chui* ‘blow’ specifies the Cause. The complement particle 到 *dao* ‘to’ indicates the Path.

If we compare the Fillmorean Source-Path-Goal characterization of motion with Talmy’s formula, we see that Talmy’s Figure is roughly equivalent to Fillmore’s Theme. Both refer to the object that moves. However, Talmy’s analytical approach shows some distinct advantages. First, it provides a more comprehensive cognitive view of motion. In the previous section it was noted that the frame-semantic analysis of motion within the Source-Path-Goal framework ignored significant parts of the semantic content of the verb. Thus, the frame semantics model can offer only a partial

picture of the conceptual structure of motion. By contrast, in Talmy's system, all the conceptual content of a motion event is characterized, whether it is represented in the verb or whether it occurs in other parts of the clause. The analysis can, therefore, include intra-verb components such as Move, which would not be recognized as separate conceptual elements in the Fillmorean framework.

Secondly, Talmy re-analyzes the semantic contents of Fillmore's Source, Path and Goal, splitting each of the three elements into two: the Ground and the Path. The Ground 'functions as the reference object for a figural element.' The Path, in Talmy's sense, specifies the 'particulars of direction' of the motion (2000: I, 185). Talmy argues that the 'function as reference object' is a crucial spatial factor that Fillmore's Source, Path and Goal have in common. Thus it should be set it up in its own right as a separate notion, the Ground. In a similar spirit, the various directional specifics should also be 'abstracted out into an independent category', the Path (2000, vol. I: 339-341).³⁰

The basic relations between Fillmorean Source-Path-Goal formulation of the conceptual structure of motion and Talmy's Figure-Move-Path-Ground system can be represented as in Figure 2.1 below:

³⁰ In fact, besides directional properties, Talmy also includes the spatial configuration of Figure and Ground and deictic properties that motion involves in his most recent version of Path (2000, vol. I: 340-1). This point will be discussed later in Chapter 5.

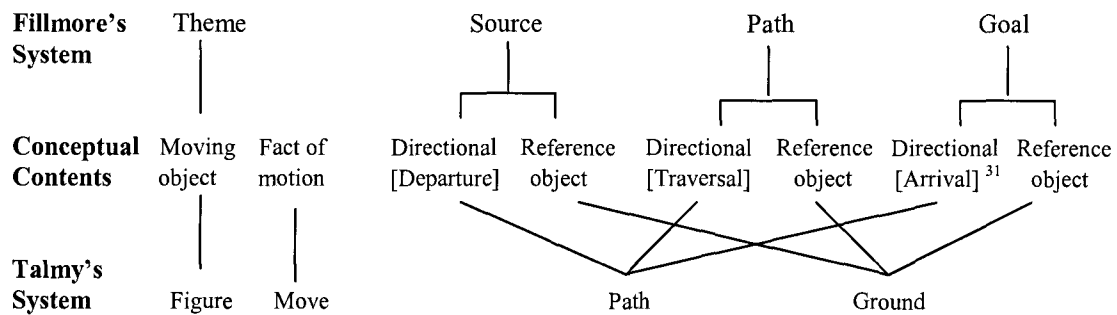


Figure 2.1 Comparison between Fillmore's and Talmy's Systems of the Conceptual Structure of Motion

Figure 2.2 further illustrates how these two systems apply to the same motion sentence:

³¹ [Departure], [Traversal], and [Arrival] in this figure mark three basic types of directional relations of motion. A reference object together with a departure property (i.e., functioning as the departure point of the motion) is equivalent to Fillmore's notion Source. A reference object plus a traversal property corresponds to Fillmore's Path. A reference object with an arrival property is Fillmore's Goal. In Talmy's system, these three directional types are a part of a small set of directional relations that may involved in motion. This is different from Fillmore's system which only recognizes these three types of directional relations as associated with Source, Path, and Goal.

Fillmore's System	我 从 旧金山 经 东京 飞 到 上海。 ³² <u>Wo</u> <u>cong</u> <u>Jiujinshan</u> <u>jing</u> <u>Dongjing</u> <u>fei</u> <u>dao</u> <u>Shanghai.</u> Theme Source Path Goal
Talmy's System	我 从 旧金山 经 东京 飞 到 上海。 <u>Wo</u> <u>cong</u> <u>Jiujinshan</u> <u>jing</u> <u>Dongjing</u> <u>fei</u> <u>dao</u> <u>Shanghai.</u> Figure Path Ground Path Ground Move Path Ground [Departure] [Traversal] (and Manner) [Arrival]

Figure 2.2 Application of Fillmore's and Talmy's Motion Systems

With its comprehensive cognitive view of motion and its abstracting out the commonality of 'reference object' and 'directional relation' that is involved in traditional notions of Source, Path and Goal, Talmy's analysis of the conceptual structure of motion provides insights not available to Fillmorean frame-semantic analysis. For instance, within the frame-semantic approach, the PP *toward the corner* in (31) and NP *the corner* in (32) are both analyzed as rendering the Goal. But the former phrase is obviously more complex than the latter, both on the linguistic surface and in the conceptual contents involved. In Talmy's system, the expression *the corner* in both (31) and (32) is designated as Ground and the preposition *toward* in (31)

³² The English translation for this example is:

我从旧金山经东京飞到上海。

Wo cong Jiujinshan jing Dongjing fei dao Shanghai.

I from San Francisco via Tokyo fly to Shanghai

'I flew to Shanghai from San Francisco via Tokyo.'

renders the Path. In (32), the Path is recognized as being conflated with the Move component in the verb *approached*.

(31) The bus drove toward the corner.

(32) The bus approached the corner. [= (27)]

Cross-linguistically, Talmy's system also overcomes the difficulty that Fillmorean formulation of motion faces when the same or similar conceptual content is realized in a way different from English, as is the case in Cora and Atsugewi where the Path, Source, and/or Goal elements of motion are conflated into a verb root (cf. 2.1 above).

2.3 Other Accounts: Langacker, Jackendoff, and Wierzbicka

In this section I will briefly discuss three other interesting approaches to motion conceptualization: Langacker's Cognitive Grammar, Jackendoff's Conceptual Semantics, and Wierzbicka's Natural Semantic Metalanguage (NSM).

Langacker (1987, 1991) characterizes motion in terms of a sequenced transformation of component states situated in time. Specifically, motion is defined as a mover m 's successive occupation of location l_1 at the time moment t_1 , occupying location l_2 at the moment t_2 , location l_3 at moment t_3 , and location l_n at moment t_n . The mover m 's occupation of different locations at different moments forms a continuous series. Correspondingly, a speaker conceptualizes a motion event through the cognitive operation of 'sequential scanning'. Thus, in Langacker's framework, the

temporal relationship involved in motion is crucial to the characterization of motion. This is an important feature of Langacker's treatment of motion.³³ Besides this, a second noticeable aspect of Langacker's framework is that it does not adopt traditional 'motion-specific' notions such as Source, Path, Goal or Direction to describe spatial-directional properties of motion. Instead, it relies on the general concepts of mover (trajector), time (moment and sequence), and location, together with the conceptualizer (cf. Langacker 1987: 145, 166-8).

Since motion is a change of location in time, the temporal property that a motion event demonstrates is no doubt a unique perspective for observing motion structuring. In this regard, Langacker is correct. Unfortunately, however, Langacker does not explain in detail how the temporal properties of motion are reflected in natural language, or how to analyze motion expressions of natural language from his temporal relationship perspective. Moreover, given that motion happens in time, spatial-directional characteristics—but not the temporal property—is in the last analysis the defining nature of motion. The reason is that not only motion, but also all other types of events evolve within a temporal dimension. In contrast, certain spatial-directional properties are uniquely demonstrated in motion events. Furthermore, from

³³ Prior to Langacker (1987), Miller and Johnson-Laird (1976:406) also highlight the 'time indices' of motion in their related analysis. They decompose motion into 'a sequence of AT relations:

$$AT(x, y_0), AT(x, y_1), \dots, AT(x, y_i), \dots, AT(x, y_n),$$

where the successive relata y_i constitute the path, and associated with each location y_i is a time index $t+i$.'

a conceptualizer's perspective, motion is perceived as a movement through space rather than movement through time. Langacker's proposal highlights a significant dimension for the construal of motion, but it is not adequate for a full analysis of motion conceptualization.

Now we turn to Jackendoff. Jackendoff's treatment of motion is distinct in his viewing motion structure as an instantiation of a more general and abstract conceptual structure and his function-argument formulation of the structure. In Jackendoff's conceptual semantics framework (1983, 1990), the general conceptual structure contains a set of abstract categories such as Thing, Event, State, Action, Place, and Path. These categories are basic conceptual 'parts of speech'.³⁴ To elaborate these conceptual parts of speech, Jackendoff develops a function-argument organization. The basic 'conceptual functions' include GO, STAY, FROM, TO, VIA, LET, CAUSE, and some others. (33) below is an example illustrating Jackendoff's function-argument structures:

$$(33) \left(\text{Event GO} \left([\text{THING}], \left(\text{Path} \left\{ \begin{array}{l} \text{FROM} \left(\left\{ \begin{array}{l} \text{THING} \\ \text{PLACE} \end{array} \right\} \right) \\ \text{TO} \left(\left\{ \begin{array}{l} \text{THING} \\ \text{PLACE} \end{array} \right\} \right) \end{array} \right\} \right) \right) \right)$$

³⁴ Jackendoff's conceptual semantics is committed to the existence of Chomskyan autonomous grammar. He regards the categories and function-argument organization of the abstract conceptual structure as innate and universal (cf. 1990, 1996).

(33) says that an Event-function GO takes two arguments, a Thing and a Path. The Path can be realized as a TO function or a FROM function (or both).³⁵ Both the TO function and the FROM function take one argument, which can be a Thing or a Place.

To apply this function-argument account to natural language, the ‘motion’ sentence *The train went from NY to LA* can be analyzed as (34) (Jackendoff 1996:108):

$$(34) \text{ [Event GO ([Thing TRAIN], \left[\begin{array}{l} \text{FROM ([NY])} \\ \text{Path TO ([LA])} \end{array} \right])] }$$

It is important to notice here that Jackendoff-style formulation in (33) is not for motion structure only. Jackendoff holds the view of ‘cross-field parallelism.’ That is, the Path category, the GO function, and other constituents of the conceptual structure are regarded as ‘ontological categories.’ They are ‘field neutral’ in conception. Besides Motion, they can also be mapped in parallel onto other different semantic fields, such as Possession and Ascription of Properties, as shown in (35) and (36) respectively (Jackendoff 1990:25):

(35) The inheritance went to Philip.

(36) The light went/changed from green to red.

³⁵ Of course, the Path can also be realized as other functions such as TOWARD and AWAY-FROM (cf. Jackendoff 1990:43). (33) is only a heuristic example. It does not reflect all the possible function-argument configurations of the GO event.

Motion is only one semantic field parallel to Possession, Ascription of Properties and other semantic fields. The structure of each semantic field is a parallel instantiation of the more abstract conceptual structure (1983: Chapter 10, 1996: 116). This view, as Jackendoff himself emphasizes on several occasions (such as in Jackendoff 1996), differs from that of many other cognitive linguists, for whom the structures of Possession and Ascription of Properties as exemplified in (35) and (36) are derived from the structure of Motion by metaphorical mappings (cf. Lakoff and Johnson 1999).

Whether conceptual structure is, in fact, as Jackendoff assumes, abstract and field-neutral, generalizing across diverse semantic fields, or whether physical motion conceptual structure is metaphorically extended to other domains as Lakoff claims is a controversial issue. It is not clear how Jackendoff's formulation would work for certain phenomena in Mandarin, for example. In Mandarin Chinese, Possession and Ascription of Properties, as exemplified in (35) and (36) in English, are not realized as a mapping in the sense of Jackendoff's GO function. The Mandarin expressions corresponding to (35) are sentences like (35') or (35''):

(35') 遗产归（了）菲利普。

Yichan gui (le) Feilipu.

inheritance belong-to (LE) Philip

'The inheritance belongs to Philip.'

(35'') 遗产给了菲利普。

Yichan gei le Feilipu.

inheritance give LE Philip

'The inheritance went to Philip.'

The verb 归 *gui* in (35') originally referred to a situation in which '[a woman] gets married (goes/returns to the man/her husband to whom she belongs)' in ancient Chinese. Later, it developed the meaning 'return'. This 'return' meaning may have some relation to Jackendoff's GO function. But the relation is not as straightforward as in English. Other conceptual and cultural factors are involved. With regard to (35''), as can be observed, Jackendoff's GO function is completely irrelevant.

The sentences corresponding to (34) are like (36') or (36''), with the latter being more colloquial and more acceptable:

(36') ? 灯从红的变到绿的。

? Deng cong hong-de bian dao lu-de.

light from red-DE change to green-DE

'The light changed from red to green.'

(36'') 红灯变绿灯了。

Hong-deng bian lu-deng le.

red-light change green-light LE

'The red light changed to green.'

Sentences (36') and (36'') show that, in Chinese, the light's change of color has to be expressed with the verb 变 *bian*, which simply means 'change'. It cannot be rendered with a verb with a meaning similar to English *go*. That is to say, even though (36') and (36'') express the corresponding Ascription of Properties as that of (36), they cannot be viewed as instantiations of the Jackendoff-style GO function.

In short, Jackendoff's view of the general GO function and its cross-field parallel mapping in Motion and other semantic fields faces the challenge of cross-linguistic application. Until this challenge is met, it seems more prudent not to treat motion (at least in Chinese) as a conceptual mapping of an assumed abstract GO function. Keeping this in mind, we are now at a point where we can discuss the plausibility and applicability of Jackendoff's function-argument account of motion expressions.

It seems that the general GO function Jackendoff assumes (and its cross-field parallel mapping) is the most distinctive aspect of Jackendoff's characterization of motion. If the existence of this general function is left aside, then his function-argument structure account of motion is essentially very similar to Talmy's Figure-Move-Path-Ground formula. This is clear from Jackendoff's formulation of the sentence *The train went from NY to LA* in (34). Jackendoff's GO event corresponds to Talmy's Move (or 'the fact of motion'), Jackendoff's Thing is labeled as Figure in Talmy's system, and Jackendoff's Path is essentially the same as Talmy's Path. The only difference between the two systems is that Jackendoff highlights the subcategories of Path (such as FROM and TO) and takes Talmy's Ground elements as

arguments of those subcategorical functions. Such a difference is hardly substantial. It is obviously forced on the analysis by Jackendoff's notation — his representation of the conceptual relations of an event in hierarchical function-argument structures.³⁶ In contrast, Talmy's formula bears a more straightforward relationship to motion expressions in natural language.

³⁶ The similarities between Jackendoff's and Talmy's characterizations of motion have been noted by Jackendoff himself as well as other linguists. Jackendoff (1996: 97) indicates that he has been 'deeply influenced by Talmy's (1978, 1980, 1983, 1985 [1988]) views on space, aspectuality, lexicalization patterns, and force dynamics.' Goddard (1998: 199) has pointed out that 'many of Talmy's ideas have been incorporated in the treatment of motion adopted by Ray Jackendoff (1983, 1990).' Jackendoff has revised his formulation of Motion several times over the years. The formula discussed in this section is presented in his influential 1983 work. In Jackendoff (1992), he decomposes the function TO as in (37):

(37) [Path TO ([X])] is decomposed as

$$\begin{array}{c} \text{1d DIR} \\ [\text{SpaceBDBY} + ([\text{Thing X}])] \end{array}$$

(37) is a representation of the construal structure of 'a one-dimensional piece of space that terminates at X.' '1d DIR' in this formula represents '1-dimensional directed (space)', and BDBY means 'bounded by.' Jackendoff's intention in making this revision was to posit a conceptual similarity between motion and inchoativeness, which is a one-dimensional directed situation that terminates at X, and thus to provide further support for his basic claim regarding the existence of a general abstract conceptual structure (cf. Jackendoff 1996: 107-108). As noted above, this assumption faces difficulties for the analysis of cross-linguistic data. So I will consider no further Jackendoff's decomposition of motion constituents.

Wierzbicka has also proposed a set of semantic primitives. She posits the existence of a 'Natural Semantic Metalanguage (NSM)' consisting of a set of the simplest possible expressions from ordinary natural language, which can be used to paraphrase meanings conveyed in the language. According to Wierzbicka (1996), the proposed NSM has several significant properties: First, elements constituting the NSM are a set of indefinable semantic primitives. It is not possible to find other expressions simpler and clearer to explicate their meaning any further. Second, NSM is adequate in description. That is to say, the elements of NSM form 'a complete lexicon for semantic analysis', and thus can 'faithfully portray the full meaning of the expression being analyzed' (Goddard 1998: Chapter 3). Third, NSM is a shared core (or universal) of all natural languages. In every language, there is a counterpart expression for each of the semantic primitives of NSM, thus one language-specific version of NSM (such as English, Japanese, or Chinese NSM) can be precisely translated into any other. And finally, explications made with NSM are reductive and very intelligible—to avoid circularity and obscurity and to achieve clarity and simplicity, no technical terms or logical symbols are allowed and only the simplest possible terms from ordinary natural language are used.

To achieve these goals of clarity and simplicity of explication, NSM primitives are very limited in number. There are only several dozen under about twenty

categories in the inventory proposed in Wierzbicka (1996: chapter 3).³⁷ Below are some of those categories and primitives:

Substantives: I, YOU, SOMEONE, PEOPLE, SOMETHING

Actions, Events, and Movements: DO, HAPPEN, MOVE

Existence: BE (THERE IS/ARE)

Determiners: THIS, THE SAME, OTHER

Quantifiers: ONE, TWO, SOME, ALL, MANY/MUCH

Time: WHEN, AFTER, BEFORE, A LONG TIME, A SHORT TIME, NOW

Space: WHERE (IN A PLACE); FAR, NEAR; UNDER, ABOVE; SIDE;
INSIDE; HERE

Interclausal linkers: BECAUSE, IF

Clause Operators: NOT, MAYBE

Now consider the three examples below to see how NSM is used to explicate motion expressions:³⁸

³⁷ According to Goddard (1998, Chapter 12), through trial and error investigation of many languages by Wierzbicka and her associates over more than thirty years in the past, the number of semantic primitives has increased from fourteen to sixty-odd.

³⁸ The examples are taken from Goddard (1998: 202-3), who is a major advocate and practitioner of research within the NSM paradigm. Obviously NSM explications as shown in the examples need not only semantically primitive vocabulary items but also a syntax. However, because the proposed

(38) X is moving away from A =

X is moving

if it moves in the same way for some time it will be far from A

(39) X is moving towards A =

X is moving

if it moves in the same way for some time it will be near A

(40) X moved from A to B =

X moved for some time

before this X was somewhere (place-A)

after this X was somewhere else (place-B)

From the explications in (38)-(40), we observe the following about NSM-style descriptions of motion: First, NSM paraphrases are made in simple natural English expressions (which consist of terms for semantic primitives in Wierzbicka's inventory). The grammar of the explications is also natural English grammar. Thus, those paraphrases are intelligible to ordinary English users. This conforms to the stipulated NSM principle for explication and can be viewed as an obvious advantage of this approach over other semantic/conceptual analysis frameworks. However, this

universal metasyntax 'is still in its early stages' (Goddard 1998:336), there is little to say now on this topic.

advantage is frangible. It is greatly discounted by the second feature—the basic strategy of NSM explication. As clearly shown in (38)-(40), the basic method of an NSM explication of a natural language sentence is to express the event that the sentence refers to in a different way in the NSM language. This method of explication has two serious problems. The first is that the explication changes the meaning or, to put it in another way, distorts the original conceptualization of the sentence. As it is widely recognized among cognitive linguists, ‘expressing a thing in a different way’ is essentially motivated by conceptualizing the thing in a different way (see, e.g., Langacker 1987). The thing at issue can be the same thing in reality, but it is not the same in conception if it is rendered differently in language. Thus the NSM explications are not conceptually or semantically equivalent to their corresponding sentences. For example, in (39), the natural English sentence *X is moving towards A* demonstrates a clear profiling of the direction of the mover’s motion with the word *toward*. However, this kind of direction-profiling cannot be found in the NSM explication *X is moving, if it moves in the same way for some time it will be near A*. Thus, the explication sentence cannot evoke the same motion conception as that of the original sentence. The same problem arises in (38) and (40). Obviously, this is not the ideal result that the NSM approach should expect. Related to the first problem, the second problem with the NSM explication is that one natural language sentence can be paraphrased in NSM language in different ways. For instance, in (38), the sentence of motion *X is moving away from A* can be paraphrased as *X is moving, if it moves in the same way for some time it will be far from A*. However, it seems equally acceptable if

the sentence is explicated in NSM as *X is moving, after its moving for some time it will not be at [the place] A*. As a semantic analysis system, if a single unambiguous sentence can be analyzed as having several different semantic representations, we have sufficient reason to doubt the plausibility of the system.

The above problems with the NSM methodology can also be observed in Chinese. For example, to follow Goddard's (1998) way as exemplified in (39), the motion sentence 他往村里走 *Ta wang cun-li zou* 'He is walking toward the village' in Chinese may be explicated as in (41):

(41) 他往村里走。 =

Ta wang cun-li zou =

he toward village-inside walk

'He is walking toward the village.'

他在走;

Ta zai zou,

he DUR walk

'He is walking.'

如果他像这样走一段时间, 他离村子就近了。

Ruguo ta xiang zheyang zou yiduan shijian, ta li cunzi jiu jin le.

if he like this walk a-period time he from village then near LE

'If he walks in the same way for some time, he will be near the village.'

In (41), the original Chinese highlights the direction of the motion with the preposition 往 *wang* ‘toward’, but, obviously, this highlighting is omitted from the NSM explication. Hence, we cannot say that the NSM explication made here ‘faithfully portrays the full meaning of the expression being analyzed.’ (Goddard 1998: Chapter 3)

In fact, the NSM approach faces additional challenges in analyzing motion in Chinese. For instance, in the NSM inventory, MOVE is identified as the semantic prime for expressing ‘movement’ (Wierzbicka 1996), viz. the motion event in our term. However, it is hardly possible to identify a counterpart in Chinese for this alleged semantic prime which is—according to the NSM standard—not only a simple and clear term in ordinary Chinese natural language but also precisely translatable into other languages.

In her effort to identify an inventory of semantic primes in Mandarin Chinese and then work through the full set of NSM hypotheses about universal grammar, Chappell attempts to show that the verb 动 *dong* in Mandarin Chinese is the corresponding expression for the claimed prime MOVE in English (Chappell 2002, which is a revised and enlarged version of Chappell 1994). It is true that 动 *dong* is a simple word in ordinary and natural Chinese and has the meaning of moving. Nevertheless, this is not the full picture. A more important fact is that 动 *dong* is basically a verb expressing non-translational motion. As Chappell herself notices, it ‘does not imply any change of location that involves movement towards a new

destination.’ (2002: 284) ³⁹ As a result, if Goddard can use MOVE to explicate a translational motion sentence in English like in (39), it is impossible for us to use the verb 动 *dong* to paraphrase a translational motion sentence in Chinese like (41). This also explains why none of the six examples Chappell provides to illustrate the semantic prime status of 动 *dong* in Mandarin express translational motion (Chappell 2002: 284-5), even though both Wierzbicka (1996) and Goddard (1998) use MOVE to explicate translational motion, which is more basic in human conception and language than other types of motions. ⁴⁰ Considering all these reasons, the proposal that 动 *dong* in Chinese is a semantic prime like MOVE in English is obviously unacceptable. ⁴¹

We could suggest that if 动 *dong* is not the semantic prime corresponding in Chinese to English MOVE, then perhaps we could substitute the verb 移动 *yidong*, which does express translational motion and is similar in meaning to MOVE in English. Unfortunately, while 移动 *yidong* carries the sense of translational motion in Mandarin, it is not a basic word from ordinary natural Chinese. I note that in addition

³⁹ For examples, in 那只老虎尾巴在动 *Na zhi laohu weiba zai dong* ‘The tiger’s tail is moving’, 动 *dong* expresses a bodily internal movement. In 你别动我的书 *Ni bie dong wo de shu* ‘Don’t touch my book’, 动 *dong* takes on the meaning of ‘touch’ or ‘use’. Neither of them suggests any translational motion.

⁴⁰ See Chapter 1 for discussion of the prototype nature of translational motion.

⁴¹ In Wierzbicka and Goddard’s NSM studies, they examine the status of each claimed semantic prime term by a ‘Trial and Error Test’, and explain how the claimed primes can be used to paraphrase expressions of the language. Unfortunately, this kind of test and demonstration is not used in Chappell’s discussion of Chinese. Thus, although Chappell (2002) provides a list of the ‘primes’ of Chinese she identified, it is still not clear how her primes can be used to explicate a Chinese sentence like (41).

to my own native speaker intuition about this, not one occurrence of 移动 *yidong* is found in the spoken Chinese data in my corpus.⁴² Thus, according to the NSM criterion that the semantic prime must be a simple term from ordinary natural language and intelligible to common speakers, 移动 *yidong* is not qualified to be the Chinese semantic prime corresponding to MOVE in English.

To conclude our discussions of NSM, the NSM approach to explication of motion expressions can distort the conceptual content of the original expressions, for both English and Chinese. Further, there exists no ideal counterpart in ordinary Chinese to the English semantic prime MOVE, no prime that can be used for an NSM-style paraphrase of expressions of motion in Chinese.

We have considered in this section three rather different approaches to an account of motion. Each highlights certain properties in characterizing motion. Langacker emphasizes the temporal feature of motion. Jackendoff attempts to establish a set of general conceptual functions along with cross-field parallelisms. Wierzbicka aims for clarity and simplicity of explication. However, each approach presents serious problems in actual application.

⁴² The spoken Chinese data in my corpus includes Type 4 scripts and transcribed dialogue discourses of motion pictures, TV plays and stage plays, and Type 5 Beijing vernacular. The two types of data amount to 841,102 characters. In fact, three examples of 移动 *yidong* did occur in the Type 4 data. However, all the three examples appear in the writer's narratives, but not in characters' dialogues. No occurrence of 移动 *yidong* was found in the Beijing vernacular data. For details of the corpus used, see Section 4 of Chapter 1.

2.4 Closing Remarks

In this chapter, I have reviewed five different approaches to the analysis of motion in language and conception, namely Fillmorean Source-Path-Goal formulation, Talmy's Figure-Move-Path-Ground characterization, Langacker's temporal perspective on mover's sequential change of location, Jackendoff's view of motion as a mapping of a general function-argument conceptual organization, and Wierzbicka *et al*'s semantic-prime style explication. All five approaches share a common view of language as an instrument for encoding human mind and experience.⁴³ In their analyses, motion expressions are taken as a reflection of the way in which humans construe conceptualized experience. Thus, semantics, as the result of human cognition of daily experience, is at the center of language analysis. As Jacobs has pointed out, semantics in all the five frameworks is treated as generative, rather than merely an interpretive satellite of certain formal properties, or syntax of linguistic expressions (R. Jacobs, Dec. 2002, personal communication).

Notwithstanding their shared stands, these five approaches differ with regard to level of descriptive adequacy, consistency and straightforwardness in analysis, and cross-linguistic applicability. Generally speaking, because of its methodology of

⁴³ Jackendoff does not regard himself as a cognitive linguist. However, he admits that he shares the fundamental understanding with cognitive linguists that language is a result of human conceptualization (Jackendoff 1996). In his own words, grammar is the 'evidence for conceptual structure', and 'semantic structure, the information that language conveys, is couched directly in terms of the human mind's organization of all experience.' (Jackendoff 1988)

identifying frames and frame elements according to a triggering word (or phrase) and also its failure to analyze the conceptual content of the word itself, Fillmorean frame-semantic analysis falls well short of descriptive adequacy and analytical consistency. It cannot provide a full picture of the conceptual frame at issue. Its frame elements—Source, Path, and Goal force different types of conceptual content under one term, inevitably causing inconsistency in description. As a result, the Source-Path-Goal formulation faces serious difficulties in cross-linguistic applications.

Langacker's view of motion highlights a unique angle for observation, that of temporality. However, motion is first experienced as an event taking place in space. Thus, Langacker's temporal perspective lacks a straightforward connection between conceptualization and language. Additionally, Langacker does not show how the temporal perspective can be applied to fully portray motion expressions.

Jackendoff's proposal of a general conceptual structure governing motion is distinctive. Yet, the assumed general GO function is implausible when applied to the analysis of certain phenomena in Chinese. This therefore renders dubious the existence of the general organizational scheme proposed and its various mappings. Besides, Jackendoff's framework is insufficiently detailed to handle all the complexities of motion expressions of a language, still lacks details for analysis.

The NSM framework by Wierzbicka *et al.* represents an attractive effort. Its major challenge comes from its somewhat distorted explication and its inability to identify satisfactory cross-linguistic counterparts for semantic primes.

In contrast, Talmy's framework provides a more fully-specified treatment of motion. It presents a more comprehensive view of motion conceptualization and language expressions. Talmy tries to account for all conceptual elements of a motion event. Moreover, Talmy observes that a conceptual element of motion may either be overtly realized as a language form or be unspecified. If overtly represented, the element can either be realized as a separate language form or be conflated with other element(s) in one form; this form can be either the main verb or another part of the expression. Therefore, Talmy's system not only provides a way to describe more fully and precisely the nature of motion conceptualizations, but also to maintain consistency in cross-linguistic application.

CHAPTER 3

FIGURE AND GROUND

In Chapter 2, we considered five different approaches to the analysis of motion in language and conception, namely Fillmorean Source-Path-Goal formulation, Talmy's Figure-Motion-Path-Ground characterization, Langacker's temporal perspective on mover's sequential change of location, Jackendoff's view of motion as a mapping of a general function-argument conceptual organization, and Wierzbicka *et al*'s semantic-prime style explication. We argued that, of the five frameworks, only Talmy's system provides a sufficiently well-developed mechanism capable of full treatment of motion, and cross-linguistically applicable.

Talmy's motion system was summarized in Chapter 2 as a Figure-Ground-Motion-Path formula, with Figure, Ground, Move, and Path being the four internal elements of a motion event, and Manner and Cause the most frequently associated external co-event elements.⁴⁴ Basically, the internal elements are regularly evoked together or co-evoke each other in motion conceptualization, whereas external

⁴⁴ Besides Manner and Cause, other external elements of motion discussed by Talmy include: Precursion as in *Glass **splintered** onto the carpet*, Enablement as in *I **grabbed** the bottle down off the shelf*, Concomitance as in *She **wore a green dress** to the party*, Concurrent Result as in *The door **slammed** shut*, Consequence as in *They **locked** the prisoner into his cell*, and Purpose as in *I'll **stop** down at your office (on the way out of the building)* (Talmy 2000, II: 42-47, 152-153).

elements are incidental in the sense that they may or may not be evoked in perception (Talmy 1996a).⁴⁵

This chapter focuses on the concepts of Figure and Ground—two internal elements in the conceptualization of motion. Other elements of motion will be considered in Chapters 5 and 6.

As a conceptual pair, Figure and Ground are linked opposites in cognition. As noted in Chapter 2, Talmy defined Figure and Ground as follows: ‘The Figure is a moving or conceptually movable object whose path or site is at issue. The Ground is a reference frame, or a reference object stationary within a reference frame, with respect to which the Figure’s path or site is characterized.’ (Talmy 2000, vol. II: 26)

In conception and as reflected in language representation, Figure and Ground

⁴⁵ The internal and external elements of motion are Talmy’s dichotomy of conceptual components of motion. Other approaches to motion make no such distinction. However, it is noteworthy that various ‘co-event’ elements have been recognized in works that take other approaches to motion. For example, as noted in Section 2.1 of Chapter 2, Fillmorean FrameNet identifies fourteen Frame Elements for motion: Theme, Source, Path, Goal, Area, Manner, Agent, Cause, Distance, Cargo/Passenger, Vehicle, Cotheme, Road, and Self-mover. Lakoff and Johnson (1999) also recognize route (from the source to the goal), speed, obstacle, etc. Obviously, not every conceptual element bears the same relationship to the motion event. Some of the relations are close and strong, others distant and weak. For example, every motion involves a mover (as labeled as Figure, Theme, or Trajector), but not necessarily a vehicle. Therefore, it is necessary and justifiable to recognize the differences between internal and external elements in characterizing motion events.

manifest systematic contrasts in the conceptualization of motion. In the first section of this chapter we consider their contrasts with regard to movability, a fundamental and intrinsic property of entities for Figure/Ground assignment in motion conceptualization. In the second section, the concept of movability will be further examined from the perspective of prototype theory. The third section is a discussion of event-dependent and temporary characteristics of Figure and Ground, while the fourth section is concerned with the ways the conceptual properties are reflected in the syntactic surface of Chinese.

3.1 The Movability Hierarchy and Figure/Ground Assignment

In motion conceptualization, the Figure is the moving object while the Ground is the landmark entity by reference to which the Figure's motion is perceived. According to this understanding, it therefore seems reasonable to assume that a prototypical Figure must be something that can move easily by itself through space. In contrast, a good Ground serving as the reference landmark of the Figure's motion should be something that stays in a fixed position. In other words, the more movable an entity is, the more suitable it is to serve as the Figure; the more stationary an entity is, the more appropriate it is to function as the Ground. Thus, what is involved for judging the appropriateness for an entity to be a Figure or a Ground is its property of 'movability'.

In terms of movability, everything in the world can be roughly divided into six distinct categories forming a movability hierarchy. The first category consists of

human beings and animals. As volitional movers, they can intentionally move to different places. Members of this category have the strongest capacity for movability. For example, 人 *ren* ‘(a) people’ can intentionally move any time to any place as desired.

The second category includes man-made transportation vehicles, such as 汽车 *qiche* ‘car’ and 飞机 *feiji* ‘plane’. Vehicles are not volitional objects. They cannot move volitionally, but as transportation vehicles they can move and adjust their course and destination via guidance and control devices. In other words, vehicles can undergo self-controlled motion.

The third category consists of natural autonomous movers, such as 雨 *yu* ‘rain’ and 烟 *yan* ‘smoke.’ In our experience, these phenomena are always moving. However, their movement is neither volitional nor self-controlled. They move in a way governed by nature’s laws, especially gravity. Thus 雨 *yu* ‘rain’ moves downward all the time, and 烟 *yan* ‘smoke’ always moves upward (unless the movement is influenced by other physical factors).

The fourth category includes non-self-mobile individual inanimate objects, such as 桌子 *zhuozi* ‘desk’ and 石头 *shitou* ‘(a piece of) rock.’ If an external force acts upon them, these kinds of objects can move through space. For instance, 石头 *shitou* ‘(a piece of) rock’ can be pushed so that it can roll down from a hill to a valley, and someone can carry 杯子 *beizi* ‘(a) cup’ from a cabinet to a table. Yet, unlike members of the third category, movement is not the intrinsic tendency of objects in this category. Without external causal agents, they cannot move autonomously.

The fifth category consists of various dependent but detachable objects. These kinds of objects are not physically independent, but are typically attached to other entities. Normally these kinds of entities remain in the same location all the time. However, when a strong external force acts upon them, such objects can be moved from one place to another. For example, 树 *shu* ‘(a) tree’ is a plant that is rooted in the earth. Physically, it is not independent of the earth. It is not able to move itself as 人 *ren* ‘people’, 汽车 *qiche* ‘car’, or 洪水 *hongshui* ‘flood’ can, and it is not as easily or frequently moved, like 杯子 *beizi* ‘cup’ or 桌子 *zhuozi* ‘desk’, by an external agent. However, with the application of a strong external force, it is possible to move 树 *shu* ‘(a) tree’ to a different location. This is the case when a tree is transplanted, or a hurricane whirls it into the air. Other examples of this category are 教堂 *jiaotang* ‘church’, 路标 *lubiao* ‘guidepost’, and 房子 *fangzi* ‘house’.

The last rank in the hierarchy is the category of dependent and non-detachable entities. Entities of this category are basically tightly attached to other entities, such as 山谷 *shangu* ‘valley’ to a mountain or the earth, 脸 *lian* ‘face’ to a person, and 屏幕 *pingmu* ‘screen’ to a computer display. They are intrinsically an inseparable part of the entity. Due to their inseparability, these kinds of entities cannot move or be moved to different locations relative to the entities they are attached to. They remain perpetually in a fixed position.

The movability hierarchy consisting of the six ranks of entities in the world is shown in Table 3.1 below:

RANK AND CATEGORY	EXAMPLE
1. Human and animal ⁴⁶	我 <i>wo</i> ‘I’, 张三 <i>Zhang San</i> ‘John’, 爸爸 <i>baba</i> ‘father’; 松鼠 <i>songshu</i> ‘squirrel’, 蜜蜂 <i>mifeng</i> ‘bee’, 大象 <i>daxiang</i> ‘elephant’ ...
2. Transportation vehicle	火车 <i>huoche</i> ‘train’, 飞机 <i>feiji</i> ‘plane’, 汽车 <i>qiche</i> ‘car’, 坦克 <i>tanke</i> ‘tank’ ...
3. Natural autonomous mover	雨 <i>yu</i> ‘rain’, 波浪 <i>bolang</i> ‘wave’, 河 <i>he</i> ‘river’, 汗水 <i>hanshui</i> ‘sweat’, 烟雾 <i>yanwu</i> ‘smoke’ ...
4. Non-autonomously-movable but independent inanimate	杯子 <i>beizi</i> ‘cup’, 桌子 <i>zhuozi</i> ‘desk’, 石头 <i>shitou</i> ‘rock’ ...
5. Dependent but detachable entities	房子 <i>fangzi</i> ‘house’, 路标 <i>lubiao</i> ‘guidepost’, 树 <i>shu</i> ‘tree’ ...
6. Dependent and non-detachable entities	海滩 <i>haitan</i> ‘beach’, 山谷 <i>shangu</i> ‘valley’, 公园 <i>gongyuan</i> ‘park’, 夏威夷 <i>Xiaweiyi</i> ‘Hawaii’, 太平洋 <i>Taiping yang</i> ‘Pacific Ocean’; 脸 <i>lian</i> ‘face’, (电脑) 屏幕 <i>(diannao) pingmu</i> ‘(computer) screen’ ...

Table 3.1 Movability Hierarchy

⁴⁶ In other semantic hierarchies proposed in previous literature, such as agentivity hierarchy (DeLancey 1981, Dowty 1991) and animacy hierarchy (Comrie 1981:186, Dixon 1994, Corbett 2000: 56), ‘human’ and ‘animate’ do not belong to the same rank. This is probably true with respect to the linguistic manifestations of agentivity and animacy. But, regarding the movability of the two categories, I find no grammatically-relevant distinctions in the conceptualization and linguistic realization of motion between them. Thus, the two are categorized together in one rank in this movability hierarchy.

It should be clear that the more volitional, self-controllable, and independent an entity is, the more movable it is. In contrast, the more dependent, less self-controllable, and less volitional the entity is, the less movable it is.

The movability hierarchy for Figure/Ground assignment has a pervasive effect in language representation. We can term this effect the ‘movability effect’. If any entity belongs to a high category in the hierarchical rank, it is appropriately and likely to be assigned as the Figure of motion but less appropriately and likely to serve as a Ground. Conversely, if an entity is a member of a low category then it is more likely to be conceptualized as the Ground rather than the Figure. Thus, members of Rank 1—human beings and animals—which stand at the top of the hierarchy are the best candidates for being the Figure, but the worst for being the Ground. In contrast, the Rank 6 dependent and non-detachable entities such as 公园 *gongyuan* ‘park’ and 夏威夷 *Xiaweiyi* ‘Hawaii’ are the most ideal Ground role players, but, except for hardly imaginable disasters, it is hardly possible for them to be the Figure.⁴⁷ For those categories in the middle, their members also demonstrate different levels of suitability for the Figure/Ground assignment corresponding to their ranking in the hierarchy.

Let us see how the movability effect is manifested in Chinese.

⁴⁷ Of course, as R. A. Jacobs points out, when used metaphorically, ‘Hawaii’ can be a Figure, as in *Hawaii has moved up to tenth position in the league table*. In this case, of course, ‘Hawaii’ is a social unit but not a physical existence (Jacobs 2004, personal communication).

(42) a. 蜜蜂飞进了后院。

Mifeng fei jin le houyuan. ⁴⁸

bee fly enter LE backyard

‘The bee(s) flew into the backyard.’

b. 后院飞进了蜜蜂。

Houyuan fei jin le mifeng.

backyard fly enter LE bee

‘As for the backyard, a/some bee(s) flew into it.’

(43) a. 车库进了水。

Cheku jin le shui.

garage enter LE water

‘As for the garage, water entered it.’

b. 水进了车库。

Shui jin le cheku.

water enter LE garage

‘The water entered the garage.’

⁴⁸ This example is from Professor Ying-che Li in a directed reading class.

(44) a. 小松鼠爬进了箱子里。

Xiao songshu pa jin le xiangzi li.

little squirrel climb enter LE box inside

‘The little squirrel climbed into the box.’

b. 箱子里爬进了一个小松鼠。

Xiangzi li pa jin le yi ge xiao songshu.

box inside climb into LE one CL little squirrel

‘Into the box, a little squirrel climbed.’

(45) a. 杯子掉到了地上。

Beizi diao dao le dishang.

cup fall to LE ground

‘The cup fell onto the floor.’

b. 地上掉了一只杯子。

Dishang diao le yi zhi beizi.

ground fall LE one CL cup

‘As for the floor, a cup fell onto it.’

Examples (42)-(45) are paired motion sentences. The two sentences in each pair involve roughly the same two participants. However, the two participants have different levels of movability and are arranged in reverse order in the two paired sentences. For instance, in (42), the two participants 蜜蜂 *mifeng* ‘bee’ and 后院

houyuan ‘backyard’ are ranked respectively in categories 1 and 6 in the movability hierarchy. In (42a), 蜜蜂 *mifeng* ‘bee’ is in the sentence’s initial subject position, and 后院 *houyuan* ‘backyard’ at the end as the object. In contrast to (42a), in (42b) 后院 *houyuan* is the subject and the 蜜蜂 *mifeng* the object.⁴⁹ The pair demonstrates a subject/object alternation.⁵⁰ However, when the two participants are switched in the subject/object positions in the two sentences, the Figure/Ground assignment for them in both (42a) and (42b) is the same: 蜜蜂 *mifeng* ‘bee’, the entity with higher movability is always the Figure, and 后院 *houyuan* ‘backyard’, the entity with lower movability is always the Ground. The same situation can be observed in (43)-(45). In (43), 车库 *cheku* ‘garage’ is a Rank 5 entity in the movability hierarchy, while 水 *shui* ‘(flowing) water’ is a Rank 3 member. Because of 水 *shui*’s higher ranking, it functions as the Figure in both sentences, with 车库 *cheku* being the Ground.⁵¹

⁴⁹ In some studies of Chinese grammar, clause-initial locational constituents such as 后院 *houyuan* in (42b) is treated as fronted topicalized objects or even as clause-initial adverbials. Following Zhu (1985), I regard this constituent as the subject of the clause in Chinese. Similar treatment can also be found in Chao (1968: 84). In English, sentences like *The bees swarmed in the garden* and *The garden swarmed with bees* share certain properties with (42a) and (42b) (Y.C. Li 2004, personal communication).

⁵⁰ The concept of ‘alternation’ used in this context is borrowed from Levin (1993, etc.) in the sense of different combinations of arguments and adjuncts in syntactic expressions referring roughly to the same event in reality.

⁵¹ It should be made clear here that even though the paired sentences in (42)-(45) may refer to the same event in reality, they are distinct with regard to conceptualization and communicative functions. Nevertheless, at this point, what we want to ascertain is this: The realized order reversion does not change Figure/Ground assignment, which is a further direct reflection of the movability effect.

Examples (42)-(45) demonstrate an important aspect the movability effect: The Figure and Ground of a motion permit subject/object alternation in the syntactic surface when the Figure object and the Ground object rank differently in the movability hierarchy. Compared with (42)-(45), example (46) below represents yet a different aspect of the movability effect.

(46) a. 我追上了汽车。

Wo zhui shang le qiche.

I chase up-with LE car

‘I caught up with the car.’

b. * 汽车追上了我。

* Qiche zhui shang le wo.⁵²

car chase up-with LE I

‘As for the car, I caught up with it.’

Unlike (42)-(45), in (46), the (b) sentence as the syntactic subject/object alternation of (a) sentence is not acceptable, even though the Figure and Ground of (46a) are also ranked differently. As we can see, 我 *wo* ‘I’ in (46a) as a person ranks at the top in the movability hierarchy, and 汽车 *qiche* ‘car’ is a vehicle and belongs to the

⁵² Note that for the purpose of comparison with (42)-(45), (46b) here is understood as a subject/object alternation of (46a), and paraphrased in English as ‘As for the car, I caught up with it.’ For the preferred understanding of (46b) in natural Chinese, see the discussion below.

second category. According to the movability effect discussed above, the unmarked option is to choose 我 *wo* 'I' as the Figure, and 汽车 *qiche* as the Ground. This option is realized in (46a). Nevertheless, (46b) raises a question for us: Why is the subject/object alternation as realized in (42)-(45) not acceptable in this case?

In fact, this apparent inconsistency is another type of reflection of the movability effect in grammar. As will become clear in Section 3.3, in syntactic constructions the subject slot is the preferred position for the Figure, while the other NP positions (object, complement, adjunct, etc.) are preferred positions for the Ground. But when an entity stands low in the movability hierarchy, it cannot serve as the Figure or undergo certain types of motion specified by the verb phrases of the motion sentences. In this case, the subject/object alternation does not influence the language user's understanding of it as the Ground. This is the reason why the subject/object alternation of the (a) sentences in (42)-(45) is possible. However, (46a) is different. The Ground element 汽车 *qiche* 'car' is also a high-ranked entity in the movability hierarchy. It can conduct the motion 追 *zhui* 'chase' as specified in the sentence. Thus, if 汽车 *qiche* 'car' takes the subject position which is assumed for the Figure, then the preferred understanding is that 汽车 *qiche* 'car' is the Figure. However, compared with the other participant 我 *wo* 'I' which stands in the top rank of the movability hierarchy, 汽车 *qiche* 'car' with its lower rank should play the Ground. Thus, 汽车 *qiche*'s occupying the subject position while playing the Ground role in (46b) causes a

conceptual contradiction; the sentence (46b) as the subject/object alternation of (46a) is not acceptable.⁵³

⁵³ Another situation in which the subject/object alternation is not permitted is when the Figure is given information represented with a definite NP. Look at (47):

(47) a. 老张跑进了后院。

Lao-Zhang pao jin le houyuan.

old-Zhang run into LE backyard

‘Old Zhang ran into the backyard.’

b. * 后院跑进了老张。

* Houyuan pao jin le Lao-Zhang.

backyard run into LE old -Zhang

‘As for the backyard, Old Zhang ran into it.’

In Chinese, the sentence pattern instantiated in (47b) is used to report an appearing (or disappearing) entity, which is assumed to be new information to the addressee. But in (47), 老张 *Lao-Zhang* ‘Old Zhang’ is an NP of high definiteness. Thus, it cannot be arranged into the clause object slot which is for the new information to be reported. As a result, even the Figure and Ground in (47) are ranked differently in the movability hierarchy as 蜜蜂 *mifeng* ‘bees’ and 后院 *houyuan* ‘backyard’ in (42), the subject/object alternation is still not acceptable. Nevertheless, the ill-formedness of (47b) is irrelevant to the movability effect; It is governed by the pragmatic principle regarding givenness of information in the sentence pattern at issue (cf. Liu et al 2001: 724, and many others). If we change the Figure to an indefinite entity, then the ill-formedness problem will not exist:

(48) a. 有个小偷跑进了后院。

You ge xiaotou pao jin le houyuan.

there-is CL pilferer run into LE backyard

‘A thief ran into the backyard.’

In natural Chinese, the preferred understanding of (46a) and (46b) is that the two sentences represent two different motion events in the real world, with (46b) being understood as ‘the car caught up with me’, in which 汽车 *qiche* ‘car’ is the Figure and 我 *wo* ‘I’ is the Ground. We can re-paraphrase this understanding as in (49):

(49) ? 汽车追上了我。

? Qiche zhui shang le wo.

car chase up-with LE I

‘The car caught up with me.’

Nevertheless, this preferred understanding of (46b) as explicated in (49) in modern Chinese is only acceptable in certain limited contexts, such as when the car is a police car and ‘I’ am suspected of having committed a crime. Beyond this kind of limited context, (49) is still problematic. The reason is found in the movability effect, which requires that the Figure possesses a higher rank than the Ground in the movability hierarchy.

b. 后院跑进了一个小偷。

Houyuan pao jin le yi ge xiaotou.

backyard run into LE one CL pilferer

‘(As for) the backyard, a thief ran into it.’

Compared with the problematic (49), (50) below is a well-formed sentence since the syntactic object position is replaced with 摩托车 *motuoche* ‘motorcycle’, thus its movability is lowered to the same rank as that of the subject 汽车 *qiche* ‘car’.

(50) 汽车追上了摩托车。

Qiche zhui shang le motuoche.

car chase up-with LE motorcycle

‘The car caught up with the motorcycle.’

The acceptability of (50) explains from a different perspective the constraint imposed on (46b) and (49) by the movability effect.

As supporting evidence to my explanation of (46) and (49) above, when the Figure and Ground are of the same rank in the hierarchy, the reversion of their syntactic position will also cause their reversion in Figure/Ground assignments. In (51),

(51) a. 我追上了狗。

Wo zhui shang le gou.

I chase up-with LE dog

‘I caught up with the dog.’

b. 狗追上了我。

Gou zhui shang le wo.

dog chase up-with LE I

‘The dog caught up with me.’

我 *wo* ‘I’ and 狗 *gou* ‘dog’ are both ranked in the first category in the movability hierarchy. The only option for Figure/Ground assignment for them is that whichever one takes the subject position in the sentence will be the Figure, and the other will be the Ground. Obviously, the situation in (51) is completely different from the subject/object alternation we saw in (42)-(45). If we say that the two paired sentences in (42)-(45) may refer to the same configuration in reality, then the two sentences in (51) express two completely distinct motion situations.

So far, we have seen the systematic nature of the movability effect in Figure/Ground assignment and subject/object alternation for the two major participants of various motion events. In sum, for two participants engaged in a motion scene, the one higher in the movability hierarchy is typically assigned as the Figure, while the one ranked lower serves as the Ground. In case where the Ground entity ranks low in the movability hierarchy, the motion expression may be admissible for the subject/object alternation in the grammatical surface. But the subject/object alternation does not change the original Figure/Ground assignment; that is, even if the lower-ranked entity takes the subject position, it is still the Ground, and the higher-ranked entity in the object position will still be the Figure. When the Ground entity is

ranked relatively high in the hierarchy (such as a vehicle), its strong movability prevents the sentence from undergoing the subject/object alternation. Otherwise, a conceptual inconsistency will arise.

To survey the movability effect even more comprehensively, we will also examine the Figure part separately. That is, we can observe how entities of different ranks in the hierarchy demonstrate different levels of suitability in playing the Figure role in certain types of motion events. Consider the six examples in (52).

- | | |
|---------------------------------------|----------------------------|
| (52) a. 张先生来了。 | b. 汽车来了。 |
| Zhang xiansheng lai le. ⁵⁴ | Qiche lai le. |
| Zhang Mr. come LE | car come LE |
| ‘Mr. Zhang is coming.’ | ‘The car is coming.’ |
|
c. 洪水来了。 |
d. ?? 石头来了。 |
| Hongshui lai le. | ?? Shitou lai le. |
| flood come LE | rock come LE |
| ‘The flood is coming.’ | ‘?? The rocks are coming.’ |

⁵⁴ In our discussion of the movability effect in Figure assignment here, the deictic verb 来 *lai* ‘come’ is used in (52a)-(52f) to imply the motion direction so that the Ground element, i.e., the place where the speaker is located, need not be explicitly specified.

e. * 教堂来了。

* Jiaotang lai le.

church come LE

‘* The church is coming.’

f. *山谷来了。

* Shangu lai le.

valley come LE

‘* The valley is coming.’

The six sentences in (52) are assumed to express the same type of motion, i.e., a Figure’s moving by itself toward the speaker, but six different entities with different levels of movability are assigned as the Figure in different sentences. The entities 张先生 *Zhang xiansheng* ‘Mr. Zhang’, 汽车 *qiche* ‘car’, and 洪水 *hongshui* ‘flood’ belong to categories higher in the movability hierarchy, and thus are perfectly acceptable as the Figure in (52a)-(52c). In contrast, 教堂 *jiaotang* ‘church’ and 山谷 *shangu* ‘valley’ are low in the movability hierarchy. As indicated in (52e) and (52f), they are not licensed to fill the Figure role. The entity positioned as the middle level of the hierarchy is 石头 *shitou* ‘(a piece of) rock’. As an independent inanimate object, its usage as in (52d) is permitted within a very limited context, such as that of the speaker and listener walking on a foothill (both of them knowing that rocks frequently roll down from the top of the mountain) when the speaker suddenly notices that a rock is rolling down toward them and calls the listener’s attention to it. Then she might say 石头来了 *Shitou lai le* ‘The rocks are coming.’ Autonomous motion is thus the marked case for objects like 石头 *shitou*.

As mentioned earlier, in (52a)-(52c), the three entities, 张先生 *Zhang xiansheng* ‘Mr. Zhang’, 汽车 *qiche* ‘car’, and 洪水 *hongshui* ‘flood’, demonstrate the same

appropriateness for status as the Figure. This is because the Figures' volition and autonomous control of the motion are not involved in (52). Nevertheless, when the self-controllability and volition properties of the Figure become relevant in a motion event, then the three entities with different movability ranks behave differently.

(53) a. 张先生到哪儿去了?

Zhang xiansheng dao nar qu le?

Zhang Mr. to where go LE

'Where did Mr. Zhang go?'

b. 汽车到哪儿去了?

Qiche dao nar qu le?

car to where go LE

'Where did the car go?'

c. * 洪水到哪儿去了?

* Hongshui dao nar qu le?

flood to where go LE

'* Where did the flood go?'

In (53), the verbal expression 到哪儿去了 *dao nar qu le?* 'where did (it) go?' indicates the Figure should be an entity able to adjust the route and destination of its motion. Because 张先生 *Zhang xiansheng* 'Mr. Zhang' as a human being and 汽车 *qiche* 'car' as a man-made advanced transportation machine, have this kind of ability,

both are qualified to be the Figure of this kind of motion. As for 洪水 *hongshui* ‘flood,’ it is a natural entity absolutely controlled by natural law. Therefore it is not permitted to conduct a self-controlled motion. This explains the poor formation of (53c).

Furthermore, 张先生 *Zhang xiansheng* ‘Mr. Zhang’ and 汽车 *qiche* ‘car’ are also different. The former is volitional but not the latter. Thus, when volition of the Figure is relevant in a kind of motion, only 张先生 *Zhang xiansheng* but not 汽车 *qiche* ‘car’ is qualified to be the Figure. This is the case for (54), in which the volition verb 打算 *dasuan* ‘intend’ requires the Figure to be volitional.

(54) a. 张先生打算到哪儿去?

Zhang xiansheng dasuan dao nar qu?

Zhang Mr. intend to where go

‘Where does Mr. Zhang want to go?’

b. * 汽车打算到哪儿去?

* Qiche dasuan dao nar qu?

car intend to where go

‘* Where does the car want to go?’

Now consider 教堂 *jiaotang* ‘church’ and 山谷 *shangu* ‘valley’, the two entities both unqualified to be the Figure of autonomous motion in (52). In the movability hierarchy, 教堂 *jiaotang* ‘church’ as a dependent but detachable entity stands higher

than 山谷 *shangu* ‘valley’, an un-detachable entity. The effect of this rank distance can be seen in (55).

(55) a. 教堂搬到哪儿去了?

Jiaotang ban dao nar qu le?

church remove to where go LE

‘Where was the church moved to?’

b. * 山谷搬到哪儿去了?

* Shangu ban dao nar qu le? ⁵⁵

valley remove to where go LE

‘Where was the valley moved to?’

Differing from (52)-(54), (55) represents a type of caused-motion. That is to say, there is an external agent for the Figure’s motion. That motion is not executed by the Figure itself. This conceptual specification is implied by the transitive verb 搬 *ban* ‘remove’ in the sentences. Due to the difference in detachability, 教堂 *jiaotang* ‘church’ can be the Figure of a caused-motion, as in (55a), but 山谷 *shangu* ‘valley’ in

⁵⁵ As R. A. Jacobs pointed out to me, in the supernatural context, such as when talking about the God’s power, this sentence is acceptable (2004, personal communication). Nevertheless, to invite a supernatural context indicates that such an understanding is not a preferred one. If we return to our daily experience, this sentence will be problematic.

(55b) cannot be.

So we have seen another systematic manifestation of the movability effect, a correlation between an entity's position in the movability hierarchy and its suitability for the Figure role, as examples (52)-(55) show. In sum, the six ranks of entities in the movability hierarchy have six different levels of probability for assignment as the Figure of motion. The highest ranked 'human and animal' entities can fill the Figure role in all autonomous, self-controlled, and volitional motion. The second ranked 'transportation vehicle' entities can be the Figure in autonomous and self-controlled motions, but not in volitional motions. The third ranked 'natural autonomous movers' can be assigned as the Figure for the autonomous motion primarily controlled by the gravity, but not in volitional and self-controlled motions. The fourth ranked 'non-autonomously-movable but independent inanimate' entities are frequently engaged in translational motions as the Figure, but they are typically moved by an external agent in a caused-motion and not by themselves. The fifth rank 'dependent but detachable entities' are rarely conceptualized as the Figure of a motion unless they are caused by a strong external power in a caused-motion. Elements of the last category composed of 'independent and non-detachable entities,' whether the motion is caused-motion or not, are normally incapable of being a Figure of in a motion event.

We have seen in this section that entities in the world function according to a movability hierarchy. This hierarchy exercises a strong influence, referred to as the 'movability effect' on the Figure/Ground assignment in motion event conceptualization. We have examined systematic and pervasive manifestations of the

movability effect in Chinese. Thus, movability is evidently a central defining property for Figure and Ground in motion events.

3.2 Figure and Ground as Prototype Categories

We proposed and justified in the last section a movability hierarchy of entities in the world as perceived and conceptualized, and we noted its effect on Figure/Ground assignments in motion conceptualization. In the movability hierarchy, each entity has a category and the corresponding rank to which it belongs. Thus, 张先生 *Zhang Xiansheng* ‘Mr. Zhang’ as a person stands among the first category in the hierarchy, while 山谷 *shangu* ‘valley’ as a dependent and non-detachable entity is listed in the lowest category. In this sense, we can say that movability is a conceptually intrinsic and permanent property of an entity in human cognition.

Over the past thirty years, abundant evidence from cognitive studies in psychology and linguistics shows that human conceptual categories are not clearly bounded collections of homogeneous phenomena. Conceptual categories are typically organized around certain central exemplars, known as prototypes. A prototype is the best, clearest, and perceptually most salient exemplar of a category, the entity that comes to mind first when we think of that category. Prototypical members function as the cognitive reference point for identifying the ‘peripheral or marginal’ members of its category. The prototypical members of a category are firmly established and clear, while the boundaries of a category are usually fuzzy, tending to overlap with the boundaries of other categories. With the prototypes at the center, members of a

category exhibit varying degrees of typicality and are linked by their family resemblance.⁵⁶

Based on this understanding of conceptual categories, we can see that the movability hierarchy and its constituting categories also exhibit prototype characteristics. First, with regard to the whole hierarchy, its members demonstrate degrees of movability, and form a gradually transitional continuum consisting of six ranks. At one end of the continuum, we have entities like 张先生 *Zhang xiansheng* ‘Mr. Zhang’, who as a person belongs to the category that has the strongest movability. 张先生 *Zhang xiansheng* ‘Mr. Zhang’ is thus a prototypical candidate for the Figure of motion. At the other end of the continuum, we find entities like 山谷 *shangu* ‘valley’, which appears among those having the least movability; thus, it is one of the most peripheral candidates for being the Figure, but one of the most prototypical members for the Ground. Between the two extremes, we can see categories consisting of members with different degrees of movability, such as 汽车 *qiche* ‘car’, 洪水 *hongshui* ‘flood’, 桌子 *zhuozi* ‘table’, and 房子 *fangzi* ‘house’.

Second, between two neighboring categories in the hierarchy, the boundaries are not always clear. Some entities share certain attributes with members of one

⁵⁶ For psychological and linguistic discussions of human categories in the past thirty years, see for example Labov (1973), Rosch (1978, 1988), Coleman and Kay (1981), Lakoff (1987: 74-76), Langacker (1990:59-100), and Taylor (1995). The term ‘family resemblance’ proposed by Wittgenstein (1958) refers to the overlapping similarities among members of a category. Family resemblances link the entities which thus form a category.

category, and also demonstrate some attributes of the other category. Thus, they stand on the border of two categories. Consider the concept 花园 *huayuan* ‘garden’. 花园 *huayuan* ‘garden’ is obviously a dependent object attached to the earth. But we may hesitate in deciding whether it is detachable like 房子 *fangzhi* ‘house’ and movable to other locations or if it is non-detachable like 海滩 *haitan* ‘beach’ and thus cannot be moved to other locations. Is it really possible to move 花园 *huayuan* ‘(a) garden’? The situation is counter-intuitive and does not provide a clear ‘yes’ or ‘no’ answer. 花园 *huayuan* ‘garden’ can be regarded as one that stands on the boundary between the ‘dependent but detachable entities’ category and the ‘dependent and non-detachable entities’ category. The fuzzy nature of 花园 *huayuan* ‘garden’ can be seen in (56) and (57).

(56) a. 台风把树卷跑了。

Taifeng ba shu juan pao le.

Typhoon BA tree whirl away LE

‘The hurricane whirled the tree away.’

b. * 台风把花园卷跑了。

* Taifeng ba huayuan juan pao le.

Typhoon BA garden whirl away LE

* ‘The hurricane whirled the garden away.’

c. * 台风把山谷卷跑了。

* Taifeng ba shanggu juan pao le.

Typhoon BA valley whirl away LE

‘* The hurricane whirled the garden away.’

(57) a. 我们把树移植到这儿来。

Women ba shu yizhi dao zher lai.

we BA tree transplant to here hither.

‘Let’s transplant the tree to this place.’

b. 我们把花园搬迁到这儿来。

Women ba huayuan banqian dao zher lai.

we BA garden move to here hither.

‘Let’s move the garden to this place.’

c. * 我们把山谷搬迁到这儿来。

* Women ba shangu banqian dao zher lai.⁵⁷

we BA valley move to here hither.

‘* Let’s move the valley to this place.’

Examples (56) and (57) compare three entities—树 *shu* ‘tree’, 山谷 *shangu* ‘valley, and 花园 *huayuan* ‘garden’—with regard to their movability and corresponding suitability

⁵⁷ Of course, in a specific supernatural context beyond our everyday experience, this sentence is probably acceptable. See note 55 to example (55b).

as the Figure of caused-motion events. The entity 树 *shu* ‘tree’, as a prototypical ‘dependent but detachable’ entity is movable by an external power such as 台风 *taifeng* ‘typhoon’ in (56) and 我们 *women* ‘we’ in (57); thus it is eligible to be the Figure in the motion events expressed in (56a) and (57a). In contrast to 树 *shu* ‘tree,’ 山谷 *shangu* ‘valley’ is a typical ‘dependent but non-detachable’ object and conceptually cannot be moved to a different place. Thus, 山谷 *shangu* ‘valley’ is ineligible to be the Figure of a caused-motion event, as (56c) and (57c) show. Now consider the intermediate case 花园 *huayuan* ‘garden’. In (56b), the questionable acceptability of the sentence indicates that 花园 *huayuan* ‘garden’ cannot be moved by an external force even one as strong as 台风 *taifeng* ‘hurricane.’ While in (57b), it seems that this kind of entity can be ‘moved’ to a different place via transplanting. Clearly, 花园 *huayuan* ‘garden’ is marginal in nature compared to 树 *shu* ‘tree’ and 山谷 *shangu* ‘valley’. Its movability property overlaps with both ‘detachable’ and ‘non-detachable’ entities, and it has certain family resemblances with members of both categories.

Finally, even within one category in the movability hierarchy, members will also demonstrate different degrees of typicality. For instance, both 汽车 *qiche* ‘car’ and 自行车 *zixingche* ‘bike’ are ‘transportation vehicles’, i.e., members of the second category in the hierarchy. However, if we say 汽车 *qiche* ‘car’ is a typical self-controllable moving machine, then 自行车 *zixingche* ‘bike’ is peripheral with regard to its self-controllability in motion. Thus, the two present an obvious contrast in sentences expressing self-motion, like (58) and (59).

(58) a. 汽车来了。

Qiche lai le.

car come LE

‘The car is coming.’

b. ??自行车来了。

?? Zixingche lai le.⁵⁸

Bike come LE

‘?? The bike is coming.’

(59) a. 汽车进了山。

Qiche jin le shan.

car enter LE mountain

‘The car entered the mountain.’

b. ?? 自行车进了山。

?? Zixingche jin le shan.

bike enter LE mountain

‘?? The bike entered the mountain.’

⁵⁸ R. A. Jacobs reminds me that it is possible to say a sentence like 自行车来了 *Zixingche lao le* or *The bike is coming (tomorrow)* in English if the sentence is to express a meaning like ‘the bike is shipped to me/my place’, but not ‘the bike is running to this place’ (Jacobs 2004, personal communication).

To summarize, categories in the movability hierarchy for Figure/Ground assignment and members of an individual category exhibit different degrees of typicality. They are connected through family resemblance. Additionally, existing between two neighboring categories are fuzzy borders. Therefore, like other human conceptual categories, Figure and Ground in the context of motion are also prototype categories in nature.

3.3 Event-dependent Characteristics of Figure and Ground

Movability of an entity, as discussed in the first section, is a fundamental property for the entity's assignment as the Figure or the Ground of a motion. This is an intrinsic property that the entity possesses before it is engaged in a motion event. For instance, whether or not 汽车 *qiche* '(a) car' is a participant in a motion event, it is conceptually a self-controllable but non-volitional movable object, and is in the second rank in the movability hierarchy. Thus, 'self-controllable but non-volitional movable object' is a permanent intrinsic conceptual characteristic of 汽车 *qiche* 'car'.

In contrast to this kind of permanent intrinsic characteristic of an entity, some conceptual properties are only conceptualized and realized when the entity participates in an event. These properties are event-dependent and temporary. The event is a necessary conceptual frame for understanding those properties. Without the event, these kinds of properties do not exist. In this section, we consider the event-dependent temporary properties of Figure and Ground of motion in three respects: conceptual prominence, 'knownness' of location, and awareness of geometrical conformation. As

a contrastive conceptual pair, Figure and Ground demonstrate clear contrasts in these three aspects.

First, with respect to conceptual prominence, the participants of a motion scene are not equally salient in the speaker's awareness. The Figure is the default focus of attention. It is usually the element most prominently conceptualized, standing out from other participants as the one being characterized or located. Correspondingly, with the Figure being more salient in the conceptualizer's attention, the Ground object(s) becomes conceptually less prominent. It stays in the background, serving as the reference point for characterizing or locating the Figure. For example, when we talk about an actual motion involving 汽车 *qiche* '(a) car' as the mover and 山 *shan* '(a) mountain' as the reference landmark, as in (60) below, 汽车 *qiche* 'the car' will naturally become more prominent in our mind than 山 *shan* 'the mountain', and we automatically place our attentional focus on 汽车 *qiche* 'the car' rather than the reference landmark 山 *shan* 'the mountain'. In short, in a motion event, the Figure object is more prominent in a conceptualization than is the Ground object.

(60) 汽车开进了山里。

Qiche kai jin le shan-li.

car drive enter LE mountain-inside

'The car has driven into the mountain.'

Second, with regard to their spatial locations, Figure and Ground are naturally in contrast; as the translocational object in the event, the Figure's spatial location in a conceptualization is not pre-determined and is (assumed to be) the unknown part of the event to the addressee. It is dynamic and changes (or has changed) over the time. The Ground not only is stationary, but its location is also (assumed to be) known to the addressee. Since the Ground's location is known and pre-determined, the Figure's shift in location is thus described. Thus in (60), the Figure 汽车 *qiche*'s location is a variable; its move into the Ground 山 *shan* is understood as new information. By contrast, the Ground 山 *shan*'s location is taken for granted as a known fact to a listener tracking the Figure 汽车 *qiche*'s motion. Thus, Figure and Ground reveal a second aspect of contrast in event-dependent properties.

The third aspect of contrast indicates how speakers normally assign different levels of attention to the geometrical conformations of Figure and Ground in the motion event. Usually, the Figure is conceptualized as a whole object that moves and is treated as a geometrically unanalyzed zero-dimensional unit—in Talmy's terminology, a 'pointlike' object—even though it usually has a multi-dimensional conformation and an intrinsic orientation (Talmy 2000: I, p.183). In contrast, the Ground object(s)' geometrical properties tend to be profiled in certain specifics. In order to express the Figure's spatial relation to it, the Ground is usually conceptualized as a two-dimensional or three-dimensional object.

This conceptual difference between Figure and Ground is also clear in (60). From personal experience, we know that 汽车 *qiche* 'car' is an enclosure-like object

with an enclosed interior space and an outside surface. Furthermore, its external space is typically mentally sub-divided into six areas in the mind: the front, back, left side, right side, top, and base. However, in (60), these details of the geometrical conformation of 汽车 *qiche* ‘car’ are not in the speaker’s awareness. What is relevant is only where 汽车 *qiche* ‘car’ as a whole unit is *en route*. 汽车 *qiche* ‘car’ is thus simply conceptualized as a moving ‘point’ in (60).⁵⁹ On the other hand, (60) highlights one aspect of the geometrical conformation of the Ground 山 *shan* ‘mountain’. For clearly indicating 汽车 *qiche*’s location with reference to it, the affixed location word 里 *li* ‘inside’ and the satellite verb 进 *jin* ‘enter’ are used to suggest that 山 *shan* ‘mountain’ as an entity has an inner part (and presumably it also has an outer part).

In addition to the pre-event intrinsic property of movability, we have noted the three event-dependent temporary characteristics of Figure and Ground in a motion event: their difference in conceptual prominence, their knownness of location, and the awareness of geometrical conformation. Typically, the entity assigned the role of Figure is conceptually more prominent; its spatial location is under-determined for the addressee; and its geometrical configuration is conceptualized as a point. As for the

⁵⁹ Compare 汽车 *qiche* as the Figure in (60) and as the Ground in (61) below:

(61) 他坐进了汽车。

Ta zuo jin le qiche.

he sit enter LE car

‘He sat in the car.’

The directional verb 进 *jin* ‘enter’ in (61) suggests that 汽车 *qiche* is an enclosure with an internal space.

object(s) perceived as the Ground, it is conceptually less salient, its location is pre-determined and assumed to be known to the addressee, and its conformational properties are usually highlighted in some detail in order to characterize the Figure's change of location.

In his discussion of the conceptual characteristics of Figure and Ground, Talmy also suggests that the actual size of an entity influences its Figure/Ground assignment (2000, vol I: 183, 315-316). Talmy observes that the Figure entity is typically smaller than the Ground entity. This observation is probably true for locative events for which the static relationship between the Figure and Ground is of concern. The contrast between (62a) and (62b) as well as (63a) and (63b) reflects this difference.

(62) a. 自行车在房子旁边。

Zixingche zai fangzi pangbian.

bike at house nearby-area

'The bike is near the house.'

b. ? 房子在自行车旁边。

? Fangzi zai zixingche pangbian.

house at bike nearby-area

'? The house is near the bike.'

(After Talmy 2000, vol. I: 314, example (6))

(63) a. 渔夫在海浪里边。

Yufu zai hailang libian.

fisherman at sea-wave inside

‘The fisherman is in the (ocean-)wave.’

b. * 海浪在渔夫外边。

* Hailang zai yufu waibian.

sea-wave at fisherman inside

* ‘The (ocean-)wave is on the outside of the fisherman.’

(62) and (63) clearly show that in characterizing their relative relations, the smaller objects 自行车 *zixingche* ‘bike’ and 渔人 *yuren* ‘fisherman’ are appropriate for the Figure role, but not the larger 房子 *fangzi* ‘house’ and 海浪 *hailing* ‘ocean-wave’.

However, for motion events, size is not a distinctive property for Figure and Ground. In our experience, a small entity can move to/from/past a big object, but a large entity can also move to/from/past a small object. That is, for a participant entity being conceptualized as the Figure, what is relevant is whether it is movable and is actually in motion, not whether its size exceeds that of other entities presented in the motion scene. This is evident in (64) and (65).⁶⁰

⁶⁰ Talmy (2000, vol. I: 183, 315-316) also suggests that Figure is ‘more recent on the scene/in awareness’ and ‘of greater concern or relevance’, while the Ground is ‘earlier on the scene/in memory’ and is ‘of lesser concern or relevance.’ These two observations are also problematic. I will discuss these points in the next section.

(64) a. 大象朝小松鼠走去。

Daxiang chao xiao songshu zou qu.

elephant toward little squirrel walk thither

‘The giant elephant walks toward the little squirrel.’

b. 小松鼠向大象跑来。

Xiao songshu xiang daxiang pao lai.

little squirrel toward elephant run hither

‘The little squirrel is running toward the giant elephant.’

(65) a. 一阵巨浪铺天盖地向渔人涌来。

Yi zhen julang putian-gaidi xiang yuren yong lai.

one CL huge-wave blot-out-the-sky-and-cover-up-the-earth to fisherman surge hither

‘A huge wave surges toward to the fisherman.’

b. 渔人钻进了浪里。

Yuren zuan jin le lang li.

fisherman dig enter LE wave inside

‘The fisherman jumped into the wave.’

As noted in Chapter 2 (Section 2.2, Note 28), we do not subscribe to Talmy’s inclusion of locatedness, viz., maintenance of a stationary location, as a type of ‘motion event’. In addition to other factors differentiating motion from locatedness, size is more relevant to locatedness, while movability is of more significant for motion.

Therefore, in (62) and (63), where locatedness is the issue, the more acceptable arrangement is that the bigger objects 房子 *fangzi* ‘the house’ and 海浪 *hailang* ‘ocean wave’ are assigned as the Ground, and the smaller entities 自行车 *zixingche* ‘the bike’ and 渔人 *yuren* ‘fisherman’ as the Figure, but the reverse is not true for motion events. In (64), although 大象 *daxiang* ‘the elephant’ is considerably larger than 小松鼠 *xiao songshu* ‘the little squirrel’, either of the two is eligible to be either the Figure or the Ground. A similar situation can be observed in (65).⁶¹ (62)-(65) show that locatedness and motion involve different conceptual operations, and thus should be treated differently.

In conclusion, in addition to their intrinsic property of movability, the entities conceptualized as Figure or Ground in a motion event also demonstrate in-event contrasts with regard to conceptual prominence, knownness of location, and awareness of geometrical conformation. The actual size of an entity is generally not of concern.

3.4 The Representation of Figure and Ground

Following the discussion above of the general conceptual characteristics of Figure and Ground, we will now investigate the ways in which the two components of motion are configured and realized in the surface structure of Chinese. We will also try to identify the cognitive processes and construal operations involved in the

⁶¹ The difference in Figure and Ground assignment regarding locatedness and motion has certain cognitive motivations, an analysis of which is beyond the scope of this study.

linguistic realization of Figure and Ground conceptualization and show just how these processes and operations function in guiding and constraining Figure and Ground representation.

With regard to the linguistic representation of Figure and Ground, Talmy (2000, vol. I: 334) proposes an order of precedence regarding their occurrence in syntactic structures. The principle states:

In their basic form, the Figure has syntactic precedence over the Ground.

Specifically, Talmy points out,

For nominals in a single clause, this precedence consists of expression along a case hierarchy. In a nonagentive clause, the Figure is subject and the Ground is (oblique) object. In an agentive clause, where the Agent is subject, the Figure is direct object and the Ground is oblique object.

Talmy (2000, vol. I: 333) explains that this precedence order is determined by the general human conceptualization of the Figure and Ground in a motion event. That is, in a motion event the Figure is the moving entity. It is the Figure whose variable path is the relevant issue in the conceptualization. As for the Ground, its relatively stationary setting is a reference for characterizing the Figure's path. Thus, as discussed in Section 3.3 above, the Figure is the default focus of attention, being more prominent

than the Ground in the speaker's awareness. As a reflection of its relative prominence in attention, the Figure generally is positioned more saliently than the Ground in a syntactic configuration. Nevertheless, if the motion is not a self-motion but is initiated and controlled by an external agent or causer, then the agent of the motion is even more salient than the Figure. Consequently, the agent typically takes the subject position in the motion clause. Even in this case, the Figure still has precedence over the Ground since it fills the direct object position, the secondary prominent syntactic slot for event participants to fill. In short, whether or not the motion is autonomous motion or caused-motion, the regular situation is that the Figure has precedence over the Ground in syntactic role assignment. This order can be summarized as the 'Figure-over-Ground' principle and represented formulaically as in (66):

(66) (Agent>) Figure > Ground ⁶²

Clearly, the 'Figure-over-Ground' principle formulated in (66) reflects a general mapping relationship between the saliency of motion elements in human awareness and the precedence of role assignments in syntax. That is to say, the more salient in awareness an element is, the more precedence it will have in syntactical constituent assignment. This relationship will be referred to as 'saliency mapping'. ⁶³

⁶² In this formula, I enclose 'agent' in parentheses to indicate that it is irrelevant in self-motion events.

⁶³ Two points can be made here regarding the nature of 'saliency mapping'. On the one hand, 'saliency mapping' is a more general principle guiding and restricting the linguistic representation of human conceptualization and the 'Figure-over-Ground' principle can be viewed as a typical instantiation of

Now we will investigate the realization of the ‘Figure-over-Ground’ principle in Chinese. Talmy summarizes the case hierarchy as ‘Subject > Direct Object > Oblique Object’ in which syntactic roles are assigned according to the order of precedence specified in (66).⁶⁴ However, a hierarchy of syntactical roles for assigning motion event elements in Chinese should include more specifics, as suggested in (67).

(67) Subject > (BA-complement >) Direct Object >

Complement of Directional PP / Specifier of NP / Oblique Object

(67) differs from Talmy’s ‘subject > direct object > oblique object’ hierarchy in two major respects. The first is that a language-specific BA-complement is presented and it is the second most prominent constituent in the syntactic role hierarchy in Chinese. BA with its complement (usually an NP) appears preverbally in a clause. BA clauses are frequently used in caused-motion expressions.⁶⁵ In traditional Chinese grammar, BA-complements are analyzed as objects of a strong ‘disposal’ expressed by the main verb, with BA as a special preposition marking this kind of ‘disposal’ (see, e.g., Wang L. 1943, Wang H. 1985). In recent years, much

‘saliency mapping’. On the other hand, ‘saliency mapping’ should also be regarded as as ‘iconicity’ phenomenon linking human conceptualization and language expression (cf. Haiman 1985).

⁶⁴ See Talmy’s statement cited at the beginning of this section.

⁶⁵ Zhang B. (2000) and Zhang W. (2001) present statistics for the BA-constructions used in their corpora which show that no less than half of the BA expressions render motion events.

research points to the conclusion that the BA-construction expresses a resultative action or process, or in Vendler's (1967) sense, an achievement or accomplishment. In the process expressed as a BA-construction, three elements are obligatorily involved. They are a certain agent/causer of the process, a known experiencer of the process (i.e., the BA-complement), and the final (and new) state or location the experiencer reaches at the end of the process. The meaning of the BA-construction can be expressed thus:

A certain causer initiates an action on a known entity or bring about a process involving that entity, leading it to change to a different state or location at the end of the action or process. Since the BA-complement constrains both the experiencer of the process and the entity that changes, it stands out from all other NPs in preverbal preposition phrases, standing even higher than the direct object of the main verb in the clause. Thus, BA-complements are assigned a prominent role secondary only to the clause subject (typically the agent/causer) in (67).⁶⁶

To return to our discussion of motion, because of the specific constructional meaning it bears, the BA-construction is frequently used to represent caused-motion in Chinese. Since the subject of a BA-construction is normally the causer, the

⁶⁶ Tsao (1987) argues that the BA-complement should be regarded as the 'secondary topic' of the clause, the subject of a BA-clause being the primary topic. This argument supports from a functional perspective the arrangement of BA-complement in (67). Interesting discussions of the prominence of BA-complements can be found in Y.-C. Li (1974 [2001]), Hsueh (1989), Cui (1995), and Zhang B. (2000).

BA-complement typically represents the Figure of the caused-motion. The Ground is represented by a lower level role in (67).⁶⁷

The second point about (67) is that there are several options for the lowest role in the hierarchy: complement of a directional PP (itself a right-branching or left-branching complement to the main verb), specifier of an NP, or oblique object of the clause. These roles are low in the syntactic hierarchy, and are regularly filled by the Ground.⁶⁸

We have now identified the conceptual saliency hierarchy of the Figure and Ground in (66) (together with Agent in caused-motion) and the syntactic role prominence hierarchy in Chinese in (67). Prototypically, the saliency mapping from (66) into (67) follows the precedence order suggested in the two hierarchies. THE higher a conceptual element stands in (66), the higher the syntactical role it is assigned in (67). For the Figure and Ground, the principle is ‘Figure-over-Ground’.

The saliency mapping relationship between (66) and (67) has a variety of instantiations in Chinese. Let us consider autonomous motion first. The saliency

⁶⁷ Of course, autonomous motion does not involve an external agent or causer, thus a BA-construction is not needed. Even for expressing caused-motion, BA-constructions are not the only alternative in Chinese (see examples later). Thus, the BA-complement in (67) is put in a bracket to indicate its optional nature.

⁶⁸ If fact, besides the oblique object that Talmy mentions, English makes use of complements to express the Ground element as well, such as ‘from Italy’ in ‘The paintings from Italy were shipped to New York.’

mapping typically has the Figure as the subject of the sentence; the Ground typically occurring in one of three possible positions: as direct object of the main verb (or of a main verb with a directional complement), as complement of a preposition phrase which is a left-branching or right-branching complement of the main verb, or as specifier of the subject (i.e., the Figure). The following examples illustrate these configurations.

The Figure as the subject, and the Ground as the direct object:

(68) 青林五月间去了趟李各庄。

Qinglin wuyue jian qu le tang Ligezhuang.

Qinglin May during go LE CL Li-village

‘Qinglin went to Li Village once in May.’

[Figure: 青林 *Qinglin*; Ground: 李各庄 *Ligezhuang* ‘Li Village’]

(69) 火车缓缓穿过了山洞。

Huochē huānhuān chuān guo le shāndòng.

train slowly go-through pass LE mountain-tunnel

‘The train slowly went through the mountain tunnel.’

[Figure: 火车 *huochē* ‘train’; Ground: 山洞 *shāndòng* ‘mountain tunnel’]

The Figure as the subject, and the Ground as the complement of a left-branching PP to the verb:

(70) 王二奎从青海监狱越狱逃跑了。

Wang Erkui cong Qinghai Jianyu yueyu taopao le.

Wang Erkui from Qinghai Prison break-out-of-prison escape LE

‘Wang Erkui escaped from Qinghai prison.’

[Figure: 王二奎 *Wang Erkui*; Ground: 青海监狱 *Qinghai Jianyu*

‘Qinghai Prison’]

The Figure as the subject, and the Ground as the complement of a right-branching PP to the verb:

(71) 女青年（拎着高跟鞋）冲向门口。

Nü-qingnian (ling zhe gaogexie) chong xiang menkou.

Young-lady (carry-with-hand ZHE high-heeled-shoe) rush toward doorway

‘(With her high-heeled shoes in her hands), the young woman rushed toward the doorway.’

[Figure: 女青年 *nü-qingnian* ‘young women’;

Ground: 门口 *menkou* ‘doorway’]

The Figure as the subject, and the Ground as the specifier of the subject:

(72) 后院的蜜蜂飞走了。

Houyuan de mifeng fei zou le.

Backyard DE bee fly away LE

‘The bees in the backyard flew away.’

[Figure: 蜜蜂 *mifeng* ‘bee(s)’; Ground: 后院 *houyuan* ‘backyard’]

In some situations, more than one Ground component of motion is mentioned in a clause, as shown in (73) and (74): ⁶⁹

(75) 王二奎从青海监狱越狱跑到了新疆。

Wang Erkui cong Qinghai Jianyu yueyu pao dao le Xinjiang.

Wang Erkui from Qinghai Prison break-out-of-prison run to LE Xinjiang

‘Wang Erkui escaped from Qinghai prison to Xinjiang.’

[Figure: 王二奎 *Wang Erkui*; Ground: Component 1—青海监狱 *Qinghai Jianyu* ‘Qinghai Prison’, Component 2—新疆 *Xinjiang*.]

⁶⁹ The number of Ground elements presented and their order of appearance in the sentence involve other cognitive operations that will be discussed later.

(76) 后院的蜜蜂飞进了厨房。

Houyuan de mifeng fei jin le chufang.

Backyard DE bee fly enter LE kitchen

‘The bees in the backyard flew into the kitchen.’

[Figure: 蜜蜂 *mifeng* ‘bee(s)’; Ground: Component 1—后院 *houyuan*

‘backyard’, Component 2—厨房 *chufang* ‘kitchen’.]

In contrast to the situation above, the Ground element is omitted in the in (75) and (76).

In such cases, the Ground is implied by the context and can be clearly understood by the speaker and the listener.

(75) 汽车来了。

Qiche lai le.

car come LE

‘The car is coming.’

[Figure: 汽车 *qiche* ‘car’; Ground: implied by the deictic motion

verb 来 *lai* ‘come’; usually it is the place where the speaker is located.]

(76) 蜜蜂飞走了。

Mifeng fei zou le.

bee(s) fly away LE

‘The bees flew away.’

[Figure: 蜜蜂 *mifeng* ‘bee(s)’; Ground: implied in the context, must be a location clearly mentioned in the previous discourse, such as 后院 *houyaun* ‘backyard’.]

Whether the Ground has more than one component expressed, as in (73) and (74), or whether it is completely unmentioned, as in (75) and (76), the ‘Figure-over-Ground’ precedence order is followed.

In the Beijing vernacular and some other northern dialects, there is a unique configuration of Figure and Ground. In this type of configuration, both the Figure and the Ground appear postverbally as double objects of the verb, with the Figure as the direct object and the Ground as the oblique object. (77) and (78) are examples of this type, as reported in Ma (1992: 116-7).

(77) 刚进屋两个人。

Gang jin wu liang ge ren.

just-now enter room two CL people

‘Just now two people entered the room.’

[Figure: 两个人 *liang ge ren* ‘two people’; Ground: 屋 *wu* ‘room’]

(78) 爬您身上一个蚂蚁。

Pa nin shen-shang yi ge mayi.

climb you body-on one CL ant

‘An ant climbs on you.’

[Figure: 一个蚂蚁 *yi ge mayi* ‘one ant’;

Ground: 您身上 *nin shen-shang* ‘your body’]

This type of double object realization of Figure and Ground of motion is not acceptable for many Mandarin speakers from the southern parts of China.

Nevertheless, with the Figure being the direct object and the Ground the oblique object, this realization still follows the ‘Figure-over-Ground’ principle.⁷⁰

Now, let us turn to the saliency mapping and the configuration of Figure and Ground in caused-motion clauses in Chinese. Motivated and constrained by other cognitive and communicative factors, caused-motion can be expressed with or without

⁷⁰ One point needs to be made clear here: in saliency mapping, the principle of ‘Figure-over-Ground’ means that the figure is typically assigned a more prominent syntactic role than the ground. It does not mean ‘Figure-before-Ground’ in word order arrangement of a clause, though that is usually the case. Thus, in (77) and (78), Ground as the oblique object precedes the direct object Figure. Similarly, in (72) the Ground 后院 *houyuan* ‘backyard’ as the specifier appears before the Figure 蜜蜂 *mifeng* ‘bee(s)’, the head of the NP 后院的蜜蜂 *houyuan de mifeng* ‘the bee(s) in the backyard’ and stands higher syntactically than its specifier.

the BA-construction.⁷¹ We will first consider instances of caused-motion not expressed with the BA construction.

In (79) below, since the subject slot is filled by the agent, the Figure is the direct object, and Ground is the complement of a left-branching PP to the verb:

(79) 曹元朗从包里拿出两盒牡丹烟。

Cao Yuanlang cong bao-li na chu liang he Mudan yan.

Cao Yuanlang from bag-inside take out two CL peony(-brand) cigarette

‘Cao Yuanlang took out two packs of Mudan cigarette from the bag.’

[Figure: 牡丹烟 *mudan yan* ‘Peony cigarette’; Ground: 包里 *bao-li*

‘(inside of the) bag’]

In the next example, since the subject is the agent, the Figure is the direct object, and Ground is the complement of a right-branching PP to the verb:

(80) 前锋飞快地传给他一个高抛球。

Qianfeng feikuai-de chuan gei ta yi ge gao-pao-qiu.

playmaker quickly pass to he one CL fly-ball

‘The player quickly passed a fly ball to him.’

[Figure: (高抛)球 (*gaopao*)*qiu* ‘(fly) ball’; Ground: 他 *ta* ‘he’]

⁷¹ Other factors guiding the choice of expressing caused-motion with or without the BA-construction will be discussed later in this study.

In (81) below, with the subject slot again being filled by the agent, the Figure is the head of the direct object, and Ground is the specifier of the direct object:

(81) 伙计取下墙壁上的一块乌黑油腻的东西。

Huoji qu-xia qiangbi shang de yi kuai wuhei youni de dongxi.

salesclerk fetch-down wall on DE one CL pitch-black greasy DE object

‘The clerk took down a greasy black object from the wall.’

[Figure: 东西 *dongxi* ‘object’; Ground: 墙壁上 *qiangbi shang*

‘(on the) wall’]

In certain caused-motion expressions, serial-verb construction are used, as in (82):

(82) 宁科（不在，）送孩子去姥姥家了。

Ning Ke (bu zai,) song haizi qu laolao jia le.

Ning Ke (not in) send child go grand-mother home LE

‘Ning Ke (is not in. She) is out sending her child off to her mother’s home.’

[Figure: 孩子 *haizi* (and 宁科 *Ningke*) ‘child and Ningke’;

Ground: 姥姥家 *laolao jia* ‘grand-mother’s home’]

In this case, the Figure is generally the direct object of the first verb, and the Ground is the object of the second verb.⁷² In some situations, the agent itself is also accompanied by the Figure of the motion event, as with 宁科 *Ning Ke* in (82).

Corresponding to (77) and (78) above, in the Beijing vernacular and several other northern dialects, the Figure and the Ground of a caused-motion can appear together post-verbally as double objects of the verb, with the Figure being the direct object and the Ground the oblique object. (83) is an example of this type, which is also from Ma (1992:116).

(83) (他)倒缸里一桶水。

(Ta) dao gang-li yi tong shui

he pour vat-inside one bucket water

‘He poured one bucket of water into the vat.’

[Figure: 水 *shui* ‘water’; Ground: 缸里 *gang-li* ‘(inside of the) vat’]

Examples (78)-(83) illustrate the syntactic realization of Figure-over-Ground order in expressing caused-motion events without using a BA-construction. Below are instances in which BA-construction occurs. As noted earlier, when a BA-construction is used, the agent/causer of the caused-motion is typically the subject, and the Figure is represented by the BA-complement. As for the Ground, it has several possible roles

⁷² As we see, the ‘Figure-over-Ground’ principle is realized as ‘Figure-before-Ground’ in the serial-verb construction.

in realization, including that of the complement of a post-verbal PP, as in (84), the complement of a preverbal PP, as in (85), the direct object, as in (86), and the specifier of the BA-complement, as in (87).

(84) 高个儿警察把我的证件拿进了办公室。

Gaoger jingcha ba wo de zhengjian na jin le bangongshi.

High-body-height police BA I DE ID take into LE office.

‘The tall policeman took my ID into the office.’

[Figure: 我的证件 *wo de zhengjian* ‘my ID’;

Ground: 办公室 *bangongshi* ‘office’]

(85) 我把证件从衣兜儿里掏出来。

Wo ba zhengjian cong yidour li tao chulai.

I BA ID from pocket inside fish-out out-hither

‘I took out the ID from my pocket.’

[Figure: 证件 *zhengjian* ‘ID’; Ground: 衣兜儿 *yidour* ‘pocket’]

(86) 请你把证件搁这儿。

Qing ni ba zhengjian ge zher.⁷³

please you BA ID put her

‘Please put (your) ID here.’

[Figure: 证件 *zhengjian* ‘ID’; Ground: 这儿 *zher* ‘here’]

(87) 我把衣兜儿里的证件掏出来。

Wo ba yidour li de zhengjian tao chulai.

I BA pocket inside DE ID fish-out out-hither

‘I took the ID out of my pocket.’

[Figure: 证件 *zhengjian* ‘ID’; Ground: 衣兜儿 *yidour* ‘pocket’]

As with the autonomous motion shown in (75) and (76) above, more than one Ground component of a caused-motion event may occur in a clause, as we can see in (88):

(88) 范广把妻子从乡下接到城里来。

Fan Guang ba qizi cong xiangxia jie dao cheng li lai

Fan Guang BA wife from countryside pick-up to city-inside come

‘Fan Guang took his wife from the countryside to (live in) the city.’

⁷³ In this example, Mandarin speakers from southern parts of China prefer to add a locational preposition 在 *zai* ‘at’ or directional co-verb 到 *dao* ‘to’ before the Ground element 这儿 *zher* ‘here’, making the sentence structure change like that of (84).

[Figure: 妻子 *qizi* ‘wife’; Ground: 乡下 *xiangxia* ‘countryside’,
城里 *chengli* ‘city-inside’]

The Ground may be implied by the context:

(89) 他把我的证件拿走了。

Ta ba wo de zhengjian na zou le.

he BA I DE ID take away LE.

‘He took away my ID.’

[Figure: 证件 *zhengjian* ‘ID’; Ground: implied by the directional
complement 走 *zou* ‘away’, should be a place that has been
clearly mentioned in previous discourse.]

So far, we have seen typical realizations of the saliency mapping of both self-motion and caused-motion events in Chinese. As all the examples (68)-(89) above show, the typical configuration of the Figure and Ground of both self-motion and caused-motion follows the ‘Figure-over-Ground’ principle.

As further evidence of the ‘Figure-over-Ground’ order, consider two paired examples in which the Figure/Ground configuration is reversed. The first pair of examples is (90), cited earlier as (64):

(90) a. 大象朝小松鼠走去。

Daxiang chao xiao songshu zou qu.

elephant toward little squirrel walk thither

‘The elephant walks toward the little squirrel.’

b. 小松鼠向大象跑来。

Xiao songshu xiang daxiang pao lai.

little squirrel toward elephant run hither

‘The little squirrel is running toward the elephant.’

Both (90a) and (90b) express autonomous motion. In (90a), 大象 *daxiang* ‘elephant’ is the Figure and thus occupies the subject position; 小松鼠 *xiao songshu* ‘little squirrel’ is the Ground. Thus it appears as the complement of the preverbal PP. But in (90b), the Figure/Ground assignment is reversed, i.e., 小松鼠 *xiao songshu* ‘little squirrel’ becomes the Figure and 大象 *daxiang* ‘elephant’ is the Ground. As a result, the syntactic roles of the two elements are reversed: 小松鼠 *xiao songshu* ‘little squirrel’ in (90b) becomes the sentence subject, and 大象 *daxiang* ‘elephant’ is moved to the position of the PP complement to the verb.

Daxiang ‘elephant’ and 小松鼠 *xiao songshu* ‘little squirrel’ belong to the same category (‘human and animals’) in the movability hierarchy posited in Section 1. The switch of their syntactic roles in (90a) and (90b) can only be understood as a result stipulated by the ‘Figure-over-Ground’ principle. In the same fashion, contrast

between (91a) and (91b) below reflect the mapping of ‘Figure-over-Ground’ order in caused-motion expressions.

(91) a. 我把书放词典底下。

Wo ba shu fang cidian dixia.

I BA book put dictionary underneath

‘I put the book under the dictionary.’

b. 我把词典放书底下。

Wo ba cidian fang shu dixia.

I BA dictionary put book underneath

‘I put the dictionary under the book.’

The contrasts shown in (90) and (91) further attest that saliency mapping is a general principle guiding and governing the syntactic realization of Figure and Ground of motion. In conceptualization, the Figure is more salient than the Ground; in language representation, the Figure has precedence over the Ground. This is the prototypical or default way of mapping between motion conceptualization and expression.

However, such prototypical mapping does not represent the full picture. In addition to the default ‘Figure-over-Ground’ configuration, there is in Chinese a reverse situation in which the Ground element appears more prominently than the Figure in the syntax. In fact, a similarly inverted ‘Ground-over-Figure’ configuration

was cited in Section 1 of this chapter showing the subject/object alternation as evidence of the movability effect. It was example (42) from Section 1, shown here as (92):

(92) a. 蜜蜂飞进了后院。

Mifeng fei jin le houyuan.

bee fly enter LE backyard

‘The bee(s) flew into the backyard.’

b. 后院飞进了蜜蜂。

Houyuan fei jin le mifeng.

backyard fly enter LE bee

‘As for the backyard, a/some bee(s) flew into it.’

In Section 1, we found that in both sentences in (92) [= (42)], had 蜜蜂 *mifeng* ‘bee(s)’ as the Figure and 后院 *houyuan* ‘backyard’ as the Ground, even though they represent a subject/object alternation in the syntax. We established that one conceptual constraint on this kind of subject/object alternation is that the Figure element must be a member of a high ranked category while the Ground is ranked low in the movability hierarchy. If the Figure and Ground are members of the same category with regard to movability, then the subject/object alternation is not licensed. (90) and (91) above further show that the ‘Figure-over-Ground’ principle is strictly followed if the two elements are of the same rank in the movability hierarchy. In other words, we now know that ‘Figure-over-Ground’ is the unmarked and prototypical configuration in

motion event expressions. In contrast, assigning a more prominent syntactic role to the Ground than the Figure in Chinese is only possible when the Ground element ranks lower than the Figure in the movability hierarchy. However, even if the Ground element ranks lower than the Figure in the movability hierarchy, the typical configuration in syntax is still ‘Figure-over-Ground’.

The ‘Figure-over-Ground’ ranking can be viewed as a major constraint on the marked ‘Ground-over-Figure’ representation in syntax. Below are further examples obeying this movability difference constraint. These show the alternative configurations for both autonomous motion and caused-motion events:

(93) a. 泪水流出了眼眶。

Leishui liu chu le yankuang.

tears flow out LE eye-socket

‘Tears flowed from (her/his) eyes.’

b. 眼眶流出了泪水。

Yankuang liu chu le leishui.

eye-socket flow out LE tears

‘(From) (her/his) eyes flowed tears.’

[Figure: 泪水 *leishui* ‘tears’; Ground: 眼眶 *yankuang*

‘eye socket’]

(94) a. 盒子里滚进了一个乒乓球。

Hezi li gun jin le yi ge pingpangqiu.

Box inside roll into LE one CL ‘table-tennis-ball’

‘(into the inside of the) box rolled a table-tennis-ball.’

b. 有一个乒乓球滚进盒子里。

You yi ge pingpangqiu gun jin hezi li.

There-is one CL table-tennis-ball roll enter box inside

‘A table-tennis-ball rolled into the box.’

[Figure: 乒乓球 *pingpangqiu* ‘table tennis ball’;

Ground: 盒子 *hezi* ‘box’]

(95) a. 金旺把干草装上了大车。

Jinwang ba gancao zhuang shang le dache.⁷⁴

Jinwang BA hay lay onto LE wagon

‘Jinwang loaded the hay onto the wagon.’

b. 金旺把大车装上了干草。

Jinwang ba dache zhuang shang le gancao.

Jinwang BA wagon lay on LE hay

‘Jinwang loaded the wagon with hay.’

[Figure: 干草 *gancao* ‘hay’; Ground: 大车 *dache* ‘wagon’]

⁷⁴ Note that in (94) the entity 大车 *dache* ‘wagon’ is profiled as a dependent storage space but not as a moving vehicle. Thus its movability is lower than that of 干草 *gancao* ‘hay’ which is an independent object.

(96) a. 师傅把漆从墙上刮掉。

Shifu ba qi cong qiang-shang gua diao.

Master BA paint from wall-on scrape away

‘The craftsman scraped the paint away from the surface of the wall.’

b. 师傅把墙上刮掉一层漆。

Shifu ba qiang-shang gua diao yi ceng qi.

Master BA wall-on scrape away one layer paint

‘The craftsman scraped the surface of the wall (and took) away

a layer of the paint.’

[Figure: 漆 *qi* ‘paint’; Ground: 墙上 *qiang-shang*

‘the surface of the wall’]

We have seen that the default syntactic configuration is ‘Figure-over-Ground’.

While the ‘Ground-over-Figure’ arrangement is not impossible, it is subject to conceptual constraints imposed by the movability hierarchy and other cognitive operations.

3.5. Conclusion

In this chapter, we have described the contrasting properties of Figure and Ground in the conceptualization of motion events, and their syntactic reflection in Chinese. In Section 3.1, we showed that entities in the world form a movability hierarchy in experience-based cognition. When conceptualizing motion events, we

regularly assign the Figure role to the entity that stands higher in the movability hierarchy, assigning the Ground to the entity with the lower movability rating. In Section 3.2, we pointed out that movability, like other human categorizations, has prototype properties. Conceptual entities vary along a continuum in degree of movability. In Section 3.3, we further observed that in-event characteristics such as conceptual prominence, knownness of location, and awareness of geometrical conformation, also influence the conceptualization of the Figure and Ground of motion. In Section 4, we showed in detail the syntactic results of the conceptual contrasts between Figure and Ground in conception. Specifically, we found a saliency mapping relationship in Chinese between the conceptual elements Figure and Ground and hierarchically organized syntactic roles.

CHAPTER 4

MOVE, PATH, AND MANNER: PATTERNS OF PACKAGING MEANING IN FORM

In Chapter 3 we discussed the conceptualization and representation of Figure and Ground in Chinese. In the next three chapters we examine the other three primary components of motion: Move, Path, and Manner.⁷⁵ The focus of our discussion in these chapters is on the typologically significant patterns utilized to construe and package these elements into grammatical surface structures in Chinese. As the departure point of this discussion, this chapter will explore the ways in which languages in general and Chinese in particular package Move, Path, and Manner. Section 1 introduces Talmy's typology of lexicalization patterns regarding the conflation of Path, Move, and Manner in surface forms. Section 2 examines the general patterns rendering these elements in Chinese. The plausibility of Talmy's lexicalization typology will be examined from the perspective of Chinese.

⁷⁵ In Talmy's framework, Cause is also an important external element of motion (see Chapter 2).

However, since the Cause element is not involved in autonomous motion (e.g., 蜜蜂飞出去了 *Mifeng fei chuqu le* 'The bee flew out'), this dissertation has little to say on that topic.

4.1 Talmy's Lexicalization Patterns

In our discussion of the expression of Figure and Ground in Chinese in the previous chapter, we observed three properties with regard to the surface representation of these two motion elements. First, both Figure and Ground are expressed with separate lexical items in their surface realizations. Second, the lexical items expressing any Figure or Ground belong without exception to the same grammatical category: NPs. Third, the NPs for Figure and Ground are an open class. In short, there is a simple one-to-one relationship between Figure and Ground in conceptualization and the form rendering them in linguistic surface. Example (97) below shows the surface realization of the two elements, with 蜜蜂 *mifeng* 'bee' as the Figure and 后院 *houyuan* 'backyard' as the Ground:

(97) 蜜蜂飞进了后院。

Mifeng fei jin le houyuan. (= 42a)

bee fly enter LE backyard

'The bee(s) flew into the backyard.'

Compared to Figure and Ground, the linguistic devices for encoding Move, Path, and Manner are more complex. There is no simple one-to-one relationship between the four conceptual elements of motion and the surface linguistic forms expressing them. One conceptual element may be combined with another element to be realized as a single surface form but it is also possible for the same element to be

realized as more than one type of surface forms. Conversely, different types of the elements may be rendered by the same surface form (cf. Talmy 2000, vol. II: 21).

However, while there is no one-to-one relationship for representing Move, Path, and Manner, languages do not express these elements randomly. In fact, cross-linguistic investigations show that languages follow certain shared principles and manifest interesting typological differences in encoding the three motion elements in surface structure (Talmy 1985, 1991, Aske 1989, Choi and Bowerman 1991, Slobin 1996, Narasimhan 2003, etc).

Talmy has proposed a typology of encoding motion elements under the rubric ‘lexicalization patterns’ (1985, 2000 vol. II. chapter 1). In Talmy’s work, the term ‘lexicalization patterns’ refers to the way in which conceptualized elements of a situation are packaged in lexical forms or grammatical constructions. With regard to motion elements, Talmy suggests that languages differ in the ways they map the Path component onto a lexical or syntactic structure. Specifically, the world’s languages fall into two groupings in this respect. One group characteristically maps the Path of motion onto the verb of the sentence. Simultaneously, the Move element also conflates with Path in the verb. Talmy terms this type of language a ‘verb-framed language.’ The verb-framed languages include the Romance languages, Polynesian, Bantu, and Japanese. Unlike verb-framed languages, ‘satellite-framed languages’ characteristically map the Path component onto a ‘satellite’ constituent such as a verb

particle, prefix, or verb complement in a motion sentence,⁷⁶ with Manner or Cause conflated in the main verb. These languages include Chinese, English, most other Indo-European languages, and Finno-Ugric (Talmy 1985, 1991). If we use MV to stand for the ‘main verb’, and Sat for ‘satellite’, then the two types of confluations can be represented as in (98) below:

(98) a. Satellite-framed lexicalization:

MV_(Manner/Cause + Move) + Sat_(Path)

b. Verb-framed lexicalization:

MV_(Path + Move) (+ adjunct Manner/Cause expression)

Compare the following two sentences in English and Spanish in (99) below:

(99) a. The bottle floated into the cave. (English)

b. La botella entró flotando a la cueva. (Spanish)

‘The bottle entered (MOVED-in) to the cave floating.’

⁷⁶ By ‘satellite’, Talmy means ‘the grammatical category of any constituent other than a noun phrase or prepositional phrase complement that is a sister relation to the verb root.’ (Talmy 2000, vol. 2:102) Examples of satellites include English verb particles (*up, down, back, over, forth*, etc.), and Chinese verb complements (上 *shang* ‘up’, 下 *xia* ‘down’, 来 *lai* ‘hither’, 去 *qu* ‘thither’, etc.), and Latin, German and Russian verb prefixes.

Example (99) expresses the semantic content ‘the bottle moved into the cave during which time it floated’ with (99a) in English and (99b) in Spanish (see Talmy 1991: 488). Obviously, the English version expresses the Path with the preposition *into*, while this component is conflated with the Move component in the verb *entró* in the Spanish sentence. On the other hand, in the English sentence, the Manner *floating* is incorporated into the verb with the Move component, while in Spanish it must be expressed separately as a satellite. Since Spanish maps Path onto the main verb and also conflates Path with Move, it is categorized as a verb-framed language. In contrast, Path in English is mapped onto the particle/preposition *into*—a kind of ‘satellite’ to the main verb. Thus English is a satellite-framed language.⁷⁷

Clearly, the grammatical mapping of Move, Path, and Manner demonstrates a more complicated situation than the rendering of Figure and Ground. On the one hand, in encoding Move, Path, and Manner, semantic conflation is usually involved. Talmy observes confluations of Path and Move or Manner and Move in a single verb. Further investigation may reveal other conflation patterns. On the other hand, one element can

⁷⁷ According to Talmy, the lexicalization patterns of verb-framed mapping and satellite-framed mapping not only involve motion events, but are also reflected in other types of events. For example, (100) below presents a causation event which also demonstrates different mappings in English and Spanish (from Talmy 1991:487).

- (100) a. I blew out the candle. (English)
 b. Apague la vela de un soplido / soplandola. (Spanish)
 ‘I extinguished the candle blowing it out.’

be encoded as different linguistic forms. For instance, Path can be rendered by the main verb, as in the Spanish sentence (99b); it can also be expressed with a particle/preposition, as in the English sentence (99a). Manner can be conveyed either by the main verb, as in (99a), or by a satellite, as in (99b). With this understanding in mind, we will investigate the details of the expression in Chinese of Move, Path, and Manner in the next section.

4.2 The Parallel System of Lexicalization in Chinese

Talmy identifies Chinese as ‘a perfect example of the type’ of satellite-framed language (2000, vol. II: 27). That is to say that, in Chinese, the Path element of motion is regularly expressed as a satellite to the verb, rather than conveyed in the main verb per se. At the same time, Move and Manner or Cause are frequently conflated and encoded in the verb. In this section, we consider the plausibility of Talmy’s typological classification of Chinese.

First, as Talmy suggests, satellite-framed lexicalization is indeed a typical pattern for rendering motion elements in Chinese. Specifically, Chinese has a distinct category of ‘verb complements’ in its grammar. A verb complement is syntactically a dependent to the head verb and appears after the verb. It is usually realized as an

adjective or a verb.⁷⁸ In the category of verb complement, there is a subclass termed ‘directional complement’ in traditional literature. A directional complement is typically played by a ‘directional verb’.⁷⁹ As the term ‘directional complement’ suggests, this type of complement normally expresses the Path properties of a motion.⁸⁰ In Talmy’s work, directional complements are viewed as satellites to the main verbs in Chinese motion expressions, and thus Chinese is a satellite-framed language. Now, let us look at examples of Path satellites.

⁷⁸ For example, the verb 破 *po* ‘broken’ in (101) is the complement of the main verb 打 *da* ‘hit’, and the adjective 漂亮 *piaoliang* ‘pretty’ in (102) is the complement of the main verb 长 *zhang* ‘grow’.

(101) 孩子把窗户打破了。

Haizi ba chuanghu da **po** le.
 child BA window hit broken LE
 ‘The child broke the window.’

(102) 二丫头最近长漂亮了。

Er yatou zuijin zhang **piaoliang** le.
 second daughter recently grow pretty LE
 ‘My second daughter has grown prettier recently.’

⁷⁹ Directional verbs in Chinese are a closed-class. The total number of directional verbs claimed to exist varies in different grammar studies, but the basic forms should be around a dozen. In Chapter 5, I present a list of Chinese directional verbs.

⁸⁰ In fact, as will become clear in the next chapter, Path is a conceptual complex. ‘Direction’ is only one facet of Path. A ‘directional complement’ in Chinese not only encodes ‘direction’, but also other Path features.

(103) 好不容易爬上山顶 (， 我们一个个都气喘吁吁)。

Hao-bu-rongyi pa **shang** shan-ding (, women yi-gege dou qichuan-xuxu).

Quite-not-easy climb up-to mount-top (we every-one all wheeze)

‘With great effort we climbed up to the top of the mountain (, and everyone was breathless).’

(104) 余观径直走进人群。

Yu Guan jingzhi zou **jin** renqun.

Yu Guan directly walk into crowd

‘Yu Guan directly walked into the crowd.’

(105) 快把东西拿出来！

Kuai ba dongxi na **chulai**!

quickly BA thing take out-hither

‘Take out that thing quickly!’

In (103)-(105), the Path of the motion is rendered by 上 *shang* ‘up/upto’, *jin* ‘into’ and 出来 *chulai* ‘out-hither’ respectively. They are directional complements of the main verbs of their clauses.

In addition to ‘satellite Path’ representation, the lexicalization of Move, Manner, and Cause in Chinese also exemplifies Talmy’s observation. The main verbs 爬 *pa* ‘climb’ in (103) and 走 *zou* ‘walk’ in (104) both express Move conflated with

manner of motion. In (105), the main verb 拿 *na* ‘take’ can be viewed as expressing the Cause of the motion. Thus, it seems plausible for Talmy to identify Chinese as typologically a ‘perfect example’ of satellite-framed languages.

However, the situation reflected in (103)-(105) is not the complete picture. In fact, in addition to the satellite lexicalization of Path, it is equally natural in Chinese to conflate Move with Path and express them in the main verb of a motion sentence, as in (106)-(109):

(106) 三爷哪天下山?

San-ye na tian **xia** shan?

third-master which day descend mountain

‘Third Master, when will you go down the hill?’

(107) 赶明儿我也带孩子上那儿玩儿。

Ganmingr wo ye dai haizi **shang** nar wanr.⁸¹

one-of-these-days I too bring child go there play

‘Some day I will bring my child to go there and play too.’

(108) 走，我们回家！

Zou, women **hui** jia!

go we go-back home

‘Go, let’s go back home!’

⁸¹ This sentence is from our Beijing vernacular data.

(109) 等到五点三桂才从办公室出来。

Deng dao wu dian Sanguai cai cong bangongshi **chulai**.

Wait to five o'clock Sanguai just from office exit-hither

‘Sanguai did not come out of his office until (we waited to) 5 o’clock.’

Obviously, (106)-(109) manifest characteristics of ‘verb-framed languages’. In (106), 下 *xia* ‘move-down’ is not a satellite, but the main (and only) verb of the sentence. Semantically it not only carries the Figure 三爷 *San-ye*’s Move, but also the Path of the motion to indicate that motion proceeds from a higher place to a lower place. Similarly, the main verbs 上 *shang* ‘move-to’ in (107), 回 *hui* ‘move-back’ in (108), and 出来 *chulai* ‘move-out-hither’ in (109) all encode both Move and Path of the motion.

Examples (106)-(109) suggest that Talmy’s classification of Chinese as a satellite-framed language is inaccurate. Chinese utilizes both satellite-framed and verb-framed lexicalization patterns in encoding Path and other components of motion. Furthermore, while a statistical study of a Chinese corpus would be helpful, it is clear that both patterns are frequently used in motion expressions in colloquial Chinese.⁸²

⁸² Talmy (2000, vol. II: 27) indicates that, for a lexicalization pattern to be recognized as the principal way to express motion in a language, the pattern should be ‘colloquial in style’, ‘frequent in occurrence’, and ‘pervasive’ in expressing a wide range of motion situations. According to my intuition and as reflected in my corpus, both satellite-framed and verb-framed patterns meet Talmy’s criteria.

Thus Chinese exhibits ‘a parallel system of conflation’ in encoding Path and the other motion elements.⁸³

An interesting question comes to mind here. If both satellite-framed and verb-framed patterns are available in Chinese, what are the associations and differences between the two types of motion representations in the language?⁸⁴ As a general comparison, we make two observations below.

The first is that Path satellites and Path (main) verbs in Chinese are basically the same set of closed-class words.⁸⁵ For a specific motion, the same lexical item is used whether the Path is realized as a satellite or as a main verb. For example,

(110) a. 小花蛇爬出了洞口。

Xiao hua she **pa** **chu** le dong-kou.

Little colorful snake climb out LE hole-mouth

‘The small brightly colored snake climbed out of the hole.’

⁸³ The concept of ‘a parallel system of conflation’ is proposed in Talmy (2000, vol. II: 66).

⁸⁴ We might even ask how both types of lexicalization came to coexist in the language. But diachronic phenomena are beyond the scope of this dissertation. What can be mentioned here is that the satellite-framed pattern is a later grammaticalized construction in Chinese language history (cf. Lamarre 2002, Ohta 1987: 200).

⁸⁵ The members of the set of Path words will be introduced in next chapter.

b. 小花蛇出了洞口。

Xiao hua she **chu** le dong-kou.

Little colorful snake move-out LE hole-mouth

‘The small brightly colored snake came out of the hole.’

In (110), the two sentences can be understood as expressing the same motion event in the real world, with (110a) utilizing the satellite-framed pattern while (110b) has the verb-framed pattern. Nevertheless, the Path in both sentences is conveyed by the word 出 *chu* ‘(move-) out’.⁸⁶ This is a special feature of Chinese, considering that relatively few languages have such a set of verbs which can be used as either the main verbs or satellites to the main verbs in motion expressions. For example, in English, Path satellites *toward*, *down*, *up*, *in* and so on are not verbs. On the other hand, in a

⁸⁶ For this reason, we argue that, even in the satellite-framed pattern exemplified in (110a), the Path satellite (i.e., 出 *chu* in (110a)) not only encodes Path, but also conflates it with the Move component of the motion. If this view holds, then Talmy’s verb-framed language and satellite-framed language typology is somewhat problematic: In addition to these two types of ways of representations, we see a third possibility that both the main verb and the satellite conflate Move, and thus form a new [MV_(Manner + Move) + Sat_(Path + Move)] pattern of lexicalization. Moreover, we can further hypothesize that the [MV_(Manner + Move) + Sat_(Path + Move)] conflation results from the grammaticalization of [MV_(Manner + Move) + MV_(Path + Move)]. In this process, the second motion verb (i.e., MV_(Path + Move)) in a serial verb construction has developed into a dependent satellite (i.e., Sat_(Path + Move)) of the first verb in the construction. In this sense, the Sat_(Path + Move) conflation is a case of ‘linguistic compromise in Chinese diachronic syntax.’ (c.f. Ying-che Li 1994)

verb-framed language such as Spanish, Path verbs like *avanzar* ‘move-forward’, *entró* ‘move-in’ and *bajó* ‘move-down’ are certainly not used as satellites.

The second observation is that the two ways of lexicalization are not equally expressive or applicable in representing motion events, even though both satellite-framed and verb-framed patterns are frequently used in modern colloquial Chinese (see note 82 above). For instance, the specific meanings conveyed by the two types of lexicalization to represent the same motion event are not exact synonyms. With the satellite-framed pattern, the Manner of the motion is profiled in conception. Thus if the Manner of the motion is of concern to the speaker, then the satellite-framed pattern is the appropriate choice. In contrast, the Manner of the motion is unspecified in the verb-framed expression in Chinese. Thus, if the Manner is not a dimension within the speaker’s focus of attention, the verb-framed pattern would be more appropriate. Compare (111) and (112):

(111) a. 江涛跑回家，拿了钱，很快又跑回来。

Jiangtao **pao hui** jia, na le qian, hen kuai you **pao huilai**.

Jiangtao run back home, get LE money, very fast again run back-hither

‘Jiangtao ran back home, took the money, and quickly rushed back
again.’

b. ? 江涛回家，拿了钱，很快又回来。

? Jiangtao **hui** jia, na le qian, hen kuai you **huilai**.

Jiangtao mover-back home, get LE money, very fast again move-back-hither

‘Jiangtao went back home, took the money, and quickly came back
again.’

(112) a. 你什么时候回家？

Ni shenme shihou **hui** jia?

you what time move-back home

‘When are you going home?’

b. ?? 你什么时候跑回家？

? Ni shenme shihou **pao hui** jia?

you what time run back home

‘?? When are you going to run back home?’

The motion event expressed in (111) is one that has already taken place. Thus the Manner of motion is clear. Moreover, the Manner of motion was also within the speaker’s attention when the sentence was produced.⁸⁷ Thus it is appropriate to use the satellite-framed pattern to highlight the Manner of the motion 跑 *pao* ‘run’, as in (111a). In contrast, the verb-framed form (111b) is not quite suitable since the Manner is unspecified, even though the sentence is not completely unacceptable.

⁸⁷ This is clear from the use of the adverbial 很快 *hen kuai* ‘very quickly’.

In (112), the situation is reversed. The motion suggested in (112) is future motion. At the time of speaking it has not yet occurred. For this reason, the Manner of motion is less certain in the speaker's mind. More importantly, the focus of the expression is on the time of motion rather than the exact Manner of motion. Therefore, it is more appropriate in (112) to omit Manner on linguistic surface with the verb-framed pattern. This explains why (112a) is well-formed while (112b) is very questionable.

A further difference concerning the applicability of the two types of lexicalization in Chinese is in regard to caused-motion. We have seen that the verb-framed pattern of lexicalization is common in Chinese. This pattern is usually applied to express autonomous motion, i.e., motion that does not involve an external Cause, or if the Cause—if any—is unspecified. When the Cause of the motion is profiled, motion can only be rendered in the satellite-framed way. This can be observed in (113) and (114) below:

(113) a. 风吹倒了大树。

Feng **chui** **dao** le da shu.

wind blow (fall-)down LE big tree

'The wind blew down the tree.'

b. 风把大树吹倒了。

Feng ba da shu **chui dao** le

wind BA big tree blow (fall-)down LE

‘The wind blew down the tree.’

c. 大树被风吹倒了。

Da shu bei feng **chui dao** le.

big tree by wind blow (fall-)down LE

‘The big tree was blew down by the wind.’

d. 大树风吹倒了。

Da shu feng **chui dao** le.

big tree wind blow (fall-)down LE

‘As for the big tree, the wind blew down (it).’

e. 大树被吹倒了。

Da shu bei **chui dao** le.

big tree by blow (fall-)down LE

‘The big tree was blew down.’

f. 大树吹倒了。

Da shu **chui dao** le.

big tree blow (fall-)down LE

‘The big tree blew down.’

g. * 大树倒了风吹。

* Da shu **dao** le feng **chui**.

big tree fall-down LE wind blow

h. * 大树倒了吹。

* Da shu **dao** le **chui**

big tree fall-down LE blow

i. * 大树倒了被风吹。

* Da shu **dao** le bei feng **chui**.

big tree fall-down LE by wind blow

j. * 大树倒了被吹。

* Da shu **dao** le bei **chui**.

big tree fall-down LE by blow

k. * 风吹大树倒了。

* Feng **chui** da shu **dao** le.

wind blow big tree fall-down LE

(114) 大树倒了。

Da shu **dao** le.

big tree fall-down LE

‘The big tree fell down.’

The sentences in (113) suggest caused-motion: The blowing (吹 *chui*) of the wind (风 *feng*) caused the tree (大树 *da shu*) to fall down (倒 *dao*). Of these eleven expressions, only (113a)-(113f) are licensed in Chinese; (113g)-(113k) are unacceptable. The reason for this difference is clear: While the caused-motion event is expressed differently in (113a)-(113f), all six licensed sentences employ the satellite-framed pattern to encode the motion. In (113a)-(113f), the Cause 吹 *chui* ‘blow’ of the motion is without exception realized as the main verb of each sentence, while the Path (+Move) of the tree’s (大树 *da shu*) motion 倒 *dao* ‘(fall) down’ is expressed as a dependent satellite of the main verb. Unlike (113a)-(113f), expressions (113g)-(113k) take the verb-framed route to represent the motion. The Path (+Move) 倒 *dao* ‘fall-down’ of the motion is encoded as the main verb in (113g)-(113k), and the Cause 吹 *chui* ‘blow’ as either a dependent or a separate element in these expressions. While expressing such a motion in these ways might be acceptable in such languages as Spanish and French, they are not well-formed in Chinese. To use the verb-framed pattern to express motion in Chinese, the external Cause of the motion cannot be specified, so the event can only be conceptualized as autonomous motion, as (114) above suggests.

4.3 Conclusion

We have seen that both the satellite-framed pattern and the verb-framed pattern are available in Chinese for expressing the motion elements of Move, Path, Manner, and Cause. Both patterns occur frequently in colloquial speech in Chinese. Chinese

employs a parallel system of lexicalization and is not a 'perfect example' of a satellite-framed language, as claimed by Talmy. Typologically, this parallel system of conflation sets Chinese apart from languages such as English or Spanish which use only one type of conflation 'in its most characteristic expression of motion.' (Talmy, vol. II: 27) On the other hand, the two lexicalization patterns exhibit differences in Chinese with regard to their construal, their communicative functions, and their applicability for expressing different types of motion. Satellite-framed lexicalization profiles the Manner or Cause of motion, and is suitable for expressing realized motion in which Manner is significantly within the speaker's focus of attention, or for caused-motion in which the Cause is highlighted. In contrast, verb-framed lexicalization does not specify the exact Manner and Cause of the motion, and thus is the appropriate option for conveying motion when Manner and Cause are not at issue in the conceptualization.

CHAPTER 5

PATH AND MOVE

In this chapter we will investigate the conceptualization and representation of Path. Since Path is often conflated with Move, relevant aspects of Move will be discussed at the same time. Path is a conceptual complex central to motion conceptualization and representation. In the first section of this chapter, we argue for Path as the defining property of motion. In the second section a framework is presented for characterizing Path conceptualization and its linguistics expression. In the third section, we examine the inventory of morpho-syntactic forms denoting Path in Chinese within the framework presented in Section 2. Our conclusions are summarized in the final section.

5.1 Path as the Defining Property of Motion

The central and defining property of motion events and their linguistic representation is claimed to be the Move element (see, e.g., Langacker 1991). If the fact of motion (expressed, for example, with the verb 跑 *pao* ‘run’ or 走 *zou* ‘walk, go’) is asserted, the event conveyed is a motion event, and the corresponding clause is a motion expression. Thus in (115),

(115) a. 孩子跑进了屋子里。

Haizi pao jin le wuzi li.

child run into LE room inside

‘The child ran into the room.’

b. 孩子在屋子里跑。

Haizi zai wuzi li pao.

child in room inside run.

‘The child was running in the room.’

the occurrence of a motion verb like 跑 *pao* ‘run’ is quite predictable for both (115a) and (115b). It is thus taken for granted that both sentences express motion events.

However, this view of motion expression is somewhat problematic. Although (115a) and (115b) are both associated with actual motion in the physical world, as indicated by the motion verb 跑 *pao* ‘run’, only in (115a) is the physical motion actually conceived and represented in language as a motion event.

To understand why this is so, we need to consider the nature of motion events *as language expresses them*. The fact of moving is not in itself justification for concluding that languages treat clauses expressing any kind of movement as conforming to a single overriding category. In fact, such clauses may reflect quite distinct types of events. The distinctive property is the “change of location” of the Figure with respect to a reference Ground (cf. Section 1.2 of Chapter 1). Thus, only when the change of location, i.e., the Path of the motion, is profiled and overtly

represented, 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. The profiled assertion of a Path is necessary for a movement situation to be expressed as a motion event.

Moreover, what we think of as an event is, in fact, a mental construct, and the construal process involved in its creation is the mediating process linking reality and language. Thus, although a particular scenario may seem to be a motion event in the real world, we may not process it as such, and language may not express it as a motion event.

We are able to conceive and portray the same ‘objective’ situation in alternate ways (cf. Section 1.1 of Chapter 1). Generally speaking, a physical motion in the real world can be conceptualized and rendered either analytically or holistically. In an analytic conceptualization, the speaker focuses attention on the internal structure of the Path of the motion. The motion process is construed by highlighting certain part(s) of the Path of motion, a sequential scan of such elements as departure, traversal, and arrival. Through analytic conceptualization, the Path of the Figure’s Move is profiled, and the construal thus realized as a motion event expression. In contrast, in holistic conceptualization, the speaker processes mentally an overall view of the scenario of the motion, ignoring the *en route* details of the Path. Even though the motion involves a change of location of the Figure in the real world, the detail of the change of location is left unspecified in the speaker’s conceptualization; The motion is only conceived as an action in general. As a result, the event not expressed linguistically as a motion

event but instead be expressed using structural patterns appropriate for rendering more general types of action events.⁸⁸

For a better understanding of these points made above, let us examine the situations involved in (115). As mentioned earlier, both (115a) and (115b) contain the motion verb 跑 *pao* ‘run’, and thus both suggest an association with some kind of motion in the physical world. However, the two sentences demonstrate significant differences in event conceptualization and linguistic realization. In (115a), as indicated by the Path complement 进屋子里 *jin wuzi li* ‘enter/into the room’, the speaker analytically construed the end point of the Figure’s (孩子 *haizi* ‘the child’) change of location. Thus the sentence clearly expresses a translation through space for the Figure. (115a) is a representation of a motion event. However, in (115b), although the motion action 跑 *pao* ‘run’ is overtly mentioned, the sentence expresses no change of location for the Figure 孩子 *haizi* ‘the child’. What the sentence actually reports is that “somebody does something at some place”, but not ‘some entity moves through space.’ The expression 在屋子里 *zai wuzi li* ‘in the room’ does not profile any portion on the Path that the Figure 孩子 *haizi* ‘child’ passes through, but simply presents a

⁸⁸ The concepts of and distinction between analytic conceptualization and holistic conceptualization discussed here owes insights to Langacker’s concepts of ‘sequential scanning’ and ‘summary scanning’ in scene processing (Langacker 1987: 145), though the two sets of concepts are not identical. As a heuristic metaphor, the analytic conceptualization is like taking a time-elapsed photography of a motion scenario with a video camera, and the holistic conceptualization is taking a still photo of the motion scenario.

setting in which the action 跑 *pao* ‘run’ takes place. Thus, the expression of the conceptualization underlying (115b) is not the expression of translational motion.

Compare (115b) with (116) below:

(115b) 孩子在屋子里跑。

Haizi zai wuzi li **pao**.

child in room inside run.

‘The child was running in the room.’

(116) 孩子在屋子里唱歌。

Haizi zai wuzi li **changge**.

child in room inside sing

‘The child was singing in the room.’

(116) has the same syntactic structure as (115b). The main verb in (116) is the non-motion verb 唱歌 *changge* ‘sing’ but, in (115b), it is the motion verb 跑 *pao* ‘run’.

Neither sentence includes the kind of directional construction we see in (115a). The two sentences represent the two actions as the same general type of event. Both have the ‘constructional meaning’ of ‘someone doing something at some place.’⁸⁹

⁸⁹ The analysis here of the constructional meaning shared by (116) and (115b) obviously owes much to theories of Construction Grammar (Goldberg 1995, Taylor 1998, etc.). Construction Grammar claims that constructions have basic status in language. Certain conventionalized aspects of both meaning and

There is further evidence to support our claim that Path is more basic than Move in motion conceptualization. In Chinese, even when Move is not overtly asserted by the main verb of a sentence, the sentence may still express a motion event if the Path is clearly highlighted, as in (117) below:

(117) (火车上没座位了,) 陈奂生只得站到南京。

(Huoche shang mei zuowei le,) Chen Huansheng zhidei

(train on no seat LE) Chen Huansheng have-to

zhan dao Nanjing.

stand to Nanjing

‘(There was no unoccupied seats on the train,) Chen Huansheng had to stand (all the way) to Nanjing.’

Sentence (117) uses the satellite-framed pattern to express the motion ‘Cheng Huansheng moved to Nanjing by taking a train with the manner that he stands on the train’. Clearly, the main verb 站 *zhan* ‘stand’ is a Manner verb which indicates a state but not motion through space. The Move element is not conveyed by the verb.

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 (115b) and (116) is identically ‘someone doing something at some place’ rather than ‘someone changes location through space.’

Nevertheless, the sentence represents translational motion by the Figure 陈奂生 *Chen Huansheng* from somewhere else to Nanjing. To achieve this understanding, we clearly rely on the Path expression 到 *dao* (南京 *Nanjing*) ‘to (Nanjing)’. Thus, so long as the Path element is represented in the clause, the sentence is understood as a motion expression—even though the Move element is not made explicit.⁹⁰ In motion conceptualization and representation, the profiling of Path is more fundamental than the fact of motion

To summarize, whether a sentence expresses a motion event or not is not necessarily related to the physical nature of the event, but is instead determined by how the speaker construes the event. For physical motion, only when its internal structure is analytically conceptualized and the Path (i.e., ‘change of location’) clearly profiled, can the event be expressed as a motion event. In contrast, if the physical motion is holistically conceptualized and its internal Path structure ignored, the event will be represented as a general action rather than translational motion. The Move meaning of a motion event in Chinese need not be expressed by motion verbs. We saw that even whether or not the main verb of a sentence is a ‘motion verb’, the sentence may not express a ‘motion event’ if the Path of the motion is unspecified. Path rather

⁹⁰ Adopting the perspective of Construction Grammar, we could say that the Move meaning 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 (115b) and (116) show, without Path, the construction would not be a motion event construction.

than the fact of motion per se is the central defining property for motion event expressions.

5.2 Path as a Conceptual Complex

In Chapter 2, we stated that, in Talmy's framework, Path is understood as the route followed by the Figure object in a motion event with respect to the Ground. With this general understanding in mind, we now go further in this section to examine the conceptual and linguistic details of Path, especially those conceptual elements which are categorized in Chinese and which contribute to communicating the route through space in a motion event.

In Talmy's framework, Path complex comprises three main components: Vector, Conformation, and Deictic. (2000, vol. II, ch.1) We claim here that, for an adequate account of Path, three additional components must be identified. The three additional components are Direction, Dimension, and Perspective, with Perspective being a more general concept taking Deictic as one of its subordinate categories. Thus, our framework for characterizing the Path complex of motion consists of five components: Vector, Conformation, Direction, Dimension, and Perspective. In this section, I will define each of the five components.⁹¹

⁹¹ Since this analysis is based mainly on Chinese with some reference to English and seeks to characterize Path representation for Chinese, the Path components identified in this section are not assumed to be a cross-linguistically complete inventory. It is quite possible that other languages categorize other facets of Path not included in our framework.

5.2.1 Vector

The term ‘Vector’ refers to the dynamic phase property of the Figure’s movement with reference to the Ground on the route of the motion.⁹² Obviously, Vector itself is also a conceptual complex. Theoretically, at any given point on the route of the Figure’s motion we can construe a Vector property for that motion. However, since human cognition does not (and needs not to) conceptualize every detail of the reality, only salient configurations of Vector are categorized in human conceptualization. Correspondingly, language only encodes those salient configurations as linguistic forms.

Talmy recognizes three basic Vector components: Arrival, Departure and Traversal. (Talmy 2000, vol. II: 53) Arrival and Departure are cognitively the two most prominent Vector elements in cognition and linguistic representation. The Departure Vector denotes the directional property of motion at its initial stage. The Arrival component signifies the directional property of motion at its ending stage.⁹³ In addition to Arrival and Departure, the third Vector element which is less prominent but still regularly characterized in language is Traversal. Traversal collectively

⁹² Talmy does not define the Vector of Path. The explanation of Vector presented here is based on our own understanding of the overall framework.

⁹³ 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 than the other parts and more attended to.

categorizes the Vector property of the motion between the initial stage and the ending stage.

Following Talmy's usage, we will use upper case letters to represent Vector components (2000 vol. II: 53-56). Thus, the notations TO, FROM, and PASS will stand for the three abstract Vector components of Arrival, Departure, and Transversal respectively. To facilitate formulaic representations, we will, on occasion, further abbreviate them as F for Figure, G for Ground, and MOVE for the Move element. We can now represent the profiling of the individual Vector components thus:

- (118) a. Arrival: (F MOVE) TO (G)
- b. Departure: (F MOVE) FROM (G)
- c. Transversal: (F MOVE) PASS (G)

The examples in (119) instantiate in Chinese the three formulas:

- (119) a. 汽车开到了学校。
Qiche kai **dao** le xuexiao. (Arrival)
car drive to LE school
'The car drove to the school.'

b. 汽车从学校开走了。

Qiche cong xuexiao kai **zou** le. (Departure)

car from school drive away LE

‘The car drove away from the school.’

c. 汽车穿过了隧道。

Qiche chuan **guo** le suidao. (Transversal)

car move-through pass LE tunnel

‘The car drove through the tunnel.’

Depending on the functional requirements or purposes in actual communication, two or all of three basic Vector components can co-occur, thus forming the following possible Vector combinations:

(120) a. Departure + Arrival:

(F MOVE) FROM (G_1) TO (G_2)

b. Departure + Transversal:

F MOVE FROM G_1) PASS (G_2)

c. Transversal + Arrival:

(F MOVE) PASS (G_1) TO (G_2)

d. Departure + Transversal + Arrival:

(F MOVE) FROM (G₁) PASS (G₂) TO (G₃) ⁹⁴

In our daily experience, Departure, Traversal, and Arrival are the three most fundamental phases of change of location in a translational motion. For this reason, quite possibly they may be universal Vector categories so that every language would have specific grammatical forms corresponding to each of the three categories. ⁹⁵

Nevertheless, despite the likelihood that most languages may conceptualize Departure, Traversal, and Arrival as the three basic Vector components, it is also evident that languages demonstrate typological differences and language-specific features in conceptualizing and representing Vector of Path. In conceptualization, languages vary in the degree of specification of each of the three components. For instance, for the Arrival component, one language may differentiate the ‘realized arrival’ from ‘toward-but-not-arrive’, while another language conceives the two uniformly as a single category using the same surface form to render them. Moreover,

⁹⁴ 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.

⁹⁵ Similar to the Chinese instantiations of the three Vector components in (119) 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.

languages may lexicalize the concepts differently. English uses the Vector preposition/particle *around* to encode the type of traversal, in which the route of the motion circles the reference Ground. In contrast, Chinese renders this kind of Vector with the verb 绕 *rao*. This difference can be seen in (121) below.

(121) 学生们绕着操场跑。

Xuesheng-men **rao** zhe caochang pao.

student-PL circle ZHE sports-ground run

‘The students ran **around** the sports ground.’

Although satellite-framed lexicalization is a principal way to express Path in Chinese, it is impossible to render this ‘Traversal in circle’ Vector with the satellite-framed pattern in Chinese, as can English:

(122) * 学生们跑绕操场。

* Xuesheng-men pao **rao** caochang.

student-PL run around sports-ground

5.2.2 Conformation

The Conformation component of Path has to do with the geometric relationship between the Figure and the Ground on the route of motion. It is about the

configuration of the Figure and Ground in space. At any given point on the route of a motion, the Figure forms a specific locational relationship with the Ground in question. If this locational relationship attracts attention when speakers conceptualize the Path of motion, then this relationship constitutes the Conformation component of the Path.

As with Vector and other cognitive categories, the construal and categorization of Confirmation is also subjective and experience-based. Human cognition conceptualizes certain Confirmation types which are salient in experience, but ignores many other non-prominent ones. Based on Talmy's insights on this regard (2000, vol. II: 55), we can list certain fundamental Confirmation categories regularly construed in language.

- (123) a: Inside/Outside Confirmation: F is at the INSIDE/OUTSIDE of G
- b. Surface Confirmation: F is on the SURFACE of G
- c. Beside Confirmation: F is BESIDE G
- d. Above/Beneath Confirmation: F is ABOVE/BENEATH G

The examples in (124) instantiate the Confirmation of Inside and Outside in Chinese.⁹⁶

⁹⁶ The representation of Confirmation types of Surface, Beside, Above and Beneath involve some complicated morpho-syntactic devices which will be discussed later in this chapter.

(124) a. 汽车开进了车库。

Qiche kai **jin** le cheku. (Inside)⁹⁷

car drive into LE garage

‘The car drove into the garage.’

b. 汽车开出了车库。

Qiche kai **chu** le cheku. (Outside)

car drive out LE garage

‘The car drove out of the garage.’

As was the case with Vector, languages vary in the degree of specification of Conformation. For instance, depending on the Conformation property of a motion, English differentiates at least four types of Traversal subcategories, using the prepositions *past*, *across*, *through*, *over*:

(125) a. Traversal + Beside: *past*

b. Traversal + Surface: *across*

c. Traversal + Inside: *through*

d. Traversal + Above: *over*

⁹⁷ The Path complement 进 *jin* ‘into’ in (124a) 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.

In contrast, Chinese does not differentiate these subcategorizations, but typically uses just 过 *guo* to represent all Traversal situations—no matter what the type of Conformation. This difference between English and Chinese is illustrated in (126) below:

(126) a. 走过那个路口（，就到了学校）。

Zou **guo** na ge lukou (, jiu dao le xuexiao).

walk Traversal that CL intersection (, then arrive LE school)

‘When you walk **past** the intersection, you will arrive at the school.’

b. 走过那个操场（，就到了学校）。

Zou **guo** na ge caochang (, jiu dao le xuexiao).

walk Traversal that CL field (, then arrive LE school)

‘When you walk **across** the field, you will arrive at the school.’

c. 走过那片树林（，就到了学校）。

Zou **guo** na pian shulin (, jiu dao le xuexiao).

walk Traversal that CL woods (, then arrive LE school)

‘When you walk **through** the woods, you will arrive at the school.’

d. 飞过太平洋（，就到了中国）。

Fei **guo** Taipingyang (, jiu dao le Zhongguo).

fly Traversal Pacific-Ocean (, then arrive LE China)

‘When you fly **over** the Pacific Ocean, you will arrive at China.’⁹⁸

5.2.3 Direction

The Direction component of Path involves the tropism of the motion of the Figure in space. Direction is generally conceptualized as consisting of four basic sub-categories: Vertical, Facing, Returning, and Verging. The Vertical property is determined with reference to the horizon or the surface of the earth. It has Up and Down as its two variants. If a Figure moves vertically further and further from the horizon or surface of the earth, then the motion has an Up Direction. Conversely, if the Figure moves vertically closer and closer to the horizon or surface of the earth, then the motion has a Down Direction. The second sub-category, Facing, is determined by the intrinsic direction of the ‘face’ or ‘head’ of the Figure. Facing has only two variants: Forward and Backward. If the route of motion extends in the direction to which the Figure’s ‘face’ faces or the Figure’s ‘head’ points, then the Path is a Forward Path. Contrarily, if the route of motion extends in the opposite direction to which the Figure’s ‘face’ faces or the Figure’s ‘head’ points, then the Path is in a Backward Direction. The third type of Direction—Returning captures the Path feature

⁹⁸ 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 2002).

that a motion takes place on the same route with the same Figure as an earlier motion, but the direction of the current motion is opposite to the earlier motion. Last, the Verging Property of Direction characterizes the feature that different figures move divergently away from or convergently toward a common Ground. One special property of Verging is that it intrinsically involves more than one Figure. The four sub-types of Direction of Path can be summarized in (127) below:

(127) a. Vertical:

Up: F Moves vertically and gets further away from the horizon.

Down: F Moves vertically and gets closer to the horizon.

b. Horizontal:

Forward: F Moves horizontally and gets further away from the
Departure G and closer to the Arrival G.

Backward: F Moves on the same route of its earlier horizontal
motion, but in the direction opposite to that of the earlier
motion.⁹⁹

⁹⁹ Clearly, Backward can be viewed as a 'compound' Direction which incorporates Forward and Returning properties. See the definition for Returning below.

c. Facing: ¹⁰⁰

Front: F Moves in the direction it faces or its head points to.

Back: F Moves in the opposite direction it faces or its head
points to.

d. Returning: F Moves on the same route of its earlier motion,
but in the direction opposite to that of the earlier motion.

e. Verging:

Divergent: different F Move divergently away from the same G.

Convergent: different F Move convergently toward the same G.

The sentences in (128) are examples in Chinese illustrating the five Direction
properties.

(128) a. 汽球飘上天了。

Qiqiu piao **shang** tian le. (Up)

balloon float up sky LE

‘The balloon floated up to the sky.’

¹⁰⁰ English also categorizes a Side Direction in which the Figure Moves in the direction perpendicular to the Figure’s Facing Direction. The Side Direction is realized as the particle *sideways*, as in *Harry walked sideways into the room, facing his father the whole time*.

b. 三爷哪天下山?

San-ye na tian **xia** shan? [= (106)] (Down)

third-master which day descend mountain

‘Third Master, when will you go down the hill?’

c. 往前走，莫停留！

Wang qian zou, mo tingliu! (Forward + Front)

toward front go not stop

‘Go forward, do not stop!’

d. 车再往后倒一点。

Che zai **wang** **hou** **dao** yidian. (Backward + Back)

car again toward back(-place) (to-)back little

‘Back the car a little more.’

e. 文清昨天回老家了。

Wenqing zuotian **hui** laojia le. (Returning)

Wenqing yesterday return hometown LE

‘Wenqing went back to her hometown yesterday.’

f. 警察赶来时人群已经走散了。

Jingcha gan lai shi renqun yijing zou **san** le. (Divergent)

police rush-hither time crowd already walk ascatter LE ¹⁰¹

‘The crowd had dispersed when the police arrived.’

¹⁰¹ The word *ascatter* is borrowed from Talmy (2000, vol. II: 109) who created it for translating Chinese 散 *san* which specifies the Divergent Path we discussed here.

g. 妈妈一进门，孩子们就围了上来。

Mama yi jin men, haizi-men jiu **wei** le shang-lai.

(Convergent)

Mom once enter door, children immediately surround LE up-hither

‘When Mom entered the door, the children immediately came

and surrounded her.’

We observe an interesting phenomenon for the five sub-categories of Direction in Chinese. In our daily experience, ‘vertical’ and ‘horizontal’ are two basic categories of direction. However, of the four sub-categories of Direction, ‘vertical’ is included but not ‘horizontal’. The two are not treated in the same way in cognition and language. Vertical is regularly categorized separately and profiled with specific forms in Chinese (such as 上 *shang* ‘up’, 下 *xia* ‘down’ and 起 *qi* ‘up’ in Chinese). In contrast, there is no specific category and corresponding unique surface form for representing horizontal directions—though motion in horizontal directions may be far more frequent in our experience than vertical directions. For example, when to express a scene in which ‘a balloon moves vertically from a field to the sky’, Chinese employs a single complement verb, 上 *shang* ‘up’, to profile the vertical direction of the Path and render the motion in a way shown in (128a), copied here as (129):

(129) 汽球飘上天了。

Qiqiu piao **shang** tian le. (Up)

balloon float up sky LE

‘The balloon floated into the sky.’

However, when we conceptualize a scene in which ‘a ball rolls horizontally from a field to a road’, we find no single complement verb in Chinese to fill the slot of (130), one which would profile the horizontal direction of the Path and render the motion in a similar way to (129).

(130) 球滚_____马路上了。

Qiu gun _____ malu-shang le.

ball roll (horizontal-direction) road-surface LE

‘The ball rolled forward onto the road.’

It might seem that 到 *dao* ‘to’ can be used to fill in the blanks in the Chinese sentence (130). Nevertheless, 到 *dao* ‘to’ does not actually highlight any Direction property of the Path. It only signals the Arrival Vector of motion. Thus we can use 到 *dao* ‘to’ to express both horizontal and vertical motion, as in (131a) and (131b).

(131) a. 球滚到了马路上。

Qiu gun **dao** le malu-shang. (implied ‘horizontal’)

ball roll to LE road-surface

‘The ball rolled **to** the road.’

b. 汽球飘到了天上。

Qiqiu piao **dao** le tian-shang. (implied ‘vertical’)

balloon float to LE sky

‘The balloon floated **to** the sky.’

Obviously, there is asymmetry between vertical directions and horizontal directions in both categorization and representation in Chinese.

A possible explanation for the above asymmetry in Chinese lies in our daily experience. We live on the surface of the earth. In our everyday experience, when we move to a different location, we stand vertically and move in a direction that is parallel to the horizon. The default direction of motion in our daily experience is horizontal motion. Consequently, speakers of Chinese use this ‘default’ direction to express and understand horizontal motion. We do not overtly specify direction of motion with any unique verb complement form if the motion is in a horizontal direction. In perception, we normally assume that a motion is in a horizontal direction if there is no specific form in the expression to indicate that the motion is in a special direction. Thus, for (132) below, the most likely sense is that the Figure 汽车 *qiche* ‘car’ moves

horizontally to the Arrival Ground 学校 *xuexiao* ‘school’, even though 学校 *xuexiao* ‘school’ might be located at a higher elevation (such as at the top of a mountain) so that 汽车 *qiche* ‘car’ moved upward in reality.

(132) 汽车开到了学校。

Qiche kai **dao** le xuexiao. [= (119a)]

car drive to LE school

‘The car drove **to** the school.’

The fact that Chinese speakers perceive horizontal direction to be the default direction of motion explains the lack of specific forms to represent horizontal motion. In markedness terminology (Eckman *et al.* 1986), Chinese uses the ‘unmarked’ form (zero) to represent the default horizontal direction of motion, and a marked form (such as 上 *shang* ‘up’, and 下 *xia* ‘down’) to express the vertical direction of motion.

Clearly, languages differ in categorizing and expressing Horizontal Direction. In contrary to Chinese, English has Horizontal Direction markers *forward* and *backward*, as used in the clauses *The ball rolled forward 13 yards to the Chargers’ 11-yard line* and *He ran backward toward the end zone* respectively.

5.2.4 Dimension

The Dimension component of Path has to do with the spatial extent property of the Ground. Human cognition normally distinguishes four dimensional properties: a

zero-dimensional ‘Point’, a one-dimensional ‘Line’, a two-dimensional ‘Plane’, and a three-dimensional ‘Volume’. A language may use a variety of forms to encode different Dimension properties of the relevant Ground of the motion. For example, in English, if the Ground in question is a one-dimensional Line, then the particle *along* is used to indicate the Path (*We walked **along** the river*). If the reference Ground is understood as a Point, then other particles such as *past* or *to* will be used to express the Path (*We walked **past** the tower*). Sentences in (133) exemplify the four Dimension properties realized in Chinese.

(133) a. 我们一起从上海出发。

Women yiqi **cong** Shanghai chufa. (Zero-Dimension: Point)

we together from Shanghai depart

‘We leave together from Shanghai.’

b. 小松鼠顺着烟囱爬了上去。

Xiao songshu **shunzhe** yancong pa le shangqu.

(One-Dimension: Line)

little squirrel along chimney climb LE up-thither

‘The little squirrel climbed up along the chimney.’

- c. 警察赶来时人群已经走散了。

Jingcha gan lai shi renqun yijing zou **san** le.

[= (122f)] (Two-Dimension: Plane)

police rush-hither time crowd already walk asscatter LE

‘The crowd had dispersed when the police arrived.’

- d. 车库进了水。

Cheku **jin** le shui. [= (4b)] (Three-Dimension: Volume)

garage enter LE water

‘As for the garage, water entered it.’

5.2.5 Perspective

The four Path components discussed above—Vector, Conformation, Direction, and Dimension are relevant only to the spatial properties of a Figure and its Ground. But the Perspective component to be discussed here is different. Perspective involves not only the spatial relationship between Figure and Ground in a motion event but also the speaker’s mental anchorage of the Figure, Ground, as well as that of the speaker herself. First, to characterize the Path of motion, speakers typically select one Ground element as the ‘anchorage’ of conceptualization, and then deploy the focus of attention to another Ground, the region where the Figure will be located after moving. Thus, Anchorage and Region of Attention are two fundamental components of Perspective.

Consider the English sentences in (134) to see how the two Perspective components are employed in Path conceptualization.¹⁰²

- (134) a. The hill gently rises **from the bank** of the river.
b. The hill gently falls **to the bank** of the river.

Both sentences in (134) present the same static scene in conceptual reality as fictive motion.¹⁰³ The primary difference between the two sentences exists in the conceptualizer's deployment of Perspective. In (134a), the conceptualizer selects the *bank of the river* as the Anchorage, and sets the Region of Attention as away from the *bank of the river*. Conversely, in (134b), the *bank of the river* is the Region of Attention, and an unspecified location away from the *bank of the river* is the Anchorage. Thus, (134a) and (134b) conceptualize the same physical situation as two distinct kinds of motion.¹⁰⁴

¹⁰² The examples in (134) are taken from Langacker (1986) in his discussion of 'subjective motion' in cognition.

¹⁰³ In the cognitive linguistics literature, when a static scene in reality is conceptualized as motion, it is called 'subjective motion' or 'fictive motion' (Langacker 1998, Talmy 1996b).

¹⁰⁴ Langacker (1986) proposes that the difference between (134a) and (134b) is in the Direction of the Path. He claims that, for (134a), the conceptualizer 'mentally scans' the static situation by means of a subjective Up motion. In (134b) the conceptualizer changes the direction of her mental scanning from 'upward' to 'downward'. However, I consider the directionality difference between (134a) and (134b) to be secondary to the Perspective difference. If the Anchorage and Region of Attention are selected, then the direction of the Path is decided. This point can be even clearer when the Path is a Horizontal

Consider now some Chinese examples of Anchorage and Region of Attention settings on Horizontal Path:

(135) a. 汽车开出了车库。

Qiche kai **chu** le cheku. [= (124b)]

car drive out LE garage

‘The car drove out of the garage.’

b. 汽车开进了车库。

Qiche kai **jin** le cheku.¹⁰⁵ [= (124a)]

car drive into LE garage

‘The car drove into the garage.’

Clearly, in (135a) the Anchorage is 车库 *cheku* ‘garage’, and the Region of Attention is an unspecified location outside of 车库 *cheku* ‘garage’ where the car is in the motion at the time of conceptualization. In contrast, in (135b) an unspecified location outside of 车库 *cheku* ‘garage’ and on the Path of the motion is the Anchorage, and 车库 *cheku* ‘garage’ is the Region of Attention.

one, with which the ‘Upward’ to ‘Downward’ Direction properties are not involved. Please see the Chinese examples in (135).

¹⁰⁵ We may recall that in earlier discussion we showed that the Path complements 进 *jin* ‘into’ in (135a) and 出 *chu* ‘out’ in (135b) also render the Vector and Conformation properties of the Path. This is the semantic conflation of Path elements to be discussed later in this chapter.

Setting the Anchorage and Region of Attention is a fundamental construal operation deploying Perspective. Languages use specific morpho-syntactic devices to profile certain regular settings of Anchorage and Region of Attention. For example, in Chinese, 到 *dao* ‘to’, 进 *jin* ‘into/enter’, 上 *shang* ‘up’, and 回 *hui* ‘back’ etc. profile the Region of Attention, while 从 *cong* ‘from’, 出 *chu* ‘out’, 起 *qi* ‘up’, 开 *kai* ‘away’ etc. highlight the Anchorage. If the Anchorage is windowed via overt mention, the corresponding Anchorage-profiling form should be used. But if the Region of Attention is focused on, an appropriate form for highlighting Region of Attention should be employed. For example, in Chinese, both 上 *shang* ‘up’ and 起 *qi* ‘up’ specify Up Path. But 上 *shang* ‘up’ profiles the Region of Attention, while 起 *qi* ‘up’ profiles Anchorage of the vertical motion. Consequently, they demonstrate a representation constraint as reflected in (136) and (137):

(136) a. 村子里飘起了炊烟。

Cunzi-li piao **qi** le chuiyan. (Anchorage profiled)

village-inside float up LE cooking-smoke

‘Cooking smoke floated up from the village.’

b. * 村子里飘上了炊烟。

*Cunzi-li piao **shang** le chuiyan.

village-inside float up LE smoke-from-kitchen-chimneys

(137) a. 炊烟飘上了天空。

Chuiyan piao **shang** le tiankong. (Region of Attention profiled)

cooking-smoke float up LE sky

‘Cooking smoke floated up to the sky.’

b. * 炊烟飘起了天空。

* Chuiyan piao **qi** le tiankong.

cooking-smoke float up LE sky

All four sentences in (136) and (137) refer to the same motion in reality: The smoke generated from cooking floated vertically from the village to the sky. All four sentences take the same satellite-framed pattern to express the motion. However, (136) and (137) deploy Perspective differently in Path cognition. In (136) the Anchorage 村子 *cunzi* ‘the village’ is profiled, while in (137) the Region of Attention 天空 *tiankong* ‘sky’ is profiled. As a result, only the Anchorage-profiling Path complement 起 *qi* is acceptable for (136) and the Region-of-Attention-profiling complement 上 *shang* for (137).

Both 起 *qi* and 上 *shang* are translated as ‘up’ in English. This indicates that English does not conflate Perspective with Vertical in Path encoding as Chinese does, but it expresses the two types of components separately. This is evident in the English translations of the two sentences (*Cooking smoke floated **up from** the village* and *Cooking smoke floated **up to** the sky*).

Thus far it is clear that Anchorage and Region of Attention are fundamental elements of Perspective. In addition to these elements, speakers may also take their own location into consideration when characterizing the Path. The involvement of speaker's location yields the Deictic component of Perspective. Depending on which place the speaker mentally selects to stay, the Deictic component manifests two variations: Hither and Thither. If the speaker mentally selects to stay within the Region of Attention, a Hither Path is chosen. If the speaker mentally stays at the Anchorage, a Thither Path is used.

Hither and Thither may well be universal Deictic features. Each language might therefore have specific morpho-syntactic forms to encode them. In English, they are basically encoded within the motion verbs *come* and *go*; and, in Chinese, in the verb complements 来 *lai* 'hither' and 去 *qu* 'thither'. However, Deictic Perspective is not equally prominent in Path conceptualization in different languages. In this respect, Chinese and English are very different. In Chinese, Deictic Perspective is widely used in motion conceptualization and expression. But English does not take Deictic into consideration in some kinds of motion conceptualization. For example, the motion sentences in Chinese in (138) all profile the Deictic Perspective. But their English translation equivalents do not.

(138) a. 汽车开进校园来了。

Qiche kai jin xiaoyuan **lai** le (Hither)

car drive into campus Hither LE

‘The car drove into the schoolyard.’

b. 把药喝下去！

Ba yao he xia-**qu**! (Thither)

BA medicine drink down-Thither

‘Drink the medicine!’

c. 请你站起来。

Qing ni zhan qi-**lai**. (Hither)

please you stand up-Hither

‘Please stand up.’

d. 鸽子飞出去了。

gezi fei chu-**qu** le. (Thither)

pigeon fly out-Hither LE

‘The pigeon flew out.’

In our definition of Deictic Perspective, we pointed out that the Deictic property of a Path depends on the place at which the speaker mentally selects to stay. When speakers select a Deictic location between the Anchorage and the Region of Attention, they typically select one the same as or closer to the place where they are

physically located. Thus, if a speaker is at home and invites someone else to her place, she would say (139a) but not (139b):

(139) a. 请来我家。

Qing lai wo jia.

please come I home

‘Please **come** to my home.’

b. 请去我家。

Qing qu wo jia.

please go I home

‘Please **go** to my home’.

Nevertheless, speakers conceptualize the Deictic Perspective based on their experiences rather than real-world situations. In some cases, the Anchorage or Region of Attention of Path is not within the speaker’s awareness in her life experience. Then the speaker selects the one which is noticeable to be the mental location for her to deploy Deictic Perspective, rather than the one that is out of her awareness. Consider (140):

(140) a. 我的酒喝下去了。

Wo de jiu he xia-**qu** le. (Thither)

I DE alcohol drink down-Thither LE

‘I have drunk my liquor.’

b. * 我的酒喝下来了。

* Wo de jiu he xia-lai le. (Hither)

I DE alcohol drink down-Thither LE

In (140), the Figure 酒 *jiu* ‘liquor’ moves from outside toward the speaker. At the end it reaches the inside of the speaker’s body (stomach). Contrary to the usual case, for such kind of ‘Figure moving to Speaker’ motion event, the speaker has to take the Thither Perspective and use the corresponding complement (下)去 (*xia-qu*) ‘(down-)Thither’ rather than use the Hither one (下)来 (*xia-lai*) ‘(down-)Hither’ to signal to it, as (140a) and (140b) show. The reason is that only the Anchorage—the Figure’s original place which is outside of the speaker’s body—is noticeable for the speaker. The Region of Attention—the inside stomach of the speaker—is not within the speaker’s awareness. (141) and (142) are more examples manifesting the role of speakers’ awareness:

(141) a. 酒喝多了，都吐出来了。

Jiu he duo le, dou tu chu-lai le.

liquor drink much LE, all spit out-Hither LE

‘(He) drank too much, and all was spat out.’

b. * 酒喝多了，都吐出去了。

* Jiu he duo le, dou tu chu-qu le.

liquor drink much LE, all spit out-Thither LE

(142) a. 这毛衣太小，我穿不上去。

Zhe maoyi tai xiao, wo chuan bu shang-**qu**. (Thither)

this sweater too small I wear not up-Thither

‘The sweater is too small. I cannot wear it.’

b. * 这毛衣太小，我穿不上来。

* Zhe maoyi tai xiao, wo chuan bu shang-**qu**. (Hither)

this sweater too small I wear not up-Thither

The awareness factor also works in conceptualizing fictive motions, which can be observed in (143)-(145) below:

(143) a. 振中昨晚昏迷过去了。

Zhenzhong zuo-wan hunmi guo-**qu** le.

Zhenzhong yesterday-night loss-of-consciousness past-Thither LE

‘Zhenzhong has fallen into a coma last night.’

b. * 振中昨晚昏迷过来了。

* Zhenzhong zuo-wan hunmi guo-**lai** le.

Zhenzhong yesterday-night loss-of-consciousness past-Hither LE

(144) a. 振中昨晚苏醒过来了。

Zhenzhong zuo-wan suxing guo-**lai** le. (Hither)

Zhenzhong yesterday-night revive past-Hither LE

‘Zhenzhong has revived last night.’

b. * 振中昨晚苏醒过去了。

* Zhenzhong zuo-wan suxing guo-**qu** le. (Thither)

Zhenzhong yesterday-night revive past-Thither LE

(145) a. 你们想出来什么办法没有?

Nimen xiang chu-**lai** shenme banfa meiyou?

you think out-Hither some method not

‘Have you figured out any method (or not)?’

b. * 你们想出去什么办法没有?

* Nimen xiang chu-**qu** shenme banfa meiyou?

you think out-Hither some method not

For specific communicative purposes, it is also possible for the speaker to position herself mentally at either the Anchorage or the Region of Attention in conceptualizing the same motion event. For instance, when a mother telephones her son to say that she will pick him up from the school at five o’clock, she might say either (146a) or (146b):¹⁰⁶

¹⁰⁶ Kuno (1987) explains the deployment of Deictic Perspective in the case similar to (146b) with an ‘empathy’ function in communication. In factive motion we also observe cases of this like:

(146) a. 我五点去你学校接你。

Wo wu dian **qu** ni xuexiao jie ni.

I 5 o'clock go you school pick-up you

‘I’ll **go** to your school to pick you up at 5 o’clock.’

b. 我五点来你学校接你。

Wo wu dian **lai** ni xuexiao jie ni.

I five o'clock come you school pick-up you

‘I’ll **come** to your school to pick you up at 5 o’clock.’

Clearly, the deployment of Deictic Perspective, like other construal operations, is experientially-based and subjective in nature.¹⁰⁷

(147) a. 房价又升上去了。

Fang-jia you sheng shang-**qu** le.

house-price again rise up-Thither LE.

‘The real estate price rose up again.’

b. 房价又升上来了。

Fang-jia you sheng shang-**lai** le.

house-price again rise up-Hither LE.

‘The real estate price rose up again.’

¹⁰⁷ The Deictic Perspective phenomenon has drawn much attention in linguistics from a variety of perspectives, e.g., Kuno (1987), Langacker (1987: 126-129), and Duchan *et al* (1995).

5.2.6 Summary

In this section, I have proposed a framework to characterize the Path complex of motion. In this framework, Path consists of five conceptual components: Vector, Conformation, Direction, Dimension, and Perspective. Each component is further broken down into their elements. The basic content of this framework can be summarized as (148) below:

(148) Components of the Path Complex:

Vector: Arrival, Departure, Traversal

Conformation: Inside/Outside, Surface, Beside, Above/Beneath

Direction: Vertical (Up/Down), Horizontal (Forward/Backward),

Facing (Front/Back/Side), Returning ,

Verging (Divergent/Convergent)

Dimension: Zero Dimension (Point), One Dimension (Line),

Two Dimension (Plane), Three Dimension (Volume)

Perspective: Basic (Anchorage, Region of Attention)

Deictic (Hither/Thither)

5.3 Path and Move: Patterns of Representation

Now we can use this framework to describe the morpho-syntactic devices used for Path representation in Chinese. In Chinese, Path components are expressed complement verbs (as discussed in Chapter 4), prepositions, and main verbs. Path

complement verbs and Path prepositions are both closed-class categories while Path verbs are relatively an open-class. Let us examine one sentence with several Path elements encoded in the three types of surface forms.

(149) 球从车库掉进地下室去了。

	Qiu	cong	cheku	diao	jin	dixiashi	qu	le.
	ball	from	garage	fall	into	basement	thither	LE
Vector:		Departure			Arrival			
Conformation:					Inside			
Direction:				Down				
Dimension:					Volume			
Perspective:		Anchorage		(Move)	Region of Attention		Thither	

‘The ball fell into the basement from the garage.’

Based on sentences like (149), we make four general observations. First, as mentioned above, Path components in Chinese may be realized in at least three types of surface form: complement verbs (进 *jin* ‘into’, 去 *qu* ‘thither’), prepositions (从 *cong* ‘from’), and the main verb (掉 *diao* ‘fall’). Secondly, one surface form can profile one or more Path components. In (149), the complement verb 去 *qu* ‘thither’ suggests only the Thither Perspective; The preposition 从 *cong* ‘from’ conflates Departure Vector and Anchorage Perspective; the complement 进 *jin* ‘into’ incorporates components from four cognitive categories: Vector (Arrival), Conformation (Inside), Dimension

(Volume), and Perspective (Region of Attention); The main verb 掉 *diao* ‘fall’ expresses both Move and a Down Direction. Thus, to explain the representation of Path in Chinese, we need to examine the conflation of Path components in the surface forms. Finally, not surprisingly, languages are selective: They do not express every detail of Path. For instance, in (149), the Conformation and Dimension features of the Arrival Ground 地下室 *dixiashi* ‘basement’ are clearly profiled by the complement verb 进 *jin* ‘into’, while those features of the Departure Ground 车库 *cheku* ‘garage’ are unspecified. The patterns of omission and profiling of Path components is an interesting area for discussion.

Based on these general understanding, we now examine the inventory of morpho-syntactic devices for Path representation in Chinese. We will start with complement verbs, then turn to Path prepositions, and finally discuss Path verbs.

5.3.1 Complement Verbs

Chinese has two groups of complement verbs which participate in Path expressions of motion in satellite-framed constructions. The first group consists of two Deictic Perspective variants 来 *lai* ‘hither’ and 去 *qu* ‘thither’. The second group includes 上 *shang* ‘up’, 下 *xia* ‘down’, 进 *jin* ‘into’, 出 *chu* ‘out’, 回 *hui* ‘back’, 过 *guo* ‘past’, 起 *qi* ‘up’, 开 *kai* ‘apart’, 到 *dao* ‘to’, 走 *zou* ‘away’, 散 *san* ‘ascatter’.¹⁰⁸

¹⁰⁸ The total number and specific members of the Chinese complement verbs posted vary slightly in different studies. See Yuehua Liu *et al* (1998) and Talmy (2000, vol. II: 109), among others. Talmy (2000, vol. II: 109) lists 拢 *long* ‘together’ as a complement verb which seems to convey Convergent

Compared with the two Deictic Perspective variants 来 *lai* ‘hither’ and 去 *qu* ‘thither’, the second group ‘non-Deictic’ complement verbs encode more Path components in various confluations. Using the framework presented in Section 5.2, we show, in Table 5.1 on next page, the Path components each complement verb suggests.

In Table 5.1, the top-most row lists the major Chinese Path complement verbs. The left-most column lists the Path components discussed in Section 5.2. A plus (+) mark in a box indicates that the complement verb listed above it profiles the Path component indicated on its left. If there is more than one component under one complement verb, then that verb conflates more than one Path component. For example, the complement verb 上 *shang* ‘up’ conflates three Path components: the Arrival Vector, the Up Direction, and the Region of Attention Perspective. Looking at the table horizontally, if several plus marks appear in the same row, that indicates that several complement verbs express the Path component listed in that row. For instance, both 上 *shang* and 起 *qi* encode the component for the Up Direction. On the other hand, if there is no plus mark in a row, that suggests that none of the Chinese complement verbs express the Path component listed in that row. In that case, this Path component is either realized in other forms, such as a preposition and a main verb, or that component is not conceptualized or expressed.

Direction. However, 拢 *long* in modern Chinese is a bound morpheme appearing in very few verbs, with the meaning ‘(move) convergently’, such as 靠拢 *kaolong* ‘move close’, 聚拢 *julong* ‘gather together’. It cannot be used freely as a complement verb.

			来 lai 'hi- ther'	去 qu 'hi- ther'	上 shang 'up'	下 xia 'down'	进 jin 'into'	出 chu 'out'	回 hui 'back'	过 guo 'past'	起 qi 'up'	开 kai 'apart'	到 dao 'to'	走 zou 'away'	散 san 'ascat- ter'
Vector	Arrival				+	(+)	+		+				+		
	Departure					+		+			+	+		+	+
	Traversal									+					
Conformation	Inside						+								
	Outside							+							
	Surface														
	Beside														
	Above														
	Beneath														
Direction	Vertical	Up			+						+				
		Down				+									
	Horizontal	For- ward													
		Back- ward													
	Facing	Front													
		Back													
		Side													
	Returning								+						
	Verging	Di- vergent													+
		Con- vergent													
Dimension	Point								+			+	+		
	Line														
	Plane														+
	Volume						+	+							
Perspective	Basic	Anchor- age				+		+		+				+	+
		Region of Attention			+	(+)	+		+		+	+	+		
	Deictic	Hither	+												
		Thither		+											

Table 5.1 Chinese Path Complement Verbs and Their Encoded Path Components

Table 5.1 provides a global view of which components can be represented by which complement verbs. For example, the Traversal Path in Chinese is generally expressed by a single complement verb—过 *guo*—but, unlike English, there are no sub-categories (see relevant discussion in Section 5.2.2). We see also that Chinese categorizes six different ways of Departure: 下 *xia* ‘down’, 出 *chu* ‘out’, 起 *qi* ‘up’, 开 *kai* ‘apart’, 走 *zou* ‘away’, and 散 *san* ‘ascatter’.

Secondly, we observe that quite a few Path components cannot be represented by Chinese complement verbs, most notably the Conformation components Surface, Beside, Above, and Beneath. That is, those Path components cannot be expressed in Chinese with the satellite-framed pattern. Suppose, for example, that a plane flew in the space above a school for a certain time period and then flew past that school. In English the particle/preposition *over* can be used to highlight the ‘F Move above G’ meaning and we could express that situation as *The plane flew over the school*. However, there is no such complement verb in Chinese that can be inserted into (150) below:

(150) 飞机飞 _____ 学校。

Feiji fei _____ xuexiao.¹⁰⁹

plan fly (move-above-G complement verb) school

‘The plane flew over the school.’

¹⁰⁹ Notice that the complement verb 过 *guo* ‘past’ can occur in the blank but it does not carry the ‘Above’ information. See the analysis of 过 *guo* in Section 5.2.2.

In Chinese, the way to express this Above notion (or Surface, Beside, and Beneath) is to use a prepositional phrase.

Likewise, in Table 5.1, the Forward and Backward Direction features of Path, the Convergent Direction and the two-dimensional Line Path are not realized in Chinese by complement verbs. Compare (a) and (b) in (151):

(151) a. 小松鼠爬上了大树。

Xiao songshu pa **shang** le da shu.

little squirrel climb Up-Direction LE big tree

‘The little squirrel climbed **up** the big tree.’

b. 小松鼠爬_____了大树。

Xiao songshu pa _____ le da shu.

little squirrel climb (Forward Direction) LE big tree

‘The little squirrel climbed **forward to** the big tree.’

In (151), we see that Chinese has the complement verb 上 *shang* ‘up’ to signify a Vertical Path, as shown in the (a) sentence. But it cannot express the Forward Path in the same way, as the (b) sentence indicates. Once again, the Forward (and Backward and Convergent) Direction of Path is realized with a prepositional phrase.

Compared with other languages, such as English, which use satellite-framed patterns to express Path, the Chinese use of complement verbs reveals two important characteristics. The first is the pervasiveness of Deictic Perspective discussed in

Section 5.2.5. The second is a limitation on cumulative Path components. In general, Chinese only permits ‘non-Deictic + Deictic’ complement combinations, while ‘Non-Deictic + non-Deictic’ combination pattern is not licensed. In (152) below, 上来 *shang-lai* ‘up-hither’ and 进去 *jin-qu* ‘into-thither’ exemplify the ‘non-Deictic + Deictic’ combination pattern:¹¹⁰

(152) a. 蔡阳把大巴开上山来了。

Cai Yang ba da-ba kai **shang** shan **lai** le.

Cai Yang BA big-bus drive up mountain Hither LE

‘Cai Yang has driven the bus up to the mountain.’

b. 张生想悄悄溜进去。

Zhang Sheng xiang qiaoqiao liu **jin-qu**.

Zhang student want stealthily sneak into-Thither

‘Zhang wants to sneak in.’

However, the ‘non-Deictic + Deictic’ combination pattern has one exception: It is not applicable to the non-Deictic complements 走 *zou* ‘away’ and 散 *san* ‘ascatter’. All ‘MV + 走来 *zou-lai*/走去 *zou-qu*/散来 *san-lai*/散去 *san-qu*’ accumulations are not acceptable. The contrast between (a) and (b) in (153) and (154) demonstrates this exception:

¹¹⁰ As we can see in (152a), in Chinese, if a Ground element plays the syntactic object in the clause, the object should be inserted between the non-Deictic and Deictic Path complements.

(153) a. 瓶子漂走了。

Pingzi piao zou le.

bottle float away LE

‘The bottle floated away.’

b. * 瓶子漂走来了。

* Pingzi piao **zou-lai** le.

bottle float away-Hither LE

(154) a. 人群已经走散了。

Renqun yijing zou san le.

crowd already walk ascatter LE

‘The crowd dispersed already.’

b. * 人群已经走散去了。

Renqun yijing zou **san-qu** le.

crowd already walk ascatter-Thither LE

This exception is related to an idiosyncratic Path-profiling property that 走 *zou* ‘away’ and 散 *san* ‘ascatter’ have. To specify, in conceptualizing a motion event with 走 *zou* ‘away’ or 散 *san* ‘ascatter’ to highlight Path, a common feature is that the event as conceptualized in the speaker’s mind does not have a clear and definite Region of Attention. Consequently, if the speaker wants to take a Deictic Perspective, the only possibility is to stay with the Anchorage. There is no such option for the speaker to

select Region of Attention to deploy a Hither Perspective. Therefore, there is no possibility for ‘MV + 走来 *zou-lai* /散来 *san-lai*’ combinations. This is different from other non-Deictic Path components. Nevertheless, since the speaker can mentally stay with the Anchorage, theoretically the Thither Perspective and corresponding ‘MV + 走去 *zou-qu* /散去 *san-qu*’ should be licensed in the language. But as (154b) shows, ‘MV + 走去 *zou-qu* /散去 *san-qu*’ combination is not realized either. I assume the reason lies in pragmatics: Since Thither Perspective is the only choice when 走 *zou* ‘away’ or 散 *san* ‘ascatter’ is used to profile Path, the language simply represents the Thither Perspective with an unmarked (zero) form.

Now we look at the limitation on ‘Non-Deictic + non-Deictic’ complement combination pattern. Consider a motion situation in which someone has just come out of a basement and now needs to return there. This is first of all a Returning Path. Moreover, since the basement is at a lower location, the person’s motion also follows a Down Path. Finally, since the basement is a three-dimensional space, its Conformation has the feature of Volume. For such a motion event, English can express all the three Path properties within a single clause, as we can see in (155):

(155) John ran **back down into** the basement. (Returning + Down + Volume)

However, to express all the three Path components within one clause is a problem in Chinese. We can only express one of the three components in one single clause:

(156) a. 张三跑回地窖。

Zhangsan pao **hui** dijiao. (Returning)

Zhangsan run back basement.

‘Zhangsan ran back (to) the basement’

b. 张三跑下地窖。

Zhangsan pao **xia** dijiao. (Down)

Zhangsan run down basement.

‘Zhangsan ran down (to) the basement’

c. 张三跑进地窖。

Zhangsan pao **jin** dijiao. (Volume)

Zhangsan run into basement.

‘Zhangsan ran into the basement’

Chinese cannot express any two or all of the three non-Deictic Path components in a single clause:¹¹¹

¹¹¹ It seems there is one exception to the limitation of ‘non-Deictic + non-Deictic’ combination: If the combination is 回到 *hui-dao* ‘back-to’, it seems acceptable:

(157) 阿黄又跑回到小木屋。

A-huang you pao **hui-dao** xiao mu-wu.

A-huang (dog) again run back-to small cabin

‘A-huang the dog ran back to the small cabin again.’

In my corpus, I also see the combination of 上到 *shang-dao*, as in 我们上到第八层 *Women shang dao di ba ceng* ‘we climbed up to the 8th floor’. In this clause, 上 *shang* ‘ascend’ is the main verb but not a Path

(158) a. * 张三跑回下地窖。

* Zhangsan pao **hui xia** dijiao. (Returning + Down)

Zhangsan run back down basement.

b. * 张三跑下进地窖。

* Zhangsan pao **xia jin** dijiao. (Down + Volume)

Zhangsan run down into basement.

c. * 张三跑回进地窖。

* Zhangsan pao **hui jin** dijiao. (Returning + Volume)

Zhangsan run back into basement.

d. * 张三跑回下进地窖。

* Zhangsan pao **hui xia jin** dijiao. (Returning + Down + Volume)

Zhangsan run back down into basement.

The contrast between the English expression (155) and the Chinese clauses in (158) shows that we must expect languages to differ typologically with regard to the possibility of realizing cumulative Path components in a single clause.

complement. Thus, 上到 *shang-dao* in the expression should not be viewed as a ‘non-Deictic + non-Deictic’ complement combination. Nevertheless, only 到 *dao* ‘to’ can be used this way; other Path complements are not able to appear after a Path verb. Thus, combinations such as 上进 *shang-jin* ‘asend-into’ 下出 *xia-chu* ‘desend-out’ are still not acceptable, even though 上 *shang* or 下 *xia* is used as the main verb.

5.3.2 Prepositions

Next, we will consider Chinese prepositions used to express Path components.

In Chinese, four groups of prepositions realize Path properties. Table 5.2 below lists the Path prepositions and their Path-rendering functions.

			向 / 往 / 朝 xiang/wang/chao 'to/toward'	从 / 打 / 自 / 由 / 打自 / 打从 cong/da/zi/you/dazi/dacong 'from'/'(via)'	经(过) jing(guo) 'past, by'	沿(着) / 顺(着) yan(zhe)/ shun(zhe) 'along'
Vector	Arrival		+			
	Departure			+		
	Traversal			(+)	+	+
Dimension	Point				+	
	Line					+
	Plane					
	Volume					
Perspective	Basic	Anchorage		+	+	+
		Region of Attention	+			
	Deictic	Hither				
		Thither				

Table 5.2 Chinese Path Prepositions

In Table 5.2 we see that the Path components expressed by the four groups of prepositions are simpler than those encoded in complement verbs. Basically they convey Vector properties: The 向 / 往 / 朝 *xiang/chao/wang* 'to/toward' group indicate the Arrival Vector; The 从 / 打 / 自 / 由 / 打自 / 打从 *cong/da/zi/you/dazi/dacong* 'from'

group render the Departure Vector; Both 经(过) *jīng(guò)* ‘via/by’ and 沿(着) / 顺(着) *yán(zhe) / shùn(zhe)* ‘along’ express the Traversal Vector, with the first specifying that the reference Ground is conceptualized as a point, while the latter highlights the Ground as a two-dimensional line. Compared with Path complement verbs, Path prepositions do not profile the Conformation feature of Ground objects nor the intrinsic Direction of a Path. To express the Direction or Conformation feature, it is typically necessary to use a positional noun phrase object. For example, if we say that the complement verb 进 *jìn* ‘into’ conveys the Ground information of Inside and Volume, then for the same information to be expressed with a preposition like 向 *xiàng* ‘to/toward’, it requires the positional noun 里 *lǐ* ‘inside’ as its object to form the prepositional phrase 向...里 *xiàng... lǐ* ‘to the inside of ...’, as the pair of sentences in (159) show: ¹¹²

(159) a. 新娘子走进洞房。

Xinniāngzi zōu **jìn** dōngfāng. (complement verb)

bride walk into nuptial-chamber

‘The bride went into the nuptial-chamber.’

¹¹² Certainly, (159a) and (159b) differ with regard to event aspects and communicative functions. The MV-complement, especially, indicates ‘telic’ motion, which has a bounded path, suggesting achievement. But the prepositional form indicates imperfective activity, unbounded path, atelic aspect. Nevertheless, that is not relevant to Direction and Conformation representation. For discussion of aspect properties of events, see Smith (1990), Pustejovsky (1991), Tenny (1995) and Chang (2001), among others. (158a) and (158b) may also involve the ‘temporal sequence’ of event representation as discussed in Tai (1985).

b. 新娘子向洞房里走。

Xinniàngzi **xiang** dongfang **li** zou. (prepositional phrase)

bride to nuptial-chamber inside walk

‘The bride went toward the nuptial-chamber.’

Chinese has a set of positional nouns which categorize locational relations in systematic ways. The basic forms of the positional nouns are: 上 *shang* ‘on/above’, 下 *xia* ‘below/under’, 前 *qian* ‘front/before’, 后 *hou* ‘behind/after’, 左 *zuo* ‘left’, 右 *you* ‘right’, 里 *li* ‘inside/in’, 外 *wai* ‘outside’, 中 *zhong* ‘middle’, 内 *nei* ‘inside/interior’, 间 *jian* ‘interspace/between’, 旁 *pang* ‘side’, 东 *dong* ‘east’, 西 *xi* ‘west’, 南 *nan* ‘south’, and 北 *bei* ‘north’ (Chao 1968: 620-627).¹¹³

5.3.3 Path Verbs

We pointed out in Chapter 4 that most Path complement verbs in Chinese are also used as the main verbs of clauses, and they convey the same Path properties as complement verbs. Thus Chinese demonstrates a parallel system of lexicalization. In addition to those complement verbs, in example (149) we also see that the verb 掉 *diao* ‘fall’ not only expresses the Move component of motion, but also conflates it with the Down Path. In fact, Chinese has a number of other verbs that conflate a Path

¹¹³ In recent years, positional nouns and relevant phenomena have been a focus of Chinese grammar research. Extensive discussions can be found in Liao (1989), Tai (1993), N. Liu (1994), Z. Chu (1998), Qi (1998), Fang (1999), Yuming Li (1999), Cui (2001, ch. 3) and Cheng (2004).

component with Move. In (160) we list some frequently used ones and indicate the Path components they encode.

(160) Verbs Conflating Move and Path in Chinese:

a. Up/Down:

升 *sheng* ‘rise/raise’, 上升 *shangsheng* ‘rise’, 升腾 *shengteng* ‘leap-up’
降 *jiang* ‘fall/descend’, 下降 *xiajiang* ‘descend’, 掉 *diao* ‘fall’,
降落 *jiangluo* ‘land’, 落 *luo* ‘fall’, 滴 *di* ‘drop’, 沉没 *chenmo* ‘sink’,
沉 *chen* ‘sink’

b. Forward/Backward:

进 *jin* ‘move-forward/advance’, 前进 *qianjin* ‘move-forward’,
退 *tui* ‘move-back’, 后退 *houtui* ‘move-back’, 倒(车) *dao (che)*
‘back (a car)’

c. Arrival + Region of Attention

到达 *daoda* ‘reach’, 抵达 *dida* ‘reach, arrive at’

d. Departure + Anchorage

离开 *likai* ‘leave’, 撤离 *cheli* ‘withdraw from’

e. Convergent + Region of Attention

凑 *cou* ‘move convergently to’, 聚 *ju* ‘gather together’

In our discussion of Wierzbicka’s ‘Natural Semantic Metalanguage’ in Chapter 2, we mentioned that, in colloquial Chinese, there is no verb which expresses

‘pure’ Move, but does not conflate with Path, Manner or any other conceptual elements. In Chinese there is a verb 移动 *yidong* ‘move’, but it is not a colloquial word and occurs rarely.

5.4 Summary

This chapter has presented a characterization of Path in Chinese. We argued that Path is the defining property for motion conceptualization and representation. Then we proposed a framework for the analysis and description of Path. The framework consists of five basic categories: Vector, Conformation, Direction, Dimension, and Perspective. Each category consists of several elements or variants. We showed how the framework is helpful in describing Path-related conceptualizations and their representations. Specifically, we observed that Path conceptualizations and realization in Chinese manifest certain typological characteristics: Path properties are realized in a number of verb complements, prepositional phrases, and main verbs in Chinese; Deictic Perspective is pervasively utilized in Path conceptualization and representation; Horizontal Path and certain Conformation Path elements are not rendered by Path complement verbs; ‘Non-Deictic + non-Deictic’ Path complement combination is not licensed.

CHAPTER 6

MANNER AND MOVE

At this point in the study, we have already described the conceptualization and linguistic realization in Chinese of the four internal constituents of motion: Figure, Ground, Path, and Move. In addition to the four internal components, motion cognition and its expression regularly involve certain external elements, in particular, Manner of motion. In Chapter 4, we noted that Talmy differentiated two types of lexicalization pattern realizing linguistically Path and Manner/Cause and represented it formally as below:

(161) a. Satellite-framed lexicalization: [= (98)]

MV_(Manner/Cause + Move) + Sat_(Path)

b. Verb-framed lexicalization:

MV_(Path + Move) (+ adjunct Manner/Cause expression)

In Talmy's formulation, a satellite-framed language such as Chinese and English can conflate Manner with Move in the main verb of a clause, but a verb-framed language such as Spanish can only specify Manner with an adjunct constituent to the main verb.

Talmy's framework provides a very useful basis for characterizing the representation of Manner of motion. Nevertheless, there are three reasons why we

should be cautious about the notion of conflation of Manner with Move in the main verb of a sentence in a satellite-framed language. First, ‘manner’ is a complex notion. Even in satellite-framed languages, not every ‘manner’ can be conflated with Move in a motion verb. Secondly, ‘satellite-framed languages’ vary considerably in the scope of those types of ‘manner’ that can be conflated with Move to form motion verbs. Thirdly, those languages identified as satellite-framed languages also demonstrate different constraints on Manner of motion verbs functioning as main verbs in a satellite-framed clause. In fact, even under the rubric of ‘satellite-framed languages’, related languages differ in the ways they express Manner of motion.

In this chapter, the focus of our discussion will be significant characteristics of conceptualization and representation of Manner of motion in Chinese, particularly with respect to the above mentioned three cross-linguistic differences. The chapter includes a list of frequently used Manner of motion verbs in the language.

6.1 The Conflation of Manner and Move

Compared with typical verb-framed languages, Chinese demonstrates the feature of a satellite-framed language in which Manner of motion can be conflated with Move in the main verb of a clause. This is evident in the numerous examples cited in previous chapters. Below is one such example copied here to show this kind of conflation:

(162) 小花蛇爬出了洞口。

Xiao hua she **pa chu** le dongkou. [= (110a)]

Little colorful snake climb out LE hole-mouth

‘The colorful little snake **climbed out** of the hole.’

In (162), the main verb 爬 *pa* ‘climb’ suggests two distinct motion elements. One is the Move element asserting the change of location of the Figure 小花蛇 *xiao hua she* ‘the colorful little snake’; the other is that 小花蛇 *xiao hua she* ‘the colorful little snake’ moves with the Manner of 爬 *pa* ‘climb’.¹¹⁴ Thus, 爬 *pa* ‘climb’ combines both Move and Manner and is a Manner of motion verb.

What kind of Manner can be combined with Move in the way that 爬 *pa* ‘climb’ does to form a Manner of motion verb? Or to put it differently, what are the conditions which license or constrain [Manner + Move] conflation? While manner-of-motion verbs have been the topic of many linguistic studies within different paradigms in the past ten or more years (e.g., Pinker 1989, Talmy 1985, 1991, Levin 1993, Goldberg 1995, Matsumoto 1996, Levin, Grace, and Atkins 1997, Iwata 2002, Narasimhan 2003), there has been no clear account of the conditions and constraints on [Manner + Move] conflation. Part of the reason for this is that ‘manner’ is a complex notion, and thus the scope of Manner of motion verbs is still uncertain.

¹¹⁴ Following Talmy’s method of decomposition, 小花蛇爬 *Xiao hua she pa* ‘the little snake climbs’ = [小花蛇 *xiao hua she* ‘the little snake’ Move] WITH-THE-MANNER-OF [小花蛇爬 *Xiao hua she pa* ‘the little snake climbs’] (cf. Talmy 2000, vol II: 30).

Nevertheless, it is clear that not every ‘manner’ of a motion can conflate with Move. As a preliminary hypothesis, it seems reasonable to assume that any Manner that can be conflated with Move is an intrinsic property of the motion in question. Otherwise that Manner cannot be combined in conception with Move and realized as a single verb. This condition can be termed the ‘inseparability condition’.

Imagine now a situation in which a person moves on foot at a normal pace while smiling. This motion situation involves two different ‘Manners’. One is moving ‘on foot with a normal pace’; the other is ‘smiling’ while moving. Obviously, these two Manners bear different relations to Move. The first Manner ‘(moving) on foot at a normal pace’ specifies the intrinsic body mode of this motion. In this sense, we say the Manner of ‘(moving) on foot at a normal pace’ is an intrinsic concomitant of Move in this motion event, and Move and this Manner are inseparable elements.

In contrast, the second Manner, the Figure’s ‘smiling’ is not tied to the Move. The Figure can Move with a smile on her face, or without any smile. Thus ‘smiling’ is not an intrinsic property of Move in this motion event.

The first Manner ‘(moving) on foot at a normal pace’ is conflated with Move and realized as the verb 走 *zou* ‘walk’ in Chinese. But the second Manner ‘smiling (while moving)’ is not in any conflation. Chinese has no verb specifying ‘Move while smiling’.

Like ‘smiling’, other possible incidental facets of motion such as the mental state of the Figure, the color of the Figure’s clothes, and the weather at the time of motion are not conceptualized as intrinsic properties of motion, and thus not conflated

with Move to form special Manner of motion verbs.

The example ‘moving on foot at a normal pace while smiling’ demonstrates how the inseparability condition constrains [Manner + Move] conflation in motion verbs. Nevertheless, like other human categorizations, the inseparability of Manner and Move in a motion event is an experientially based subjective judgment. Thus, in some cases, two kinds of Manners similar with respect to their inseparability relationship with Move may differ as to whether they can be conflated with Move into a single verb. To further clarify, compare two motion events. In one, somebody is ‘moving by using a car’, and in the other the person is ‘moving by using a stick’. Clearly, both motion events involve moving with some kind of tool. The difference is that in one motion event the tool is a car and in the other the tool is a stick. However, in English, only the Manner ‘using a car’ conflates with Move and is realized as a verb — *drive*. But there exists no single verb encoding the meaning [Move + using a stick], although, in real life it is not uncommon to see a wounded or handicapped person walking with a stick.

The contrast between the conceptualization of ‘moving by using a car’ and ‘moving by using a stick’ might arise from certain social factors as well as the relative frequency of the two situations (R. A. Jacobs 2004, personal communication). Nevertheless, it shows that the ‘inseparability’ of Manner and Move is not a sufficient condition to warrant the realization of [Manner + Move] conflation, but is only a prerequisite for such conflation.

We should therefore expect considerable cross-linguistic variation in the realization of specific kinds of manners in motion events. In English, for example, there is a verb *hop* which encodes the motion event ‘jump on one foot’. But *hop* has no equivalent verb in Chinese. Instead, Chinese analytically expresses this type of Manner of motion using an adverbial as part of a sequence: 单脚跳 *dan-jiao-tiao* ‘one-foot-jump’ or 用一只脚跳 *yong yi zhi jiao tiao* ‘jump with one foot’.

The ‘jump on one foot’ example demonstrates that some [Manner + Move] confluents in English cannot occur in Chinese. In fact, this kind of conflation is more limited in Chinese than in English. For example, Chinese does not conflate Move with a concomitant sound emitted by a Figure during its moving. But English has a fair number of such conflated Manner of motion verbs such as *roar*, *wheeze*, and *whistle* (cf. Levin 1993, Song 1997).

- (163) a. The truck **roared** across the town.
b. The elevator **wheezed** upward.
c. The bullet **whistled** into the room.

In (163), what is conveyed is that the Figure Moves while emitting a specific sound. Again, to convey this kind of Manner of sound of emission in a motion event, Chinese uses a separate adverbial phrase, as in (164) below:

(164) 卡车轰鸣着穿过了小镇。

Kache **hongming-zhe** chuan guo le xiao-zhen.
truck roar-ZHE go-through past LE small-town.
'The truck roared across the town.'

In some cases, English verbs not only conflate the sound of emission and Move, but also encode other additional Manner information:

(165) She **rustled** out of the room.

According to Song's (1997: 196) decomposition, sentence (165) specifies that the Figure 'exited from the room, accompanied by swishing rustle of her cloth'. The Manner of motion verb *rustle* in (165) encodes not only the 'swishing rustle' sound, but it also indicates the 'cloth' as the object which generates the sound. To express such a complex Manner of motion, Chinese resorts to a separate clause:

(166) 她跑出房间，衣服沙沙作响。

Ta pao chu fangjian, **yifu shasha-zuoxiang**.
she run out room cloth rustle
'She rustled out of the room.'

Another case showing the difference in [Manner + Move] conflation between Chinese and English has to do with vehicular motion. English has two kinds of [Vehicle + Move] verbs. The first kind specifies the actual type of vehicle used in a motion event, such as *boat* and *bike* in (167) and (168):

(167) They **boated** us across the bay.

(168) Let the boy **bike** to school.

This kind of [Vehicle + Move] conflation in English uses the names of the vehicles as the verbs. In Chinese, there is no [Vehicle + Move] verbs. To express this kind of Manner and Move in a sentence, Chinese utilizes either an adverbial phrase or a serial verb construction, as in examples (169) and (170) below, but not a satellite-framed lexicalization pattern.

(169) 他们用船把我们渡过海湾。

Tamen **yong** **chuan** ba women du guo haiwan.

they use/with boat BA we ferry across bay

‘They boated us across the bay.’

(170) 让孩子骑车上学。

Rang haizi **qi** **che** shang xue.

let child ride bike go school

‘Let the child ride a bike to school / **bike** to school.’

Boat and *bike* exemplify the kind of English [Vehicle + Move] verb which specifies the actual type of the vehicle used in the motion event. Unlike *boat*, *bike* and other such verbs, a second type of [Vehicle + Move] verb in English exercises a higher degree of abstraction in encoding Manner of motion with a vehicle. These verbs do not distinguish between different types of vehicles that share certain properties in the way they are used. For example, the verb *drive* indicates that the vehicle used in the motion can be a car, a truck, a train, a motorcycle, or some other ‘drivable’ vehicle. Similarly, for the verb *ride*, we can ride a horse, a bike, a wagon, or even a train. Thus, both *drive* and *ride* encode a less specific Manner of motion differing from verbs like *boat* and *bike*.

Generally speaking, this second kind of [Vehicle + Move] verb has translational equivalents in Chinese. For instance, for the most usages of *drive*, Chinese can use the verb 开 *kai*, as in 开汽车 *kai qiche* ‘drive cars’, 开船 *kai chuan* ‘drive a ship’, 开火车 *kai huiche* ‘drive a train’, etc.

6.2 Chinese [Manner + Move] Verbs

In the previous section, we explored certain properties and limitations of [Manner + Move] conflation in Chinese. For a fuller picture of the conflation, we list in this section some frequently used [Manner + Move] verbs in Chinese. ¹¹⁵

¹¹⁵ As mentioned at the beginning of Section 6.1, Manner is a rather complex notion, and it is hard to specify the scope of Manner of motion verbs or to classify them more precisely in a language. Thus, the

Motion on foot:

走 *zou* ‘walk’, 跑 *pao* ‘run’, 冲 *chong* ‘rush’, 奔 *ben* ‘rush’,
逛 *guang* ‘stroll’, 溜达 *liuda* ‘stroll’, 蹦 *beng* ‘leap’, 跳 *tiao* ‘jump’,
跨 *kua* ‘bestraddle’, 登 *deng* ‘ascend on foot’

Medium of motion:

飞 *fei* ‘fly’, 游 *you* ‘swim’, 走 *zou* ‘walk’, 爬 *pa* ‘crawl’,

Vehicle of motion:

划(船) *hua (chuan)* ‘row (a boat)’, 开(车) *kai (che)* ‘drive (a car)’,
骑(马) *qi (ma)* ‘ride (a horse)’

Speed of motion:

走 *zou* ‘walk’, 跑 *pao* ‘run’, 冲 *chong* ‘rush’, 奔驰 *benchi* ‘(car etc.)
run quickly’, 飞奔 *feiben* ‘gallop’

Motion by losing control:

跌 *die* ‘fall’, 摔 *shuai* ‘fall’, 倒 *dao* ‘fall/collapse’

list offered in this section is only a preliminary effort. Further, since a Manner of motion verb may exhibit different facets of Manner properties, it is possible for one verb to be classified into more than one class.

Self-contained motion in translational motion:

滚 *gun* ‘roll’, 转 *zhuan* ‘rotate’, 弹 *tan* ‘bounce’

Motion of liquid:

滴 *di* ‘drop’, 漏 *lou* ‘leak’, 涌 *yong* ‘gush’, 流 *liu* ‘flow’,

溅 *jian* ‘splash’, 喷射 *penshe* ‘spray’

Motion of sound:

(声音)传 (*shengyin*) *chuan* ‘(sound etc.) transmit’

Motion of light:

照 *zhao* ‘shine’, 照射 *zhaoshe* ‘irradiate’

Motion of abstract things:

流传 *liuchuan* ‘(information etc) spread’, 传 *chuan* ‘transmit’

6.3 Summary

We have seen in this chapter that Chinese exhibits the property of a satellite-framed language in licensing [Manner + Move] conflation for a verb. But this kind of typological identification was shown to be insufficiently precise. Our analysis indicates that to realize the [Manner + Move] conflation in a language, inseparability between the relevant Manner and Move is a necessary condition. Furthermore, there is

much internal cross-linguistic diversity under the rubric of satellite-framed languages. Comparing Chinese with English, we found that [Manner + Move] conflation in Chinese is much less pervasive than in English. In particular, Chinese licenses neither the conflation of Move with the sound of emission nor the conflation of Move with the manner of using a specific type of vehicle.

CHAPTER 7
CLOSING REMARKS: MOTION EXPRESSION
PEDAGOGY AND ACQUISITION

In the previous chapters we presented a fairly comprehensive study of the conceptualization and grammatical realization of prototypical motion in Chinese. Within the paradigm of cognitive linguistics, we explored the conceptual structure of motion and the many typologically significant properties of its realization at the linguistic surface of Chinese. Using the insights gained from our study of motion events in Chinese, we developed Talmy's framework for motion in conceptualization and its linguistic realization and explored some novel approaches to the characterization of motion events. Specifically, in Chapter 2, we reviewed five primary proposals for motion characterization made within the paradigm of cognitive linguistics, and showed their advantages and limitations from the perspective of Chinese. In Chapter 3, we found that the assignment of Figure and Ground of motion in conceptualization exhibits a 'movability effect'. The two motion event elements show a specific type of saliency mapping between conceptualization and language. Talmy (2000) has proposed that languages are typologically different in utilizing satellite-framed patterns or verb-framed patterns to conflate Path and Manner of motion with Move elements. We showed, in Chapter 4, that both patterns are available

in colloquial Chinese. Thus Chinese has a parallel system. Further, we illustrated that satellite-framed lexicalization has to observe certain cross-linguistic constraints as well as language-specific limitations. In comparison, the constraints in Chinese are stronger than in English. To characterize Path, we proposed a framework consisting of five constituents: Vector, Conformation, Dimension, Direction, and Perspective. This framework allows for a relatively full treatment of the conceptual structure of Path. Within this framework, we encountered many interesting Path representation phenomena in Chinese. In Chapter 6, we examined certain conceptual properties of Manner, the primary external element in self-motion. While it is characteristic of satellite-framed languages for them to conflate Manner with Move in the main verb of a sentence, this kind of conflation observes certain constraints, some of which are cross-linguistically observable, others language-specific. Chinese imposes more constraints on Manner and Move conflation than does English.

The major concern of this dissertation has been to determine from the perspective of Chinese the typologically-significant properties of the conceptualization and linguistic realization of prototypical motion. The observations and findings presented in this dissertation clearly point to the basic tenets of cognitive linguistics, which views language as an experientially-based product of the human mind, and a reflection of how speakers of a language structure their perceptions of reality.

The elaboration of typologically significant properties of motion conceptualization and its realization in Chinese is directly relevant to the Chinese as a Second Language classroom. This study affords insights into motion expressions for

Chinese L2 teachers and learners, and thus facilitates both teaching and learning. For Chinese teaching, the framework of motion in Chinese can serve as a theoretical basis for teachers to introduce the grammar of motion expressions in a coherent and systematic way. The description of typologically specific properties provides the possibility for teachers to tailor the pedagogical grammar of motion and focus on Chinese-particular patterns or idiosyncratic expressions in their teaching, thereby raising the learners' consciousness of phenomena peculiar to those forms. Furthermore, cognitive characterization of motion conceptualization and representation offers easily accessible explanations of the ways Chinese represents motion as well as intuitively plausible analyses of learners' acquisition discrepancies. For learners, especially adult learners, plausible and readily comprehensible accounts of conceptual motivations underlying grammar are especially important. Compared with the presentation of arbitrary rules, cognitive accounts of grammar facilitate learning and understanding (cf. Taylor 1993, Pütz *et al.* 2001a & 2001b).

It is beyond the scope of this dissertation to discuss all the details of the pedagogy of motion expressions. As heuristic examples, we look at some acquisition problems with respect to Path conceptualization and representation found in students' written Chinese:¹¹⁶

¹¹⁶ Among the following examples, (171) and (174) are taken from writing exercises by students of Chinese at Stanford University; (172), (173), (175) and (176) are drawn from the *Corpus of Chinese Interlanguage* (Chu *et al.* 1995).

(171) * 爸爸把车开回进了车房。

* Baba ba che **kai hui-jin** le chefang.

Father BA car drive back into garage

‘Father drove the car back into the garage.’¹¹⁷

(172) * ... 我还希望我能够把他的精神传下到我未来的孩子们的心灵。

* ... Wo hai xiwang wo nenggou ba ta de jingshen **chuan xia-dao**

I still hope I can BA he DE spirit pass down-to

wo weilai de haizi-men de xinling.

I future DE child-PL DE mind

‘... I still hope that I can pass his spirit down into the mind of my

future children.’

(173) * 我们上进去公共汽车有一个人给我爱人让座位因为他抱孩子。

* Women **shang-jin-qu** gonggong-qiche you yi ge

we ascend-enter/into-Thither bus have one CL

ren gei wo airen rang-zuo yinwei ta bao haizi.

person to I spouse offer-seat because he hold child

‘When we got onto the bus, someone offered his/her seat to my

wife/husband since she/he held a child.’

¹¹⁷ The English translations in (171)-(176) are based on my understanding of what students’ intended to express in the problematic Chinese expressions.

In Section 5.3.1, we saw that Chinese places a strong limitation on realizing Path component accumulation within a single clause. This limitation explains the Path representation problem in all the three sentences: * (开)回进 (*kai*) *hui-jin* ‘(drive) back into’ in (171), * (传)下到 (*chuan*) *xia-dao* ‘pass down to’ in (172), and * 上进 *shang-jin* ‘ascend-into’ in (173) all manifest a ‘non-Deictic + non-Deictic’ Path component combination. Thus they are unacceptable in Chinese.

(174) Question: 在竖梯上, 牛牛为什么哭了?

Zai shuti shang, Niuniu weishenme ku le?

at ladder top Niuniu way cry LE

‘Why did Niuniu at the top of the ladder?’

Student’s Answer: ?? 他觉得他爬不下去 ...

?? Ta juede ta pa bu xia-qu...

he think he climb not down-Thither

‘He thought he wouldn’t be able to climb down.’

(175) * 说出“爸爸”两字去, 我的姐妹弟弟们都显出不舒服的样子...

* Shuo chu ‘baba’ liang zi qu, wo de

speak out father two character Thither I DE

jie-mei-di-men jiu

elder-sister-younger-sister-younger-brother-PL then

dou xian-chu bu shufu de yangzi...

all show-out not comfortable DE look

‘When I uttered the word “father”, my sisters and brother all
looked unhappy.’

(176) * ... 那十层的古塔，从我这角度来看，非常吸引人。

* ... Na shi ceng de gu-tai, cong wo zhe jiaodu

That ten level DE old tower from I this angle

kai-lai, feichang xiyin ren.

look-Hither very attract people

‘Looking at it from this angle, the old ten-story tower
is very attractive.’

(174) and (176) show certain acquisition problems regarding the deployment of Deictic Perspective. In (174), the context is that the child Niuniu asked his mother to help him get down from a ladder on a playground structure. However, Niuniu’s mother, who stood on the ground, wanted the boy to be brave enough and climb down the ladder by himself. But Niubiu was afraid. As a result, he stood crying at the top of the ladder. In this intended motion event, the Anchorage is the ladder which Niuniu had climbed, while the Region of Attention is on the ground, where Niuniu’s mother stood. To express such a situation, the unmarked position for the speaker to deploy Deictic Perspective is with the Ground element, which is closer to the speaker in her

conceptualization, i.e., the ground on which Niuniu's mother stood. Therefore, the Hither Perspective is more suitable in the expression. The Thither Perspective signal 去 *qu* 'thither' should be change to 来 *lai* 'hither' in the student's answer.

(175) and (176) represent two fictive motion events. In (175), for the speech act 说出“爸爸”两字 *shuo chu 'baba' liang zi* '(I) uttered the word “father”', the Region of Attention (but not the Anchorage) is within the speaker's awareness, so the speaker can only take a Hither Perspective to conceptualize the action. Thus, the Thither Path marker 去 *qu* 'thither' is inappropriate. As for (176), the expression specifies the fictive moving of the speaker's gaze. Since the speaker is clearly standing at the position of Anchorage, only Thither Perspective is appropriate to conceptualize the Path of the speaker's gaze. Therefore, the Deictic complement 来 *lai* 'Hither' must be changed to 去 *qu* 'Thither'.

The above heuristic analysis of the oddity of Path representations in (171)-(176) shows that discrepancies in learners' language acquisition usually arise from discrepancies in conceptualization. Therefore, it is reasonable to believe that appropriate pedagogical presentation of the conceptualization properties associated with language expressions develops learners' insight into a language, and thus facilitates learning.

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