Chapter One

Introduction

1.1 Motivation

Languages differ as to what grammatical patterns they use to delineate events consisting of both an action and a result. Mandarin Chinese and English are good examples. In Mandarin, such events are mostly characterized with the resultative verb compounds (RVCs hereafter), e.g., *xue-hui* in (1a) and *da-si* in (2a). In English, such the same events are described with different grammatical structures, particularly patterns denoting Accomplishment events, e.g., (1b) and (2b). This point can be clearly illustrated by the following examples.

(1) a. *Mali* *xue-hui-le* *zhongwen*.
Mary study-understand-LE Mandarin. Chinese
b. Mary learned Mandarin Chinese.

(2) a. *Lisi* *da-si-le* *Zhangsan*.
Lisi hit-die-LE Zhangsan
b. Lisi killed Zhangsan (by hitting him).

It should be noted that unlike the Accomplishment in English, which is a kind of situation, [1] the RVC is a morphological construction, often used to denote

[1] The notion of the situation or situation type is different from that of verb or verb class. In Vendler (1957, 1967), verbs are categorized according to the semantic properties of the main verb in a sentence. However, Smith (1997) argues that such constituents as subjects, arguments and adverbials also contribute a lot to the aspectual meaning of a given sentence. Thus, Smith uses the term 'situation type' instead of the term 'verb classes'. See Section 2.2.1 for a discussion of situations proposed by Smith (1997).

Accomplishment or Achievement events in Mandarin Chinese. For a clear understanding of the reason why the action-result event can be expressed with the linguistic structures, it is necessary that we be aware of the semantic meanings of sentences with these structures. As shown in (1a) and (2a), the underlined RVCs (i.e., *xue-hui* 'study-understand' and *da-si* 'hit-die') are two-element verbs, the majority[2] of which have the action-result relation between the meanings of their elements (e.g., Li and Thompson 1981; Tai 1984). Because of the semantic properties of their constituents, the RVCs can be used to express events consisting of both an action and a result. Likewise, the English Accomplishment is semantically composed of both a non-detachable process[3] and a result; therefore, it can name an event with a natural endpoint (Smith 1997). According to this characteristic, with the Accomplishment *learned Mandarin Chinese* in (1b) conveys that Mary studied Mandarin Chinese for certain period of time (i.e., process) and as a result, she understood the language (i.e., result). Similarly, *killed Zhangsan* in (2b) suggests that Lisi hit Zhangsan and Zhangsan died as a result.

Although both Mandarin RVCs and English Accomplishments both exhibit the action-result semantic property explicitly or implicitly, they are different in the specification of the completion/result. In Mandarin Chinese, the result of the event is

[2] In what follows, we will show that RVCs can be formed with a stative verb as the first constituent, and the meanings of their constituents indicate the state-result relationship.
[3] A process is an unbounded action.

specified by the resultative morpheme of the RVC, e.g., *hui* 'understand' and *si* 'die' in (1a) and (2a) respectively, while in English, the specification of completion is inherent in the meaning of the main verb (phrase),[4] as in *learn Mandarin Chinese* in (1b) and *kill Lisi* in (2b) (Smith 1997). The examples indicate that in Mandarin Chinese the result of an event is 'overtly' expressed with the resultative morpheme of the RVC, whereas in English it is 'covertly' expressed in the meaning of the main verb in a sentence. In other words, while in Mandarin Chinese the notion of completion is marked with the resultative morpheme that has lexical content, in English it is 'implied' in the meaning of the verb. On the basis of the cross-linguistic distinction between the expressions of 'completion', Tai (2003) contends that the result of an event would be less salient to English speakers than to Mandarin speakers. This may also suggest that the lack of a clear 'result-marking system' in English could make the learning of the meaning and function of the RVC one of the most difficult tasks that an English speaker attempting to master Mandarin Chinese may face. This task is further complicated by the semantic features of the RVC, as illustrated in (3) and (4).

(3) a.**Mali* *zhengzai* *xue-hui* *zhongwen*.
Mary imperfective. Asp. study-understand Mandarin Chinese

[4] Another way of saying this is to state that in English whether a closed event is taken as terminated or completed depends to a great extent on the meaning of the main verb in a perfective sentence (Smith 1997). See Section 2.1.1 for more information on this point.

b. Mary is learning Mandarin.

(4) a.**Mali* *kaishi* *xue-hui* *zhongwen*.

Mary start study-understand Mandarin Chinese

b. Mary started learning Mandarin Chinese.

(5) a.**Mali* *tingzhi* *xue-hui* *zhongwen*.

Mary stop study-understand Mandarin Chinese

b. Mary stopped learning Mandarin Chinese.

Sentence (3a) shows that Mandarin RVCs are incompatible with the imperfective marker, *zhengzai*. The reason is that RVCs denote only the result aspect in their aspectual meaning (Tai 1984, 2003), though their first constituent can be either an Activity, as in *xue* 'study' in (3a), or a Semelfactive, as in *da* 'hit' in (2a), both of which can signify a temporally unbounded action. Without the action aspect indicating the feature of duration, RVCs are instantaneous verbs. Accordingly, they cannot appear with durative grammatical markers, such as *zhengzai*, *kaishi* and *tingzhi* in (3a), (4a) and (5a), respectively. Distinct from Mandarin RVCs, which are semantically instantaneous, English Accomplishments are semantically durative and thus can occur with the durative linguistic labels, as shown in (3b), (4b) and (5b).

Furthermore, due to the lack of the aspectual meaning of action, the result part is the semantic focus that imparts the central meaning to the RVC sentences. To illustrate, the main idea of Sentence (1a) with the RVC *xue-hui* 'study-learn' is that Mary learned Mandarin Chinese, not that Mary studied Chinese. In contrast to the

Mandarin RVC, the result part of which constitutes the semantic focus, both the action and result are the semantic foci of the English Accomplishment (Smith 1997).

The cross-linguistic comparisons above clearly show that we cannot directly translate Mandarin RVCs into English (Accomplishment) verbs. As English does not have a direct counterpart of the RVC, English learners of Mandarin may either have trouble understanding the incompatibility between the RVC and the durative grammatical structure since the first element of an RVC can denote an uncompleted action or have difficulty grasping the essence of RVCs due to the difference in semantic properties[5] exhibited in the corresponding English sentences, as in (3b), (4b) and (5b). Motivated by the cross-linguistic distinction between the specifications of completion/result in Mandarin and English and the cross-linguistic variations between Mandarin RVCs and English Accomplishments, this study explores the L2 acquisition of Mandarin RVCs by native English speakers to see whether they have full comprehension of the semantic features of RVCs in general and whether their acquisition varies according to the three RVC types—divided based on the semantic property of the two constituents—Activity-Result, Semelfactive-Result and State-Result RVCs (e.g., *tui-kai* 'push-open', *ci-po* 'poke-broken' and *re-hun* 'hot-faint', respectively). The theoretical background and the purposes of this study

[5] That is, Mandarin RVCs are semantically instantaneous, while English Accomplishments are semantically durative. In addition, while the result part constitutes the semantic focus of the Mandarin RVC, both the action and result are the semantic foci of the English Accomplishment (Tai 1984, Smith 1997).

are presented in the following sections.

1.2 Theoretical Background

One of the main purposes of the present study is to examine how the role of the learners' first language (L1) plays in the second language (L2) acquisition of Mandarin RVCs. Two theoretical perspectives of the L1 influence on L2 acquisition are concerned in this study, namely, language transfer and linguistic relativity. The former, presented in 1.2.1, is concerned with cross-linguistic differences in structure and the latter, introduced in 1.2.2, cross-cultural variations in speakers' cognition. In the following discussion, we present the theories of language transfer and linguistic relativity.

1.2.1 Theory of Language Transfer

The use of the L1 knowledge in the learning of an L2 has been referred to as language transfer. Building on behaviorism, language learning in the theory of language transfer is regarded as a process of habit formation in which learners carry over old verbal habits of the L1, some positive and some negative, to the L2 learning context (Fries 1945). Reinforcing the role of the L1, Lado (1957:57-58) expounds that when a speaker is communicating with another person, it is very unlikely for him/her to think consciously of all grammatical rules. For communicative efficiency, the conversationalist has the operation in the grammatical system reduced to habits.

It appears that in the behaviorist-based theory of language transfer, the learner's L1 is a determinative factor in second language acquisition (SLA). The L1-L2 interrelationship is specified in the contrastive analysis hypothesis, which advocates that cross-linguistic differences result in obstacles to L2 learning (i.e. negative transfer), whereas similarities lead to learning facilitation or positive transfer (see Fries 1949 and Lado 1957). Put differently, ease or difficulty in SLA can be attributed to L1 facilitation and L1 interference, respectively. The contrastive analysis hypothesis, renowned for its power of prediction, has been supported by many applied linguists in that it helps account for how a linguistic item in one language is transferred to another (e.g., Catford 1983, Faerch and Kasper 1986, Schachter 1992).

Apart from the predicative power, proponents of language transfer hold that in language development, less proficient learners are more likely to depend on L1 transfer than proficient learners (e.g., Odlin 1994, Kellerman 1984, Faerch and Kasper 1986). As Faerch and Kasper (1986) explain, language transfer is a problem-solving strategy, with which the learner deals with L2 production problems when relevant target rules or structures are not available or temporarily inaccessible. In a sense, transfer is used as a strategy for learners with low L2 proficiency to reduce the learning burden and to achieve the communicative efficiency at the same time when they face the demands of communication.

1.2.2 Theory of Linguistic Relativity

Apart from the cross-linguistic difference in structure, the L1 effect on SLA can be investigated from the perspective of cross-cultural variations in cognition. This area of research, not observable via an examination of the 'surface' structure of sentences and lexicons, opens up the possibility that the L1 influence can be explored from a 'deep' level of the conceptual structure.

The interrelationship between language and human conceptual content is at the heart of discussion in the theory of linguistic relativity.[6] Whorf (1956) suggests that the way we perceive the universe varies with the language we speak. What is more, he proposes that our thinking is shaped by our language. The postulation of the interplay between language and thought in the Whorfian hypothesis is shown below:

> It was found that background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual's mental activity, for the analysis of impressions….
>
> Whorf (1956: 214)

The Whorfian hypothesis can be interpreted in two ways, the strong version and the weak version. While the strong version, claiming that language *determines or controls* the way we think, has been proven to be untenable and thus criticized frequently, arguments for the weak version, stating that the grammar of a language *influences* both thought and perception, have been gaining acceptability in linguistics (Connor

[6] This idea was first introduced by Franz Boas and then passed down to Edward Sapir and then to Benjamin Whorf (See M. Aronoff and Janie Rees-Miller (2001)).

1996). Results of these studies have revealed that structural differences in language sometimes reflect variations in thought patterns (e.g., Bloom 1981, 1984, Liu 1985, Tai 2003).

1.3 Purposes of This Study

The purpose of the current study is three-fold. The three specific purposes are given in the following.

The first research purpose is to find out whether learners' performance varies with the three RVC types--State-Result, Activity-Result and Semelfactive-Result RVCs.

The second purpose is to discover how much influence learners' L1 can have on the L2 learning of Mandarin RVCs. In view of the cross-linguistic variations between Mandarin RVCs and English Accomplishments, we examine if English learners would appeal to English Accomplishments (or Achievements) for similar meaning when learning the characteristics of RVCs.

The third concern of this research is the interplay between language and thought. Specifically, it intends to find out if English-speaking people would attend more to the action of the event in comparison to Mandarin-speaking people, who pay more attention to the result of the event, claimed by Tai's (2003).

1.4 Organization of the Thesis

This thesis is organized into the following chapters. Chapter 1 provides a brief overview of the entire thesis. In Chapter 2, we first examine the characteristics of RVCs. Then, we investigate the similarities and differences between RVCs and English Accomplishments/Achievements in terms of these characteristics. Finally, we look back at previous RVC studies in second language acquisition (SLA). Chapter 3 presents the methodology of this thesis. Chapter 4 is dedicated to the presentation of research findings and the discussion of the results. Chapter 5 is the concluding chapter that offers not only a brief summary of the results, but also the limitations of the study and suggestions for future research.

Chapter Two

Literature Review

This chapter reviews the linguistic characteristics and empirical studies of Mandarin resultative verb compounds (RVCs). Prior to the presentation of the linguistic properties of RVCs, we examine the linguistic features Smith (1997) employs to distinguish five types of situations (or types of verbs in Vendler's (1967) term) in Section 2.1. The background information of Smith's verb classification sheds much light on our analyses of RVCs and hence is necessary and helpful in reading certain sections. In Section 2.2, we first describe the general characteristics of the RVC in terms of its component parts and function. Then, we introduce a classification of RVCs, made according to the semantic properties of their constituents. Finally, we examine the grammatical characteristics of RVCs, in particular, the incompatibility between the RVC and the three linguistic elements--the imperfective aspect marker *zhengzai*, the aspectual verbs *kaishi* 'begin' and *tingzhi* 'stop'--respectively, and the interpretation of RVC sentences with and without the adverb *chayidianr* 'almost'. In Section 2.3, we discuss Tai's (1984, 2003) and He's (1992) analyses of RVCs, which bring insightful information to our study. Moreover, one of the major purposes of this study is to investigate the first language (L1) influence on the second language (L2) acquisition of Mandarin RVCs. Therefore, in Section 2.4 the RVCs are

systematically compared with English Accomplishments, Achievements and States with respect to the grammatical characteristics presented in Section 2.2 to find out if there are similarities and/or differences between the two languages in terms of these situation types. Section 2.5 looks at studies on how Mandarin RVCs are acquired by L2 learners of different L1 backgrounds. A summary of this chapter is given in Section 2.6.

2.1 Situation Types in Smith (1997)

Smith (1997) identifies five situation types,[7] namely States, Activities, Accomplishments, Achievements and Semelfactives, with the temporal features, Static, Durative, and Telic. Table 1 summarizes the situation types and their temporal schemata in binary terms.

Table 2-1. Features of the situation types

Situations	Static	Durative	Telic
State	[+]	[+]	[—[8]]
Activity	[—]	[+]	[—]
Accomplishment	[—]	[+]	[+]
Semelfactive	[—]	[—]	[—]
Achievement	[—]	[—]	[+]

[7] The notion of situation type is not the same as that of verb class. In Vendler (1957, 1967), verbs are categorized according to the semantic properties of the main verb in a sentence. However, Smith (1997) argues that such constituents as subjects, arguments and adverbials also have contribution a lot to the aspectual meaning of a given sentence. Thus, Smith uses the term 'situation type' instead of the term 'verb class'. Note also that the distinctions between situation type and verb type are beyond the scope of this thesis. For ease of the cross-linguistic comparison between the Mandarin RVC and the English Accomplishment/Achievement/State, we will use the term *verb class* instead of *situation type* in most sections.

[8] The feature of telicity is irrelevant to States in that it is used to distinguish event verbs with a final endpoint from those without an endpoint (Smith 1997).

(Smith 1997:20)

As Table 1 shows, the three temporal features capture the distinction among the five situation types. The feature *Static* makes stative verbs distinct from event verbs. The feature *Durative* separates durative verbs from instantaneous verbs. *Telicity*, on the other hand, distinguishes verbs denoting events with a natural final endpoint (i.e., telic events) from those with an arbitrary endpoint (i.e., atelic events). In other words, a telic event involves a change-of-state, which constitutes the outcome or goal of the event, while an atelic event has an arbitrary endpoint and thus can stop at any time (Smith 1997:19).

These five situation types have their own semantic properties.[9] Verbs like *know*, *stand* and *be sick* belong to States. These verbs present stative situations with no dynamicity and no internal structure. Activities denoted by verbs such as *du* 'read', *he* 'drink' and *xue* 'study' are events with an unbounded process. Accomplishments name the events that direct towards a natural endpoint. Examples of Accomplishments are *read an article*, *drink a glass of water* and *paint a picture*. These examples show that English Accomplishments consist of both a process and a result. Achievements, unlike Accomplishments representing a durative telic event, represent an instantaneous telic event. Events denoted by verbs or verb phrases like *recognize*, *win a race*, *lose* and

[9] Smith (1997:39) states that the temporal features [Static], [Durative] and [Telic] can be linguistically realized by certain syntactic and semantic properties. We review only the properties that are related to our study. The semantic properties of the five situation types are presented in 2.1 and the syntactic properties in 2.4. For further discussion, see Smith (1997).

reach the top, which name single-stage events with a final endpoint, are Achievements. Intriguingly, Achievements are semantically instantaneous, but the event of Achievement may have a preliminary stage[10] associated with it, as in (1):

(1) John won the race.

Sentence (1) with the Achievement *win a race* presents an event as *instantaneous*, but the event is allowed to occur with some preliminary running process (stage). It is crucial to emphasize that the preliminary process is detachable from the event of Achievement. According to Smith (1997), the preliminary process is not at all a necessary component of the Achievement event. For instance, the Achievement *lose* characterizes an event that does not require any preliminary losing process. Smith suggests that in the case where the Achievement event occurs with the preliminary stage, the preliminary merely functions to enable the event of Achievement to take place.

One important point to be drawn from the review above is that Accomplishments and Achievements can be distinguished on the basis of whether or not they have the non-detachable process in their meaning: while the Accomplishment includes a non-detachable process as part of its meaning and a result, the Achievement may include a detachable process in addition to an outcome. The temporal feature, non-detachability, which associates the process of an event with its outcome, can be

[10] Preliminary stages are processes before the attainment of the goal in an Achievement event.

evidenced in the test with the adverb *almost*, as in the pair of sentences in (2).

(2) a. John almost closed the door. (Accomplishment)

b. John almost won the race. (Achievement)

(Smith 1997:44)

The Accomplishment sentence (2a) and the Achievement sentence (2b) are interpreted differently with the adverb *almost* In (2a), the Accomplishment *close the door*, consisting of both a (non-detachable) process and a result, is ambiguous and can be interpreted in two ways: one is the process interpretation (i.e., John intended to close the door, but somehow changed his mind and did nothing at all) and the other, the result interpretation (i.e., John was pushing the door to close it but he didn't succeed in closing it.). In contrast, the ambiguity with *almost* does not appear in the Achievement sentence (2b). The reason is that the preliminary process that occurs with the event of Achievement is detachable and not considered part of the event; therefore, (2b) has only the result reading, that is, John was running to win the race, but he never actually won the race.

The last situation type is the Semelfactive. As illustrated in Table 2-1, Semelfactives represent single-stage events, with no final endpoint, as denoted by verbs like *blink*, *cough*, and *kick*. Typical Semelfactives occur very quickly, so they are conceptualized as instantaneous events. In addition, Semelfactives often occur iteratively, as in (3):

(3) Mary knocked for five minutes.

(Smith 1997:29)

It is clear that Sentence (3) has a multiple-event interpretation, that is, the action of knocking occurs in sequence (Smith 1997). As Smith (1997:30) puts it, this interpretation is triggered by the incompatibility of the instantaneous meaning of the Semelfactive and the durative adverbial *for five minutes*. It is worthwhile to point out that Semelfactives and Achievements, sharing the feature of instantaneity differ in one important aspect. That is, while the Achievement names an event with a final endpoint, the Semelfactive presents an event without an endpoint.

2.2 General Characterization of Mandarin RVCs

Literature on the characteristics of RVCs is abundant in Chinese linguistics. It has been shown that RVCs have several important features. For example, the Mandarin RVCs are *productive*, suggesting that we can freely create RVCs as long as the semantic relationship between the constituents makes sense to the speaker and the context (e.g., Chao 1968, Li and Thompson 1981, Shi 2003). For example, we can make a handful of RVCs by placing the verb *chi* 'eat', which denotes an action, in the first constituent, as shown in *chi-bao* 'eat-full: to become full after eating', *chi-guang* 'eat-empty: to eat up some food' and *chi-ni* 'eat-monotonous: someone eats certain food many times and s/he does not feel like eating the food anymore'. We can also form a large number of RVCs by using the resultative morpheme *ni* 'monotonous' as

V2, as in *wan-ni* ‘play-monotonous: something is uninteresting to someone because s/he has played it for a long time,’ and *kan-ni* ‘see-monotonous: someone has seen something many times; as a result, s/he gets bored with seeing the same thing’.

The RVC can also be characterized in terms of the form and function of the elements that comprise it. An RVC is made up of two verbs, the second of which serves the function of signifying *some* result of the action or state signified by the first verb (e.g., Chao 1968, Li and Thompson 1981, Tai 1984 and Liu 1996). In other words, the elements of RVCs can either denote the action-result or state-result causal relationship. For example, the second morpheme *si* ‘die’ of the RVC *da-si* ‘hit-die’ indicates the result of the action of ‘hitting’ conveyed by the first morpheme *da* ‘hit’. On the other hand, the RVC *re-yun* ‘hot-dizzy’ is formed with a stative verb and a resultative morpheme.[11] A state-result relationship can still be found between the states denoted by the two constituents of this RVC.

However, not all verbs in Mandarin Chinese can be components of the RVC. Hence, the aims of this section are to find out possible candidates (i.e., verbs) that may serve as the constituents of the RVCs and to explore their basic linguistic characteristics. In Section 2.2.1, we present the verbs that may constitute an RVC and classify RVCs into three categories according to the semantic properties of the two

[11] Because the morpheme in the postverbal position generally has the meaning of the result, we will call this morpheme the *resultative morpheme*.

constituents-- Activity-Result, Semelfactive-Result and State-Result RVCs. In Section 2.2.2, we explore the grammatical features of RVCs.

2.2.1 Components of Mandarin RVCs and RVC Classification

This section discusses the morphemes (i.e., verbs) that may appear as components of Mandarin RVCs based on Smith's classification of verbs.. As already noted, an RVC consists of two elements, with the second signifying the result of the action or state denoted by the first. The two component morphemes of RVCs can be said to denote a special semantic relationship, as schematized in (4):

(4) $\underset{\text{action or state}}{\underline{\text{V1}}}$ — $\underset{\text{result}}{\underline{\text{V2}}}$

The following examples are illustrations:

(5) a. *da-si* 'hit-die' = to cause someone to die by hitting him/her

b. *da-yun* 'hit-dizzy' = to cause someone to feel dizzy by hitting him/her

(6) a. *ting-dong* 'listen-understand' = to listen to something and understand it as a result

b. *ting-fan* 'listen-annoyed' = to listen to something many times and get annoyed as a result

(7) a. *re-hun* 'hot-faint' = the hot weather makes someone faint

b. *zuo-ma* 'sit-numb' = one's leg is numb from sitting too long

(5)-(7) make it clear that the resultative morpheme of RVCs[12] functions to signify the

[12] It should be pointed out that the resultative morpheme of an RVC may itself be a compound, as in *xi-gan-jing* 'wash-clean', and *xie-qing-chu* 'write-clear', in which the action is underlined once, and the result is underlined twice.

result of the action or the state conveyed by the verb in the first constituent.

In addition, only Semelfactives, Activities and States, which do not include a result (or a final endpoint) as part of their meaning (Smith 1997) can function as the first component of RVCs. As exemplified in (5a) and (6a), the Semelfactive *da* 'hit' and Activity *ting* 'listen', can combine with the resultative morphemes *si* 'die' and *dong* 'understand' to form the RVCs *da-si* and *ting-dong*, respectively. Achievements[13] like *si* 'die', however, cannot serve as the first component of the RVC perhaps because they already have a result/final endpoint inherently incorporated in their meaning. Based on these, the RVC compounding process of linking an event verb and a resultative morpheme can be said to have the semantic effect of assigning to the atelic event, an Activity or a Semelfactive, a final endpoint. Similarly, the RVC compounding process of linking a stative verb and a resultative morpheme adds a final endpoint to a stative situation.

As for the V2 position of the RVC, adjectives are the most frequently seen, e.g., the adjectives *hong* 'red' and *ya* 'hoarse' in the RVCs *qi-hong* 'paint-red' and *han-ya* 'roar-hoarse'. This is evident in Ma and Lu's (1997) study. In the investigation of the morphemes that comprise the RVCs, Ma and Lu discover that 958 out of the 1078 adjectives in a dictionary are morphemes that may appear as the second component

[13] The discussion on the possible verbs that may serve as the first constituent of an RVC excludes Accomplishments for the reason that Mandarin does not have the category of accomplishment verbs, as Tai (1984) suggests. Tai's view that Mandarin lacks Accomplishments will be discussed in detail in Section 2.3.1.

part of the RVC. In addition to adjectives, verbs may also serve as the second element in RVCs. However, the number of verbs that is eligible for the second constituent of an RVC is small. As reported in Chang's (1999:162) study, only seventeen verbs (e.g. *dao* 'arrive', *jian* 'perceive', *dong* 'understand', *wan* 'finish', *si* 'die', *diao* 'fall', *duan* 'break', etc.) are possible candidates for the second component parts of RVCs. More important, most of the verbs are Achievements.

According to the discussion above, the Mandarin RVCs can be made up of an Activity, a Semelfactive, or a State as the first component and a resultative morpheme as the second component. Based on the semantic properties of the two constituents, Mandarin RVCs can be divided into three types-- Activity-Result, Semelfactive-Result and State-Result RVCs examined below.

(A) Activity-Result (Act-R) RVCs

Activity-Result RVCs can be schematized as in (8):

(8) V_1 – V_2

Activity verb **resultative morpheme**

The underlined part of (9) gives an example of Activity-Result RVCs: the Activity verb is underlined once, and the resultative morpheme is underlined twice.

(9) *Zhangsan* *<u>kao</u>-<u><u>gan</u></u>-le* *natiao* *maojien*.
Zhangsan roast-dry-LE that -CL towel
'Zhangsan dried the towel by roasting it on the fire.'

As schematized in (8), an Activity and a resultative morpheme comprise the Act-R RVC. RVCs in this class have the action-result semantic relation. For example, in the Act-R RVC *kao-gan* in (9), *kao* 'roast' is an Activity verb which inherently denotes an uncompleted action, and *gan* 'dry' indicates the result of the roasting action.

(B) Semelfactive-Result (Sem-R) RVCs

Schematically, we can represent Semelfactive-Result RVCs as follows:

(10) V_1 – V_2

Semelfactive verb **resultative morpheme**

Sem-R RVCs, as illustrated in Schema (10), are formed with a Semelfactive and a resultative morpheme. As reviewed in Section 2.1, Semelfactives, having the temporal features [-Static], [-Durative] and [-Telic], can name either single stage events, or multiple-event activities. When a Semelfactive is part of an RVC, it follows that a variation involving the interpretation of the RVC is possible. The difference between the two interpretations can be nicely illustrated in Example (11):

(11) *Xiaoming* *ti-dao-le* *yige* *xiangzi*.
Xiaoming kick-fall-LE one CL box
'Xiaoming kicked down one box.'

Depending on the context given for it, the event may either be a single-stage event or a multiple-event activity, both of which are conveyed by the Semelfactive *ti* 'kick'. The two possible interpretations are illustrated with the following two speech

contexts. One natural context for this sentence would be one in which the subject *Xiaoming* is asked to kick down as many empty boxes as he can to win a game of box kicking. The speaker would utter (11) to let the audience know the number of boxes the competitor kicks down at the time of speaking. Because the action of kicking takes a fraction of a second to occur, it is considered a single-stage event. The other appropriate context for (11) would be like this: suppose that *Xiaoming* is required to kick down many 'heavy' boxes in a minute to win the game. The speaker uses Sentence (11) to inform the audience the same information. It is worth noting that the action of kicking, in this case, occurs in sequences. In other words, the Semelfactive *ti* 'kick' presents multiple-event activities instead of a single-stage event. Similar to Act-R RVCs, Sem-R RVCs have the action-result relation between the meanings of their constituents and can thus name a telic event that involves the feature of instantaneity.

(C) State-Result (Sta-R) RVCs

The State-Result RVCs can be represented by the following schema:

(12) V_1 – V_2

Stative verb **resultative morpheme**

For example:

(13) a. *zuo-ma* 'sit-numb'

zhan-teng 'stand-hurt'

b.[14] *re- yun* ‘hot- dizzy’

qi- hun ‘angry- faint’

Schema (12) illustrates that the Sta-R RVC is made up of two morphemes: the morpheme in the V1 position is a stative verb and that in V2 is a resultative morpheme. The stative verb can be either an ordinary stative verb such as *zuo* ‘sit’ and *zhan* ‘stand’ in (13a), or an adjectival stative verb (an adjective) like the underlined morphemes in (13b). No matter whether the first constituent is a stative verb or an adjectival stative verb, it functions to signify a static interval that causes a new, changed state signified by the resultative morpheme to occur. That is, there is a causal relationship between the two states indicated by the elements in the Sta-R RVC, as in:

(14) *Yuehan* *tang-huai-le* *zhezhang* *chuang*.

John lie-broken-LE this. CL bed

‘John lay on this bed, and this bed got broken as a result.’

(15) *Hanleng* *de* *tianqi* *leng-si-le* *nage* *laoren*.

cold DE weather cold-dead-LE that. CL old. man

‘That old man could not stand the cold weather, and he died as a result.’

From sentences (14) and (15), we can see that the meanings of the elements in the Sta-R RVC indicate a state-result relationship, a causal relationship. Since as He

[14] Li and Thompson (1981:66) note an interesting phenomenon that characterizes the use of State-Result RVCs: they do not often convey their literal meanings; rather, their resultative morphemes are used in a metaphorical sense. They further explain that whether the RVCs convey their literal or metaphorical meanings can be determined by the pragmatic context. This implies that, depending on the context, an RVC like *qi-hun* ‘angry-faint’ in (13b) can mean that someone was so angry that s/he almost fainted, as well as the literal meaning ‘someone made a person so angry that the person fainted as a result.’ Since the metaphorical meaning of the RVC is of little relevance to our topic, throughout this thesis we are referring to their literal meaning.

(1992) and Tai (2003) suggest, the result component constitutes the semantic focus of the RVC, (14) with the Sta-R RVC *tang-huai* 'lie-broken' can be used to announce a new state of affair--this bed is broken. And this new state is related to an earlier state--John lay on this bed previously, expressed by the verb *tang* 'lie'. By the same token, the RVC *leng-si* 'cold-die' in (15) is indicative of a new state--the old man is dead now. As we might expect, this newly noticed state is associated with the static interval when the old man felt cold, denoted by the verb *leng* 'cold'.

2.2.2 Grammatical Properties of RVCs

From the characterization of RVCs presented above, the Act-R and Sem-R RVCs that have the action-result semantic relation between the constituents can be characterized with the temporal features, [-Static], [-Durative] and [+Telic]. Accordingly, these RVCs denote instantaneous, telic events. This implies that the action-result RVCs do not have the feature of duration. The Sta-R RVCs present a state with an endpoint, but they possess the same semantic characteristics as do the other types of RVCs. With these features in mind, we examine the grammatical properties of RVCs in sections 2.2.2.1 and 2.2.2.2. The properties of RVCs that will be discussed in 2.2.2.1 are: their incompatibility with the Mandarin imperfective aspect marker *zhengzai*, the inceptive verb *kaishi* 'begin' and the terminative verb *tingzhi* 'stop'. The interpretation of the RVC sentence and that of the RVC sentence

that contained the adverb *chayidianr* 'almost' are presented in 2.2.2.2.

2.2.2.1 Incompatibility with Durative Linguistic Markers *Zhengzai, Kaishi* and *Tingzhi*

The vast majority of RVCs — Act-R and Sem-R RVCs, appear to be like English Accomplishments consisting of a process (or an action[15]) and a resultant state. However, they do not occur with the imperfective aspect, unlike English Accomplishments, as in (16) and (17):

(16) **Ta zhengzai gai-hao yijian fangzi.*
he imperfective Asp. build-complete task one CL house
'He is building a house.'

(17) **Ta zhengzai tiao-huai nazhang chuang.*
he imperfective Asp. jump-broken that CL bed
'He is breaking that bed by jumping on it.'

The reason why the Act-R RVC *gai-hao* in (16) and Sem-R RVC *tiao-huai* 'jump-broken' in (17) are not compatible with the Mandarin durative marker *zhengzai* is straightforward: since the RVCs lack the feature of duration and denote instantaneous single-stage events. Thus, Act-R and Sem-R RVCs, Sta-R RVCs are incompatible with the progressive marker *zhengzai*, either, as shown in (18):

(18) **Wangwu zhengzai lei-bing shenti.*
Wangwu imperfective Asp. tire-sick body
'*Wangwu is tiring out.'

[15] It refers to a temporally unbounded action.

From Sentence (18), we can see that the Sta-R RVCs, which present a state with an end point, are odd with the imperfective aspect marker *zhengzai*. Because the Sta-R RVC lack the feature of duration, they do not occur with the imperfective marker *zhengzai*, which is only compatible with durative verbs. Here are other examples that demonstrate this property of RVCs very clearly:

(19) **Lisi kaishi tui-kai nashan men.*
Lishi start push-open that. CL door
'Lisi started to push that door open.'

(20) **Xiaoming kaishi reng-po tade sujiao bei.*
Xiaoming start throw-broken his plastic cup
'*Xiaoming started to break his plastic cup by throwing it onto the ground.'

(21) ** Zhangsan kaishi zuo-huai nazhang yizi.*
Zhangsan start sit-broken that. CL chair
'*Zhangsan started to sit on that chair and as a result, his leg became numb.'

As indicated in (19)-(21), an RVC is not allowed to go with the aspectual verb *kaishi* '*begin*', which signals the inception of an event. *Kaishi*, according to Ma (2005), selects a process or a state as its complement. The Act-R RVC *tui-kai* 'push-open' in (19) and Sem-R RVC *reng-po* 'throw-broken' in (20) are verbs involving the feature of instantaneity, not verbs with a process; hence, they cannot appear with the aspectual verb *kaishi*. Neither can the Sta-R RVC *zuo-huai* 'sit-broken' in (21) occur with the verb *kaishi* in that this class of RVCs does not

represent a state. Rather, it names a different kind of state, a state with a final endpoint.

Similar to the inceptive verb *kaishi* 'begin', the terminative verb *tingzhi* 'stop' selects a process as its complement (Ma 2005). Now that RVCs exhibit the feature of instantaneity, they are not compatible with the verb *tingzhi* 'stop'. The following examples are illustrations of this point:

(22) **Meimei* *tingzhi* *ku-shi* *zhentou*. (Act-R RVC)
sister stop cry-wet pillow
'My younger sister stopped wetting the pillow by crying.'

(23) * *Ta* *tingzhi* *qiao-po* *huaping*. (Sem-R RVC)
he stop knock-broken vase
'*He stopped breaking the vase by knocking on it.'

(24) **Tamen* *tingzhi* *zhu-guan* *xiao* *fangjian*. (Sta-R RVC)
they stop live-accustomed little room
'* They stopped getting accustomed to living in a small room.'

The above examples clearly show that RVCs of the three types do not occur with the terminative verb *tingzhi* 'stop' in that they are not process verbs.

2.2.2.2 The Result Interpretation of the Adverbial *Chayidianr* 'almost' in RVC Sentences

We have considered one of the most important grammatical characteristics of RVCs; that is, the RVC presents instantaneous events, so it is not allowed to go with durative linguistic labels. In this respect, Mandarin RVCs are like English

Achievements, not Accomplishments. As noted in Section 2.1, Accomplishments and Achievements can be distinguished on the basis of whether or not they have the non-detachable process in their meaning, and this *non-detachability* can revealed in the test with the adverb 'almost'. This section investigates the interpretation of the RVC sentences with the adverb *chayidianr* 'almost' to see whether the process (or temporally unbounded action) denoted by the first constituent of the RVC is a non-detachable process, or detachable process. Recall that Accomplishment sentences with *almost* have both the action and result interpretations, while such ambiguity does not appear in Achievement sentences with *almost*. If the Act-R and Sem-R RVCs are syntactically similar to Achievements, then, the ambiguity in interpretation will not appear. For example:

(25) *Yisheng chayidianr jiu-huo Mali.* (Act-R RVC)
doctor almost save-alive Mary
'The doctor almost saved Mary.'

(26) *Huairen chayidianr kan-duan tade jiao.* (Sem-R RVC)
hooligan almost cut-broken her foot
'The hooligan almost cut off her foot.'

An examination of the above sentences yields the observation that RVC sentences with *chayidianr* 'almost' only have the result reading. To illustrate, (25) with the Act-R RVC *jiu-huo* 'save-alive' has only the result reading — the doctor was trying to save Mary, but he did not succeed. By the same token, (26) with the Sem-R

RVC *kan-duan* ‘cut-broken’ only has the result interpretation — the hooligan was cutting her foot, but he didn’t cut it off. In addition to Act-R and Sem-R RVCs, the Sta-R RVCs exhibit the same semantic property, as in:

(27) *Ta* *chayidianr* *zuo-ma* *tade* *tui*. (Sta-R RVC)
he almost sit-numb his leg
‘His leg almost became numb resulting from sitting on a chair
for a long period of time.’

In Sentence (27), a sentence with the Sta-R RVC *zuo-ma* ‘sit-numb’ and the adverb *chayidianr* ‘almost’, the ambiguity in interpretation does not appear in the. Hence, (27) has the result interpretation that he sat for a long time, but his leg never actually became numb.

In Section 2.2, we have presented the internal structure of the RVC with regard to its form, function and semantic relation between the constituents. We have also examined the grammatical properties of RVCs. In the next section, we will review Tai’s (1984, 2003) and He’s (1992) linguistic analyses of the RVCs to gain a more complete understanding of this particular construction.

2.3 Linguistic Studies of RVCs

Literature on the linguistic analyses of RVCs is abundant in Chinese linguistics (e.g., Chao 1968, Li and Thompson 1981, Tai 1984, 2003, He 1992, Liu 1996 among others). Among them, some focus on the classification of RVCs, made according to

the type of result characterized by either their two component parts, or the second part (e.g., Li and Thompson 1981, and Liu 1996) and some pay attention to the semantic characteristics of RVCs such as Tai (1984, 2003) and He (1992). In this section, we will review Tai's (1984, 2003) and He's (1992) analyses in turn since the current research puts more emphasis on the semantic properties of RVCs.

2.3.1 Tai (1984)

Tai (1984), in his study on the semantic meaning of verbs in Mandarin Chinese, expounds that Mandarin RVCs and English Accomplishments have the action-result semantic relation between their semantic components, but they are different in one important aspect. That is, unlike English Accomplishments, which encode the aspectual meaning of both the action and result, the RVCs, however, include only the result aspect[16] in their aspectual meaning. To illustrate this point, consider the sentences in (28):

(28) a. * *Ta* *zhengzai* *hua-wan* *nazhang* *hua*.
he imperfective Asp. paint-finish that CL picture
b. He is painting that picture.'

As can be seen from Example (28a), the RVC *hua-wan* 'paint-finish' is not allowed to go with the imperfective marker *zhengzai*. The reason is simply that RVCs do not encode the aspectual meaning of the action, though they may have the

[16] The terms 'action aspect' and 'result aspect' are used by Tai (1984). In the RVC construction, the action aspect confers the aspectual meaning of the action verb, and the result aspect, that of the result component.

action-result semantic relation (Tai 1984). Without the aspectual meaning of action, RVCs lack the feature of duration. Hence, they are incompatible with durative linguistic labels such as the imperfective marker *zhengzai*. Contrarily, the aspectual meaning of the English Accomplishment includes both the action aspect and result aspect, and hence the Accomplishment is compatible with the English progressive, as in (28b). On the basis of the contrast between RVCs and Accomplishments, it is not appropriate to treat RVCs as Accomplishments.

There are three points about Tai's (1984) analysis of Mandarin RVCs that are worth noting. First, RVCs denote instantaneous events on account of the notion that the time schema for RVCs does not have continuous tenses (Tai 1984). This supports our earlier analysis that RVCs denote instantaneous events. Second, in contrast to Tai's study, in some work attempting to investigate the semantic structure of Mandarin verbs, RVCs were taken as accomplishment verbs by mistake (i.e., Teng 1985 and Smith 1997). Tai's analysis helps us pinpoint where those linguists go wrong in their research: they fail to recognize that the aspectual meaning of RVCs excludes the action aspect. In other words, they do not realize that Mandarin RVCs and English Accomplishments are different in a fundamental manner: while Accomplishments are semantically durative, RVCs are semantically instantaneous.

Third, the cross-linguistic variations between Mandarin RVCs and English

Accomplishments prompt Tai (1984) to contend that Mandarin exhibits three types of verbs, namely States, Activities and Results. The verb category of Results, according to Tai (1984:295), is mostly expressed with the Resultative Verb Compounds (RVCs). The author further suggests that among the four categories of verbs Vendler (1967) identifies-- States, Activities, Accomplishments and Achievements, Achievements and Accomplishments are realized in Mandarin in the form of RVC. For example, the Mandarin counterparts of the Achievement verbs[17] *find* and *hear* are RVCs, namely '*zhao-dao* seek-reach' and '*ting-jian* listen-perceive', respectively. Apart from the Achievement, Tai (1984:290-291) reports that the English Accomplishment verb may be expressed with the RVC in Mandarin, such *learn*, corresponding to as in *xue-hui* 'study-understand'. However, Tai (1984) claims that RVCs are not comparable to English Accomplishments since there is one notable difference between the semantic focus of the Mandarin RVC and that of the English Accomplishment: while the result part constitutes the semantic focus of the RVC, both the action and the result parts are the semantic foci of the Accomplishment. Or in Tai's (1984:292) term, the RVC has only the result aspect. Tai thus concludes that Mandarin lacks the category of Accomplishment verbs.

One important insight from Tai's (1984) study is that English lacks a direct

[17] There are Achievements taking the form of a simple verb in Mandarin, as in *si* 'die' (Tai 1984:294).

counterpart of Mandarin RVCs. Although it seems that the English Accomplishment is the closet translation of the Mandarin RVC in that both of them exhibit the action-result semantic property explicitly or implicitly, there is however one crucial cross-linguistic distinction between the RVC and Accomplishment. To illustrate this point, consider the sentences in (29):

(29) a. *Ta* *sha-si-le* *Lisi*.
he kill-dead-LE Lisi
b. He killed Lisi.

(29b) is the translation equivalent of (29a); however, there is a subtle difference between (29a) and (29b). The difference lies in how the completion/result of a closed event is expressed in Mandarin and English. In Mandarin, the notion of completion is explicitly characterized with the resultative morpheme of the RVC, while in English the specification of completion is inherent in the meaning of the main verb (i.e., kill) in a perfective sentence. Our analysis conforms to Tai's (2003) that the result of the event is covertly expressed in English, but overtly expressed in Mandarin. In other words, unlike Mandarin, English does not have a clear 'result-marking system' which characterizes the result of the event with the resultative morpheme like that of the RVC.

2.3.2 He (1992) and Tai (2003)

Based on Tai's (1984) analysis that RVCs encode only the result aspect in their

aspectual meaning, He (1992), in his investigation on the semantic characteristics of RVCs, maintains that the result component is the semantic prime that confers the central meaning to the RVC. For example:

(30) a. *Wo* *du-dong-le* *neiben* *shu*.
I read-understand-LE that CL book
'I understood that book through reading.'

b. *Wo* *du-le* *neiben* *shu*.
I read-LE that CL book
'I read that book.'

c. *Wo* *dong-le* *neiben* *shu*.
I understand-LE that CL book
'I understood that book.'

(He 1992:122)

He (1992) observes that the result predication in (30c) expresses the main idea of (30a) with the RVC *du-dong* 'read-understand'. Tai (2003), similar to He (1992), holds that the result part constitutes the semantic focus of the RVC. Tai also points out a cross-linguistic difference between Mandarin and English in structuring events consisting of both an action and a result. That is, Tai suggests that in Mandarin, such events are unequivocally expressed with the compound verbs of RVCs; English, however, unlike Mandarin, which has the consistent action-result schema[18] in the

[18] Tai (2003:305) states that like Mandarin, in which the action-result schema are linguistically expressed by the RVC, English has the resultative construction that realizes the action-result schema, but the English resultative construction is structurally different from Mandarin RVCs, as in:
(i) a. He kicked the door open.

event description, uses various grammatical patterns to characterize the same events. We can demonstrate this cross-linguistic difference by citing one of Tai's examples, as in:

(31) a. *Ta* *jia-cuo-le* *laogong*
she marry-wrong-LE husband
b. She has married the wrong husband.

(Tai 2003:304)

In (31a) with the RVC *jia-cuo* 'marry-wrong', the mistake expressed with the resultative morpheme *cuo* 'wrong' signifies the result of the action expressed with *jia* 'marry'. In contrast, (31b) shows that in the English event description, the mistake signified by *wrong* modifies the object noun *husband*. In light of the cross-linguistic difference in structuring the action-result event, Tai states that the result of an event is overtly expressed with the resultative morpheme of RVCs in Mandarin, whereas in English the result is covertly expressed or implied in the meaning of the perfective sentence. On the basis of the cross-linguistic difference between Mandarin and English regarding the expression of the result of an event, Tai claims that the result part of an event would be more salient to Mandarin-speaking people than to

---

b. He painted the house red.
It is also important to point out that although the action-result schema could be directly triggered by the resultative construction in English, English is much less liberal in the use of the resultative construction than Mandarin in the use of RVCs. There are many constraints on the formation of the English resultative. For example, Carrier and Randall (1992) argue that the result predicate is fairly free in terms of category (i.e., an AP, a PP, or an NP), but it does not take every potential result phrase within these categories. For further discussions of the English resultative construction, see Goldberg (1991) and Carrier and Randall (1992).

English-speaking people. In other words, English speakers would attend more to the action part of the event than to the result.

Tai's view that the result is not emphasized in English event description is supported by Hoekstra (1988), who in his study on the English resultative construction expounds that the result predication is a 'shadow interpretation' in that it is a cancelable predication, as in (32):

(32) They cooked [the chicken dry].[19]

(Hoekstra 1988:117)

Hoekstra's explanation for the 'shadow interpretation' is twofold. First, he observes that there is not a sensible semantic relationship between the verb *cook* and the postverbal NP *the chicken*. Rather, the postverbal NP has a sensible semantic relationship with the following predicative expression. Second, Hoekstra points out that the main verb in the English resultative construction does not usually take an object,[20] which means that the result predication is merely an adjunct to the verb. This implies that the result predication and the main verb are completely independent of each other. Based on the two accounts, Hoekstra concludes that the focus of (32) is on the main verb, not on the result interpretation. Therefore, the cancellation of the result predication will not change the meaning of the sentence.

[19] The two constituents in the result predicate form a small clause (Hoekstra1988).

[20] According to Hoekstra (1988), the main verb in the English resultative construction is usually an intransitive verb, as in:

(i) He painted [the door green].

2.4 Cross-linguistic Comparisons between Mandarin RVCs and English Accomplishments, Achievements and States

As noted in the previous review, Mandarin action-result RVCs[21] are similar to English Accomplishments. This study aims to investigate if the L2 learners who are native speakers of English would appeal to English verbs (i.e., Accomplishments, Achievements and States) for similar meaning when learning the characteristics of RVCs. To further explore where the learners' difficulty may occur, the sections that follow will provide a systematic comparison between RVCs and the above-mentioned English verbs with respect to the three properties--(1) RVCs are incompatibile with the durative linguistic labels of the imperfective aspect marker *zhengzai*, the aspectual verbs *kaishi* 'begin' and *tingzhi* 'stop'; (2) the result part of the RVC functions as the center of predication; and (3) the RVC sentence with the adverb *chayidianr* 'almost' has only the result interpretation. Therefore, Section 2.4.1[22] discusses the similarities and differences between Mandarin Activity-Result and Semelfactive-Result RVCs and English Accomplishments and Achievements. Section 2.4.2 presents the cross-linguistic comparisons between Mandarin State-Result RVCs and English States. Section 2.4.3 predicts the learners' performance of RVCs on the basis of the

[21] By *action-result RVCs*, we mean the Activity-Result and Semelfactive-Result RVCs, both of which have the action-result semantic relation between the meanings of their constituents.

[22] We include only the Activity-Result and Semelfactive-Result RVCs in the cross-linguistic comparison in Section 2.4.1 since both of the RVCs represent events. The State-Result RVCs, which name a state with a final endpoint, are compared with the English States, naming a stative situation, in Section 2.4.2.

cross-linguistic comparisons in 2.4.1 and 2.4.2.

2.4.1 Similarities and Differences between Action-Result RVCs and English Accomplishments/Achievements

The action-result RVCs (Actity- and Sem-Result RVCs), having the temporal features of [-Static], [-Durative] and [+Telic], exhibit the following characteristics:

(A) They are not compatible with durative linguistic structures.

(B) The semantic focus of the RVC is the result component, which implies that the result predication is the center predication of the RVC sentence.

(C) In the test with the adverb *chayidianr* 'almost', a sentence with the RVC has only the result interpretation.

In the following, we will discus the similarities/differences between Mandarin RVCs and English Accomplishments and Achievements with regard to the three characteristics above.

A1. *The English progressive*

The imperfective aspect like the English progressive prototypically spans an interval that is internal to a situation (Smith 1997:73). As mentioned earlier, English Accomplishments are semantically durative, which means that they have internal stages. Hence, they are entirely compatible with the English progressive, as shown in (33). In contrast to Accomplishments, Achievements are semantically instantaneous and therefore, do not normally co-occur with the progressive, as in (34a):

(33) Mary was running to school. (Accomplishment)

(34) a. *John was noticing Tina in a party.(Achievement without the preliminary)

b. Mary was reaching the top. (Achievement with the preliminary)

However, some Accomplishment are compatible with the English imperfective aspect, e.g. (34b), running counter to our expectation. The reason why the imperfective is available for some Achievements in English is simply that the imperfective focuses on the preliminary stage (i.e., the interval before the event takes place) of the Achievement. On account of that, (34b) does not indicate that the Achievement event actually takes place. Rather, it presents the preliminary stage of the instantaneous event—the stage before Mary reached the top.

A2. *The inceptive verb 'begin' and the terminative verb 'stop'*

Smith (1997) states that the inceptive and terminative verbs *begin* and *stop*, respectively are compatible with durative events, but they cannot go with events that involve the feature of instantaneity, as shown in (35a) vs. (36b) and (35b) vs. (36a):

(35) a. Mary began walking to school. (Accomplishment)

b. *The balloon started (began) to burst. (Achievement)

(36) a. Sam stopped walking to school. (Accomplishment)

b. * The bomb stopped exploding. (Achievement)

(Smith 1997:44-47)

B. *The semantic focus of the Accomplishments and Achievements*

It is clear from the forgoing discussion in Section 2.1 that the Accomplishment is

composed of both the action and result. Because the semantic meaning of Accomplishments includes an action and a result, both the action and the result components are the semantic foci of the Accomplishments. As indicated in Section 2.1, Achievements consist of a result only, and thus the result component constitutes the semantic focus of the achievement verb.

C. *The test with the adverb 'almost'*

It has been shown in Section 2.1 that English Accomplishments, composed of both an action (process) and a result, are ambiguous in the test with the adverb *almost* and can be interpreted in two ways: one is the action interpretation and the other, the result interpretation. On the contrary, the same ambiguity does not appear in Achievements, having only the result interpretation.

The similarities and differences between the action-result RVCs, Accomplishments and Achievements are summarized in Table 2-2.

Table 2-2. Similarities and differences between action-result RVCs, Accomplishments and Achievements

Verbs / Features of RVCs	RVCs	Accomplishments	Achievements
1. presenting an event consisting of both an action and a result	Yes	Yes	No
2. incompatible with durative linguistic labels	Yes	No	Yes
3. the result part is the semantic	Yes	No	Yes

focus			
4. having only the result interpretation while co-occurring with *almost*	Yes	No	Yes

2.4.2 Similarities and Differences between State-Result RVCs and English States

In Section 2.1, the semantic meaning and temporal features of English States have been presented. A further comparison shows that Mandarin State-Result RVCs and English State verbs are different in both meaning and function; however, the two types of verbs exhibit the grammatical property that they cannot occur with durative linguistic labels. Semantically, English States consist of only a state, and thus function to name a stative situation. As shown in Section 2.2.1, State-Result RVCs have the state-result semantic relation between their comportment parts; therefore, this type of RVCs can serve the function of denoting a stative situation which causes a change of state—i.e., a result. Interestingly, the Sta-R RVCs have the same grammatical properties as do the Act-R and Sem-R RVCs. With respect to the grammatical characteristics, States in English, according to Smith (1997), cannot occur with durative linguistic labels like the progressive, the verb *begin* and the verb *stop*, as in (37), (38) and (39), respectively:

(37) *John is knowing the answer.

(38) * Sam began to be angry.

(39) *Mary stopped being sick.

(Smith 1997 74, 47)

In respect to feature of the semantic focus, the English States consist of only a state, so the state is the focus in their meaning. Notice that the test with the adverb *almost* does not co-occur with stative verbs in English, as shown in (40):

(40) *Mary almost loved John.

Table 2-3 displays similarities and differences between the Sta-R RVCs and English States.

Table 2-3. Similarities and differences between state-result RVCs and English States

Verbs / Features of RVCs	RVCs	States
1. describing a stative situation which causes a change of state	Yes	No
2. incompatible with durative linguistic labels	Yes	Yes
3. the result part is the semantic focus	Yes	No
4. having the result interpretation while co-occurring with *almost*	Yes	N.A.

2.4.3 Predictions of the Learners' Performance

Based on the cross-linguistic comparison between Mandarin RVCs and English verbs**,** we make predictions on the type(s) of RVCs and the linguistic features of

RVCs that may cause confusion among English learners. As already mentioned, Sta-R RVCs differ from the English States in meaning. Act-R and Sem-R RVCs, which have the action-result semantic relation, are semantically similar to English Accomplishments in that the two kinds of verbs select both an action and a result as their semantic components. However, these RVCs resemble Achievements in their grammatical properties-- (1) they are incompatible with durative linguistic labels; (2) the result part functions as the semantic prime; and (3) an RVC/Achievement sentence with the adverb *chayidianr* 'almost' has only the result interpretation. Thus, we predict that the learners' performance on the Sta-R RVCs would be different from those on the Act-R and Sem-R RVCs. Besides, in light of the similarities and differences between Action-Result RVCs[23] and Achievements/Accomplishments presented above, we predict that the English learners are liable to transfer what they have perceived in the English verbs to the new forms: there will be a negative transfer if they appeal to Accomplishments when learning the grammatical properties of the action-result RVCs; a positive transfer will take place if they treat such RVCs as Achievements.

Furthermore, because of the possible interference from the learners' L1, we predict that the learners' performance on the Sta-R RVCs will be better than that on

[23] Activity-Result and Semelfactive-Result RVCs are Action-Result RVCs.

the Act-R RVC/Sem-R RVC. As noted already, the L1-L2 structural similarities and differences may lead to positive/negative L1 transfer, and the L2 learners are likely to carry over their L1 knowledge into the L2 learning of Mandarin RVCs. On the basis of the theory of language transfer, we predict that the L1 effect will be mitigated by the learners' L2 proficiency.

2.5 Empirical Studies on Mandarin RVCs

There has been considerable research devoted to analyzing linguistic characteristics of RVCs. However, only a few studies have been done on RVCs in the field of SLA. Two most recent studies are Guo (2003) and Chen (2004), reviewed below.

Guo (2003), in the investigation of how Japanese learners of Mandarin Chinese would acquire RVCs, finds out that the lack of structural correspondence between Japanese and Mandarin may pose some problems for Japanese-speaking learners in learning Mandarin RVCs. The learning difficulty is exemplified in (41):

(41) * *Guo laoshi de zuoye wan-le,*
Guo teacher DE homework finish-LE,
Li laoshi de zuoye haimei wan.
Li teacher De homework negation finish
'I am finished with Miss Guo's homework, but I haven't finished Miss Li's.'
(Guo 2003:75)

As Guo (2003) puts it, in Japanese the result part of an event is more important than the action part, so the action part is often left unexpressed. For instance, in Japanese, [*終おつた*] 'finish' can be used to express the notion of completion for many actions. This may imply that in the description of an event composed of both an action and a result, the Japanese speaker only needs to describe the result part. In contrast, in Mandarin Chinese, the action-result event is expressed with the RVC, formed with an action verb or a stative verb and a resultative morpheme. Due to the difference between Chinese and Japanese in the event expression, the author suggests that to an L2 learner whose L1 lacks a similar compound verb which can be used to describe the action-result event, like Japanese, the learning task of the Mandarin RVC can be overwhelming.

Gao's research, however, is considered insufficient in that the results simply reveal an observation that Japanese learners usually have difficulty producing the action verb in the V1 position in Act-R and Sem-R RVCs. She does not show whether learners' performance on Sta-R RVC reflects such a tendency. What is more, the author fails to show if the grammatical properties of RVCs, presented in Section 2.2, would pose difficulty in acquisition to the Japanese learners since as our analyses of RVCs indicate, RVCs can be best characterized with these properties.

Chen's (2004) study is a corpus-based. In the study, she concludes that Mandarin

RVCs that do not appear in the textbooks pose great problems for the L2 English-speaking learners. As an illustration, consider examples (42) and (43):

(42) * *nage* *erzi* *nian* *quanbu* *naben* *shu*,
that CL son read whole that CL book
keshi *heishi* *kan* *bu* *dong*.
but still read negation understand
'Although that son read the whole book, he still could not understand it.'

(43) * *nage* *kelian* *de* *nanshen* *zuotian* *bei*
that CL poor DE boy yesterday passive
tade *didi* *she –le*.
he GEN brother shoot –LE
'That poor boy was shot by his little brother yesterday.'

(Chen 2004:93)

As the underlined parts in (42) and (43) suggest, the learners have difficulty learning the RVCs *nian-wan* 'read-finish' and *she-si* 'shoot-die'. Chen's explanation for the learning problem is simply that the learners have not learned the RVCs at the time of testing, so the production such RVCs are difficult for these learners.

It is also important to point out that sentences (42) and (43) seem to provide evidence for our analysis on the cross-linguistic difference between the specification of completion in Mandarin and English. As mentioned in 2.3.2, in English, the completion of a closed event is covertly implied in the meaning of the main verb in a perfective sentence; but in Mandarin the notion of completion, in general, is overtly

expressed with the resultative morpheme of the RVC. This has the implication that English L2 learners may have problem learning Mandarin RVCs. In other words, this difference in the specification of completion between Mandarin and English may account for why these English learners produce awkward sentences like (42) and (43).

2.6 Summary

In this chapter, the basic properties and previous studies of the RVC construction have been examined. We first investigate the possible candidates that may serve as the components in RVCs and find out that the RVC can be formed with an Activity, a Semelfactive, or a State verb and a resultative morpheme. Then, we divide the RVCs into three distinct categories — Activity-Result, Semelfactive-Result and State-Result RVCs — according to the semantic properties of the constituents. We also present the essential features of RVCs and make cross-linguistic comparisons between RVCs and English verbs with the goal of discovering some similarities and differences between RVCs and English Accomplishment, Achievement and Stative verbs. It is found that the Act-R and Sem-R RVCs are similar to the English Accomplishments in that they both consist of an action and a result. In addition, the comparison reveals that the temporal features of RVCs are the same as those of English Achievements. Specifically, the (action-result) RVCs and Achievements are semantically instantaneous. Because RVCs do not include the action aspect denoting the feature of

duration in their aspectual meaning, they are incompatible with durative grammatical labels. Moreover, like Achievements, the result component constitutes the semantic focus of the RVCs. Similar to Achievements, which do not include a non-detachable process (or an action) as part of their meaning, the ambiguity with *almost* does not appear in the RVC/Achievement sentence. As for Sta-R RVCs, they have the same linguistic features as do Act-R and Sem-R RVCs except that the meanings between their constituents indicate a state-result relation.

With regard to the empirical research of the RVC construction, Guo (2003) found that Japanese learners of Chinese have difficulty producing RVCs. According to Guo, owing to the fact that in Japanese the action part of a telic event is often left unexpressed, the production of the RVC, consisting of both an action verb and a resultative morpheme, pose a serious problem to the Japanese L2 learners. Moreover, Chen (2004) reports that English learners of Chinese are weak at producing RVCs. She also observes that the learners are less familiar with the RVCs whose component morphemes are new to them than with those whose component morphemes they have learned already.

Based on the linguistic properties of RVCs and the similarities and differences between RVCs and English verbs, this study investigates the L2 acquisition of Mandarin RVCs by English L2 learners to see whether they have full understanding of

the semantic properties of RVCs in general and whether their acquisition varies according to the three RVC types. Moreover, we are interesting in knowing if the learners will carry over their L1 knowledge into the L2 learning of RVCs.

Chapter Three

Methodology

This chapter is dedicated to the experimental design of the present study. Section 3.1 describes the subjects in the experiment. The methodology and instrument are introduced in sections 3.2. Section 3.3 presents the procedure of the experiment, including the pilot study, and the type of statistics employed in our data analysis. A summary is given in Section 3.4.

3.1 Subjects

A total of 40 English-speaking adults learning Mandarin at the Mandarin Training Center (MTC) of National Taiwan Normal University in Taipei participated in this experiment. The selection of the subjects from the MTC was based on the consideration that they attended Mandarin classes regularly--two hours a day, 10 hours per week with Mandarin-speaking teachers. On the basis of their performance on the MTC placement test, the 40 subjects were evenly (i.e., n=20) divided into two proficiency groups and labeled as Mid and High. Besides, the current study included 20 native speakers of Mandarin who were undergraduates at one of the universities in Taipei. The purpose of recruiting the Chinese speakers was to establish a base line of information or norm which could then be compared with the performance of the two English-speaking groups. Tables 3-1 and 3-2 present the personal information of the

subjects and language background of the L2 learners, respectively:

Table 3-1. Personal information of the subjects

Subject / Gender	Mid	High	Control
Male	14	15	8
Female	6	5	12
Total	20	20	20

Table 3-2. L2 learners' language background

Subject / Language background	Mid (n=20)		High (n=20)	
	Mean	SD	Mean	SD
Total length of Chinese learning	1.73	0.50	3.5	1.09

As can be seen in Table 3-1, the ratios of gender in the experimental group and the control group were not equal: while the mid group had 14 male and 6 female and the high group 15 male and 5 female, the control group included 8 male and 12 female. The discrepancy was not significant since the focus of this study was on the performance of learners with a difference in their L2 proficiency. In addition, as Table 3-2 indicates, the number of years of exposure to L2 is 1.73 for the mid group and 3.5, for the high group. Though the standard deviation for the L2 learning experience of the high group was larger than that of the mid group, it was considered insignificant because the L2 subjects were chosen on the basis of their overall proficiency in

Chinese, evaluated by the MTC.[24] According to the admission and class offerings of the MTC, our subjects in the mid group had an average of 1 year Chinese learning experience at the MTC and those in the high group 2 years. Further, the L2 learners in the mid group were Beginner-High, Intermediate-Low and Intermediate learners who were studying one of the following books at the time of testing: *Practical Audio-Visual Chinese II, Practical Audio-Visual Chinese III*, *Taiwan Today* and *Chinese Folk Tales*. The subjects in the high group included Intermediate-High, Advanced-Low and Advanced-High learners, and they were studying these books: *Mini Radio Plays, News Readings II, Thought and Society: an Advanced Spoken Level Text* or *Various Chinese Newspapers and/or Periodicals*. It is also important to note that the target structure -- the Mandarin RVC -- is introduced late, in Lesson 21 of the learners' first textbook *Practical Audio-Visual Chinese I*. To assure the participants' awareness of the target structure, only those who had finished studying Lesson One in *Practical Audio-Visual Chinese II* at the time of testing were selected to be the subjects of the present study.

3.2 Methodology and Instrument

This study takes the quantitative methodology through the use of objective tasks

[24] Learners at the MTC are usually given a language test on entering the school system. After the placement test, students will be evaluated on their overall proficiency in Chinese and suitable classes will be suggested and arranged. Notice also that the students at the MTC can be classified as Beginner, Beginner-Mid, Beginner-High, Intermediate-Low, Intermediate, Intermediate-High, Advanced-Low and Advanced-High learners.

to probe into the L2 acquisition of Mandarin RVCs. As Chen (2004) observes, RVCs are somewhat confusing for beginning and intermediate learners, suggesting that English learners of Chinese may produce RVCs with low frequency. Thus, if we collect the data in a natural setting, it may take the present researcher weeks or months to wait for the occurrence of something related to the feature of RVCs under investigation. The limitation on using naturalistic observation is the reason why we adopt the quantitative method.

The acquisition data of the Mandarin RVC for the current research were collected through two tasks: a grammaticality judgment task (henceforth GJ task) and a sentence interpretation task (SI task). In the following sections, we will present in detail the two tasks, including the design, the purpose and the content.

3.2.1 Grammaticality Judgment Task

The grammaticality judgment (GJ) task consisted of 18 randomized test items and 6 distracters. The questions were made into the form of a sentence which contained the Act-R, Sem-R or the Sta-R RVC, and one of the three durative grammatical markers: the Mandarin imperfective aspect marker *zhengzai*, the inceptive verb *kaishi* 'begin' and the terminative verb *tingzhi* 'stop'. The design of such sentences was based on the incompatibility between the meaning of the RVC and the durative linguistic label, as discussed in Chapter Two. For each test question, the

participants were asked to make judgment on the combinatory infelicity (incompatibility) between an RVC and a durative expression. Moreover, for sentences that were marked ill-formed, the subjects were told to underline the part of the sentence that was problematic. By so doing, we could assure that the judgments made were not based on something beyond the experimenter's concern.

The use of the GJ task was to tap the L2 learners' competence concerning the semantic property that the RVC is not allowed to go with the linguistic structure that involves the feature of duration. The purposes were to find out which form of RVC was most likely to mislead the English learners into considering that RVCs had the feature of duration and to investigate whether or not the learners were likely to refer to English verbs (i.e., Accomplishments, Achievements and States) for similar meaning when learning the RVCs.

In the GJ task, each type of RVC co-occurred with the imperfective marker *zhengzai*, the inceptive verb *kaishi* 'begin' and the terminative verb *tingzhi* 'stop' twice. In other words, there were 6 sentences with the Act-R RVC, 6 with the Sem-R RVC and 6 with the Sta-R RVC. These test questions were designed to investigate if the learners' knowledge of RVCs varies across the three RVC types or according to the durative grammatical structures. Table 3-3 displays some example sentences for each type of RVC.

Table 3-3. Example sentences in the GJ task

Type of RVC	Durative Expressions	Example Sentences: (the RVC is underlined)
Activity-Result (Act-R) RVC	Imperfective marker *zhengzai*	* *Ta zhengzai kao-gan tade yifu.* he imperfective Asp. roast-dry his clothes 'He is roasting his clothes.'
	Inceptive verb *kaishi* 'begin'	**Gege kaishi he-guang nabei shui.* brother begin drink-empty that water 'My older brother began to drink that glass of water.'
	Terminative verb *tingzhi* 'stop'	**Linxiaojie tingzhi xue-hui zhongwen.* Lin Miss stop study-learn Mandarin 'Miss Lin stops learning Mandarin.'
Semelfactive-Result (Sem-R) RVC	Imperfective marker *zhengzai*	* *Didi zhengzai ci-po nage qiqiu.* brother imperfective Asp. poke-break that balloon '*My brother is breaking that balloon by poking it.'
	Inceptive verb *kaishi* 'begin'	**Huairen kaishi kan-duan tade jiao.* Hooligan start cut-break his foot '*The hooligan started to cut off his foot.'
	Terminative verb *tingzhi* 'stop'	**Didi tingzhi qiao-po huaping.* brother stop knock-broken vase '*My younger brother stopped breaking the vase by knocking it.'
State-Result (Sta-R) RVC	Imperfective marker *zhengzai*	**Jiejie zhengzai qi-pao gege.* sister imperfective Asp. angry-run brother '*My older sister is trying to make my older brother angry and to make him run away when getting angry.'
	Inceptive verb *kaishi* 'begin'	**Hanleng de tianqi kaishi leng-si nage laoren.* cold DE weather start sit-full that old man '*The cold weather started to freeze the old man to death.'
	Terminative verb *tingzhi* 'stop'	**Wangxiansheng tingzhi zhu-guan xiao fangjian.* Mr.Wang stop live-accustomed small room '*Mr. Wang stopped living in a small room because he got tired of living in small rooms.'

In the GJ task, all the questions were written in Mandarin. On the test sheets given to the learners, *Pinyin*[25] was also provided for each test item to avoid the possibility of misjudgment due to the failure to recognize the Chinese characters.

3.2.2 Sentence Interpretation Task

The sentence interpretation (SI) task was composed of 12 test items, 6 of which were sentences which contained an RVC, 6 were sentences containing both an RVC and the adverb *chayidianr* 'almost'. Additionally, this task included 6 items as distracters to eliminate the shadow effect. The design of the first set of RVC sentences, presenting events consisting of both an action and a result, was based on Tai's (2003) claim that there is a difference between native speakers of Mandarin Chinese and English in their perceptual saliency towards the result of the event. The design of RVC sentences that contained the adverb *chayidianr* was based on Tai's (1984) analysis that the RVCs encode only the result aspect in their aspectual meaning and thus RVC sentences with the adverb *chayidianr* 'almost' have only the result interpretation. In contrast, Accomplishment sentences with the adverb 'almost' can be interpreted in two ways: one is the action reading and the other, the result reading.

With respect to the goals, the first set of questions in the SI task aimed to bring empirical data to verify Tai's (2003) theoretical claim that the result of the event is

[25] It is used to indicate the pronunciation of the Chinese characters.

less salient to English speakers than to Chinese speakers. The second set of questions that contained both the RVC and the adverb *chayidianr* was to find out whether or not the English learner would appeal to Accomplishments/Achievements when making decision on the interpretation on the center predication of sentences with Act-R and Sem-R RVCs.

In the sentence interpretation test, the subjects were required to read each RVC sentence carefully. Below each test question were three options: two were possible interpretations and one impossible interpretation for the given RVC sentence. They were the action reading, the result reading and a reading irrelevant to the interpretation of the target structure. The three readings were the options that the learners could possibly use to interpret the RVC sentence. As an illustration, consider one of the example sentences in (1):

(1) Please choose **THE** option that expresses the main idea of the sentence.
Xiaohai kexingle mama.
(A) Mother woke up. (Result)
(B) The child coughed. (Action)
(C) The mother was not worried about the child who coughed. (Irrelevant)

After reading the RVC sentence, the subjects had to choose one item that best interpreted the test sentence. Table3-4 shows more example sentences in the SI task.

Table 3-4. Example sentences in the SI task

Type of RVC	Linguistic labels co-occurring with RVCs	Example Sentences (The RVC is underlined.)
Act-R RVC		*Gege tui-kai-le men.* (A) My brother pushed the door. (B) The door was opened. (C) The door was broken.
	chayidianr 'almost'	*Jiejie chayidianr xie-duan wode bi.* (A) My sister intended to use my pen, but she somehow changed her mind and did nothing at all. (B) My sister used my pen to write, so my pen was broken. (C) My sister used my pen to write, but my pen was not broken after her using it.
Sem-R RVC		*Wangwu ti-dao-le nage pinggzi.* (A) Wangwu kicked that bottle. (B) That bottle fell down. (C) Wangwu found it interesting to kick that bottle.
	chayidianr 'almost'	*Yuehan chayidianr tiao-huai-le diban.* (A) John intended to jump on the floor, but he somehow changed his mind and did nothing at all. (B) John jumped on the floor, so the floor was broken. (C) John jumped on the floor, but the floor was not broken after his jumping on it.
Sta-R RVC		*Zhangsan zuo-ma-le jiao.* (A) Zhangsan sat on the chair. (B) Zhangsan's feet became numb. (C) Zhangsan's feet were numb, so he did not sit on the chair.

	chayidianr 'almost'	*Nainai chayidianr <u>zhan-teng</u>-le tui.* (A) My grandmother intended to stand there, but she somehow changed her mind and did nothing at all. (B) My grandmother stood there for a long time, so her legs felt hurt. (C) My grandmother stood there for a long time, but her legs did not feel hurt.

On the test sheet given to the subjects, the three interpretations were written in English to avoid misjudgments resulting from the failure to understand the language.

3.3 Procedure

The purpose of the current study was to disclose English L2 learners' knowledge of the Mandarin RVC. Although the meaning and function of the RVC construction were introduced in the learners' textbook, the book provided very few RVC examples and failed to mention the various forms of RVCs. For the purpose of ensuring the learners' familiarity with the test questions, the component morphemes of RVCs and lexical items in the test sentences were designed and further checked based on the learners' textbooks *Practical Audio-Visual Chinese vols. I & II* (Lesson one). What's more, before the experiment was undertaken, the 20 participants in the control group were asked to take the tests. Test sentences which sounded odd or were unacceptable to most native Mandarin speakers were discarded. After the confirmation of the test questions, a pilot study was conducted at the MTC in order to make sure that the tasks we designed were valid. In what follows, we report the pilot study and the formal test

in respect to the data coding and the type of statistics employed in our data analysis.

3.3.1 Pilot Study

There were 9 English L2 learners joining in the pilot study. They were divided into three different proficiency levels, each comprising 3 subjects. In the pilot study, three tasks, namely grammaticality judgment (GJ), sentence interpretation (SI) and event description (ED) tasks were designed to test the learners' comprehension and production of the Mandarin RVCs. The GJ task consisted of 9 randomized test items and 4 distracters. Each type of RVC co-occurred with the imperfective marker *zhengzai*, the inceptive verb *kaishi* and the terminative verb *tingzhi* once. There were test items in the SI task. They were 3 sentences with the Act-R, Sem-R and Sta-R RVCs, and 3 sentences that contained one of the three RVC types and the adverb *chayidianr* 'almost'. In the GJ task, the subjects were asked to make judgments on the incompatibility between an RVC and a durative linguistic structure. In the SI task, they were told to choose one reading that best interpreted each of the six RVC sentences. The ED task included 6 events recorded on video. The events were presented by 3 Act-R RVCs and 3 Sem-R RVCs. What the subjects had to do in this task was to use one short Chinese sentence to describe these events.

The results of the pilot study revealed that in the GJ task, advanced subjects were much more accurate than Intermediate and beginning-high subjects at judging

incompatibility between an RVC and a durative expression. Aside from that, we discovered a performance discrepancy between the learners' performances of the Sem-R and Act-R RVCs in the mid and high groups: they performed better on the Act-R RVC than on the Sem-R RVC. The difference in performance was also found in the Sta-R and Sem-R RVCs, that is, our subjects did better on Sta-R RVCs than on Sem-R RVCs. The results suggested that the Sem-R RVCs caused the greatest confusion among intermediate and advanced learners.

In the SI task, the findings indicated that the frequency of occurrence of the result response for test items with adverb *chayidianr* 'almost' was higher than that for items without the adverb. This might have the implication that the learners did not have complete understanding of the basic property that the result description is the center predication of the RVC sentences. Equally important, the results suggested that the meaning of the adverb 'almost' aided the learners' understanding of this property of RVC. As for the ED task, the results showed that the learners were not familiar with the use of the RVC, except for the RVC *ti-dao* 'kick-fall'. Put differently, it was found that in the event description, learners across the three proficiency groups produced sentences that contained an RVC with a lower frequency than those that did not have the RVC.

3.3.2 Formal Test

After the pilot study, several revisions of the questionnaire were made. Seeing that the performances of the mid and high groups were quite similar in the pilot study, we then included only two experimental groups--mid[26] and high groups-- in the present study. Furthermore, in light of the avoidance of the RVC found in the pilot study, the event description was dropped out of the formal test. Consequently, the final version of the questionnaire used for the formal test was composed of two tasks, the GJ and SI tasks. In the formal test, before the subjects started to complete the questionnaire, they were told to sign the consent form and fill out their background information. Then, some instructions were given in spoken Chinese or if they preferred, in English. Finally, the participants were reminded not to go back and change their answers that had already been written down in the tasks. The data coding and the type of statistics employed in our data analysis are reported below.

With respect to the scoring, in the GJ task, for each test item, those who provided an 'X' to mark the ungrammaticality or the combinatory infelicity of an RVC and a durative linguistic expression and then underlined the part of the sentence that was problematic were given one point. Notice also that test items that were marked 'X' with no indication of the part of the sentence that was problematic were not given the point. In the SI task, the learners' answers were grouped into the following categories:

[26] The low group in the pilot study was labeled as the mid group in the present study. Because the learners in this group had an average of 1 year Mandarin learning experience and were named Beginner-High, Intermediate-Low and Intermediate learners at the MTC, it is reasonable to label these learners as mid-level subjects in this study.

(1) an action reading and (2) a result reading.[27] Results obtained from the experimental group were categorized as frequencies and then compared to those from the control group in respect to the frequencies of occurrence for the action and result responses to each test item. It should also be noted that in the data we collected, all our subjects chose either the action interpretation or the result interpretation in the test questions without the adverb *chayidianr* 'almost' while in test items with the adverb *chayidianr*, some of our subjects chose the option irrelevant to the interpretation to the target structure. To find out if questions with the adverb *chayidianr* would receive more result interpretation than those with the adverb due to the possible L1 positive transfer, as we predict in Chapter Two, we compared and contrasted only the frequency of result interpretation response in our data analysis.

After the scoring, a mixed designed ANOVA was designed and used to analyze the data collected in the GJ task. In the case where we obtained a significant F, we performed subsequent analyses to find out where in the data the significance occurred. In the SI task, we used the *Chi square* analysis to examine whether there were statistically significant differences between subjects in the experimental and control groups with respect to their action and result responses to test questions. In addition,

[27] The main goal of the SI task was to falsify Tai's (2003) claim that the English-speaking people would attend more to the action part of the event than to the result part, as compared to Chinese-speaking people. We analyzed only the first (action) and the second (result) readings in the SI task. The third reading, an irrelevant reading, was not what we concerned, so test items marked with this answer by the learners were not analyzed.

the data analysis technique of *Chi square* was used to explore if the difference observed between the learners was statistically meaningful.

3.4 Summary

In this chapter, we introduce the experimental design of this study. In terms of the subject, there were 40 English learners of Chinese participated in the research. They were divided into two distinct proficiency levels, each comprising 20 subjects. The grammaticality judgment and sentence interpretation tasks were designed to disclose the learners' knowledge of the basic properties of RVCs. The GJ task was designed to examine whether the English learners are aware of the feature that the Act-R, Sem-R or Sta-R RVC is not allowed to go with durative grammatical structures such as the imperfective marker *zhengzai*, and the two verbs, *kaishi* 'begin' and *tingzhi* 'stop'. The SI task was used to test if the subjects know that the result interpretation expresses the main idea of the RVC sentence. In the following chapter, the results of the experiment will be reported. And, the four research purposes will be addressed with the findings interpreted.

Chapter Four

Results and Discussion

In this chapter, we present the results of this study and discuss the findings with respect to the four research purposes stated in Chapter One. Section 4.1 examines the acquisition difference among the three types of RVCs. Section 4.2 explores the L1 influence on the L2 acquisition of RVCs. Section 4.3 addresses the issue on the interplay between language and though. Section 4.4 summarizes the main points of this chapter.

4.1 Acquisition Difference among the Three RVC Types

This section addresses the first research purpose— to find out whether the English learners' performance varies with the three types of RVCs, i.e., Act-R, Sem-R and Sta-R RVCs. In the following, we will first present the results of the grammaticality judgment task and then examine whether the English learners' performance differ according to the three types of RVCs. The results of the three RVC types will be reported first.

Table 4-1 illustrates the subjects' correct responses to the Act-R, Sem-R and Sta-R RVCs obtained from the GJ task. The task consisted of 18 items divided into three groups according to the type of RVC; that is, 6 items for each type of RVC. Each of the subjects' correct response would get one point, so the highest mean score for

each RVC type is 6 and the total score is 18.

Table 4-1. Correct responses to the three RVC types in the GJ task

Type of RVC / Group	Activity-Result		Semelfactive-Result		State-Result	
	Mean	SD	Mean	SD	Mean	SD
Mid	2.85	1.785	1.70	1.380	3.45	1.504
High	4.10	1.334	2.90	1.714	4.00	1.298
Control	5.55	0.686	5.40	0.821	5.85	0.489

As the mean scores in Table 4-1 indicate, the Chinese controls' performance was better than that of the two experimental groups. The results of ANOVA revealed that the accuracy of judgment between the control and experimental groups was significantly different (Scheffe, p=.000* for the mid group and p=.000* for the high group), implying that the English learners' knowledge of the property that RVCs cannot occur with durative linguistic labels was far from native-like. Table 4-1 also illustrates that the L2 learners' performance differed according to types of RVCs. That is, their performance on Sta-R RVCs was the best, the mean score for the correct responses being 4.0 for the high group and 3.45, for the mid group. Next was the Act-R RVC; the mean scores of the advanced and intermediate learners were 4.10 and 2.85, respectively. The Sem-R RVC had the lowest mean score among the three types of RVCs, the mean scores being 2.90 and 1.70 for the high and mid groups,

respectively. A mixed design ANOVA analysis was conducted to check if the mean differences between any two of the three RVC types reached the level of significance. The results revealed that the performance on the Sta-R RVC was significantly better than that on the Sem-R RVC, with a p value of .000 ($p<.05$*). In addition, a significant difference was observed between the learners' performances on the Act-R and Sem-R RVCs ($p=.000$*). Though learners' correct responses to the Act-R RVCs were not the same as those to the Sta-R RVCs ($p=.272$, $p>.05$), the difference did not reach the level of significance.

The above findings accorded with our prediction of the acquisition of Sta-R /Sem-R RVCs (and that of Sta-R /Act-R RVCs), but did not correspond to that of Act-R/ Sem-R RVCs. The acquisition of Action-Result RVCs[28] is expected for the following reasons. It has been shown that in SLA, the transference of one linguistic label from the L1 to the L2 has the involvement of an obvious correspondence between the learner's native language and the target language (e.g., Lado 1957; Ard and Homburg 1992; Odlin 1994). As mentioned in Chapter Two, Chinese allows some States to serve as the first constituents of RVCs, while English does not. Moreover, the cross-linguistic comparison indicates that Act-R and Sem-R RVCs are similar to English Accomplishments in that all of them present events consisting of both an

[28] Activity-Result and Sem-R RVCs are Action-Result RVCs.

action and a result. However, it reveals that Action-Result RVCs, composed of only a result in their meaning, resemble English Achievements in grammatical properties. From the discussion, State-Result RVCs display a relatively lower degree of L1-L2 differences than Action-Result RVCs. Thus, it was predicted that the L2 acquisition of State-Results RVCs, which involves less L1 interference, would be easier than that of Action-Result RVCs. Our result has indeed provided empirical evidence showing that the learners did better on State-Result RVC than on Action-Result RVCs and thus supported the analysis that the different degrees of L1 interference leads to unsuccessful L2 learning.

So far, the findings have suggested that the English learners did better on Sta-R and Act-R RVCs. The Sem-R RVCs, on the other hand, posed the greatest difficulty in acquisition to the learners. Since the results of Act-R RVCs and Sem-R RVCs did not conform to our prediction,[29] the performances on the three RVC types were further examined to find out why most learners were able to detect the incompatibility between the meaning of the Act-R RVC and a durative grammatical structure, but unable to notice such a feature in the Sem-R RVCs. A closer look was paid to the three types of RVCs when they appear with the imperfective marker *zhengzai*, the inceptive verb *kaishi* and the terminative verb *tingzhi*. Table 4-2 presents the mean

[29] We predicted that the performances on Act-R and Sem-R would be similar because the two types resemble each other in the following ways. First, they select both an action and a result as their components. Second, they present an event with a final endpoint.

accuracy scores obtained from the learners' performances on the three durative markers. There were 18 test items in the GJ task. The 18 items were divided into three groups according to the three durative markers-- *zhengzai*, *kaishi* and *tingzhi*, 6 items for each marker. Hence, the highest mean score for each marker is 6 and the total score is 18.

Table 4-2. The mean scores of correct responses to questions with the durative linguistic labels *zhengzai, kaishi* and *tingzhi* in the GJ task

Durative linguistic label / Group	Imperfective marker *zhengzai*		Inceptive verb *kaishi* 'begin'		Terminative verb *tingzhi* 'stop'	
	Mean	SD	Mean	SD	Mean	SD
Mid	2.50	1.573	3.20	1.704	2.30	1.490
High	3.50	1.539	4.70	1.380	2.80	1.735
Control	5.35	0.813	5.85	0.489	5.60	0.754

The mean accuracy scores displayed in Table 4-2 showed that the subjects in the control group outperformed those in the two experimental groups. A significant difference was found between the control group and the two experimental groups (Scheffe p=.000** for the mid group and p=.000** for the high group). Moreover, Table 4-2 indicates the mean score in the inceptive verb *kaishi* were the highest, the scores being 3.20 and 4.70 for the mid and high groups, respectively, and .the average mean score being 3.95. The learners' average mean accuracy score of the test items

with the imperfective marker *zhengzai* is 3.0 and that of the items with the terminative verb *tingzhi* is 2.55. A one-way ANOVA analysis showed that the learners' correct responses to the questions with *kaishi* were statistically significantly higher than those with the other two durative linguistic labels (p=.001* for *kaishi* vs. *zhengzai* and p=.000** for *kaishi* vs. *tingzhi*), signaling that questions with both an RVC and the inceptive morpheme *kaishi* posed less difficulty to the L2 learners. Notice also that the average mean scores observed from Table 4-2 seem to indicate that the learners did better on '*zhengzai*' than on '*tingzhi*', but the result of ANOVA revealed that their performances on *zhengzai* items than on *tingzhi* items, but no significant difference was found statistically (p=.174, p>.05).

The findings presented above suggest that the learners did better on test questions with '*kaishi*'. It was also found that that the L2 learners did not perform like the controls on all the three durative markers, implying that they did not have complete understanding of this feature of RVC. Therefore, the interactions between the three RVC types and the three durative linguistic labels need to be scrutinized in detail in order to find out why the learners did not exactly comprehend that the RVC is semantically instantaneous. Presented in Figure 1 is the learners' performance on test items with *kaishi*:

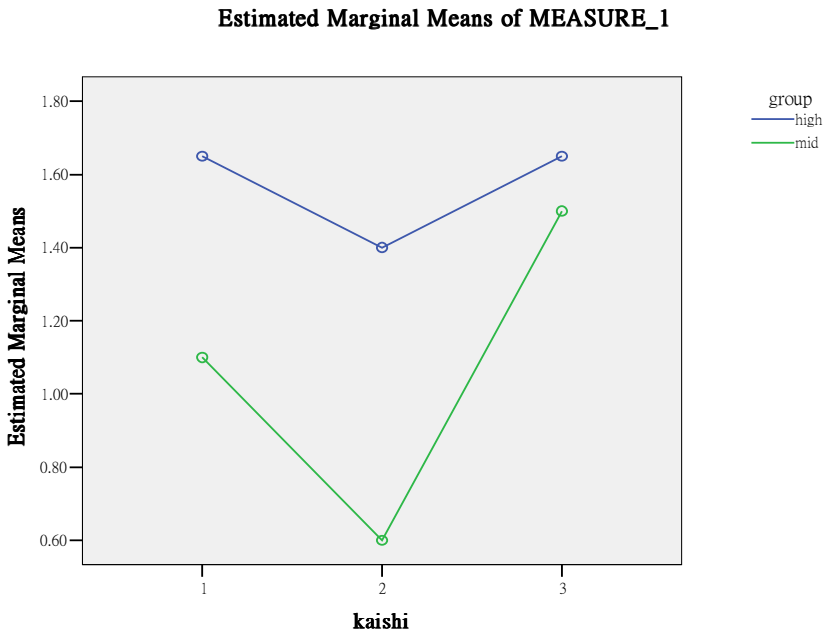

Figure 4-1. The learners' performance on test questions with *kaishi*
(The numbers 1, 2 and 3 on the X axis stand for the Act-R, Sem-R and Sta-R RVCs, respectively.)

It is apparent in Figure 4-1 that the learners did worst on Sem-R RVCs, indicated with No. 2 on the X axis. An ANOVA analysis revealed that the learners' performance on Act-R RVCs was significantly better than that on Sem-R RVCs (p=.001*). The analysis also revealed that the learners' correct responses to the Sem-R and Sta-R RVCs were significantly different (p=.000**). It seems that the L2 learners were least familiar with the meaning of the Sem-R RVCs. More importantly, the unfamiliarity with the Sem-R RVCs may also account for why the learners' performance on kaishi was not close to the Chinese controls'. A further analysis of the learners' performance also showed that they did poorly on questions that contained the Sem-R RVCs and durative expressions like the terminative verb *tingzhi* 'stop', as illustrated in Figures

4-2 and 4-3, respectively.

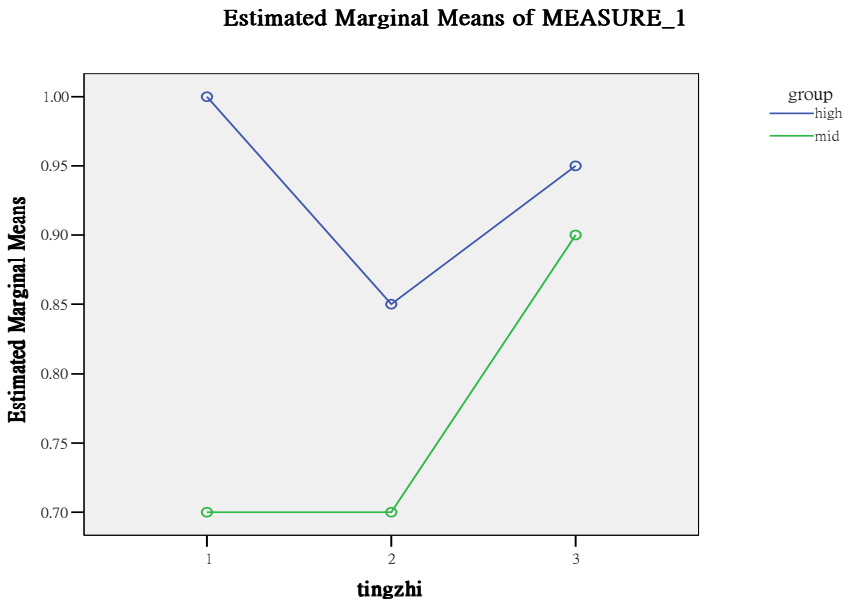

Figure 4-2. The learners' performance on test questions with *tingzhi*
(The numbers 1, 2 and 3 on the X axis stand for the Act-R, Sem-R and Sta-R RVCs, respectively.)

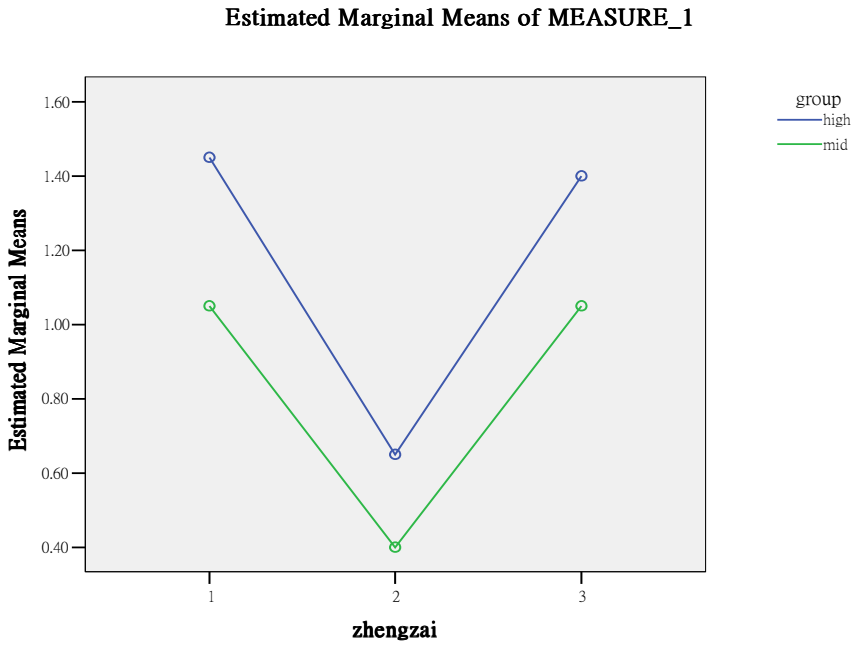

Figure 4-3. The learners' performance on test questions with *zhengzai*
(The numbers 1, 2 and 3 on the X axis stand for the Act-R, Sem-R and Sta-R RVCs, respectively.)

Figures 4-2 and 4-3 clearly show that the learners' performance on Sem-R RVCs (indicated with 2 on the X axis) was the worst among the three RVC types, implying that the Sem-R RVCs were truly confusing to the L2 learners. Though in questions with *tingzhi*, the Act-/Sta-R RVC enjoyed higher mean scores than the Sem-R RVC, no statistical difference was found (p=.649 for Sem-R vs. Act-R RVC and p=.300 for the Sem-R vs. Sta-R RVC). On the contrary, we found that in test items with the imperfective aspect marker *zhengzai*, the performance on Act-/Sta-R RVCs was significantly different from that on Sem-R RVCs (p=.000** for Sem-R vs. Act-R RVC and p=.000** for Sem-R vs. Sta-R RVCs). Based on the findings, we can state that most learners were able to detect the incompatibility between the meaning of the Act-R RVC and a durative grammatical structure, but unable to notice such a feature in Sem-R RVCs. It was stated earlier that the learners' poor performance on Sem-R RVCs is perhaps due to their unfamiliarity with the meaning of this type of RVC. A closer examination of all the test items designed for Sem-R and Act-R RVCs shows that the low mean score of the Sem-R RVCs can indeed be accounted for with the fact that the learners were less familiar with the elements in Sem-R RVC than with those in the Act-R RVC. To illustrate this point, consider tables 4-3 and 4-4:

Table 4-3. Accuracy rates of questions with Activity-Result RVCs

RVCs / Correct response	*chi-bao* 'eat-full'	*du-dong* 'read-understand'	*xiao-teng* 'laugh-hurt'	*he-guang* 'drink-empty'	*xue-hui* 'study-learn'	*kao-gan* 'roast-dry'
Rate	65%	60%	55%	**82.5%**	55%	**30%**

Table 4-4. Accuracy rates of questions with Semelfactive-Result RVCs

RVCs / Correct response	*gua-shang* 'scratch-hurt'	*ci-po* 'poke-broken'	*da-si* 'hit-die'	*kan-duan* 'cut-broken'	*qiao-po* 'knock-broken'	*diu-lan* 'throw-rotten'
Rate	**20%**	32.5%	**50%**	**50%**	37.5%	40%

As shown in Tables 4-3 to 4-4, the Sem-R RVC *gua-shang* 'scratch-hurt' has the lowest accuracy rate, the accuracy rate being 20%. On the other hand, the learners appreciated the Sem-R RVC *da-si* 'hit-die' and *kan-duan* 'cut-break' more, the accuracy rate of which is 50%. As for Act-R RVCs, learners performed best on the item *he-guang* 'drink-empty'; the accuracy rate reached 82.5%. The lowest accuracy rate obtained from the Act-R RVCs is 30%, while that of Sem-R is 20%. A further exploration of these RVCs is conducted to find out whether the learners' poor performance on the Sem-R RVCs results from their unfamiliarity with the component morphemes of the RVCs. The learners' unfamiliarity with the component morphemes comprising the Sem-R RVCs may be closely related to the frequency of occurrence of these morphemes in their textbook. In order to substantiate this notion, we consulted

the learners' textbooks[30] and found that Activity verbs such as *chi* 'eat', *he* 'drink' and *du* 'read' occurred more frequently than Semelfactives verbs like *kan* 'cut', *da* 'hit'[31] and *qiao* 'knock'. The frequency of input hence seems to play an influential role in the acquisition of RVCs by the English learners. Or learners' unfamiliarity with the RVC did place extra burden in acquiring the grammatical property of RVC.

The Input Hypothesis, introduced by Krashen (1985), can further account for the learners' poor performance on the Sem-R RVCs. According to Krashen (1985), for SLA to take place, learners need comprehensible input. That is, 'acquisition' takes place when the learner understands input that is a little beyond the current level of his/her competence. Thus, the Act-R RVCs in the tasks, the components of which the learners already know, enjoyed higher accuracy mean score than the Sem-R RVCs, which consisted of morphemes that were not familiar to the learners. The findings can also serve as cogent evidence that supports Chen's (2004) conclusion that English learners of Chinese are more proficient in using the RVCs introduced as examples in their textbooks.

4.2 L1 influence on the L2 Acquisition of RVCs

[30] More than thirty Activity verbs were listed in the learners' textbooks *Practical Audio-Visual Chinese I* and *Practical Audio-Visual Chinese II* (Lesson 1), while only twelve Semelfactive verbs were found. All of the Semelfactive verbs can be seen in our test questions (*ke* 'cough', *ti* 'kick', *pai* 'pat', *reng* 'throw', *shuai* 'shatter', *tiao* 'jump', *gua* 'scratch', *ci* 'poke', *da* 'hit', *kan* 'cut', *qiao* 'knock' and *diu* 'throw').

[31] The morpheme *da* 'hit' was taught earlier than all the other Semelfactives (Lesson 22, Book I). But, it was not introduced as an independent verb. Rather, it was combined with the morpheme *qiou* 'ball' to form a verb phrase *da-qiou* 'hit-ball', meaning playing ball.

This section primarily concerns the L1 influence on the L2 acquisition of RVCs. The first language influence, also known as the cross-linguistic influence or language transfer has been a central issue in the field of second language acquisition. SLA researchers investigating the role of learners' native language are concerned with the question as to whether or not the presence of an L2 structure patterned like the L1 in the development of L2 proficiency is the result of L1 transfer. Results of studies along this line (e.g., Lado 1957; Ard and Homburg 1992; Odlin 1994) indicate that the transference of one linguistic label from the L1 to the L2 has the involvement of an obvious correspondence between the learner's first language and the second language.

In this study, the acquisition of three RVC types was examined. In Chapter Two, the three types of RVCs and the English verbs that correspond to them have been compared and contrasted in terms of their semantic meaning and grammatical properties. As summarized in Tables 2-2 and 2-3, there are cross-linguistic variations between Act-/Sem-R RVCs and English Accomplishments, though their semantic components denote the action-result semantic relation. The cross-linguistic comparison shows that like English Achievements, such RVCs consist of only a result in their meaning. Moreover, RVCs resemble Achievements in the following ways. First, similar to Achievements, RVCs are incompatible with durative linguistic labels. Second, RVC sentences with the adverbs *chayidianr* 'almost' only have the result

interpretation. In light of the similarities and differences between Action-Result RVCs, it is predicted that the English learners are liable to transfer what they have perceived in the English verbs to the new forms: there will be a negative transfer if they appeal to Accomplishments when learning the grammatical properties of the action-result RVCs; a positive transfer will take place if they treat such RVCs as Achievements.

In the present study, we designed two experimental tasks to collect pertinent data—the grammaticality judgment (GJ) and sentence interpretation (SI) tasks. The GJ task, on the one hand, aimed to examine whether or not the subjects had the grammatical knowledge that RVCs are not allowed to go with durative linguistic labels and the second set of questions in the SI task, on the other hand, was to investigate how a sentence that had both the RVC and adverb *chayidianr* 'almost' was interpreted by the English learners. The result and discussion of the GJ task will be presented first, followed by those of the SI task. There were 18 test items in the GJ task. The 18 test items were divided into three groups according to the three durative markers— *zhengzai*, *kaishi* and *tingzhi*, 6 items for each marker. The 6 items were regrouped into three categories according to the three RVC types—Act-R, Sem-R and Sta-R RVCs. Therefore, the highest mean score for each test question that had one RVC and one durative linguistic label was 2.

The mid and high groups' mean scores on Act-R and Sem-R RVCs are shown in

Table 4-5 and Table 4-6, respectively.

Table 4-5. The mid group's mean scores on Act-R and Sem-R RVCs

Durative markers / Type of RVC	Imperfective marker *zhengzai*	Inceptive verb *kaishi* 'begin'	Terminative verb *tingzhi* 'stop'
Activity-Result	1.45	1.65	1.00
Semelfactive-Result	0.40	1.40	0.85

Table 4-6. The high group's mean scores on Act-R and Sem-R RVCs

Durative markers / Type of RVC	Imperfective marker *zhengzai*	Inceptive verb *kaishi* 'begin'	Terminative verb *tingzhi* 'stop'
Activity-Result	1.05	1.10	0.70
Semelfactive-Result	0.65	0.60	0.70

Tables 4-5 and 4-6 indicate that on the whole, the mean scores of the subjects' correct responses to Sem-R RVCs were statistically lower than those to Act-R RVCs. They had more correct responses in questions with Act-R RVCs than with Sem-R RVCs and one-way ANOVA confirmed this (p=.006*). In the previous discussion, we pointed out that subjects' poor performance on Sem-R RVCs could be ascribed to their unfamiliarity with this type of RVC.

In addition to the reason of unfamiliarity with the meaning of Sem-R RVCs, we can also account for the significant difference existed between subjects' performances on Act-R and on Sem-R RVCs with the L1 influence. That is, as mentioned already,

most learners were able to detect the incompatibility between the meaning of the Act-R RVC and a durative grammatical structure, but unable to notice such a feature in the Sem-R RVCs. A further examination shows that the learners seemed to understand that the result component constitutes the semantic focus of RVCs; consequently, they treated these RVCs as Achievements instead of Accomplishments: Achievements consist of only a result, whereas Accomplishments include both a process and a result as parts of their meaning. It should also be noted that Act-R RVCs are treated by the L2 learners as Achievements without preliminary stages and Sem-R RVCs as Achievements with preliminary processes. Given these, the English learners may rely heavily on the meaning of Achievements when making judgments on the combinatory infelicity between the meaning of the RVC and a durative expression.

From the above analyses, L1 transfer can be found. Learners treated Act-R RVCs as typical Achievements without preliminary stages. Typical Achievements cannot occur with grammatical structures that involve the feature of duration; therefore, they performed better on Act-R RVCs. On the other hand, the learners did worst on Sem-R RVCs because they treated these RVCs as Achievements with preliminary processes. Recall that some Achievements are allowed to go with the English progressive, and the imperfective aspect spans the preliminary stage of Achievements. If Sem-R RVCs were conceptualized as Achievements with preliminary stages by the learners, then

their performance may reflect interference from their L1. In other words, the compatibility between the meaning of the Achievement and the English progressive could mislead the learners into considering that Sem-R RVCs can appear with the Mandarin imperfective aspect marker *zhengzai*. Such assumption conformed to the results presented in Tables 4-5 and 4-6.

Tables 4-5 and 4-6 show that in questions with *zhengzai*, the accuracy mean score for Sem-R was exceptionally low (M=0.65 for the high group and M=0.40 for the mid group). In test questions with *zhengzai*, Sem-R RVCs had the lowest accuracy mean score, which suggests that the English learners, even those with higher Chinese proficiency, tended to perceive that the Sem-R RVC is compatible with the imperfective aspect marker *zhengzai*. It should also be noted that the one-way ANOVA indicates that the learners did not make any progress on these questions (p=.559). However, as the results suggest, the L2 learners had the grammatical knowledge that Act-R RVCs are not allowed to go with *zhengzai* (M=1.45 for the mid group and M=1.05 for the high group). And, as their Chinese proficiency increased, they showed progress on this type of question (p=.045). As the findings suggest, the English learners relied on Achievements when making judgment on the incompatibility between the Action-Result RVC and durative linguistic label. It is worth mentioning that though both Sem-R and Act-R RVCs were conceptualized as

Achievements, the learners treated the two types of RVCs as Achievements with and without the preliminary stage, respectively. Thus, their performance on Sem-R RVC reflected the L1 interference, but their performance on Act-R RVCs did not. The findings corresponded to our prediction that the learners are likely to transfer what they have perceived in the English verbs, Accomplishments, or Achievements, but did not fully conform to the prediction that (only) a positive transfer would occur if they treat such RVCs as Achievements.

Now let us examine the learners' performance on the SI task to see if the learners would rely on Achievements when making decision on the center predication of sentences that had both the RVC (i.e., Action-Result RVC) and the adverb *chayidianr* 'almost'. As mentioned in Chapter Three, there were 12 test questions in the SI task. The 12 questions were divided into two groups according to whether or not the test items contained the adverb *chayidianr*, 6 for RVC sentences without the adverb and 6 for RVC sentences with the adverb. It was also noted that the two set of questions were designed for different purposes: while questions without '*chayidianr*' was investigate whether or not the result part of an event is less salient to English-speaking people than to Chinese-speaking people, questions with '*chayidianr*' aimed to find out if the English learners would appeal to Accomplishments/Achievements when making decision on the center predication of RVC sentences with the adverb chayidianr

'almost'. To examine the possible L1 influence, we present the two sets of sentences in the discussion. Presented in Table 4-7 are the frequencies of the result interpretation response of questions without the adverb *chayidianr* 'almost'. Such frequencies for questions with the adverb are shown in Table 4-8. As noted already, the 12 test questions in the SI task were grouped into two categories, 6 test items for each category. The six test items were further divided into three groups according to the RVC types, 2 for each type of RVC. Hence, the highest frequency of the result interpretation response for each type of RVC is 40 and that for each group, comprising 20 people, is 40.

Table 4-7. Frequency of the result interpretation for test items with Act-R, Sem-R and Sta-R RVCs in the SI task

Group / Type of RVC	Mid	High	Control
Activity-Result RVC	17 (42.5%)	28 (70%)	40 (100%)
Semelfactive-Result RVCs	19 (47.5%)	21 (52.5%)	38 (95%)
State-Result RVCs	36 (90%)	36 (90%)	37 (92.5%)

Table 4-8. Frequency of the result interpretation response for the items containing both the RVC and *chayidianr* 'almost' in the SI task

Group / Type of RVC	Mid	High	Control
Activity-Result RVC	26 (65%)	32 (80%)	40 (100%)
Semelfactive-Result RVC	24 (60%)	30 (75%)	40 (100%)

State-Result RVC	22 (55%)	31 (77.5%)	40 (100%)

As is evident form Tables 4-7 and 4-8, test items with the adverb *chayidianr* 'almost' elicited a contradictory result to those without the adverb. The frequency totals displayed in Table 4-7 indicate that the performances of the English learners and Chinese controls on Sta-R RVCs were nearly equivalent. In the Sta-R RVCs, we obtained 37 result responses out of a maximum of 40 from the control group. The frequency of the result interpretation response received by either the mid or high group was 36 out of 40. The Chi-square confirmed that the frequencies obtained from the experimental groups were not statistically different from that of the control group (Chi-Square-value=.624, p=.732). However, with respect to the result interpretation response to Sta-R RVCs, the Chi-square showed a significant difference between the experimental and control groups (Chi-Square-value= 16.064, p=.003*). A further exploration was conducted to find out why the learners had the knowledge that the result part constitutes the semantic focus of the Sta-R RVC, but they did not sense that an RVC sentence with the adverb *chayidianr* has the result interpretation.

The exploration showed that the learners' performance on State-Result RVCs reflected L1 interference. As noted already, the learners' responses to the Sta-R RVCs in test items without the adverb *chayidianr* 'almost' were more close to the native speakers' when compared with their responses to Sta-R RVCs in questions without

chayidianr. That is, the L2 learners, especially those in the mid group, were not so aware that when a Sta-R RVC appears with the adverb *chayidianr* in a sentence, only the result reading is deducible from the RVC sentence. One possible explanation is that the learners had difficulty dealing with the property that the Sta-R RVC, which presents a state inducing an endpoint, can occur with the adverb *chayidianr* 'almost' since the adverb *almost* in English is only allowed to go with verbs representing events. In Chapter Two, we mentioned that the test with the adverb *almost* is used to distinguish English Accomplishments, which include the non-detachable process in their meaning from Achievements, some of which have a detachable process (Smith 1997). Hence, it is very possible that the English learners were influenced by their L1 knowledge that the adverb *almost* cannot occur with verbs naming a state and thus confused about the test questions that contain both a Sta-R RVC and the adverb *chayidianr* 'almost'. Moreover, in light of the fact that the learners performed well on the test items with Sta-R RVCs in questions that do not contain the adverb *chayidianr*, we can conclude that their fewer result interpretation responses to these test questions is likely to result from the L1 influence (i.e., the L1 interference).

Moreover, a negative L1 transfer could also be found in the learners' performance on Action-Result RVCs. To better understand how these RVC sentences were interpreted by the English learners, the frequencies and percentages for Act-R

and Sem-R RVCs collected from the two sets of questions in the SI task were compared and contrasted and are shown in Tables 4-9 and 4-10:

Table 4-9. Frequency and percentage for Act-R RVCs with and without *chayidianr*

Test questions / group	questions without the adverb 'almost'		questions with the adverb 'almost'	
	result response	total	result response	total
Mid	17	40	26	40
	42.5%		65%	
High	28	40	32	40
	70%		80%	

Table 4-10. Frequency and percentage for Sem-R RVCs with and without *chayidianr*

Test questions / group	questions without the adverb 'almost'		questions with the adverb 'almost'	
	result response	total	result response	total
Mid	19	40	24	40
	47.5%		60%	
High	21	40	30	40
	52.5%		75%	

As is evident from the results shown in Tables 4-9 and 4-10, test questions with the adverb *chayidianr* 'almost' enjoyed high frequency of the result responses. When such clues are removed, the result response decreases in frequency. On the basis of the result, we can state that the adverb 'almost' assisted the learners to make correct decision on the semantic focus of an action-result RVC. The findings were consistent

with the prediction that the learners relied on L1 knowledge of Achievements/Accomplishments when learning the semantic property of Action-Result RVCs. Moreover, they also accorded with the prediction that there would be a positive transfer if the learners transferred the L1 knowledge of Achievements to the L2 learning of Action-Result RVCs.

4.3 Interplay between Language and Thought

This section concerns the issue on the cross-cultural differences in cognition of language speakers. As many linguists (e.g. Whorf 1956; Bloom 1981, 1984) suggest, distinct perceptions of cultural conventions, reinforced by the structural characteristics of the learner's L1, often engender a failure in their L2 learning. Tai (2003), for example, claims that the result part of an event would be more salient to Mandarin-speaking people than to English-speaking people based on the cross-linguistic difference between Mandarin and English regarding the expression of the result of an event. The results of the subjects' interpretations of RVC sentences will be presented first, followed by the discussion of the results.

Presented in Table 4-11 are the frequencies of the result interpretation response obtained from the mid, high and control groups, each comprising 20 people. As indicated in Chapter Three, the SI task was divided into two sets of questions. Each set was composed of six items divided into three groups, two for each type of RVC.

Hence, the highest frequency of the result interpretation response for each type of RVC is 40 and that for each group is also 40.

Table 4-11. Frequencies of the result interpretation response for Act-R, Sem-R and Sta-R RVCs

Group / Type of RVC	Mid	High	Control
Activity-Result RVC	17 (42.5%)	28 (70%)	40 (100%)
	45 (56.25%)		
Semelfactive-Result RVCs	19 (47.5%)	21 (52.5%)	38 (95%)
	40 (50%)		
State-Result RVCs	36 (90%)	36 (90%)	37 (92.5%)
	72 (90%)		

The results in Table 4-11 indicate that the English learners' and Chinese controls' performances on Sta-R RVCs were nearly equivalent. In the Sta-R RVCs, we obtained 37 result interpretation responses out of 40 from the control group. The frequency of the result interpretation response received from the experimental groups was 36 out of 40. No significant difference was found between the experimental group and the control group (the Chi-Square-value=.624, p=.732), suggesting that the L2 learners' perceptual saliency towards the result of a state which causes a change of state (i.e., a result) was similar to the Chinese controls'. This also has the implication that the L2

learners were aware of the property that the result component is the semantic focus of the Sta-R RVC. The finding that the test questions with the Sta-R RVCs were comparatively 'easy' for our English subjects is not particularly surprising since it has been found in the GJ task that the learners did well on the Sta-R RVCs.

As the frequency totals recorded in Table 4-11 suggest, fewer L2 learners gave the result interpretation to Act-R RVCs and to Sem-R RVCs in comparison with Sta-R RVCs. As predicted, the experimental groups exhibited a significantly lower frequency of the result interpretation response than the control group (Chi-Square-value=40.481, p=.000*** for the Act-R RVC; Chi-Square-value=29.237, p=.000*** for the Sem-R RVC), implying that English learners attended less to the result of the event as compared with native speakers of Mandarin Chinese. Tai's (2003) theoretical claim on the cross-linguistic difference between Mandarin and English speakers in their perceptual saliency to the result of the event is thus supported by our empirical data. In addition, the results are consistent with our prediction that the learners' performance on the Sta-R RVCs and on Act-/Sem-R RVCs would not be the same. A significant difference of the result interpretation response was found between the two experimental groups for the Act-R RVCs (Chi-Square-value=11.815, p=.003*). But for the Sem-R RVC, the group effect was not significant (Chi-Square-value=.286, p=.867). The findings indicate that with the growth of L2

proficiency, the learners showed progress on the Act-R RVCs, but they failed to show any improvement on the Sem-R RVCs.

From the presentation above, we know that the L2 learners' performance on Act-/Sem-R was not similar to the Chinese controls'. A closer examination showed that the learners' perception that the result part constitutes the semantic focus of the Act-R, or Sem-R RVCs varied across sentences, as shown in Tables 4-12 and 4-13. There are 20 subjects in each group. Thus, for each test question, the highest frequency of the result interpretation response obtained from each group is 20.

Table 4-12. Frequency and percentage of result interpretation for Act-R RVC

Group / Test question	High *f* (%)	Mid *f* (%)	Total *f* (%)
Gege tui-kai-le men. brother push-open-LE door 'My brother pushed the door; the door was opened as a result.'	9 (45%)	0 (0%)	9 (22.5%)
	9 (22.5%)		
Ta pao-diu-le yizhi xie. he run-lose-LE one shoe 'He went for a run; as a result, one of his shoes was lost.'	19 (95%)	17 (85%)	36 (90%)
	36 (90%)		

Table 4-13. Frequency and percentage of result interpretation for Sem-R RVC

Group / Test question	High *f* (%)	Mid *f* (%)	Total *f* (%)
Xiaohai ke-xing-le mama. child cough-wake-LE mother 'The child coughed; as a result, the mother awoke.'	17 (85%)	16 (80%)	33 (82.5%)
	33 (82.5%)		
Wangwu ti-dao-le nage pingzi. Wangwu kick-fall-LE that bottle	4 (20%)	3 (15%)	7 (17.5%)

'Wangwu kicked that bottle; that bottle fell as a result.'	7 (17.5%)	

The frequency totals displayed in Tables 4-12 and 4-13 suggest that the learners' performance on the Act-R and Sem-R RVCs differed from sentence to sentence. The frequency of the result interpretation for the Act-R RVC *pao-diu* 'run-lose' is much higher than that for the Act-R RVC *tui-kai* 'push-open'; the frequency of the former is four times that of the latter (*f*=36, 90% vs. *f*=9, 22.5%). Similarly, the frequency total for the Sem-R RVC *ke-xing* 'cough-wake' is very high, the frequency being 33 (82.5%); however, that of the result interpretation to the other Sem-R RVC *ti-dao* 'kick-fall' is relatively low, only 7 (17.5%). We were surprised at the disparity in the frequencies for the two test questions with the Act-R RVC, or Sem-R RVC: since the two questions were designed for the same RVC type, the learners' performances on the two test items should be similar. The comparison among the four test sentences was made to find out why the learners did not sense the semantic feature that the result predication expresses the main idea of the sentence with the RVCs *tui-kai* 'push-open' and *ti-dao* 'run-lose'.

In the comparison among the four test questions, we found that the internal structure of the RVC played a certain role in the learners' judgment on the focal expression of an RVC sentence. To be more specific, we discovered that the learners tended to perceive that the result part of *pao-diu* 'run-lose' and *ke-xing* 'cough-wake',

the two constituents of which are both intransitive verbs, constitutes the semantic focus of the RVC, while in sentences with the RVCs *tui-kai* 'push-open' and *ti-dao* 'kick-fall', formed with a transitive verb as the first constituent and an intransitive verb as the second, the learners considered the action expression as the center predication of the sentences. This is evidenced by the results in Tables 4-12 and 4-13, which indicate that the total frequency of the result interpretation observed for sentences with the Act-R RVC *tui-kai* 'push-open', which is composed of a transitive verb as V1 and an intransitive verb as V2, was much lower than that for sentences with the Act-R RVC *pao-diu* 'run-lose', the elements of which are both intransitive verbs (*f* =9, 22.5% vs. *f* =36, 90%). Likewise, the RVC *ke-xing* 'cough-awake' enjoyed a higher frequency of the result interpretation than the RVC *ti-dao* 'kick-fall' (*f* =33, 82.5% vs. *f* =7, 17.5%), though the two RVCs are Sem-R RVCs.

4.4 Summary

In this chapter, the results of the grammaticality judgment and sentence interpretation tasks are reported and discussed in respect to the research purposes. The results showed that the English learners performed differently on the three RVC types. The learners did best on RVCs formed with a State and a resultative morpheme while they performed worst on the Sem-R RVCs. In the GJ task, it was found that the learners' poor performance on the Sem-R RVC can be accounted for with their

unfamiliarity with components of the RVC. The results also revealed that the learners had the knowledge that the result component constitutes the semantic focus of RVCs and treated the Sem-R and Act-R RVCs as Achievements-- the Sem-R RVC was treated as Achievements with the preliminary stage and the Act-R RVC, Achievements without the preliminary.

Moreover, the findings suggest that the learners' L1 played an important role in the L2 learning of RVCs. In the GJ task, we found that the compatibility between the meaning of the Achievement with the preliminary stage and the English progressive misled the learners into considering that Sem-R RVCs could appear with the Mandarin imperfective aspect marker *zhengzai*. In the SI task, the L2 learners appealed to the linguistic property of English Achievements in their perception of the semantic property that when an action-result RVC co-occurs with the adverb *chayidianr* 'almost' in a sentence, only the result interpretation is deducible from the sentence. Besides, the findings suggest that in an event consisting of both an action and a result, the English attended more to the action than to the result part of the event. As to the state with a result, the learners pay more attention to the result part of the state.

Chapter Five

Conclusion

In this chapter, we will first summarize the research findings. Then, we will present the linguistic and pedagogical implications of the present study. Finally, we will discuss limitations of this study and propose suggestions for further research.

5.1 Summary of Findings

The present study explores the second language acquisition of Mandarin RVCs by English learners to see whether they have full comprehension of the semantic properties of RVCs in general and whether their acquisition varies according to the three RVC types—divided based on the semantic property of their constituents—Activity-Result, Semelfactive-Result and State-Result RVCs. The major findings of this study are presented in the following.

First, the findings of the present study indicated that learners in the mid group did better than those in the high group regardless of the type of RVCs and tasks. The findings of the grammaticality judgment (GJ) task suggested that the three RVC types differed with learners performing worst in Sem-R RVCs. The results revealed that they performed best on Sta-R RVCs, while did worst on Sem-R RVCs. A further analysis suggested that Sta-R RVCs display a relatively lower degree of L1-L2 differences than Sem-R (or Act-R) RVCs in respect to the grammatical properties

under investigation, so the learners performed well on Sta-R RVCs. Besides, the results indicated that the learners had the knowledge that the result part constitutes the semantic focus of RVCs and treated Act-R and Sem-R RVCs as Achievements instead of Accomplishments. This can explain why they performed significantly better on Act-R than on Sem-R RVCs. In addition to the L1 interference, RVC frequency of occurrence in the learners' textbook was one of the most important determinants for the comprehension of the semantic properties of RVCs. Our results revealed that Sem-R RVCs to which the learners were exposed least frequently posed the greatest difficulty in acquisition to them.

Second, the findings suggested that the L1 played an important role in the L2 acquisition of RVCs. The results of the SI task suggested that the English learners relied heavily on Achievements when making decision on the interpretation of RVC sentences that contained the adverb *chayidianr* 'almost'. That is, the knowledge of Achievements did assist them to make correct decisions on Act-R and Sem-R RVCs. However, in questions with the adverb *chayidianr* 'almost', the L2 learners did not do well on Sta-R RVCs. Their poor performance on this type of RVC was likely to result from the L1 interference (i.e., the test with the adverb *almost* does not apply to stative verbs in English).

Third, the results of the SI task provided empirical evidence showing that the

English learners attended less to the result than to the action part of the event, while the Chinese controls paid more attention to the result part of the event, and thus supported Tai's (2003) claim that the result of the event is less salient to English speakers than to Chinese speakers. Regarding the semantic category of the result, the result showed that in a state-result situation presented by State-Result RVCs, the native speakers of English attended more to the result than to the state.

5.2 Implications of the Present Study: Linguistics and Pedagogy

This study is significant in both linguistics and second language acquisition. In terms of linguistics, while the research stockpile classifying Mandarin RVCs into different categories based on the *types* of result their constituents or the resultative morphemes characterize has expanded in scope and complexity at an extraordinary rate during the last decade (e.g., Chao 1968, Li and Thompson 1981, and Liu 1996, 2001), relatively little attention has been paid to other ways of dividing them into distinct groups. Therefore, the current study presents a new classification system of RVCs, made based on the relation between the meanings of their components. This may bring insightful information to those who would like to know more about the internal (semantic) structure of RVCs than just the type of 'result' the RVC construction denotes, discussed in the literature.

In addition, the findings of previous studies on the L2 acquisition of RVCs only showed a tendency of learners' misuse of the RVC construction due to the lack of a similar structure in their first languages and the complexity of this construction in both meaning and function (e.g., Guo 2003 and Chen 2004). No research has been conducted to further explore where the learners' difficulty lies in learning RVCs and to investigate whether learners have the knowledge of the linguistic properties of RVCs. Thus, this study is carried out to bridge the research gap. It is hoped that the results will help to reflect the flaws in the instruction of Mandarin RVCs and assist language instructors in what to reinforce in teaching this structure in the future.

5.3 Limitations and Suggestions for Further Research

There are several aspects and various issues for investigating the L2 acquisition of Mandarin RVCs which failed to be covered in this study. First, this research adopts a grammaticality judgment task and a sentence interpretation task to tap English learners' grammatical knowledge of RVCs. However, a long term observation or a production test may collect more data of how RVCs are used by the learners. Second, this study is far from complete in that we only surveyed L2 learners whose first language is English. L2 learners of different L1 backgrounds can be included to see if the L2 acquisition of Mandarin RVCs varies from learner to learner.

Finally, in the investigation of how an RVC sentence was interpreted by the

learners, we found that the interpretations of sentences with the Act-R and Sem-R RVCs differed from sentence to sentence. As indicated in Section 4.3, our explanation for this is that the L2 learners made decisions on the center predication of the RVC sentences based on the internal structure of the RVC. More test items should be included to find out why the learners treated the Action-Result RVCs in this way.

References

Aronoff, Mark, and Janie Rees-Miller (Eds.) 2001. *The Handbook of Linguistics*. Malden, Massachusetts: Blackwell.

Bloom, Alfred H. 1981. *The Linguistic Shaping of Thought*: *A Study of the Impact of Language on Thinking in China and the West*. Hillsdale: Erlbaum.

Bloom, Alfred H. 1984. Caution-the words you use may affect what you say: a response to Au. *Cognition* 17:275-87.

Catford, J.C. 1983. Phonetic transfer and the teaching of pronunciation. *Transfer and Translation in Language Learning and Teaching*, ed. by Franz Eppert, 70-89. Singapore: Singapore University Press.

Carrier, Jill, and Janet H. Randall. 1992. The argument structure and syntactic structure of resultatives. *Linguistic Inquiry* 23.2:173-231.

Chao, Yuan-ren [趙元任]. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.

Chen, Yi-jing [陳怡靜]. 2004. Xiandai hanyu dongci houzhi chengfen zhi yufayiyi yu jiaoxuepaixu (現代漢語動詞後置成分之語法意義與教學排序). MA Thesis, National Taiwan Normal University.

Chen, Ye-ning et al. [陳夜寧等]. 2001. *Practical Audio-Visual Chinese (II)*. Taipei: Cheng-Chung Book Co., Ltd.

Dowty, David. 1979. *Word Meaning and Montague Grammar*. Dordrecht: Reidel.

Ellis, Rod. 1982. The origins of interlanguage. *Applied Linguistics* 3: 207-23.

Ellis, Rod. 1994. *Understanding Second Language Acquisition*. Oxford: Oxford University Press.

Faerch, Claus, and Gabriele Kasper. 1986. Perspectives on language transfer. *Applied Linguistics.*

Fan, Hui-zhen et al. [范慧貞等]. 2001. *Practical Audio-Visual Chinese (II)*. Taipei: Cheng-Chung Book Co., Ltd.

Fries, Charles. 1945. *Teaching and Learning English as a Foreign Language.* Ann Arbor: University of Michigan Press.

Goldberg, Adele E. 1991. A semantic account of resultatives. *Linguistic Analysis* 21.1-2: 66-96.

Guo, Chun-gui [郭春貴]. 2003. Duiri hanyu yufaxiaoxue de guandian (對日漢語語法教學的觀點). *Duiwai Hanyu Jiaoxue Yufa Tansuo* (對外漢語教學語法探索). Beijing: Zhongguo shehuixueke (中國社會學科) Publishing Co., Ltd.

Hatch, Evelyn and Anne Lazaraton. 1991. *Design and Statistics for Applied Linguistics: the Research Manual*. Los Angeles: University of California.

He, Bao-zhang [何寶璋]. 1992. *Situation Types and Aspectual Classes of Verbs in Mandarin Chinese*. Ph. D. Dissertation. Columbus: Ohio University.

Hoekstra, Teun. 1988. Small clause results. *Lingua* 74:101-39.

Kellerman, Eric. 1984. The empirical evidence for the influence of the L1 in interlanguage. *Interlanguage*, ed. by Allen Davies, C. Criper, and A.P.R. Howatt, 98-122. Edinburgh: Edinburgh University Press.

Krashen, Stephen D. 1981. *Second Language Acquisition and Second Language Learning*. Oxford: Pergamon Press.

Krashen, Stephen D. 1985. *The Input Hypothesis*. London: Longman.

Lado, Robert. 1957. *Linguistics across Cultures*. Ann Arbor: University of Michigan Press.

Li, Charles N., and Sandra A. Thompson. 1981. *Mandarin Chinese*: *A Functional Reference Grammar*. Berkeley: University of California Press.

Li, Meng-zhen [李孟珍]. 1977. *Compound Verbs in Spoken Chinese*. MA Thesis, National Taiwan Normal University.

Li, Ping and Yasuhiro Shirai. 2000. *The Acquisition of Lexical and Grammatical Aspect*. Berlin/New York: Mouton de Gruyter.

Lin, Ruo-wang [林若望]. 2005. Hanyu de wancheng dongci: ershi nian yihou (漢語的完成動詞：二十年以後). *IsCLL* 9: 271-286.

Liu, Lisa Garbern. 1985. Reasoning counterfactually in Chinese: are there any obstacles? *Cognition* 21: 239-70.

Liu, Yue-hua [劉月華] et al. 1996. Modern Chinese Grammar for Teachers of Chinese

as A Second Language Advanced Learners of Modern Chinese. Taipei: Shida shuyuan Publishing Co., Ltd.

Ma, Li-li [馬莉莉]. 2005. Semantic properties of Chinese aspectual verbs. *Proceedings of the 17th North American Conference on Chinese Linguistics (NACCL 17)*.

Ma, zhen, and Jian-ming Lu [馬真、陸儉明]. 1997. Xingrongci zuo jieguobuyu qingkuang kaocha yi (形容詞作結果補語情況考察(一)). *Hanyuxuexi* (漢語學習) 97.1: 3-7.

Odlin, Terence. 1989. *Language Transfer*: *Cross-linguistic Influence in Language Learning*. Cambridge: Cambridge University Press.

Shi, Yu-zhi [石毓智]. 2003. *The Establishment of Modern Chinese Grammar: The Formation of Resultative Construction and Its Effects*. Beijing: Beijing Language and Culture University Press.

Smith, Carlota.1983. A theory of aspectual choice. *Language* 59.3: 481-501.

Smith, Carlota. 1997. *The Parameter of Aspect*. Dordrecht/Boston: Kluwer Academic Publishers.

Tai, James H-Y. 1984. Verbs and times in Chinese: Vendler's four categories. *Chicago Linguistic Society (Papers from the Para session on Lexical Semantics)*. 20:289-96.

Tai, James H-Y. 2003. Cognitive relativism: resultative construction in Chinese. *Language and Linguistics* 4.2:301-316.

Talmy, Leonard. 2000. *Toward a Cognitive Semantics*. Cambridge/Massachusetts: The MIT Press.

Teng, Shou-hsin [鄧守信]. 1985. Temporal structures of Chinese verbs. In *Studies on Mandarin Chinese Syntax*, 261-68. Taipei: Crane.

Vendler, Zeno. 1957. 1967. Verbs and times. *Philosophical Review* 56: 143-60.

W. Seliger, Herbert, and Elana Shohamy. 1989. *Second Language Research Method*. Oxford: Oxford University Press.

Whorf, Benjamin Lee. 1956. *Language, Thought and Reality*. *Selected Writings of Benjamin Lee Whorf*, ed. by J. B. Carroll. Cambridge/ Massachusetts: MIT Press.

Zhang, Wang-xi (張旺熹). 1999. *A Semantic Study of the Unique Syntactic Structures in Chinese*. Beijing: Beijing Language and Culture University Press.

Appendix 1: Questionnaire

Background Information

1. What language(s) do you speak at home? _____

2. Total length of Chinese learning: _____ years

3. Please provide information about the textbook(s) you are studying now?

Title of the textbook(s) _____ Lesson _____

_____ _____

4. TOP (Test of Proficiency-Huayu) score: _____

I. Grammaticality Judgment

Directions:

Please put an "O" in front of the sentences which are **Grammatical**.

Please put an "X" in front of the sentences which are **UNGrammatical**, and then **underline the misused word(s) in each ungrammatical sentence.**

Example:

_O_ 我很喜歡吃中國菜。

Wo hen xihuan chi zhongguo cai

_X_ 約翰 正在 喜歡瑪莉。

Yuehan zhengzai xihuan Mali

___1. 張三正在吃飽飯，沒空講話。

Zhangsan zhengzai chibao fan, meikong jianghua.

___2. 因爲爸爸來了，弟弟只好停止敲破桌上的花瓶 。

Yinwei baba laile, didi zhihao tingzhi qiaopo zhuoshang de huaping.

___3. 她昨天畫了一幅畫，可是沒畫完。

Ta zuotian huale yifuhua, keshi mei huawan.

___4. 聽完老師的笑話，我們開始笑疼肚子。

Tingwan laoshi de xiaohua, women kaishi xiaoteng duzi.

___5. 我的皮包先放在你這裡，明天我再來拿。

Wode pibao xian fangzai ni zheli, mingtian wo zai lai na.

___6. 他正在讀懂那篇文章。

Ta zhengzai dudong napian wenzhang.

___7. 不管我怎麼勸他，他就是不願意停止丟爛那個水果。
Buguan wo zeme quanta, ta jiushi buyuanyi tingzhi diulan nage shuiguo.

___8. 哥哥開始喝光那杯水。
Gege kaishi heguang nabei shui.

___9. 原來媽媽跑去菜市場，難怪我都找不到她。
Yuanlai mama paoqu caishichang, nanguai wo dou zhaobudao ta.

___10. 昨天，小明開始站暈了頭，差一點兒昏倒在地上。
Zuotian, Xiaoming kaishi zhanyunle tou, chayidianr hundao zai dishang.

___11. 吃了這些食物後，陳老先生才停止餓昏頭。
Chile zhexie shiwu hou, Chen laoxiansheng cai tingzhi ehun tou.

___12. 真糟糕！姊姊正在氣跑哥哥。
Zhenzaogao! jiejie zhengzai qipao gege.

___13. 這次考試成績太差了，我感到非常丟臉。
Zheci kaoshi chengji taichale, wo gandao feichang diulian.

___14. 天啊！弟弟正在刺破那個氣球。
Tian a! didi zhengzai cipo nage qiqiu.

___15. 因爲心情不好，他開始打死那隻貓。
Yinwei xinqing buhao, ta kaishi dasi nazhi mao.

___16. 萬一我趕不上這一班火車，我上班就會遲到。
Wanyi wo ganbushang zheyiban huoche, wo shangban jiuhui chidao.

___17. 寒冷的天氣開始冷死那個老人。
Hanleng de tianqi kaishi lengsi nage laoren.

___18. 因爲工作太忙，林小姐只好停止學會中文。
Yinwei gongzuo taimang, Li xiaojie zhihao tingzhi xuehui zhongwen.

___19. 哎呀！小弟正在坐壞那張椅子。
Ai ya ! Xiaodi zhengzai zuohuai nazhang yizi.

___20. 我願意幫你這個忙，但是你要請我吃晚餐。
Wo yuanyi bangni zhige mang, danshi niyao qingwo chiwancan.

___21. 你看 ！ 李四正在刮傷老闆的車。
Nikan ! Lisi zhengzai guashang laoban de che.

___22. 沒火了，瑪莉只好停止烤乾那件衣服。
Meihuole, Mali zhihao tingzhi kaogan najian yifu.

___23. 王先生買了一間大房子，終於可以停止住慣小套房了。
Wang xiansheng maile yijian dafangzi, zhongyu keyi tingzhi zhuguan xiaotaofang le.

___24. 因爲搶不到他的錢，壞人開始砍斷他的腳。
Yinwei qiangbudao tade qian, huairen kaishi kanduan tade jiao.

II. Sentence Interpretation

Directions:

For each of the following Mandarin sentences, three options are provided. Please choose **THE** option that **expresses the main idea of the sentence**.

Example:

他看中了那個手錶。

Ta kanzhongle nage shoubiao.

(A) He looked at that watch.

(B) That watch is the prize he won.

(C) He favored that watch.

The correct answer to this test item is C .

___1. **哥哥推開了門。**
Gege tuikaile men.

(A) My brother pushed the door.

(B) The door was opened.

(C) The door was broken.

___2. **張三坐麻了腳。**

Zhangsan zuomale jiao.

(A) Zhangsan sat on the chair.

(B) Zhangsan's feet became numb.

(C) Zhangsan's feet were numb, so he did not sit on the chair.

___3. **姊姊差一點兒寫斷我的筆。**

Jiejie chayidianr xieduan wode bi.

(A) My sister intended to use my pen, but she somehow changed her mind and did nothing at all.

(B) My sister used my pen to write, so my pen was broken.

(C) My sister used my pen to write, but my pen was not broken after her using it.

___4. **王小姐餓瘦了身體。**

Wang xiaojie eshoule shenti.

(A) Miss Wang was hungry.

(B) Miss Wang became thinner.

(C) Miss Wang felt hungry because she was thin.

___5. **他會寫很多中國字。**

Ta huixie henduo zhongguo zi.

(A) He can write a lot of Chinese characters.

(B) He knows many Chinese characters.

(C) He wants to write as many Chinese characters as he can.

___6. **小明差一點兒扔破那個塑膠杯。**

Xiaoming chayidianr rengpo nage sujiaobei.

(A) Xiaoming intended to throw that plastic cup onto the floor, but he somehow changed his mind and did nothing at all.

(B) Xiaoming threw that plastic cup onto the floor, so that cup was broken.

(C) Xiaoming threw that plastic cup onto the floor, but that cup was not broken after the throw.

___7. **小孩咳醒了媽媽。**

Xiaohai kexingle mama.

(A) The child coughed.

(B) The mother was woken up.

(C) The mother was not worried about the child who coughed.

___8. **林先生差一點兒躺壞那張床。**

Lin xiansheng chayidianr tanghuai nazhangchuang.

(A) Mr. Lin was about to lie on that bed, but he somehow changed his mind and did nothing at all.

(B) Mr. Lin lay on that bed, so that bed was broken.

(C) Mr. Lin lay on that bed, but that bed was not broken after his lying on it.

___9. **他跑丟了一隻鞋。**

Ta paodiule yizhixie.

(A) He went for a run.

(B) He lost one of his shoes.

(C) Someone threw one of his shoes away.

___10. **老闆差一點兒罵哭李小姐。**

Laoban chayidianr maku Li xiaojie.

(A) The boss intended to scold Miss Li, but he somehow changed his mind and did nothing at all.

(B) The boss scolded Miss Li, so Miss Li cried.

(C) The boss scolded Miss Li, but Miss Li did not cry after being scolded.

___11. **小明比小華高。**

Xiaoming bi Xiaohua gao.

(A) Xiaohua is taller than Xiaoming.

(B) Xiaoming is taller than Xiaohua.

(C) Xiaoming is as tall as Xiaohua.

___12. **約翰差一點兒跳壞了地板。**

Yuehan chayidianr tiaohuaile diban.

(A) John intended to jump on the floor, but he somehow changed his mind and did nothing at all.

(B) John jumped on the floor, so the floor was broken.

(C) John jumped on the floor, but the floor was not broken after his jumping on it.

___13. **王五踢倒了那個瓶子。**

Wangwu tidaole nage pingzi.

(A) Wangwu kicked that bottle.

(B) That bottle fell down.

(C) Wangwu found it interesting to kick that bottle.

___14. **奶奶差一點兒站疼了腿。**

Nainai chayidianr zhantengle tui.

(A) My grandmother intended to stand there, but she somehow changed her mind and did nothing at all.

(B) My grandmother stood there for a long time, so her legs felt hurt.

(C) My grandmother stood there for a long time, but her legs did not feel hurt.

Appendix 2: Consent form

Consent Form

I, _____, am willing to participate in the survey conducted by Wei-shan Li. I know all the results are used for this research only and that they are confidential. Besides, I have the right to know every stage of the research.

Date: _____

E-mail: _____