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英語完結性相關結構之第二語言習得

Second Language Acquisition of English

Telicity-Related Constructions

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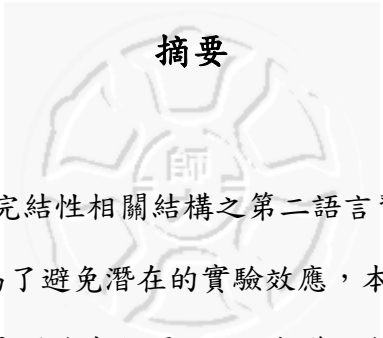
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This thesis is dedicated to my beloved parents.

Shih-ming Ho and Hsiu-man Liao.



摘要

本研究主要探討英語完結性相關結構之第二語言習得，亦即結果結構、動質結構和與格/雙賓結構。為了避免潛在的實驗效應，本研究採用兩種實驗題型，其一是文法判斷題，其二是開放式翻譯題。研究議題包括結構本身對於第二語言習得的影響、三種結構間之關係、屬性效應、組別效應以及題型效應。本研究的受試者為一百零四位以中文為母語的高中生。依據其英語程度，分為初、中和高三組。

整體實驗結果顯示，此三種結構在統計上呈現極顯著之相關。此相關性並不受到屬性效應、不同英語程度和實驗效應的影響，呈現以下習得次序：與格/雙賓結構最先習得、動質結構其次，而結果結構為後。回歸分析更顯露出此三種結構間之階層性預測關係：成功習得結果結構會顯著地預測成功習得動質結構和與格/雙賓結構，且動質結構亦會顯著地預測與格/雙賓結構之習得。檢測六大屬性時，亦發現在第二語言習得結構效應優於屬性效應。而單一結構的分析亦指示屬性效應大部分對於第二語言習得並無關鍵性的影響。此外，第二語言程度的因素亦受到了證實；受試者的表現隨著其英語能力的提升而進步。在題型效應方面，受試者在文法判斷題的表現比翻譯題來得好，顯示語言理解能力較語言使用能力先習得。最後，錯誤分析也證實了此三種結構一致的關係。本研究指出，不同的第二語言複雜程度、第一語言轉移以及第二語言語料刺激可能會導致此完結性相關結構之階層性習得次序。

ABSTRACT

The present study aims to probe into the second language acquisition of three telicity-related constructions in English, viz. resultative constructions, verb-particle constructions, and dative/double object constructions. To circumvent potential methodological effects, this study drew on a comprehension task, i.e. a grammaticality judgment task, and a production task, i.e. a free translation task, to garner pertinent data. The issues addressed included construction effects, the relationships of the three constructions, property effects, group effects, and task effects. The subjects of this study consisted of 104 Chinese-speaking senior high school students, and they were further divided into three groups according to their English proficiency levels, i.e. the high-level group, the mid-level group, and the low-level group.

The overall results indicated that the three constructions were significantly correlated ($p < .01^{**}$ throughout). The following acquisition sequence was found across different properties, tasks, and L2 proficiency levels: datives/double objects were followed by verb-particles, which in turn preceded resultatives. The regression analysis further showed a hierarchically predictive relationship of the three constructions: the success in the acquisition of resultatives well predicted the successful acquisition of the other two constructions, and verb-particles were a significant predictor of datives/double objects as well. When all the test properties were compared, it was found that construction effects consistently overrode property effects on the L2 acquisition. In the within-construction analysis, it was also shown that properties played a marginal role in influencing the L2 acquisition of the constructions in most cases. Moreover, the variable of L2 proficiency was substantiated; the subjects' performance improved with the increase in their

proficiency levels. With respect to methodological effects, the subjects consistently performed better on the comprehension task than the production task, implying that comprehension might precede production in acquisition. Finally, the analysis of untargeted production data also confirmed the observed relationships of the constructions. This study suggests that different degrees of L2 complexity, L1 transfer, and L2 inputs may contribute to the hierarchical acquisition order of the three telicity-related constructions.

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CHAPTER ONE

INTRODUCTION

1.1 Motivation

In the field of second language acquisition, research on aspect has focused on the morphological mappings of grammatical aspect and lexical semantics of verbs in the past score of years (e.g. Kumpf 1984, Kaplan 1987, Robison 1990, 1995, Andersen 1991, Bardovi-Harlig 1992, Shirai 1993, Andersen and Shirai 1996). Nonetheless, empirical studies on the relationships between aspectual meaning and certain constructions have been relatively underrepresented (cf. Slabakova 2001, Huang and Yang 2005). In English, resultative constructions are such an exemplar which pertains to aspectual interpretations. It is pointed out that the constructions denote an aspectually telic event (e.g. Hoekstra 1988, Goldberg 1991, Tenny 1994, Snyder 1995, Filip 1999, Goldberg and Jackendoff 2004). A typical example of English resultative constructions is shown in (1), in which a resultative complement *red* is involved.

- (1) John painted the house *red*. (Snyder 1995:460)

Resultative constructions, nevertheless, are not a unique hallmark of the English language. Comparable to English resultative constructions, Mandarin Chinese has two ways to form resultatives, namely resultative verb compounds (RVCs) and resultative V-*de* constructions (e.g. Li and Thompson 1982, Huang 1988, 1992, Li 1990, 1998, 1999, Zhang 2001, Tai 2003). The following sentences illustrate these two types of resultative constructions in Mandarin Chinese.

(2) Wo didi shuai-sui-le yi-zhi huaping. (RVC)

I brother smash-broken-PERF one-CL vase

‘My brother smashed a vase into pieces.’

(3) Ta ma-de wo shuo bu chu hua lai. (RESULTATIVE V-DE)

he scold-DE I speak not out word come

‘He scolded me so harshly that I could not speak a word.’ (Li 1999:445)

The resultative element is expressed in the form of the resultative verb compound, as *sui* ‘broken’ in (2), and the clause *wo shuo bu chu hua lai* ‘I cannot speak a word’ in (3). Although both English and Chinese resultative constructions involve a resultative element, they display different morphosyntactic structures. In English resultatives, the main verb and the resultative complement are split in their syntactic positions, as shown by *painted* and *red* in (1). In Mandarin Chinese, however, the action verb and the resultative verb are adjacent and form a verb compound together, as *shuai-sui* ‘smash-broken’ in (2), and resultative V-*de* constructions are characterized by an obligatory morpheme *de*, as in (3). These differences may pose a challenge for Chinese learners of English as a second language in the acquisition of the telic constructions in English.

In addition to resultative constructions, some researchers have associated other English constructions with telic construal, viz. verb-particle constructions and double object constructions (e.g. Snyder 1995), as illustrated in (4)-(5).

(4) The student took *off* his glasses. (VERB-PARTICLE CONSTRUCTION)

(5) a. The secretary gave a present to her boss. (DATIVE CONSTRUCTION)

b. The secretary gave her boss a present. (DOUBLE OBJECT CONSTRUCTION)

Given their similar aspectual property, the present study links English verb-particle

constructions and double object/dative constructions together, in conjunction with resultative constructions, under investigation. This study aims to examine the acquisitional difficulties of the three telicity-associated constructions in L2 English.

Besides, the formation of this study is also motivated by the lively theoretical debate on the relationships of the three telicity-related constructions. Some theorists propose that the three constructions form a cluster (e.g. Kayne 1984, 1985, Hoekstra 1988, Snyder 1995), whereas some linguists suggest that they should not be subsumed under the same family of constructions (e.g. Tenny 1994, Baker 1997, Di Sciullo 1999). In spite of the theoretical disagreement, there has been a dearth of empirical evidence on the issue as to whether the three constructions belong to the same cluster. Basically, there are only two empirical studies on the issue retrieved from the literature, one L1 study (Snyder and Stromswold 1997) and one L2 study (Slabakova 2001).¹ As seminal the two studies are, their methodologies are subject to some limitations. The question concerning the relationships of the three purportedly related constructions is still awaiting a satisfactory answer. Thus, further empirical research on these constructions is necessary.

Moreover, according to Chomsky (1981), superficially distinct constructions will emerge around the same time in the process of acquisition if they belong to a cluster of constructions. Given the theoretical disagreement and lack of well-documented empirical evidence on the issue of clustering, the present study, based on Chomsky's assumption, aims to explore the L2 acquisition of the three English constructions as a source of evidence.

In short, the present study attempts to discover degrees of difficulty of the

¹ In addition to Snyder and Stromswold's (1997) and Slabakova's (2001) acquisition studies on English telicity-related constructions, Huang and Yang (2005) also conducted an empirical inquiry into constructions bearing on telicity in L2 Chinese. The constructions under investigation included Chinese directionals/locatives, resultatives (resultative verb compounds and resultative *V-de* constructions), and double object constructions.

English telicity-related constructions in L2 acquisition and to shed some light on the contentious question of their relationships. With the objectives in mind, this study probes into second language acquisition of the three constructions in English by Chinese speakers.

1.2 Research Background

The term ‘telicity’, introduced by Garey (1957:106), refers to whether a situation has ‘a natural final endpoint, or intrinsic bound’ (Smith 1997:19). A telic event is true of a natural endpoint such that when an event attains a natural endpoint, a concomitant change of state takes place and the event is completed. An atelic event, in contrast, does not have such a natural outcome and thus ‘can stop at any time’ (Smith 1997:19), as shown in (6).

- (6) a. John loves Mary. (ATELIC STATIVE)
b. Sam strolled in the park. (ATELIC ACTIVITY)
c. Sam coughed. (ATELIC SEMELFACTIVE)
d. Mary reached the top. (TELIC ACHIEVEMENT)
e. Sylvia drew a picture. (TELIC ACCOMPLISHMENT) (Smith 1997:177-182)

In the literature, a consensus has been reached on English telicity marking in basic SV(O) structures (e.g. Vendler 1967, Verkuyl 1972, 1999, Comrie 1976, Dowty 1979, 1991, Smith 1991, 1997, Tenny 1994, Jackendoff 1996, Olsen and Resnik 1997, Kreidler 1998, Filip 1999, Slabakova 2001). It has been found that English telicity marking is compositional and primarily hinges on the calculation of two components: the lexical semantics of the main verb and the quantization/specification status of the internal argument.

The lexical meaning of a matrix verb plays a crucial role in determining the telicity interpretation of a situation. The examples in (6) illustrate telic versus atelic meanings that the main verbs contribute to. The verb in (6a) itself is a stative verb that denotes a state of a strong feeling of affection. The state has an arbitrary endpoint rather than a natural final endpoint and is regarded as an atelic situation. Besides stative verbs, dynamic verbs like *stroll* and *cough* do not encode an intrinsic bound as well. For example, one can stroll back and forth in a park for hours. Such verbs conventionally denote an atelic event per se. On the contrary, verbs such as *reach* and *draw*, together with their direct objects, signify a delimited event, as (6d) and (6e) suggest. When the natural endpoint is reached, the event is completed—a telic event. Thus, in light of the role of lexical semantics of a main verb with different aspectual interpretations, the present study takes properties of main verbs into consideration in the research design.

The quantization/specification status of an internal NP argument also exerts a material influence on the telicity reading of a sentence in English. All the sentences in (7) denote past tense and perfective viewpoint aspect.

- | | |
|--|----------|
| (7) a. Carol ate. | (ATELIC) |
| b. Carol ate <i>a pear/the pear/a bag of pears</i> . | (TELIC) |
| c. Carol ate <i>pears</i> . | (ATELIC) |
| d. Carol ate <i>rice</i> . | (ATELIC) |

In spite of the identical matrix verb *ate*, they depict an atelic event except for the ones in (7b). The example in (7a) contains only a verb and does not have an explicit direct object. It describes an atelic activity without any specification of what Carol ate; thus, the event of Carol's eating is not delimited. In a similar vein, the situations in

(7c)-(7d) are not delimited either. The direct object is a bare plural NP in (7c) and a mass noun in (7d). Since the internal arguments in these examples are not quantified/specified, the events are not delimited and telic. In contrast, the sentences in (7b) contain a quantified/specified direct object. The determiners *a/the* and the measure words *a bag of* specify the quantification status of the internal argument *pear(s)*, which yields the telic readings of the sentences. As the quantization/specification status of the internal argument is not the research focus of this study, the internal arguments in the present research design are specified direct objects so as to circumvent a potential effect induced by direct objects.

In addition to the linguistic properties, L2 proficiency may contribute to variations in second language acquisition. There has been a voluminous literature on the role of L2 proficiency in acquisition (Kellerman 1983, Sasaki and Hirose 1996, Whong-Barr and Schwartz 2001, Ying 2004, among others). For example, some studies point out the U-shaped behavior exhibited by beginners, intermediate learners, and advanced ones in L2 development (e.g. Kellerman 1983), while some investigations show contrasting tendencies between high- and low-proficiency learners (e.g. Whong-Barr and Schwartz 2001). Moreover, task effects have been discussed in the acquisition research (Larson-Freeman 1976, Tarone 1985, Rothman 2007, among others). Task-induced quantitative and qualitative variations are reported in several studies (e.g. Hyltenstam 1984), whereas researchers like Chaudron (1983) claim that tasks are not a variable per se. A related issue to task effects is the relationships of comprehension and production in acquisition. It is conventionally assumed that comprehension precedes production (McCarthy 1954). However, empirical evidence points to two directions with respect to the sequence of comprehension and production (cf. Ehri 1976, Janson and Schulman 1983, Wu and Wen 1997, McKee et al. 1998). In view of the factor of L2 proficiency and task

effects in acquisition, this study also examines these two variables.

1.3 Research Questions

The present empirical study aims to address the following five research questions.

- 1) Do our subjects acquire the three telicity-related constructions in English approximately concurrently, exhibit a sequence of acquisition, or learn them in a piecemeal fashion?
- 2) Do different properties of the telicity-related constructions display varying degrees of difficulty and contribute to a different order of acquisition?
- 3) Is L2 proficiency a variable influencing the acquisition of the telicity-associated constructions?
- 4) Do different tasks on the telicity-associated constructions yield parallel results? If yes, does comprehension precede production consistently?
- 5) What other patterns are elicited with respect to the telicity-related constructions?

1.4 Significance of the Study

The issue concerning the relationships of English telicity-associated constructions has been animatedly debated (cf. Kayne 1984, 1985, Hoekstra 1988, Tenny 1994, Snyder 1995, Baker 1997), but there has been a paucity of empirical evidence on the issue. Thus, the theoretical question is worth addressing. The present study does not endeavor to provide a definitive answer to the issue. Rather, this study, adopting a quantitative and qualitative approach, aims to resort to second language acquisition of the constructions as a source of evidence and to shed some light on the theoretically controversial issue. Besides linking the three constructions together under consideration, this study looks into the acquisition of different properties of the

constructions in an effort to discover the interaction of construction effects and property effects in second language development. Finally, L2 proficiency and task effects (comprehension versus production) are explored in this study as well.

1.5 Organization of the Thesis

This thesis is organized as follows. Chapter Two deals with main properties of the three telicity-associated constructions in English and Mandarin Chinese, and reviews previous relevant theoretical as well as empirical studies. Chapter Three is devoted to the research design of this study, and Chapter Four reports and discusses the experimental results. Finally, Chapter Five offers concluding remarks and suggestions for further research.

CHAPTER TWO

LINGUISTIC PROPERTIES AND LITERATURE REVIEW OF TELICITY-RELATED CONSTRUCTIONS

This chapter consists of four sections. Section 2.1 discusses major properties of the three telicity-related constructions in English, in conjunction with comparison and contrast of pertinent characteristics in Mandarin Chinese. Sections 2.2 and 2.3 review some theoretical and empirical studies on the telicity-associated constructions in English, respectively. Section 2.4 is a summary of this chapter.

2.1 Properties of Telicity-Related Constructions

This section is concerned with key properties of the three telicity-related constructions at issue, especially those properties to which all the constructions exhibit great resemblance. Since the present study is an L2 empirical study, with English as the target language and Chinese as the mother tongue, relevant properties in the two languages are compared and contrasted accordingly. The comparison and contrast can serve as the basis for the research design of the present study. Characteristics of resultative, verb-particle, and dative/double object constructions are dealt with in the following subsections.

2.1.1 Resultative Constructions in English and Chinese

English resultative constructions have drawn a great deal of research in the fields of semantics and syntax (e.g. Hoekstra 1988, 1992, Goldberg 1991, Carrier and Randall 1992, Tenny 1994, Filip 1999, Goldberg and Jackendoff 2004). They can be categorized into three major classes on the basis of verbal properties, as in (1).

- (1) a. He hammered the metal red. (TRANSITIVE)
 b. The butter melted to a liquid. (ERGATIVE)
 c. He drank himself into the grave. (UNERGATIVE) (Hoekstra 1988:119)

In the literature, transitive resultatives are treated as part of the same telic family as verb-particle constructions and double object constructions (e.g. Hoekstra 1988, Snyder 1995). Hence, the present study focuses on transitive resultatives in English resultative constructions. In this type of resultatives, resultative complements can be expressed in three forms, namely an adjectival phrase, a prepositional phrase, and a noun phrase (Carrier and Randall 1992, Tenny 1994), as illustrated below.

- (2) a. She painted the barn red. (AP)
 b. She pounded the dough into a pancake. (PP)
 c. She painted the barn a weird shade of red. (NP)
 (Carrier and Randall 1992:183)

In Mandarin Chinese, there are two ways to form resultatives, viz. resultative verb compounds (RVCs) and resultative V-*de* constructions (e.g. Li and Thompson 1982, Huang 1988, 1992, Jaxontov 1988, Li 1990, 1998, 1999, Zhang 2001, Tai 2003, Lin 2004, Wu 2004, Xiao and McEnery 2004), as in (3).

- (3) a. Wo didi shuai-sui-le yi-zhi huaping. (RVC)
 I brother smash-broken-PERF one-CL vase
 ‘My brother smashed a vase into pieces.’
 b. Ta ma-de wo shuo bu chu hua lai. (RESULTATIVE V-DE)
 he scold-DE I speak not out word come
 ‘He scolded me so harshly that I could not say a word.’ (Li 1999:445)

Resultative verb compounds consist of V₁ and V₂ (Li and Thompson 1982:54), as *shuai* ‘to smash’ and *sui* ‘broken’ in (3a). The first verb encodes the action of the event, and the second verb signals the resultant state. Thus, resultative verb compounds are also termed ‘action-result’ verb compounds (Tai 1984:290). On the other hand, resultative V-*de* constructions are characterized by an obligatory morpheme *de* attached to the first verb.¹ As (3b) shows, the action verb *ma* ‘to scold’ is indicative of the causing event, whereas the resultant state is encoded by the resultative clause *wo shuo bu chu hua lai* ‘I cannot speak a word’.

Two main properties of English resultative constructions are discussed below, i.e. verb types and predication.

2.1.1.1 Stative versus Dynamic Verbs

It is pointed out that resultative constructions have the effect of telicity conversion (Hoekstra 1988, Tenny 1994, Snyder 1995, Filip 1999). The constructions could convert a sentence that denotes an atelic event into a sentence with telic construal, if the resultative predicate is felicitous with the original sentence. For example, the VP *wring the towel* inherently denotes an atelic event, as indicated by the durative adverbial phrase *for five minutes* in (4a), while the addition of the resultative complement *dry* coerces a delimited interpretation over the non-delimited one, as in (4b).

(4) a. He *wringed the towel* for five minutes.

b. He wringed the towel *dry* in/#for five minutes. (Tenny 1994:38)

¹ There has been considerable debate regarding the matrix versus embedded relationships of the two verbs in the Chinese V-*de* constructions (e.g. Li and Thompson 1982, Huang 1988, Tai 2003). This issue is beyond the scope of the present study; thus, it will not be discussed here.

Although resultative complements have such a delimiting effect, the function does not apply to all types of verbs in English. Resultative expressions are compatible with felicitously dynamic verbs,² as in (5). Nonetheless, they cannot apply to any stative verbs, for stative verbs cannot be converted into verbs that do denote a telic event (e.g. Slabakova 2001), as illustrated in (6).

- (5) a. She *wiped* the table.
 b. She *wiped* the table *clean*.
- (6) a. He *loved* her.
 b. *He *loved* her *touched*.

In Chinese, resultative constructions also convey telic messages, as exemplified in (3). In contrast to English, Chinese resultatives in RVCs are compatible with some stative verbs, as in (7), and Chinese stative verbs can also appear in resultative *V-de* constructions when verb copying is applied, as shown in (8).

- (7) a. Ta *ai-si-le* ta.
 he love-die-PERF her
 ‘He loved her to death.’
- b. Ta *hen-tou-le* Lisi.
 he hate-thoroughly-PERF Lisi.
 ‘He hated Lisi extremely.’
- (8) Ta *ai* ta *ai-de* jihu fahuang.
 he love her love-DE nearly go.crazy
 ‘He loved her so much that he nearly went crazy.’

² All the verbs in telic constructions are dynamic verbs, whereas not all the dynamic verbs are congruent with telic constructions. The expression ‘felicitously dynamic verbs’ is used here to avoid overgeneralizations.

2.1.1.2 Predication

Although English resultative predicates have three forms to modify a nominal argument, the argument of which they can be predicated is constrained. Resultative complements are predicated only of the direct object in English (Carrier and Randall 1992, Tenny 1994), as in (9). In contrast, depictives, which should be distinguished from resultatives, may describe the subject or the object, as in (10).

(9) a. Susan pounded the metal_i flat_i. (RESULTATIVE)

b. *Susan_i pounded the metal tired_i.

(10) a. I cut the bread_i hot_i. (DEPICTIVE)

b. The horse_i cannot run a furlong tired_i. (Tenny 1994:58, 153-154).

Unlike English resultatives, Chinese resultative expressions are more flexible in predication (Li 1998, 1999). Resultative elements in RVCs allow ambiguous interpretations for one sentence in some cases. They can be predicated of the object, as in (11a), or the subject, as in (11b). Similarly, modification of the resultative VP in *V-de* constructions can apply to the object, as in (3b), or to the subject in cases like (12).

(11) Youyou_i zhui-lei_{i/j}-le Taotao_j le.

Youyou chase-tired-PERF Taotao PAR

a. 'Youyou chased Taotao and as a result Taotao became tired.'

b. 'Youyou chased Taotao and as a result Youyou became tired.' (Li 1998:296)

(12) Wo_i xiang-de ta_j [chi bu xia fan]_i.

I miss-DE her eat not down food

'I missed her so much that I lost my appetite.' (Li 1999:448)

2.1.2 Verb-Particle Constructions in English and Chinese

English verb-particle constructions, as the name itself suggests, consist of a main verb and a particle (e.g. Bolinger 1971), as shown in (13).

- (13) a. He looked *up* his friends.
b. They turned *down* my request.

In Mandarin Chinese, four directional verbs *shang* ‘to ascend’, *xia* ‘to descend’, *qi* ‘to rise’, and *chu* ‘to emerge’, and five result verbs *diao* ‘to fall’, *zou* ‘leave’, *zhu* ‘to fasten’, *dao* ‘to reach’, and *kai* ‘to open’ are regarded as Chinese verb particles in the literature (Teng 1977, Chen 2003), as illustrated in (14).

- (14) a. Ta zhongyu kao-*shang*-le daxue.
 he eventually take.an.exam-up-PERF university
 ‘He eventually got admitted to a university.’
b. Wo xiang-*chu*-le yi-ge banfa.
 I think-out-PERF one-CL solution
 ‘I thought out a solution.’ (Chen 2003:27, 31)

Verb-particle constructions in English are characterized by two major properties. One is inapplicability to stative verbs, and the other is particle movement, as explicated below.

2.1.2.1 Stative versus Dynamic Verbs

According to Bolinger (1971:85), verb particles contain two features, ‘one of motion-through-location, the other of terminus or result’. Like resultatives, the presence of verb particles can convert verbs denoting an atelic event into telic ones

(Bolinger 1971, Tenny 1994, Snyder 1995). For instance, the interpretation of *walk the course* is ambiguous between a delimited and a non-delimited reading. On the one hand, *walk the course* can be interpreted as a telic event, in which one walks from the onset of the course to the end. On the other hand, one can walk back and forth without covering the entire path. However, when a verb particle is added, the atelic reading is overridden by a telic interpretation, as in (15).

(15) Tom walked the course *through* in/#for ten minutes. (Tenny 1994:36)

Accordingly, verb particles are compatible with felicitously dynamic verbs, as the above example suggests. The delimiting function of verb particles disallows telic particles to co-occur with any stative verbs, since it is impossible to convert such verbs into verbs that do denote a telic event (Slabakova 2001), as in (16).

(16) a. She *liked* the man.

b. *She *liked* the man *through*.

Like English verb particles, the so-called verb particles in Chinese also denote telic meanings, as in (14). Although English verb-particle constructions do not apply to any stative verbs, Chinese counterparts can change the aspectual properties of sentences with a stative verb. An example is shown in (17), where the particle *shang* ‘up’ contributes to an inchoative interpretation of the sentence, i.e. the starting point of falling in love (Huang and Hsieh 2008).

(17) a. Ta *ai* na-ge yuangong.

she love that-CL employee

‘She loves that employee.’

- b. Ta *ai-shang-le* na-ge yuangong.
 she love-up-PERF that-CL employee
 ‘She fell in love with that employee.’

2.1.2.2 Particle Movement

Another hallmark of verb-particle constructions is particle movement. Verb particles can optionally appear on either side of an internal argument NP (Bolinger 1971, Fraser 1976), as in (18).

- (18) a. He ran *up* the bill.
 b. He ran the bill *up*.

However, when the direct object is a pronoun, the verb particle is obligatorily placed after it, as in (19) (Quirk et al. 1985, Biber et al. 1999).

- (19) a. How fast can you pick it *up*?
 b. *How fast can you pick *up* it? (Biber et al. 1999:932)

Chinese verb particles, in contrast, are not subject to the same particle movement as English counterparts, as in (20) (cf. (14a)).

- (20) *Ta zhongyu kao-le daxue *shang*.
 he eventually take.an.exam-PERF university up
 ‘He eventually got admitted to a university.’

2.1.3 Dative/Double Object Constructions in English and Chinese

There has been a voluminous literature on the relationships between dative

constructions and double object constructions (e.g. Chomsky 1975, Kayne 1984, Larson 1988, 1990, Aoun and Li 1989, Jackendoff 1990). Putting aside the controversial issue, this study provisionally treats dative and double object constructions as two varieties of one construction (cf. Chomsky 1975, Larson 1988, Aoun and Li 1989).

English dative/double object constructions are of two types, *to*-datives (Goal-type) and *for*-datives (Beneficiary-type), as in (21)-(22).

(21) a. John gave a gift *to* Mary. (DATIVE CONSTRUCTION)

b. Alice baked a cake *for* David.

(22) a. John gave Mary a gift. (DOUBLE OBJECT CONSTRUCTION)

b. Alice baked David a cake. (Gropen et al. 1989:204)

Dative constructions comprise a direct object NP, *a gift/a cake*, followed by an obligatory case marker *to/for* and an indirect object, *Mary/David*, as in (21). On the contrary, double object constructions are characterized by the presence of two adjacent postverbal NPs, with the indirect object preceding the direct one, as in (22).

In Mandarin Chinese, two versions of dative constructions and one type of double object construction have been identified in the previous research (cf. Li and Thompson 1982, Liu 2006), as in (23).

(23) a. Wo song-le yi-ping jiu gei ta. (V NP₁ GEI NP₂)

I give-PREF one-CL wine GEI him

‘I gave a bottle of wine to him.’

b. Wo song gei ta yi-ping jiu. (V GEI NP₂ NP₁)

I give GEI him one-CL wine

‘I gave him a bottle of wine.’

c. Wo song-le ta yi-ping jiu. (V NP₂ NP₁)

I give-PERF him one-CL wine

‘I gave him a bottle of wine.’ (Li and Thompson 1982:376)

For dative constructions, there are two variants in Mandarin Chinese, as exemplified in (23a-b.). Both types consist of a direct object and an indirect object, with an obligatory case marker *gei* preceding the indirect object,³ but differ in the relative word order of the two postverbal NPs. Double object constructions, on the contrary, do not have the case marker *gei* and comprise an indirect object followed by a direct one, as in (23c).

The following subsections focus on two characteristic properties of dative/double object constructions in the two languages, verb types and word order.⁴

2.1.3.1 Stative versus Dynamic Verbs

Like resultatives and verb-particles, dative/double object constructions denote a telic message as well (e.g. Snyder 1995). The indirect object, i.e. the Goal argument, may delimit the event expressed by the constructions. All the verbs in English dative/double object constructions are ditransitive and dynamic verbs, as in (21)-(22); the constructions are incongruent with any stative verbs, as shown in (24)-(25).

(24) Carol owned some money.

(25) a. *Carol *owned* some money to the orphanage.

b. *Carol *owned* the orphanage some money.

³ The syntactic status of *gei* in dative constructions has been a focus of interest in the research on the constructions (e.g. Li and Thompson 1982, Li 1990, Chang 2004). This issue is beyond the scope of this study and will not be elaborated on here.

⁴ In addition to the two attributes, dative/double object constructions are famous for another eminent property, viz. dative alternation such that dative constructions alternate with double object constructions (cf. Baker 1979, Pinker 1989, Gropen et al. 1989, Sawyer 1995, Inagaki 1997, Liu 2006). Since this property is not the focus of the present study, it will not be explicated here.

This is the case with Chinese dative/double object constructions. They are also incompatible with any stative verbs, as illustrated in (26)-(27).

(26) Wo renshi na-wei laoshi.

I know that-CL teacher

‘I knew that teacher.’

(27) a. *Wo renshi-le na-wei laoshi gei Zhangsan.

I know-PERF that-CL teacher GEI Zhangsan

‘*I knew that teacher to Zhangsan.’

b. *Wo renshi gei Zhangsan na-wei laoshi

I know GEI Zhangsan that-CL teacher

‘*I knew Zhangsan that teacher.’

c. *Wo renshi-le Zhangsan yi-wei laoshi

I know-PERF Zhangsan one-CL teacher

‘*I knew Zhangsan that teacher.’

2.1.3.2 Word Order

In addition to incompatibility with all stative verbs, dative/double object constructions are typified by their characteristic word order. In English, dative constructions require an obligatory case marker *to*, but retention of the case marker is ungrammatical in double object constructions, as illustrated in (28).

(28) a. John gave a letter *(to) Mary.

b. John gave (*to) Mary a letter.

Similarly, Chinese dative/double object constructions exhibit corresponding word order to that of English counterparts, as in (23a) and (23c), repeated here as (29a) and

(29c). The difference between English and Chinese lies in the absence/presence of the case marker *to/gei* when the indirect object precedes the direct one, as shown by the contrast in (28b) and (29b).⁵

(29) a. Wo song-le yi-ping jiu *(*gei*) ta.

‘I gave a bottle of wine to him’

b. Wo song *gei* ta yi-ping jiu.

‘I gave him a bottle of wine.’

c. Wo song-le ta yi-ping jiu.

‘I gave him a bottle of wine.’

2.1.4 Summary

In this section, two major properties of each of the three telicity-related constructions are discussed, as summarized in Table 2-1. English resultative constructions are compatible with felicitously dynamic verbs but cannot apply to any stative verbs. Chinese resultatives, in contrast, are congruent with some stative verbs. Besides, English resultatives are predicated only of the object, while Chinese counterparts can modify the object or the subject. In the case of verb-particle constructions, they cannot apply to any stative verbs in English but in some Chinese cases, and particle movement is available in the former but not in the latter. In the case of dative/double object constructions, English and Chinese do not allow any stative verbs to be the main verbs of the constructions, and the two languages display similar word order in dative/double object constructions—[V D.O. *to/gei* I.O.] and [V I.O. D.O.]. The difference resides in the absence/presence of the case marker when the indirect object precedes the direct one; the case marker is not sanctioned in English

⁵ In Chinese, when the indirect object is followed by the direct object, some verbs require the presence of *gei*, some verbs take it optionally, and others cannot appear with it (Li and Thompson 1982).

Table 2-1. A summary of the properties of the three telicity-related constructions in English and Mandarin Chinese⁶

Construction	Property		English	Chinese
Resultative	Verb type	Stative	×	✓
		Dynamic	✓	✓
	Predication	Subject	×	✓
		Object	✓	✓
Verb-particle	Verb type	Stative	×	✓
		Dynamic	✓	✓
	Particle movement	[V Particle NP]	✓	✓
		[V NP Particle]	✓	×
Dative/ double object	Verb type	Stative	×	×
		Dynamic	✓	✓
	Word order	[V D _{irect} O _{bject} to I _{ndirect} O _{bject}]	✓	✓
		[V to I _{ndirect} O _{bject} D _{irect} O _{bject}]	×	✓

but is permitted in Chinese counterparts.

On the one hand, the comparison and contrast between the three English and Chinese constructions provide the underpinning for the research design of the present study. On the other hand, the observed L1-L2 similarities and differences are the basis for the prediction and discussion of experimental findings with respect to potential positive/negative L1 transfer.

2.2 Theoretical Studies of Telicity-Related Constructions

This section recapitulates some theoretical proposals on the relationships of the three telicity-related constructions in English, with focus on the issue as to whether the constructions belong to the same family syntactically and semantically.

⁶ In Table 2-1, the tick ‘✓’ indicates that the properties in question are applicable to the languages under consideration, and the cross ‘×’ represents that the languages do not exhibit the given properties.

2.2.1 Hoekstra (1988)

Hoekstra (1988) adopts a unified approach to dealing with double object constructions,⁷ verb-particle constructions, and resultative constructions. Following Kayne (1984, 1985), Hoekstra analyzes double object constructions and verb-particle constructions with recourse to small clause (SC) constructions and proceeds to treat resultative constructions as involving a small clause as well (cf. Larson 1988, Snyder 1995).

Sentence (30) is a typical example of a small clause. Such an example is analyzed as containing an embedded S [Mary a genius] by Kayne (1984), in which *Mary* is interpreted as the subject and *a genius* the predicate, as bracketed in (31).

(30) John believed Mary a genius.

(31) [_V [_V believed] [_{SC} [_{NP} Mary] [_{NP} a genius]]] (Kayne 1984:135)

Considering some resemblance between double object constructions and typical SC structures, Kayne (1984) regards the double object construction ‘V NP NP’ as involving a small clause. The double object construction, as shown in (32), is taken to be bi-sentential, with [Mary a book] constituting an embedded S, as in (33).

(32) John gave Mary a book.

(33) [_V [_V gave] [_{SC} [_{NP} Mary] [_{NP} a book]]] (Kayne 1984:134)

Kaye adduces some parallel characteristics between double object constructions and typical SC constructions as substantiations of his SC analysis. First, both typical small

⁷ One point merits our note here. Although Hoekstra (1988) groups double object constructions together with resultatives as well as verb-particle constructions, he refrains from viewing dative constructions as part of the same family. Hoekstra’s analysis of double object constructions originates from Kayne (1984). Kayne (1981, 1984) advances that double object constructions and dative constructions are both base-generated, i.e. neither is derived from the other (cf. Chomsky 1975, Larson 1988, 1990, Aoun and Li 1989, Jackendoff 1990).

clauses and double object constructions can be paraphrased in a comparable way. The examples in (30) and (32) can be rephrased as the sentences in (34) and (35), respectively.

(34) John believed *Mary to be a genius*.

(35) John caused *Mary to have a book*. (Kayne 1984:136)

Second, evidence from Russian shows that [NP NP] can function as an S, supporting the SC treatment of double object constructions. The embedded S [Mary a genius] in (30) can be found in Russian *be*-less copula sentences, as in (36), where only English glosses are given in the Russian word order in Kayne (1984:135). Likewise, Russian *have*-less constructions also exhibit a similar pattern to [Mary a book] in (32), as shown in (37).

(36) Ivan student.

‘Ivan is a student.’

(37) U Ivana krasivye glaza.⁸

by Ivan pretty eyes

‘Ivan has pretty eyes.’

(Kayne 1984:134)

Third, typical small clauses and double object constructions exhibit the same patterns concerning nominalization. They can undergo passivization, as in (38), but neither of their derived nominals is grammatical, as illustrated in (39).

⁸ Although the example in (37) is cited in Kayne (1984:135), he does not elucidate whether the example is an independent sentence. Thanks to Dr. Sharon Rueih-Ling Fahn’s assistance and her Russian-speaking colleague’s native intuition, it is confirmed that (37) is an independent sentence in Russian.

- (38) a. Mary was believed [*t* a genius] by John. (PASSIVIZATION)
 b. Mary was given [*t* the letter] by her teacher.
- (39) a. *Mary's belief [_{PP} [_P of [_{SC} *t* a genius]] by John] (NOMINALIZATION)
 b. *Mary's gift [_{PP} [_P of [_{SC} *t* the letter]] by her teacher] (Kayne 1984:146)

Building ideas from Kayne (1984, 1985), Hoekstra (1988) extends the SC analysis to verb-particle constructions (see also den Dikken 1995). The following examples suggests that verb-particle constructions are licensed in the same way as SC structures with reference to extraction and nominalization, as in (40)-(42).

- (40) a. She considered [Bernard *a fool*].
 b. She looked [the information *up*].
- (41) a. *Who did she consider [[the brother of *t*] [a fool]]? (EXTRACTION)
 b. *What did she look [[the information about *t*] [*up*]]?
- (42) a. *her consideration [of [Bernard a fool]] (NOMINALIZATION)
 b. *her looking [of [the information up]] (Hoekstra 1988:107-108, 115)

Along this line of research, Hoekstra (1988, 1992) further proposes that resultative constructions should be treated as SC constructions as well. In typical SC constructions 'V [NP XP]', although the subject NP is exceptionally case-marked by the verb, the subject NP does not bear a sensible thematic relationship to the verb. Rather, it is the subject NP and the predicate XP that form a complement taken by the verb. Hoekstra contends that resultative constructions behave on a par with typical SC constructions, as shown in (43).

- (43) The joggers ran [_{SC} the pavement *thin*]. (Hoekstra 1988:115)

In (43), *ran* is an intransitive verb and does not subcategorize for an internal argument. Thus, the NP *the sidewalk* is more thematically related to the adjectival predicate *thin*. In light of the similar thematic traits between SC structures and resultatives, the SC treatment of resultative constructions is borne out.

Finally, Hoekstra (1988:135) claims that double object constructions are closely akin to resultative constructions. Double object constructions denote a possessive relation. As possession is argued to be the result state of an event described by double object constructions, the constructions are also regarded as ‘possessive results’ (p.135). Some Dutch examples show similar properties to double object constructions on the one hand and resultative constructions on the other hand, as in (44).⁹

- (44) a. dat ik me een ongeluk werk (POSSESSIVE)
 that I myself an accident work
 ‘that I work very hard’
- b. dat ik me dood werk (RESULTATIVE)
 that I myself dead work
 ‘that I work myself to death’ (Hoekstra 1988:136)

The aspectual situation in (44a) is classified as possessive as a double object construction, but the message conveyed by the sentence can be replaced by a resultative construction, as in (44b).

In Kayne’s seminal work, his analysis of double object constructions is grounded on some similarities between SC structures and double object constructions with respect to semantic paraphrases, corresponding evidence from Russian, and ill-formed nominalization. The argument based on semantic paraphrases may be flimsy. The

⁹ Hoekstra (1988) adduces the examples in (44) to argue for the close relationship of resultative and double object constructions. However, it is not clear that the example given in (44a) is possessive.

sentence involving a double object construction, as in (32), is not equivalent to the paraphrase, as in (35), in their interpretation. In the case of the Russian examples, the *be*-less copula sentence and the *have*-less construction suggest that [NP NP] can be interpreted as an SC. The argument is actually predicated on the premise that the SC sentence in (30) and the double object construction in (32) semantically correspond to the *be*-less copula sentence in (36) and the *have*-less construction in (37), respectively. Nonetheless, even though the double object construction, as in (32), denotes a possession relationship between the postverbal two NPs, the *give*-class constructions suggest an alienable possession relationship between the two NPs. This differs from the inalienable possession relationship between a body part and a man, as shown by the Russian example in (37), i.e. *eyes* and *Ivan*. If the assumption is not on the right track, the argument for the SC analysis needs to be reconsidered.

Also, Hoekstra's SC analysis of double object constructions might not be soundly conceived. The Dutch example in (44a) Hoekstra cites, in fact, is neither equivalent to double object constructions nor to resultatives. The analysis that double object constructions are treated in the same way as resultatives may not be tenable.

As regards verb particles, Hoekstra, following Kayne, treats them as the head of an SC, as in (40b). However, a characteristic attribute of verb particles is that they can appear on either side of the postverbal NP. As the verb particle occurs on the left side of the postverbal NP, a question arises as to what licenses such a movement, no matter whether the verb particle or the postverbal NP moves.

In the case of resultative constructions, Hoekstra also adopts an SC analysis. It is contended that the postverbal argument in resultative sentences shows a closer thematic relationship to the resultative predicate than the main verb, as in SC sentences. However, in sentences like (45), the postverbal argument bears one thematic role closely related to the transitive verb (cf. Carrier and Randall 1992,

Snyder 1995). This type of sentence seems to point to another alternative treatment of English resultatives.

(45) The worker painted the wall green.

2.2.2 Tenny (1994)

Tenny (1994) points out that English verb particles and resultative expressions exhibit close affinities with respect to semantics and syntax. She claims that these two constructions should be subsumed under the same family.

As far as semantics is concerned, verb particles and resultative complements play a crucial role in determining the aspectual status of an event described by a verb. The presence of verb particles or resultative predicates can convert an atelic event into a telic counterpart. The following examples illustrate the function of telicity conversion of verb particles and resultatives.

(46) a. The woman pushed the cart for/#in ten minutes

b. The woman pushed the cart *over* #for/in ten minutes

(47) a. The worker hammered the metal for/#in an hour.

b. The worker hammered the metal *flat* #for/in an hour. (Tenny 1994:36-38)

On top of semantic similarities, Tenny argues that verb-particle constructions are analogous to resultatives in the following two patterns. First, verb particles as well as resultative predicates exhibit parallel distributions in relation to depictives, as in (48) and (49).

(48) a. We ate the muffins *up* hot.

b. *We ate the muffins *hot up*.

(49) a. We hammered the metal *flat hot*.

b. *We hammered the metal *hot flat*. (Tenny 1994:154-155)

In (48), when a verb particle co-occurs with a depictive, the verb particle must precede the depictive. This holds true of the distribution of resultatives. A resultative complement obligatorily precedes a depictive when they appear together, as in (49).

The second point of resemblance between verb particles and resultatives lies in the relative word order to a postverbal noun phrase. Verb particles can optionally appear on either side of a postverbal noun phrase, as in (50). Tenny argues that this is the case with resultative complements. Resultatives conventionally follow the postverbal noun phrase, as in (51a). When the postverbal noun phrase is a heavy NP which carries on heavy information and phonology, however, a resultative complement can appear on the left side of the noun phrase, as in (51b).

(50) a. look a name *up* in the directory

b. look *up* a name in the directory

(51) a. The baker beat the eggwhites *into stiff peaks*.

b. The baker beat *into stiff peaks* the eggwhites that this assistant had made a special trip to a neighborhood from to get fresh eggs for. (Tenny 1994:156)

Tenny's claim that verb particles share comparable aspectual semantics with resultatives is justifiable, but her argument from the perspective of syntax appears to be tenuous. In the distribution relative to the postverbal noun phrase, particle movement is a typical feature of verb particles. Nevertheless, such a movement is not a hallmark of resultatives. Only when the postverbal noun phrase is a heavy NP can resultative predicates appear on the left side of the NP. In effect, this phenomenon is the so-called heavy NP-shift, as illustrated in (52).

- (52) a. Jeeves introduced t_i to the guests [_{NP} the famous detective from Belgium]_i.
 b. My doctor told me to drink t_i every night [_{NP} two glasses of mineral water with a slice of lemon]_i. (Haegeman 1994:419)

Unlike Hoekstra (1988), Tenny (1994) does not link double object/dative constructions with verb-particle and resultative together under examination. She only briefly mentions that double objects and datives are not subject to the measuring-out constraint without elaborating on the differences between double objects/datives and verb particles as well as resultatives. However, the indirect object in dative/double object constructions is a Goal argument. The Goal argument itself is an endpoint of an event and will delimit the event expressed by such constructions. Hence, dative/double object constructions do measure out.

2.2.3 Snyder (1995)

As reviewed in Section 2.2.1, Hoekstra (1988) resorts to SC constructions to group English double object, verb-particle, and resultative constructions together. Given that all these constructions not only denote a telic interpretation but also display similar structural patterns, Snyder (1995) also treats these constructions as a family. However, Snyder's approach differs from Hoekstra's SC analysis. Snyder, deriving much inspiration from Larson (1988, 1990),¹⁰ adopts the Larsonian VP-shell analysis to account for the three constructions.

In light of telic semantics of English resultative constructions, Snyder puts forth

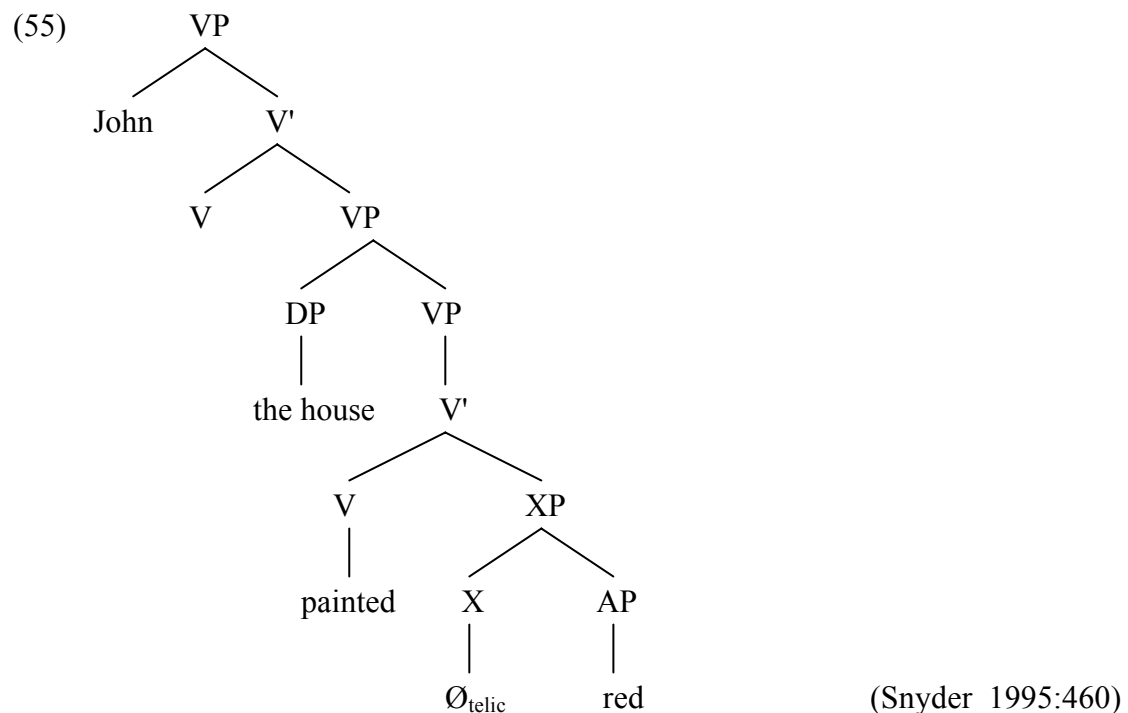
¹⁰ Instead of treating double object constructions as a small clause, Larson (1988, 1990) proposes that double object constructions 'V NP NP' are better accounted for in terms of a complex predicate construction (i.e. Larsonian VP-shell analysis). His argument is justified based on such syntactic tests as anaphor binding, quantifier binding, weak crossover, superiority, *each...the other*, and negative polarity items. His complex predicate proposal is pursued by several researchers and is extended to other constructions, such as *put*-locatives, verb particles, and resultatives (e.g. Hale and Keyser 1992, 1993, Snyder 1995).

a ‘null telic morpheme’ ($\emptyset_{\text{telic}}$) and provides a compositional account for the telic interpretation of the constructions, as formulated in (53).

- (53) $\| \emptyset_{\text{telic}} \| (P) (e) = \text{True}$, for any event e and any predicate of events P , iff for that event e' which is a subevent of e and which is the ‘natural endpoint’ of e , $P(e') = \text{True}$.
(Snyder 1995:459)

According to Snyder, an event described by a sentence involving an English resultative construction denotes a change of state in the Theme/Patient of the event at the endpoint of this event. As characterized in (53), the $\emptyset_{\text{telic}}$ morpheme makes reference to the natural endpoint of the event such that the completion of the subevent equals to the endpoint of the event, i.e. the resultant change of state. An example of resultative constructions is shown in (54), which is diagrammed in (55).

- (54) John painted *the house red*.



Sentence (54) can be interpreted as ‘John painted the house until the house became

red'. As represented in (55), the $\emptyset_{\text{telic}}$ morpheme alludes to the natural endpoint of the event of John's painting the house and specifies the subevent such that the house should be red at the endpoint of this event.

According to Snyder's analysis, since English licenses the $\emptyset_{\text{telic}}$ morpheme syntactically, it is likely to convert a process into an accomplishment¹¹ by means of the $\emptyset_{\text{telic}}$ morpheme and addition of a predicative complement to this morpheme,¹² as illustrated below.

(56) a. Mary laughed for/#in five minutes.

b. Mary laughed John *out the door*. (Snyder 1995:461)

As in (56a), the verb *laugh* is a process verb, compatible with the durative adverbial, whereas the sentence with the predicative complement *out the door* added in (56b) does not denote a process but an accomplishment. In view of the delimiting effect of the path predicate,¹³ Snyder proposes that process verbs contain a null/overt path morpheme. As shown by the contrast in (57a), it is the overt path morpheme *to* that contributes to the result reading.

¹¹ Based on Vendler (1967) and Parson (1990), Snyder (1995) treats an accomplishment-type event as consisting of a process and a culmination subevent. The subevent refers to the culmination of an event: the subevent is the natural endpoint of the event, at which a resultant change of state is formed in the Theme/Patient of the event.

¹² Snyder proposes that the aspect of a situation depicted by a sentence depends crucially on the syntax of the sentence rather than simply on the pragmatics of the situation. Only in languages that syntactically license the $\emptyset_{\text{telic}}$ morpheme can a process be converted to an accomplishment by addition of a predicative complement. Otherwise, even though the added element is pragmatically congruent with an accomplishment-type event, such an aspectual shift is not possible. To justify the aspectual role of the $\emptyset_{\text{telic}}$ morpheme in syntax, Snyder adduces supporting examples from English and Spanish. It has been found that English path predicates can convert a process into an accomplishment, as in (i). In contrast, the unavailability of the $\emptyset_{\text{telic}}$ morpheme in Spanish accounts for the impossibility of such an aspectual conversion, as in (ii).

(i) John walked *to the top of the hill in twenty minutes*.

(ii) Juan caminó *hasta la cima* (?/#en veinte minutos).

'John walked up-to the hilltop (in twenty minutes). (Snyder 1995:465)

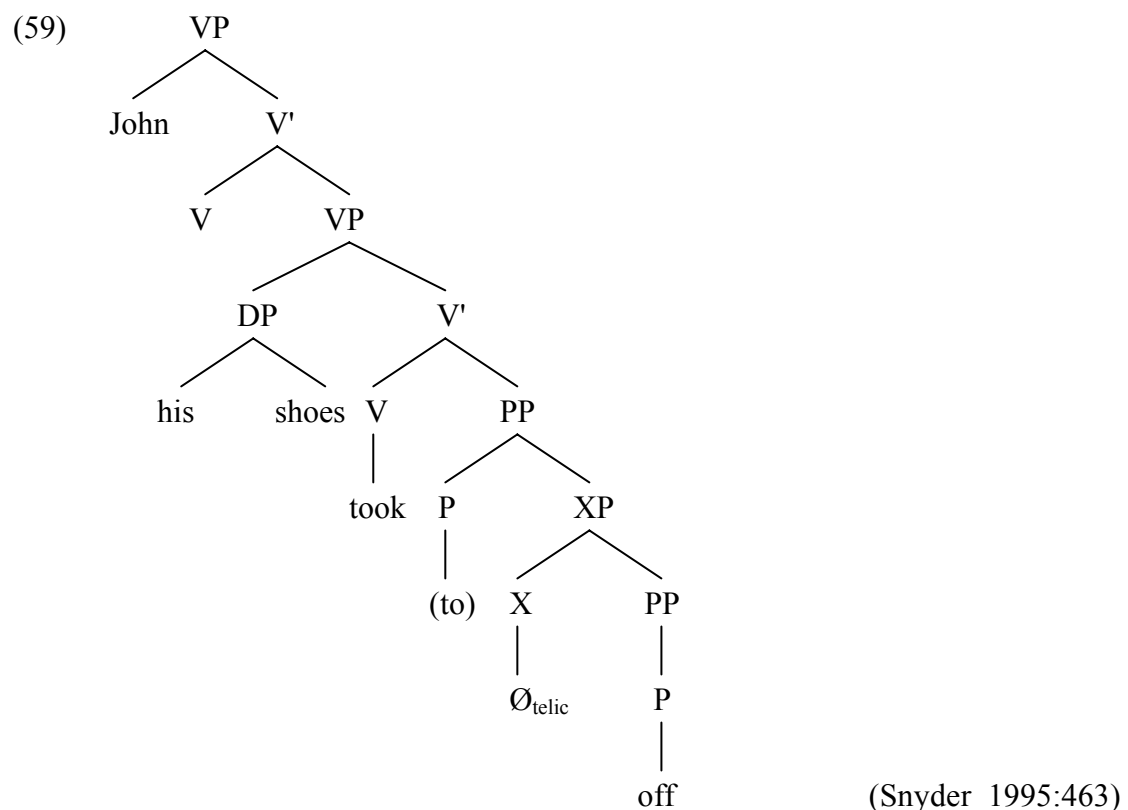
¹³ A path predicate is noted to have the function of introducing a natural endpoint to a Theme argument, specifying the argument to reach the endpoint of the path (Snyder 1995).

- (57) a. John pushed the box *onto/#on the table*. [#for result reading]
 b. Mary laughed John out ($\emptyset_{to}$) *the door*. (Snyder 1995:462-463)

Just as the case in (57a) contains an overt path morpheme *to*, the sentence in (57b) is also argued to involve a null path morpheme $\emptyset_{to}$, as illustrated in (57b). The null path morpheme $\emptyset_{to}$ stipulates that the Theme argument *John* should reach the Ground¹⁴ argument *the door* at the endpoint of the event. In conjunction with the meaning of the preposition *out*, the ultimate telic meaning of the sentence obtains accordingly.

Snyder applies this approach to verb-particle constructions where a Ground argument is equated with an Agent, as in (58), which is represented in (59).

- (58) John took his shoes off.



In this case, the Theme argument *his shoes* ‘reaches’ the Ground argument *John*, also

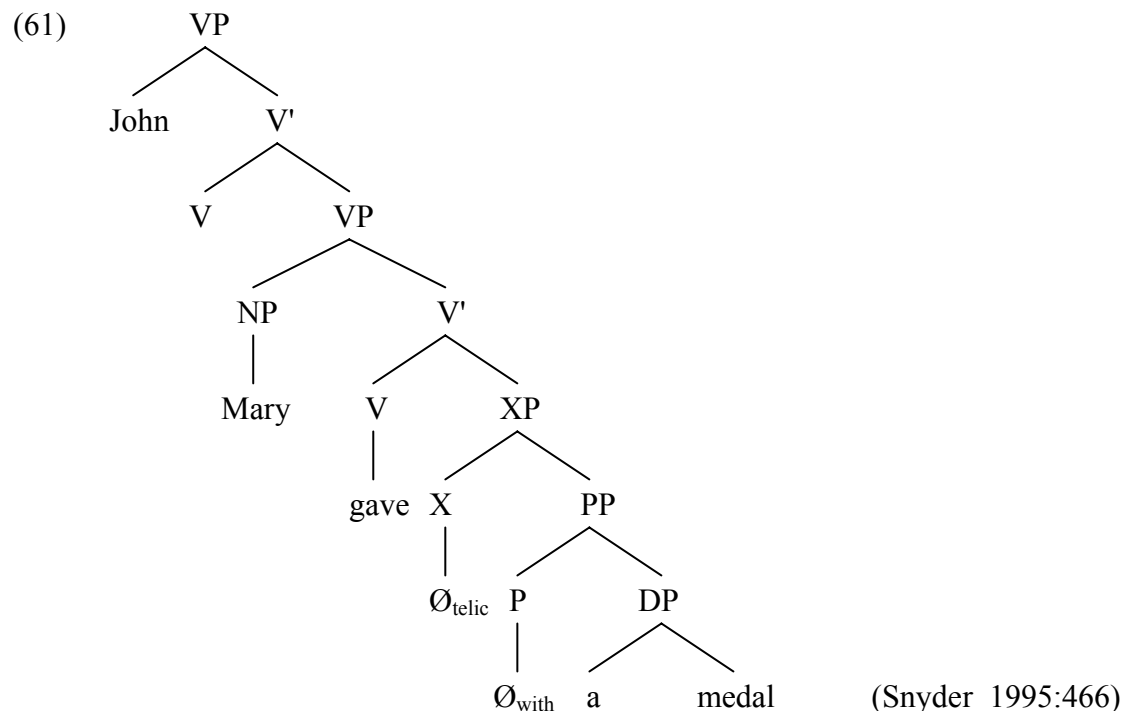
¹⁴ The term ‘Ground’ is used in Snyder (1995:463). However, the conventional term for the thematic role is ‘Goal’ versus ‘Source’ (Saeed 2003:150).

an Agent of the event, through the path denoted by the $\emptyset_{to}$ morpheme, as diagramed in (59). Together with semantics of the preposition *off*, the result meaning of the sentence is thus derived.

Along this thread of thought, Snyder proceeds to adopt this approach to accounting for English double object constructions. He capitalizes on parallels between English *present-with* constructions and double object constructions (cf. den Dikken 1995),¹⁵ as in (60). Given the existence of the preposition *with* in the *present-with* construction, Snyder puts forth a corresponding null possessive morpheme $\emptyset_{with}$ for the double object construction, as illustrated in (61).

(60) a. John presented Mary *with* a medal.

b. John gave Mary a medal.



In the analysis, Snyder uses a null telic morpheme to explain telic interpretations of English resultative, verb-particle, and double object constructions. However, his

¹⁵ den Dikken (1995) argues against viewing English double object construction as an equivalent to *present-with* construction.

analysis is subject to further discussion. To begin with, it is proposed that the $\emptyset_{\text{telic}}$ morpheme contributes to the semantics of English accomplishment-type events and that the $\emptyset_{\text{telic}}$ morpheme is characterized by an event and a culmination subevent. A question arises regarding how the null telic morpheme applies to an achievement-type event. As telic an achievement is, such an event is instantaneous and thus does not involve a culmination subevent. Moreover, Snyder draws on an implicit path morpheme and a null possessive morpheme to cope with English verb-particle constructions and double object constructions, respectively. Nonetheless, the null morpheme comes in variable forms, even in the same constructions, say $\emptyset_{\text{with}}$ or $\emptyset_{\text{at}}$ in the double object constructions (Snyder 1995:466-467). The question lies in what constrains different forms of the null morphemes. Furthermore, particle movement is typical of verb-particle constructions. However, only one version of particle constructions is explained. The other version is not explicated clearly and thus calls for a sound account.

2.2.4 Baker (1997)

Dative/double object constructions suggest a transfer of possession. As Baker (1997) notes, some previous research claims that double object constructions entail a successful transfer of possession, but dative constructions do not guarantee success in such kind of transfer (e.g. Mazurkewich and White 1984, Gropen et al. 1989, Pinker 1989), as shown in (62).

(62) a. She sang a song for *her dead lover*.

b. #She sang *her dead lover* a song. (Baker 1997:89)

The Goal argument *her dead lover* is not alive and capable of possessing anything.

Thus, the sentence with the double object construction, which requires a successful transfer of possession, is semantically anomalous, as in (62b). In contrast, the sentence in (62a) involves a dative construction and is well-formed. It is suggested that double object constructions inherently impart a telic interpretation by virtue of a successful transfer of possession.

Nevertheless, Baker contends that the successful transfer of possession is one kind of conversational implicature and thus is defeasible. Based on counterexamples like (63), Baker contends that double object constructions do not convey constant telic messages per se. The examples show that the implication of the transfer of knowledge and the ball can be cancelled.

(63) a. I taught *the children* French, but they did not learn it at all.

b. I threw *John* the ball, but it didn't reach him because of the strong wind.

(Baker 1997:89)

Besides providing contrasting evidence, Baker draws on locative alternations to justify his stance that double object constructions do not convey telic meanings themselves. In locative alternation, the thematic roles associated with the two verb complements vary with locative shifts, as shown in (64).

(64) a. John sprayed *this wall* with paint in/#for an hour.¹⁶

b. John sprayed *paint* onto this wall #in/for an hour.

c. John sprayed *subway cars* with this can of paint #in/for an hour.

d. John sprayed *this (whole) can of paint* onto subway cars in/#for an hour.

(Baker 1997:88)

¹⁶ The sentence *John sprayed this wall with paint for an hour* is semantically acceptable on the atelic interpretation that spraying the wall lasted for an hour but the wall was not completely sprayed with paint in the period of time.

The NP *this wall* has the Theme role that is completely affected in (64a), but has the Locative role in (64b). The thematic role associated with the NP *paint* shifts between an Instrument role and a Theme role. In both frames of locative alternation, the specification status of any argument in the object position slot determines the aspectual quality of the entire sentence. In (64a), the quantified theme *this wall* gives rise to the telic interpretation of the sentence. In contrast, when the specified argument *this wall* shifts with the unquantified/unspecified argument *paint*, as in (64b), the alternation leads to the atelic meaning of the sentence. The examples in (64c-d) also point to such an effect of locative alternation.

However, the aspectual interpretation of a sentence does not vary with dative alternation, in contrast to locative shift, as in (65).

- (65) a. I have read *stories* to the children for/#in an hour.
 b. I have read the children *stories* for/#in an hour.
 c. I have read *the story* to children ?for/in an hour.
 d. I have read children *the story* ?for/in an hour. (Baker 1997:88)

When the two object NPs alternate in word order, no change of aspectual meaning takes place, as (65a-b) and (65c-d) exemplify. Baker suggests that double object constructions themselves do not play a crucial role in influencing the aspectual reading of a sentence. Rather, it is the quantization/specification status of the Theme argument that determines the telicity meaning of the sentence.

Finally, Baker proposes seven syntactic tests on dative and locative alternations to verify that the Theme argument in dative/double object constructions is the legitimate direct object, which is a determinant of the telicity interpretation. The syntactic tests include adjectival secondary predication, the domain of *wh*-movement,

rightward movements, nominalization, synthetic compounds, and interaction with the phenomenon of unaccusativity (Baker 1997:90-96). All the tests indicate that the Theme arguments in dative/double object alternation behave the same as the direct object in locative alternation, as exemplified by the set of examples in (66).

- (66) a. Which boxes_i do you think I should load t_i onto the truck?
 a'. Which truck_i do you think I should load t_i with hay?
 b. Which perfume_i do you think I should give t_i to/buy t_i for Mary?
 b'. Which woman_i do you think I should ?give/*buy t_i perfume? (Baker 1997:92)

The direct object in both versions of locative alternation can undergo *wh*-movement. This holds true of the Theme argument in dative/double object constructions, in contrast to the Goal argument.

Comparing dative and locative alternation, Baker concludes that the Theme argument in dative/double object constructions is the eligible direct object. It is claimed that double object constructions themselves do not denote telic interpretations. Rather, it is the quantization/specification status of the Theme (the direct object) that determines the telicity readings of a sentence.

In this study, Baker argues that double object constructions do not convey telic interpretations per se in two respects. First, Baker claims that the implication of successful transfer denoted by double object constructions is defeasible by adducing some counterexamples, as in (63). However, as Gropen et al. (1989:242) suggest, sentences like (63b) sound ‘somewhat self-contradictory’. It seems unclear whether those counterexamples are cogent evidence. Second, based on the contrast between dative and locative alternation, Baker suggests that the contributing factor of the telic reading is the status of direct objects rather than double object constructions

themselves. It is indisputable that the status of direct objects is crucial, which however, does not rule out the role of constructions. Resultatives, for example, are a legitimate construction that denotes telicity. When the direct object in a resultative construction is not quantified/specified, the sentence depicted by the resultative construction will not impart a telic message as well. However, it might not be tenable to maintain that resultative constructions are not telic constructions due to the unquantified status of the direct object. It is suggested that telicity is contingent on several variables and that constructions and the internal argument are one of them at different levels. Thus, the argument by Baker might be subject to reconsideration.

2.2.5 Summary

The syntactic and semantic status of resultative, verb-particle, and dative/double object constructions has been a bone of contention in linguistics. Some researchers propose a unitary analysis for the three constructions and treat them as a cluster (e.g. Hoekstra 1988, Snyder 1995). Hoekstra (1988) links the three constructions jointly under the same family by resorting to small clause constructions. Snyder (1995) proposes that they belong to the telicity-associated family and draws on the null telic morpheme and the Larsonian VP-shell approach to accounting for them. However, other studies argue against grouping the three constructions together. Tenny (1994) proposes that dative/double object constructions are not subject to the measuring-out constraint which regulates verb-particle and resultative constructions, suggesting that the former constructions do not belong to the same family as the latter two. In accordance with Tenny, Baker (1997) contends that dative/double object constructions do not convey a constant telic interpretation per se, refraining from treating these constructions in conjunction with other telicity-related constructions. Given the controversy over the relationships of the three telicity-related constructions, the

present study aims to conduct an L2 acquisition study of the constructions and provide empirical evidence on the issue.

2.3 Empirical Studies of Telicity-Related Constructions

Basically, two empirical studies on the relationships of English telicity-related constructions are retrieved from the literature. One study focuses on first language acquisition of English constructions that some linguists have unified as a cluster (Snyder and Stromswold 1997). The other study examines second language acquisition of English telicity marking and telicity-related constructions (Slabakova 2001). The two valuable and enlightening studies are reviewed below.

2.3.1 Snyder and Stromswold (1997)

According to Chomsky (1981), superficially distinct constructions will emerge around the same time in the process of acquisition if they belong to a cluster of constructions. Based on the assumption, Snyder and Stromswold (1997) conducted an empirical study of some purportedly related constructions in English. The constructions under examination include double object/dative constructions, verb-particle constructions, locative-argument constructions with *put*-class verbs, causative constructions, and perceptual constructions, as illustrated in (67)-(71) (p.282). To be precise, their study deals with the issue as to whether these surface different constructions are acquired concurrently by children and can be subsumed in one single syntactic family.

(67) a. They sent the zoo the koala. (DOUBLE OBJECT CONSTRUCTION)

b. They sent the koala to the zoo. (DATIVE CONSTRUCTION)

- (68) a. The girl put her dress on. (V-NP-PARTICLE CONSTRUCTION))
 b. The girl put on her dress. (V-PARTICLE-NP CONSTRUCTION)
 (69) She put her book on the desk. (PUT-LOCATIVE CONSTRUCTION)
 (70) The news made her feel elated. (CAUSATIVE CONSTRUCTION)
 (71) He saw her enter the library. (PERCEPTUAL CONSTRUCTION)

Snyder and Stromswold analyzed longitudinal samples of spontaneous speech of 12 children learning American English as their first and the only language, based on computerized transcripts from the 1989 version of the Child Language Data Exchange System (CHILDES) (MacWhinney and Snow 1985, 1990). The children ranged at age from 1 year and 4 months (1;4) to 2 years and 6 months (2;6) when the first transcript of each child was recorded, and from 2;3 to 7;10 for the last transcript. For all the analyses, the age at which a child produced his or her first clear, but not imitated nor routinized, utterance of a target construction was regarded as the age of acquisition for the construction.

It was reported that double object, V-NP-Particle, *put*-locative, causative, and perceptual constructions emerged approximately concurrently in the course of English acquisition. Dative and V-Particle-NP constructions were also found to be acquired around the same time. Besides, intriguing results were noted between dative and double object constructions, as well as between V-Particle-NP and V-NP-Particle constructions. It was found that double object constructions correlationally precede dative constructions in most cases and co-occur with them in a few cases and that V-NP-Particle constructions substantially appear before V-Particle-NP counterparts.

Based on the results, Snyder and Stromswold proposed that all the constructions under investigation belong to one single syntactic cluster and that the acquisition of the entire group of constructions should depend on two parametric properties A and B

of the English language, in which knowledge of property A is a subset of knowledge of property B.¹⁷ According to Snyder and Stromswold, property A itself is a sufficient condition for the child's internal grammar to generate double object, V-NP-Particle, *put*-locative, causative, and perceptual constructions. Dative and V-Particle-NP constructions, on the other hand, are licensed by combination of properties A and B both set to the English value. Snyder and Stromswold further elaborated on the acquisition of these two properties. If property A is acquired before property B, double object constructions (and V-NP-Particle) will occur prior to dative constructions (and V-Particle-NP). If property A is set after property B, dative constructions will be produced at approximately the same time as double object constructions, and so will both versions of verb-particle constructions.

Moreover, Snyder and Stromswold stated that their findings were in accordance with the subset principle of language acquisition (e.g. Angluin 1980). It was argued that in the process of acquisition, children would be conservative in setting the parameter which licenses the cluster of the constructions. Children would not change the parameter setting that does not license the constructions until clear positive adult input triggers the parameter; around that time, a sudden onset of a series of constructions would emerge in the process of acquisition. On the contrary, if a child initially assumes the less restrictive parameter resetting, the constructions would be acquired in a piecemeal fashion rather than concurrently, implying that children are conservative in setting the parameter, conforming to the subset principle.

The method that Snyder and Stromswold adopted is natural observation. As Stromswold (1996) suggests, of all the language acquisition methods, research of spontaneous speech is least likely to be penetrated by extraneous task demands.

¹⁷ In their earlier work, Stromswold and Snyder (1995) have discussed the nature of property A; different potential candidates for property A have been considered there.

Nonlinguistic effects, like task effects, could be removed or reduced to a minimum. In addition to presenting empirical results of the theoretically controversial issue, Snyder and Stromswold also took lexico-semantics and frequency factors into consideration and manage to exclude their possible effects on language acquisition, before the syntax-as-core analysis is favored.

In spite of the enlightening data and the insight of the study, some possible limitations merit our discussion. In the first place, although Snyder and Stromswold claim that no previous study has provided clear evidence in support of a parametric model of language acquisition, their findings might not be taken to be satisfactory evidence substantiating the parametric model. It was reported that double object constructions occurred significantly before dative constructions in most cases and that causative/perceptual constructions were acquired around the same time as either double object or dative constructions (Snyder and Stromswold 1997:304). These two observed results did not converge on the inference that causative/perceptual constructions emerged concurrently with double object constructions, verb-NP-particles, and *put*-locative constructions. This is because causative/perceptual constructions were also reported to co-occur with dative constructions in some cases, with the latter exhibiting significant differences from double object constructions in the acquisition time. Hence, the conclusion that all the constructions under consideration form a cluster might be susceptible to reconsideration.

In the reported results, also, not all the children follow the trend of concurrent acquisition of all the constructions. One question arises as to whether it is possible that some constructions occur in some children's speech around the same time as other constructions are recognized in other children's. Put differently, the question lies in whether there are any cases where all the constructions are acquired by one and the same child. If no such cases are observed, the conclusion that all the target

constructions belong to the same family will be too strong and in need of qualification. An in-depth qualitative analysis of such children's speech might provide a new insight. One empirical gap is noted as well. Recent syntactic analyses treat resultative constructions as one variety of the cluster investigated in the study. It is a pity that Snyder and Stromswold do not examine children's acquisition of resultatives, when other purportedly related constructions are under investigation.

In the parametric model, furthermore, it is exemplified that if property A is set after property B, double object and dative constructions will occur simultaneously. It is also proposed that knowledge of property A is a subset of knowledge of property B. An internal question crops up with respect to how property A could be set after property B. Since knowledge of property A is a subset of knowledge of property B, when property B is acquired, property A must have been acquired prior to property B. Accordingly, there is only one condition for setting of properties A and B, i.e. property A is constantly set before property B. Under the circumstance that one property logically precedes the other, an alternative account is demanded for the skewed acquisition of double object and dative constructions—for example, why double object constructions are acquired before dative constructions in some cases but not in all cases.

2.3.2 Slabakova (2001)

Slabakova (2001) investigates L2 acquisition of English telicity by Bulgarian speakers. She discusses differences between English and Bulgarian telicity marking, as shown in (72)-(73).

(72) a. Clara ate *cake*. (ATELIC)

b. Clara ate *a piece of cake*. (TELIC)

(73) a. Bistra jad-e parče torta.

Bistra eat-PAST piece cake

‘Bistra ate at a piece of cake (but the piece is not finished).’ (ATELIC)

b. Bistra iz-jad-e parče torta.

Bistra PV-eat-PAST piece cake

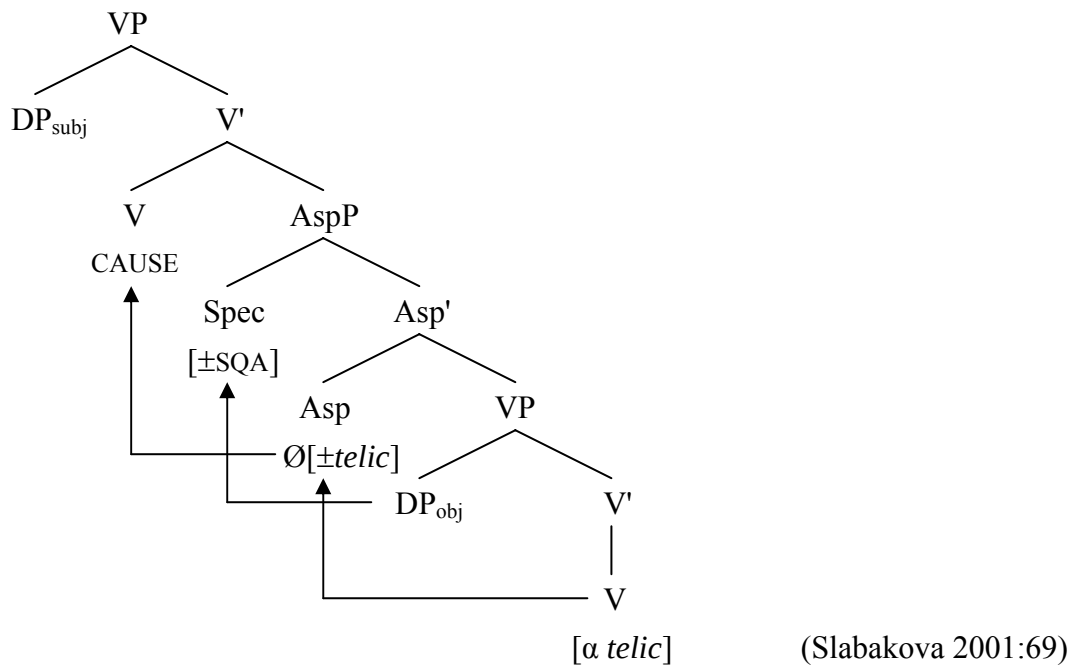
‘Bistra ate a piece of cake (and there is nothing left).’ (TELIC)

(Slabakova 2001:4)

In English, the interpretation of situation aspect depends on verbal properties and specified quantity of the internal argument ‘SQA’ (Verkuyl 1999:36), such as *cake* vs. *a piece of cake* in (72). Bulgarian telicity meaning, in contrast, is exclusively determined by the absence/presence of the preverb (PV) on verbs, like *iz-* in (73b). The lack of the overt affix in (73a) accounts for the atelic nature of the example, regardless of the properties of the direct object.

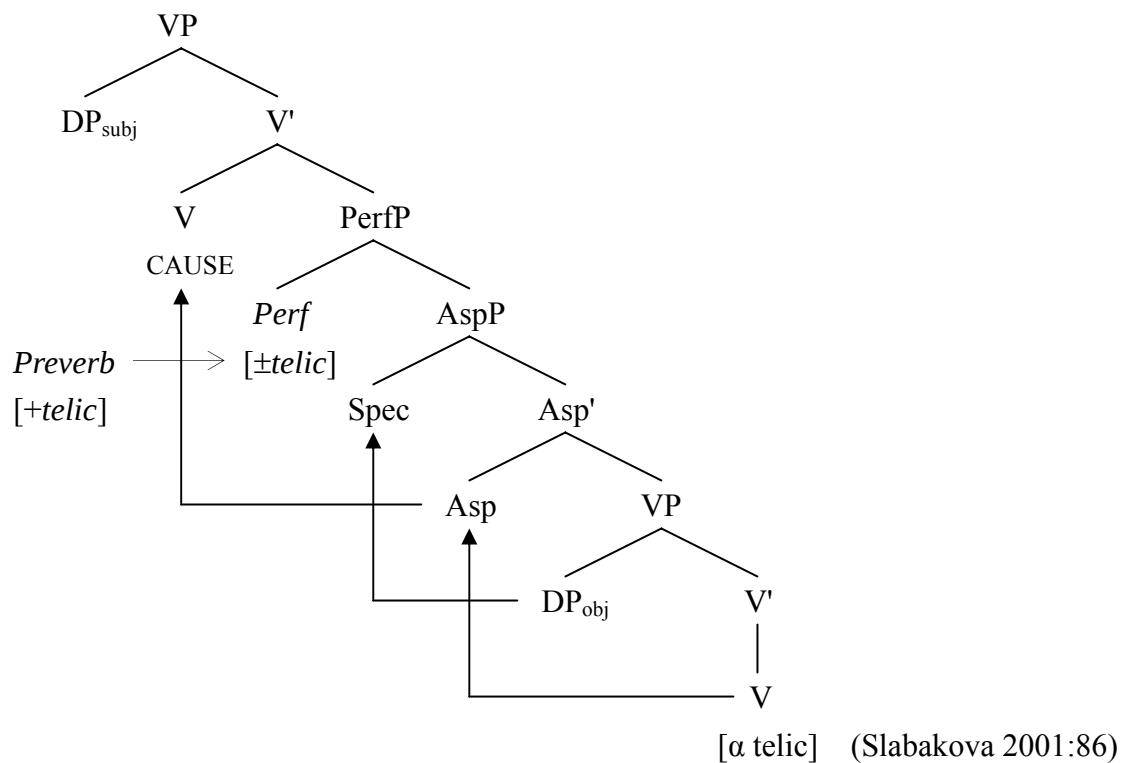
Slabakova ascribes the distinction between English and Bulgarian realization of telicity to a telicity marking parameter: an overt versus covert [+telic] morpheme. In English, the [+telic] morpheme is null, as represented in (74). It is situated in the head of AspectP (AspP) and is licensed by specified quantity of the argument [+SQA]. In the diagram, the DP direct object moves to [Spec, AspP] to receive accusative Case from the higher raised V^0 . The derived DP direct object c-commands the null morpheme $\emptyset$ in Asp^0 , and thus its cardinality [$\pm$ SQA] determines the telicity property of the null morpheme, on which the telicity interpretation of the entire VP crucially hinges.

(74) Null telicity marking in English



However, the Bulgarian [+telic] morpheme is overt, as illustrated in (75).

(75) Overt telicity marking in Bulgarian



The overt morpheme is situated in the head of PerfectP (PerfP) and is realized by a

lexically selected preverb on verbs. Since Bulgarian telicity is marked by an overt affix in Perf⁰ that is structurally higher than the derived object position, the overt telic morpheme overrides the object with respect to the interpretation of situation aspect.

Four hypotheses regarding L2 acquisition of English telicity marking are advanced: (a) L2 learners will start out with the L1 value of the telicity marking parameter (L1 transfer); (b) they will show development towards the L2 value in their interlanguage stages, i.e. resetting is possible at later stages (full access to UG);¹⁸ (c) three purportedly telicity-associated constructions, viz. verb-particles, resultatives, and double objects, will co-occur with the acquisition of English telicity marking in their interlanguage grammar of individual learners; and (d) the three telicity-related constructions will also cluster together in the interlanguage grammar (Slabakova 2001:147-148).

To test her hypotheses, Slabakova conducted an experiment involving 130 Bulgarian adult learners of English and 32 English native speakers (16 North American and 16 British English speakers). The Bulgarian participants were divided into advanced, high-intermediate, and low-intermediate groups based on the results of a cloze test devised by Chen (1996).

There were four tasks in the experiment: an aspect task, a translation task, a stories task, and a grammaticality judgment task. The first three tasks focused on the English telicity interpretation, and the last one examined the L2 acquisition of the three telicity-related constructions. In the aspect task, the participants were asked to make acceptability judgment on 24 trial two-clause sentences plus 16 fillers. The trial sentences were classified into the following four conditions.

¹⁸ The full access proposal faithfully extends Chomsky's UG framework to second language development. In this position, UG is taken to be fully accessible in second language acquisition in the sense that principles of UG will constrain L2 acquisition and that parameters inactivated in L1 can be reset in L2 acquisition ultimately (e.g. Schwartz and Sprouse 1994, 1996).

(76) a. Characteristic (atelic) + atelic

Sharon worked in a bakery and made *cakes*.

b. Characteristic (atelic) + telic

#Antonia worked in a bakery and made *a cake*.

(77) a. Atelic + atelic

Mr. Smith sold *cars* and now he sells *motorcycles*.

b. Telic + unfinished

#Mike drew *a circle* on a sheet of paper but the circle is only half-finished.

(Slabakova 2001:153)

In the translation task, the participants were asked to translate the verbal form of the English test clauses into Bulgarian, since Bulgarian marks telicity only with the preverb on verbal forms. As for the stories task, the participants were asked to read a short story and select one sentence from two that described the story better. The task included six stories depicting telic events, six establishing atelic context, and six fillers.

As far grammaticality judgment is concerned, the task consisted of 40 grammatical and 40 ungrammatical sentences, as shown below.

(78) a. The native men and women waited out the crisis. (VERB PARTICLE)

b. *George loves out eggplant and basil pizza.

(79) a. Steven nailed all the top floor windows shut. (RESULTATIVE)

b. *My friend Pamela feared the dinosaurs senseless.

(80) a. Simon gave Jenny a red scooter and a red hat. (DOUBLE OBJECT)

b. *Sharon taught French the children in the neighborhood.

(Slabakova 2001:155)

The ungrammaticality of the sentences in (78b) and (79b) is due to the defective combination of a stative predicate with a telicity device, i.e. the verb particle *up* and the resultative *senseless*, respectively. The sentence (80b) is syntactically ill-formed as a result of flawed inversion between the two postverbal objects.

It was observed that lower proficiency learners were quite accurate in judging atelic sentences but were at chance in judging telic counterparts. Slabakova attributed the finding to the overt versus covert telicity marking contrasted between Bulgarian and English telic sentences, although the two languages are alike in the atelic sentences. Due to the L1-L2 similarity and difference, Bulgarian learners could perform better on English atelic sentences than telic ones. The results attested to the first hypothesis that L2 learners would transfer their L1 value of the telicity marking parameter at the early stage. Comparable to the performance of the native speakers, the higher proficiency participants were competent in differentiating between telic and atelic sentences and recognizing both types, which confirms the second hypothesis that resetting is possible at later stages. The findings appear to provide empirical evidence for the full transfer/full access hypothesis (Schwartz and Sprouse 1994, 1996).

As regards the three related constructions, it was found that all groups performed significantly less accurately than the controls and that individual scores on all three constructions were significantly correlated with each other at $\alpha=.05$ when the influence of proficiency was factored out. The results obtained from the grammaticality judgment task showed that double objects might not cluster with the other two constructions. It was observed that both the advanced and high-intermediate groups were significantly more accurate at judging grammatical double objects (87% and 84%, respectively) than transitive resultatives (74% and 60%) and verb-particles (71% and 66%) and that the low-intermediate learners performed mostly at chance,

with the exception of higher accuracy on grammatical double objects (71%). On the other hand, individual scores showed that each one of the three constructions was significantly well predicted by the other two constructions. Thus, Slabakova argued that individual scores lent mild support to the fourth hypothesis that the three constructions would cluster together in the interlanguage grammar.

Besides, Bulgarian learners' skewed performance on telicity and the related constructions (i.e. performance of those who had acquired only either of them) posed a challenge for the third hypothesis that the three constructions would co-occur with the acquisition of English telicity marking in the interlanguage grammar, as shown in Table 2-2.

Table 2-2. Bulgarian learners' acquisition of aspect and the related constructions

English aspect Related constructions	Acquired	Not acquired
Acquired	26	7
Not acquired	25	64

(Slabakova 2001:184)

Instead of viewing the seven learners who had acquired the related constructions but not telicity marking (5% of all participants) as a counter-example of the third hypothesis, Slabakova ascribed the skewed results to performance errors. For the 25 participants who had mastered telicity marking without acquiring the related constructions, Slabakova, inspired by Snyder (1996),¹⁹ claimed that the acquisition of telicity marking should be a necessary but not sufficient condition for the acquisition

¹⁹ Snyder (1996, 2001) conducted a crosslinguistic survey on the relationships between resultatives and productive N-N compounding, including American Sign Language, Austroasiatic (Khmer), Finno-Ugric (Hungarian), Germanic (English and German), Japanese-Korean (Japanese and Korean), Sino-Tibetan (Mandarin), Tai (Thai), Basque, Afroasiatic (Egyptian Arabic and Hebrew), Bantu (Lingala), Romance (French and Spanish), and Slavic (Russian and Serbo-Croatian). It has been found that languages have either both resultatives and productive N-N compounding, or neither of them, with Basque as the only exception. Snyder argued that productive N-N compounding might be a member of the same cluster as resultative, verb-particle, and double object/dative constructions.

of the three constructions and that the acquisition of productive nominal compounding should be the other necessary condition. Nonetheless, an obligatory epiphenomenon of a parameter is a cluster of constructions, as Slabakova herself emphasizes. A question arises as to why only direct objects co-occur with telicity marking in the interlanguage if the three constructions belong to the same telicity-associated family.

Despite the innovation of the study, some limitations are noted as follows. In the aspect task, although the contrast shown in (76) is crystal clear when the pair are juxtaposed together, judgment of the trial sentences, without the contrast manifested, could be contingent on socio-pragmatic possibility²⁰ of them rather than good versus bad combination between telic and atelic clauses. Besides, the design of the contrast between (a-)telicity and (in-)completion may not be soundly conceived. Although the trial sentence in (77b) is well-designed, with semantic contradiction between the two conjoined clauses, the design of the sentence in (77a) appears to test the same property as that in (76) and is not parallel to that in (77b). Moreover, the aspect task as a whole focuses on the specification status of the internal NP argument only. However, English telicity marking bears much on the lexical semantics of the main verb, but the indispensable property appears to be overlooked in the task.

Furthermore, in the grammaticality judgment task, the ability to judge the grammaticality of (78)-(80) does not necessarily entail fledged acquisition of these constructions. Double object, verb-particle, and resultative constructions exhibit other essential characteristics, which are worthy of further investigation, together with the properties tested by Slabakova.

²⁰ The judgment of the trial sentences is supposed to be based on good versus bad combination between two telic/atelic clauses in unmarked contexts. However, when the pair in (76) are not juxtaposed together, the contrast may not be clear and the subjects may judge the test sentences in terms of socio-pragmatic possibility—perhaps marked interpretations or contexts.

2.3.3 Summary

Snyder and Stromswold (1997) studied the child language acquisition of five English constructions, and Slabakova (2001) examined the L2 acquisition of English telicity marking and related constructions. These two studies have provided a light-shedding and empirically feasible framework for further investigation on telicity marking, controversially pertinent constructions, and parametric variations.

As seminal the two studies are, they are subject to some limitations. The L1 study adopted a quantitative analysis of the longitudinal data, and the results showed some correlation of the target constructions. However, the question remains unanswered as to whether or not some constructions emerge in some children's speech around the same time as other constructions are recognized in other children's, which might lead to some constructional correlation. Hence, it is worthwhile to probe into a qualitative analysis of individual children's data.

In the L2 study, Slabakova employed a grammaticality judgment task to look into the L2 acquisition of the three telicity-related constructions in English. However, the comprehension task was restricted to one property of each of the constructions, which are characterized by other crucial properties. Moreover, the quantitative study analyzed group results as well as individual scores, and the individual data showed some correlation of the three constructions. Nonetheless, Slabakova's study, adopting only one comprehension task, may be subject to a task effect. A production task cannot only circumvent such a nonlinguistic effect, but a qualitative analysis of production data may also lead to a generalization of error patterns and shed new light on the relationships of the constructions. Given the limitations of the previous research, the relationships of the telicity-associated constructions merit further empirical investigation.

2.4 Summary of Chapter Two

This chapter has discussed two major properties of each of the three telicity-related constructions in English and Mandarin Chinese. One major property is concerned with dynamic versus stative verbs in the three constructions. The other property pertains to predication by resultative expressions, particle movement, and word order of the dative/double object constructions. It has been shown that English and Chinese exhibit some similarities and differences with respect to these properties.

Subsequently, theoretical and empirical studies on the relationships of the English telicity-related construction have been reviewed. Theoretically, some disagreement has surfaced on the semantic and syntactic status of the constructions. Researchers like Hoekstra (1988) and Snyder (1995) favor a unified approach to dealing with the superficially distinct constructions, while linguists such as Tenny (1994) and Baker (1997) argue against grouping the constructions together. Empirically, one L1 study (Snyder and Stromswold 1997) and one L2 study (Slabakova 2001) have been dedicated to the issue of clustering. Despite the enlightenment of the studies, their methodologies are susceptible to some limitations. The former focuses on the quantitative analysis of production data, and the latter is limited to a comprehension task on one property of each construction. To bridge the gaps of the previous research, the present study aims to utilize a comprehension task and a production task to collect relevant data from L2 learners of English and then adopt a quantitative and a qualitative approach to analyzing the data. The research design of this study will be introduced in the following chapter.

CHAPTER THREE

RESEARCH DESIGN

This chapter is devoted to the research design of the present study. Section 3.1 is concerned with the subjects participating in this study, and Section 3.2 deals with the materials and methods adopted. Section 3.3 delineates the experimental procedures and statistical analysis of results. A summary of the study is given in Section 3.4.

3.1 Subjects

The present study probed into second language acquisition of three telicity-associated constructions in English by native speakers of Mandarin Chinese in Taiwan. The subjects of this study were recruited from senior high schools.

Subjects participating in this study consisted of three classes of tenth graders instructed by the same English teacher in Taipei Jingmei Girls' Senior High School, i.e. 104 senior high school students.¹ They were regrouped based on their scores on a sample test of the General English Proficiency Test (GEPT)² devised by the English teaching faculty at the school. The test focused on the English reading ability and was targeted at the intermediate level of English, which senior high school graduates were expected to achieve. The full marks of the test were 100. Despite their low scores on the test, the subjects were further divided into three groups, i.e. the high-level group (Mean=65.8, SD=4.69), the mid-level group (Mean=51.3, SD=3.77), and the low-level group (Mean=37.5, SD=4.47), as shown in Table 3-1. The division arrived at the statistically significant level ($p=.000^{**}$ throughout).

¹ In this study, 111 copies of the questionnaire were distributed in total, and 104 copies were completely done and regarded as valid for our analysis.

² The GEPT, supported by the Ministry of Education in Taiwan, is a standardized test developed by the Language Training and Test Center (LTTC) as a valid and reliable assessment for each level of English ability.

Table 3-1. A summary of the subjects

Group GEPT	High (n=38)	Mid (n=33)	Low (n=33)
Score (Average)	75~60 (65.8)	59~45 (51.3)	<45 (37.5)

Taipei Jingmei Girls' Senior High School is one of the prestigious schools in Taipei. At school, the subjects have 8 periods of courses a day and five school days a week. The school offers them 5 periods of an English course per week, and each period lasts 50 minutes. Their textbooks consist of various topics, related vocabulary, sentence patterns, and a series of activities to enhance reading and writing abilities as well as oral and listening practices. In addition to the formal English curriculum, the subjects have to read a monthly English magazine as required outside reading.

3.2 Materials and Methods

The present study drew on two experimental tasks to collect data, one comprehension task and one production task. The two tasks were implemented in the form of a written questionnaire.

The comprehension task was a grammaticality judgment task. The design of the task is summarized in Table 3-2. As Table 3-2 shows, the grammaticality judgment task was devoted to the three target constructions in English, with focus on two major properties of each construction. One property was concerned with the verb types of the target constructions, and the other property bore on predication by resultatives, particle movement, and word order of datives/double objects.³ Each property was

³ This study examined three constructions at the same time. Since investigation of more than two properties of each construction would bring about a much heavier workload on the subjects, which might reduce the possibility of eliciting intuitional responses, two properties of each construction was selected and examined. One property concerns verb types, for all the three telicity-related constructions are incompatible with any stative verbs—one property in common. The other property pertains to predication by resultatives, particle movement, and word order of datives/double objects, which were

Table 3-2. The grammaticality judgment task⁴

Construction	Property		✓/×	No. of Qs	Q item
Resultative	Verb type	Dynamic	✓	2	Q1, Q16
		Stative	×	2	Q6, Q14
	Predication	Object	✓	2	Q3, Q19
		Subject	×	2	Q21, Q26
Verb-particle	Verb type	Dynamic	✓	2	Q15, Q29
		Stative	×	2	Q12, Q25
	Particle movement	[V Particle NP]	✓	2	Q2, Q24
		[V NP Particle]	✓	2	Q9, Q22
Dative/ double object	Verb type	Dynamic	✓	2	Q7, Q13
		Stative	×	2	Q11, Q27
	Word order	[V D.O. <i>to</i> I.O.]	✓	2	Q20, Q30
		[V <i>to</i> I.O. D.O.]	×	2	Q4, Q18
Filler				6	Q5, Q8 Q10, Q17 Q23, Q28
Total				30	

characterized by two contrasting subproperties. Since the constructions under examination pertained to telicity, the present study centered on linguistic expressions of completion of telic events. Completion of a telic event is perfective in terms of viewpoint aspect, which is expressed in simple past tense in English.⁵ Thus, all the test sentences in this task were in past tense. With respect to the number of questions, 2 sentences were chosen for each subproperty of the three constructions. Thus, there

selected for the following considerations. As English resultatives are not easily differentiated from depictives. According to Tenny (1994), the former can be predicated only of the direct object, while the latter can modify the subject or the object. Thus, the restrictive predication is the distinguishing feature of English resultatives. For verb-particles, verb-particles exhibit great resemblance to prepositions with respect to their forms. The characteristic property of the former is particle movement, while the latter are not subject to such a movement (Bolinger 1971). As regards datives/double objects, the constructions are characterized by different but fixed word order of the constructions (Baker 1979).

⁴ In Table 3-2, the tick '✓' signifies that the examples are grammatical in English, and the cross '×' indicates that the examples are ungrammatical.

⁵ According to Smith's two-component approach to aspect (1991, 1997), aspect is decomposed into viewpoint and situation aspect. The two levels of aspect will interact with each other in unmarked or marked fashions. Telic situations bear an unmarked relation to perfective viewpoint aspect.

were 24 trial sentences for the constructions (3 constructions $\times$ 2 properties $\times$ 2 subproperties $\times$ 2 sentences = 24). The grammaticality judgment task, plus 6 fillers, contained 30 sentences in total. These sentences were randomized in order in the questionnaire. For a comprehensive shape of the questionnaire, please refer to Appendix A.

As discussed in Section 2.1, English resultative constructions can convert an atelic event into a telic counterpart, if the main verb is felicitous with a resultative predicate, as in *The girl wrung the towel dry*. Hence, resultative constructions can apply to eligible dynamic verbs, such as *wring* and *hammer*, but not to any stative verbs, like *own* and *love*, for it is impossible to turn stative verbs into verbs that do denote a telic event in English. Based on the attribute, trial sentences with dynamic verbs like (1a) were considered grammatical, while examples containing stative verbs were ungrammatical, as in (1b).

- (1) a. The girl *washed* the soap out of her eyes.
b. *Linda *liked* him touched.

With respect to the property of predication, resultative expressions could be predicated only of an object but are not allowed to function as a matrix subject complement. Thus, trial sentences like (2a) were regarded as well-formed, in which the resultative expression was predicated of the object. In contrast, sentences like (2b) were ungrammatical due to the predication of the subject by the resultative complement.

- (2) a. The man shot *Irene* dead.
b. *George wrote his homework angry.

In the case of English verb-particle constructions, inapplicability to stative verbs and particle movement are characteristic of the constructions. Like resultatives, English verb-particle constructions also have the effect of telicity conversion, converting an atelic event into a delimited event, if the main verb is eligible. By the same token, verb-particle constructions are not congruent with stative verbs, for stative verbs are not felicitous with telic interpretations. Accordingly, test sentences with a felicitously dynamic verb like (3a) were taken to be grammatical, but combination of stative verbs and verb-particle constructions resulted in ill-formed sentences, as in (3b).

- (3) a. The man *knocked* down the boy.
b. *Mary *loved* up John.

Besides (in-)compatibility with verbs, the grammaticality judgment task also took particle movement into consideration. English verb particles can appear on either side of a direct object NP. Based on the property, test sentences like (4a) and (4b) were regarded as grammatical since *aside* and *out* were a verb particle in English and were subject to the particle movement.

- (4) a. Teresa put *aside* the magazine.
b. Janet blew the candles *out*.

In English dative/double object constructions, all the verbs are ditransitive and dynamic. Combination of any stative verbs and the constructions led to ungrammatical sentences, as in (5b).

- (5) a. The man *told* her daughter a story.
 b. *Jean *knew* Richard a ball.

As for their word order, it is fixed in both versions.⁶ When a direct object precedes an indirect object, the case marker *to* is obligatory for the latter. However, when a direct object follows an indirect one, the case marker is absorbed. Thus, trial sentences as in (6a) were grammatical, whereas retention of the case marker *to* in sentences like (6b) gave rise to an ill-formed sentence.

- (6) a. The man gave a toy *to his son*.
 b. *Charles sent *to Miss Li* a letter.

In addition to examining the subjects' comprehension of the three constructions, this study attempted to elicit production data from the subjects, which could be examined from a quantitative as well as a qualitative perspective and served as a source of information concerning the relationships of the three constructions. A free translation task was designed to obtain production data of the target constructions, i.e. translation from Chinese sentences into complete and corresponding English counterparts.

Table 3-3 shows a rough picture of the translation task. Similar to the grammaticality judgment task, the free translation task was targeted at the three telicity-related constructions in English and two main properties of each construction. The properties investigated in the translation task were duplication of those probed in the grammaticality judgment task: that is, applicability to dynamic verbs and

⁶ Dative constructions can alternate with double object constructions in various contexts. However, dative alternation is licensed by different constraints in English and Chinese (cf. Baker 1979, Pinker 1989, Liu 2006). In the present study, dative shift was not a property at issue. To factor out the effect of different constraints on dative alternation, all the ditransitive verbs selected in the grammaticality judgment task and the free translation task were dativizable verbs, i.e. ditransitive verbs that can apply both to dative constructions and to double object constructions in English.

Table 3-3. The free translation task

Construction	Property	No. of Qs	Q item
Resultative	Dynamic verb	2	Q2, Q9
	Predication of the object	2	Q6, Q14
Verb-particle	Dynamic verb	2	Q1, Q12
	Particle movement	2	Q4, Q15
Dative/ double object	Dynamic verb	2	Q3, Q8
	Word order	2	Q7, Q13
Filler		3	Q5, Q10, Q11
Total		15	

predication of the object in resultative constructions, compatibility with dynamic verbs and particle movement in verb-particle constructions, and congruity with dynamic verbs and characteristic word order in dative/double object constructions. Nonetheless, the ways the major properties were examined in the two tasks were slightly different in the following two respects. First, the grammaticality judgment task contained grammatical and ungrammatical English sentences, whereas the translation task focused on grammatical English sentences only. The second point consisted in the property of particle movement. As a verb particle is allowed to appear on either side of an object NP, it is likely that skewed occurrences of verb particles in their distribution might be elicited, which does not indicate the failure of the acquisition of the property. To avoid the possibility, sentences involving a pronoun were chosen in the translation task to elicit data of particle movement, since a verb particle conventionally appears after a pronoun, as the trial sentence in (7) illustrates.

(7) The woman found her key on the ground and picked it *up*.

In the translation task, as Table 3-3 shows, two sentences were designed for each property of the three constructions. Thus, there were 12 trial sentences for the target

constructions (3 constructions $\times$ 2 properties $\times$ 2 sentences=12) plus 3 fillers in total. As completion of a telic event is expressed in simple past tense in English, in the translation task, the perfective aspect marker *-le* in Chinese was used to elicit perfective past-tensed English translation (cf. Li and Thompson 1982).⁷ An example of the translation task is shown below.

- (8) Ta ti-kai-le na-shan men.
he kick-open-ASP that-CL door
→ He kicked the door open.

In the questionnaire, Chinese sentences, i.e. the Romanization in the first line in (8), were presented in the form of Chinese characters, and the glosses in the second line were not provided. The English sentence underscored in the third line was an expected answer to the Chinese test sentence. For a complete version of the questionnaire, please refer to Appendix B.

3.3 Procedures

This section falls into three parts. Section 3.3.1 presents a pilot study and provisional results in the study, and Section 3.3.2 concerns a formal study of the proposal. Scoring and statistical analysis of the findings in the present study are dealt with in Section 3.3.3.

3.3.1 Pilot Study

Based on Slabakova's (2001) research on Bulgarian learners' acquisition of

⁷ According to Li and Thompson (1982), there are four main aspect markers in Mandarin Chinese, i.e. *-le*, *-zhe*, *zai*, and *-guo*. Among them, the marker *-le* can denote perfective aspect in Chinese and thus was used in the translation task.

English telicity marking, a pilot study was conducted to investigate second language acquisition of three English telicity-associated constructions by Chinese speakers in Taiwan: resultative, verb-particle, and double object constructions (Ho et al. 2007).⁸ The pilot study employed a grammaticality judgment task to examine one property of the three constructions, i.e. stative versus dynamic verbs in resultative constructions, stative versus dynamic verbs in verb-particle constructions, and word order in dative/double object constructions.

Forty-two tenth graders recruited from Taipei Chenggong Senior High School partook in the pilot study. They were asked to judge the grammaticality of 16 sentences according to their intuition of the target language. One copy of the questionnaire was distributed to each subject, and 42 copies were garnered after the study. However, a few copies were regarded as invalid, for they were not completed. Finally, 30 valid copies out of 42 were analyzed for the pilot study.

In scoring, responses to the fillers were not analyzed. As regards the 12 trial sentences, a correct answer to each test sentence was given 1 point, while a wrong answer received 0 point.

The findings of the pilot study are presented in Table 3-4.

Table 3-4. The results of the pilot study

Construction	Mean score	SD
Resultative	.52	1.19
Verb-particle	.66	.95
Dative/double object	.91	.82

The mean scores of resultative constructions reached 0.52 point (SD=1.19), and those

⁸ The investigation reported in Section 3.3.1 was part of the study by Ho et al. (2007), which was presented at the conference EuroSLA-17 hosted by Newcastle University, UK. We wish to acknowledge the support by a travel grant from the National Science Council of Taiwan [NSC 96-2922-I-003-020] for the research presented there.

of verb-particle constructions were 0.66 point ($SD=.95$). The subjects performed much better on dative/double object constructions ($Mean=.91$, $SD=.82$) than the other two. It is suggested that the three constructions exhibit varying degrees of difficulty for the subjects: resultative constructions are the most challenging, dative/double object constructions are the least, and verb-particle constructions sit midway between them. Also, the standard deviation of the three constructions was positively correlated with their respective mean scores, implying that the more challenging the construction was, the larger variation the subjects' performance displayed and the fewer subjects had acquired the construction.

Several limitations are noted in the pilot study. The pool of the subjects was too small, since 30 subjects might not be representative enough, and thus the results of the pilot study might not lead to a generalization regarding the question at issue. Moreover, in the pilot study, based on Slabakova's (2001) research, only one property of the three telicity-related constructions was examined. Investigation of one property of the constructions might not be adequate, and the results might not be generalized concerning the success or failure of the acquisition of the target constructions. Furthermore, the pilot study was limited to one comprehension task. Different tasks might bring about diverse findings. Thus, a production task was required for the exploration and avoidance of potential task effects. Also, production data could be analyzed quantitatively as well as qualitatively. A qualitative study might provide different answers to the issue as to whether the three constructions belong to the same family, in conjunction with a quantitative study.

3.3.2 Formal Study

Given the inadequacies of the pilot study, the formal study aims to conduct a comprehension task and a production task and to investigate the L2 acquisition of two

major properties of the three telicity-related constructions in English.

Three classes of tenth graders recruited from Taipei Jingmei Girls' Senior High School were asked to participate in the formal study. The study was carried out in the classroom of the subjects one class after another. One copy of the questionnaire was distributed to each student in the classes. Before the subjects started to do the questionnaire, they were informed that the questionnaire would be used only for academic research and that the information gathered during the study would be kept confidential to a great extent. The questionnaire consisted of a free translation task followed by a grammaticality judgment task. To circumvent potential practice effects, the subjects were asked to start with the translation task before the grammaticality judgment task.

In the translation task, there were 15 Chinese sentences, which were randomized in order and presented in the form of Chinese characters. At the beginning of the task, a clear and succinct instruction was provided in Mandarin Chinese, in which the subjects were clearly instructed to translate the Chinese sentences into complete and corresponding English counterparts. It was explicitly indicated that the meaning of each word in the test sentences should be translated. To make the instruction more accessible and easier to follow, one pair of translated English sentences with no reference to the target constructions were illustrated immediately below the Chinese instruction, one well-formed and one ill-formed English translation, as in (9). The sentence in (9a) was a good exemplar of the English translation, whereas the sentence in (9b) displayed a bad translation since the conjunction *ranhou* 'then' was not translated.

(9) Ta du-le yi-ben shu, ranhou ba ta fang zai na-zhang zhuo-shang.
he read-PERF one-CL book then BA it put at that-CL desk-on

→ a. He read a book and then put it on the desk. (good translation)

b. He read a book, put it on the desk. (bad translation)

After the subjects finished the translation task, they were asked to continue the grammaticality judgment task. A clear and brief Chinese instruction was given before the question items. In the instruction, the subjects were asked to read a list of 28 randomized written sentences in English at their own pace and to make grammaticality judgment on the sentences based on their intuition of English without rethinking and editing. They were instructed to indicate a tick ‘✓’ before grammatical sentences and a cross ‘×’ before ungrammatical ones. One pair of examples were also offered right below the Chinese instruction as exemplification, as in (10). The sentence in (10a) was regarded as grammatical and thus was indicated as correct with a tick beside it, while the sentence in (10b) lacked a conjunction *than* and was considered ungrammatical.

(10) a. (✓) He liked the novel more than the magazine

b. (×) Angela liked Brian more Johnson.

It took one subject approximately 30 minutes to complete the two tasks. Once the entire questionnaire was completed, each copy was collected. After the survey, the subjects were given a small present as a reward of their kindly participation and contribution.

3.3.3 Scoring and Statistical Analysis

The two tasks employed in this study consisted of both trial sentences and fillers.

Responses to the trial sentences were analyzed, but responses to the distractors were not considered. In the grammaticality judgment task, a response was either an indication of a grammatical sentence or an indication of an ungrammatical sentence. A correct response received 1 point, and a wrong response received 0 point. Scores were counted separately for different research questions.

In the case of the translation task, the scoring was not as clear-cut as that in the grammaticality judgment task. A general guideline for the scoring of the translation task is shown in Table 3-5.

Table 3-5. A general guideline for the scoring of the translation task

Error type	Deduction of points
Tense	-0.5
S-V agreement	-0.5
Word order	-0.5
No target construction/element elicited	-1

As the three target constructions pertained to telicity and completion of a telic event was perfective, the expected answers were in simple past tense in English. Thus, 0.5 point would be deducted for answers expressed in present tense. Besides, S-V disagreement and wrong word order would each lead to the deduction of 0.5 point, and no elicitation of target constructions or elements would receive 0 point. The subtraction of points would accumulate for each test question (0-1 point) as more than one error type was committed. As illustrated in (11), different answers to the Chinese resultative sentence would be given 1, 0.5, or 0 point, depending on the error types elicited.

(11) Ta ti-kai-le na-shan men.

he kick-open-PERF that-CL door

- a. He kicked the door open. (good translation: 1)
b. He kicks the door open. (tense: 0.5)
c. *He kick the door open. (S-V agreement: 0.5)
d. *He kicked open the door. (word order: 0.5)
e. He kicked the door. (no elicitation of the construction: 0)

As for verb-particle constructions, answers like (12a)-(12b) received 1 point, while those like (12c)-(12e) would receive 0.5 or 0 point.

(12) Na-ge xuesheng na-zou-le na-ben shu.

that-CL student take-away-PERF that-CL book

- a. The student took away the book. (good translation: 1)
b. Ther student took the book away. (good translation: 1)
c. The student takes away the book. (tense: 0.5)
d. *The student take away the book. (S-V agreement: 0.5)
e. The student took the book. (no elicitation of the construction: 0)

In the case of dative/double object constructions, the distribution of the two objects was the focus of the analysis, in addition to the main verb and the tense. Sentences like (13a)-(13b) were good translation and received 1 point, while ill-formed translation, as in (13b-c) would obtain 0.5 or 0 point.⁹

⁹ Since all the ditransitive verbs chosen in the present study were dativizable verbs, both dative and double object constructions were taken to be good translation, if grammatical and felicitous.

(13) Mali ji-gei-le wo yi-feng xin.

Mary send-GEI-PERF me one-CL letter

- a. Mary sent a letter to me. (good translation: 1)
b. Mary sent me a letter. (good translation: 1)
c. Mary sends a letter to me. (tense: 0.5)
d. *May send a letter to me. (S-V agreement: 0.5)
e. *Mary sent to me a letter. (word order: 0.5)
f. *Mary sent a letter and me. (no elicitation of the construction: 0)

After the scoring, all the collected data were processed by the SPSS package. The descriptive statistics procedure was performed to yield each experimental group's arithmetic mean and standard deviation on each construction and property. Also, the one-way analysis of variance (ANOVA) was executed to examine the extent of differences between the subject groups, and the paired-samples T test the degree of differences between the three telicity-related constructions, properties, and task effects. Furthermore, correlation coefficient (r) was utilized to discover the relationships of the three constructions in acquisition.

3.4 Summary of Chapter Three

This study capitalized on two experimental tasks, one grammaticality judgment task and one free translation task, to avoid potential methodological effects on the one hand and to investigate the issue of the sequence of linguistic comprehension and production on the other hand. The production task was conducted before the comprehension task to circumvent possible practice effects. In the research design, 2 properties were chosen for each construction, with one property in common, to probe into the interplay of construction effects and property effects. Based on the two tasks,

it was hoped that this empirical study, adopting a quantitative and a qualitative approach, could shed new light on the relationships of the three telicity-related constructions in English.

CHAPTER FOUR

RESULTS AND DISCUSSION

In this chapter, the results of this study are presented in the following four sections. Section 4.1 deals with the role that constructions themselves play in the L2 development and the relationships of the telicity-related constructions. In Section 4.2, close attention is concentrated on the effect that constructional properties exert on the L2 acquisition of the three constructions. Section 4.3 addresses the issue of methodological effects, and Section 4.4 delineates unexpected patterns elicited in the production data. Throughout this chapter, the variable of L2 proficiency is discussed vis-à-vis construction effects, property effects, and task effects.

4.1 Construction Effects and Clustering

The foremost research question the present study addresses is the L2 acquisition of the three telicity-related constructions, resultatives, verb-particles, and datives/double objects. Specifically, the issue concerns whether the three constructions are acquired approximately concurrently, sequentially, or in a piecemeal fashion—the relationships of the constructions.

In the literature, Snyder (1995) notes semantic similarities of the three constructions in English such that they all denote telic interpretations. On the one hand, Snyder puts forth a null telic morpheme to group the three constructions together, providing a compositional analysis of the telic semantics of the constructions. On the other hand, he resorts to the complex verb approach to accounting for the syntactic structures of the null telic morpheme and the three related constructions. In light of Snyder's telic proposal, the present study links the three constructions jointly under investigation.

In Chapter Two, the three telicity-related constructions in English and Chinese have been compared and contrasted. As summarized in Table 2-1, English and Chinese dative/double object constructions display a similar constraint on the verb types; the constructions are incompatible with any stative verbs in the two languages. Structurally, English dative/double object constructions [V D.O. *to* I.O.] / [V I.O. D.O.] are available in Chinese and are parallel to Chinese counterparts [V D.O. *gei* I.O.] / [V I.O. D.O.]. The difference observed between the two languages lies in the fact that Chinese dative constructions have another variant [V *gei* I.O. D.O.], which exhibits reverse word order to that of the English counterpart.¹

On the contrary, verb-particle and resultative constructions demonstrate relatively a higher degree of differences between English and Chinese than datives/double objects. The verb-particle constructions in these two languages differ in their structures and verb types. English particles follow the main verb and they can appear on either side of the direct object, while Chinese particles form a compound with the action verb and they are not subject to particle movement. Besides, English verb-particles are incongruent with any stative verbs, whereas some Chinese counterparts can apply to this verb type. As regards resultative constructions, English and Chinese resultatives also display different morphosyntactic structures; the action verb and the resultative expression come apart in the former but are compounded together in the latter. Also, English resultative constructions are incompatible with any stative verbs and are predicated only of the direct object. Chinese, in contrast, allows some stative verbs to appear in resultative constructions, which are more flexible in predication of the direct object or the subject than the English counterparts.

¹ Another difference between English and Chinese dative/double object constructions is their constraints on dative alternation. However, dative shift is not the research focus of the present study. To factor out the effect of different constraints on dative alternation, all the ditransitive verbs under investigation were dativizable verbs, i.e. ditransitive verbs that can apply to both types of constructions.

On the whole, dative/double object constructions display a relatively lower degree of L1-L2 differences than verb-particles and resultatives, and the latter two constructions are quite alike with respect to the extent of variations between the languages under consideration. Although the three English constructions purportedly form a big family of telicity-related constructions, the different degrees of L1-L2 similarities and differences may lead to varying positive/negative L1 transfer and contribute to the sequential acquisition of the three constructions, as predicted in (1).

(1) Prediction of the acquisition sequence of the constructions based on L1 transfer

DATIVES/DOUBLE OBJECTS > VERB-PARTICLES = RESULTATIVES

It is predicted that dative/double object constructions will be acquired earlier by our Chinese learners of L2 English than verb-particle and resultative constructions and that the latter two constructions, due to their comparable differences between L1 and L2, will be acquired around the same time.

The present study drew on two experimental tasks to collect pertinent data, and the subjects of this study were regrouped into three different levels of English proficiency. To paint a holistic picture of the acquisition of all the constructions, English proficiency and task effects were not considered for the time being. Figure 4-1 below shows the subjects' overall performance on the three telicity-related constructions. The subjects as a whole performed the best on dative/double object constructions (Mean=.85, SD=.14), while they did the worst on resultative constructions (Mean=0.49, SD=.14). Their mean scores on verb-particle constructions reached 0.69 point (SD=.15), lying in between those of the former two constructions.

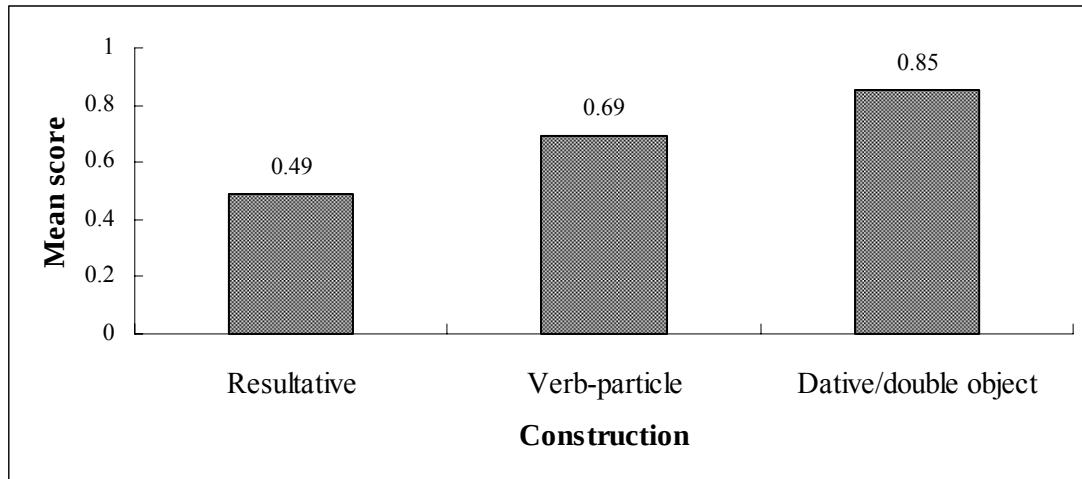


Figure 4-1. The overall results on the telicity-related constructions

The statistical significance of the differences among the three constructions is presented in Table 4-1.

Table 4-1. Mean differences between the overall results on the constructions

Construction		<i>p</i>
Resultative	Verb-particle	.000**
	Dative/double object	.000**
Verb-particle	Dative/double object	.000**

Note: The mean difference is significant at the .05 level (* $p < .05$, ** $p < .01$).

The mean differences between any two of the three constructions arrived at the statistically significant level ($p = .000^{**}$ throughout). As the results suggest, the three telicity-related constructions display divergent degrees of complexity and difficulty; thus, construction effects on the second language acquisition were borne out. The L2 acquisition of the three constructions exhibit the following sequence: dative/double object constructions precede verb-particle constructions, which in turn precede resultative constructions. The findings corresponded to our prediction of the acquisition of dative/double object constructions, but do not accord with that of verb-particle and resultative constructions.

The present study proposes that although resultatives, verb-particles, and datives/double objects belong to the family of telicity-associated constructions, the acquisition of the constructions is underlain by the acquisition of the subcategorization frame of each family member. For dative/double object constructions, the subcategorization frame is [V, ____ NP NP], in which the two postverbal NPs are a constant (e.g. Haegeman 1994, Van Valin 2001). In contrast, the subcategorization frame of resultative constructions involves a variable X, as in [V, ____ NP X], where the variable stands for different forms of resultative complements, such as AP, PP, and NP (see Carrier and Randall 1992).² As for verb-particle constructions, particles vary according to verbs. Verbs in the constructions subcategorize for an NP and a variable X, where X represents different particles, such as *on* in *put...on* and *away* in *take...away*. Among these three constructions, both resultative and verb-particle constructions contain a variable X, whereas dative/double object constructions are typified by a constant in a salient frame. The marked variable may augment structural complexity of verb-particle and resultative constructions, which leads to the later acquisition of the two constructions. On the other hand, the fixed frame of constant NP-NP constructions may account for the earlier acquisition of dative/double object constructions.

As the subcategorization frames entail, verb-particle and resultative constructions take a transitive verb. To acquire the two constructions, the subjects had to differentiate phrasal verbs from non-phrasal verbs, in addition to the subcategorization frames. Verb-particle constructions take a phrasal verb (see Quirk et al. 1985, Biber et al. 1999), while resultative constructions take a non-phrasal verb.

² According to Carrier and Randall (1992), although resultative complements come in different forms, AP, PP, and NP, they are not necessarily substitutable in all the resultative sentences. Since the c-selection cannot satisfactorily account for the restriction on resultative XPs, Carrier and Randall propose that the verb itself s-selects the resultative phrase, which must therefore be an argument of the verb. Based on Chomsky's (1986) assumption that argumenthood requires sisterhood, they put forth a ternary analysis that the verb, the postverbal NP, and the resultative XP must all be sisters.

The marked nature of phrasal verbs and the addition of resultative complements to ordinary non-phrasal verbs may also give rise to the greater complexity of verb-particle and resultative constructions than that of dative/double object constructions.

So far, the much higher scores on dative/double object constructions than the other two constructions have been discussed in terms of L1 transfer and L2 structural complexity. However, these variables could not satisfactorily explain our subjects' contrasting performance on verb-particle and resultative constructions. In the literature, some studies have suggested the role of linguistic inputs in language acquisition (e.g. Ioup 1984, White et al. 1991, Trahey and White 1993, Elbers 2000, Hara 2007). In Taiwan's secondary school English education, verb-particle constructions are one of the constructions at which English curricula are targeted. English textbooks provide adequate inputs for the acquisition of verb-particle constructions. However, no trace of these inputs bearing on resultatives could be identified in the high school English formal teaching material. Perhaps with the trigger of verb-particle inputs, the subjects made relatively faster progress toward the acquisition of verb-particle constructions than that of resultative constructions in their interlanguage system. This holds true of the earliest acquisition of the dative/double object constructions, which are introduced in the high school English textbooks. Adequate L2 inputs may be a trigger for the acquisition of the constructions as well.

In a nutshell, the earlier acquisition of English dative/double object constructions than that of the other two constructions could be ascribed to the lower L2 complexity, the higher saliency of the subcategorization frame, and positive L1 transfer. On the other hand, the absence of L2 inputs might account for the later acquisition of resultative constructions than verb-particles.

When the variable of L2 proficiency was considered, the results of the

acquisition of the three constructions consistently approximated to the foregoing overall findings, as shown in Figure 4-2.

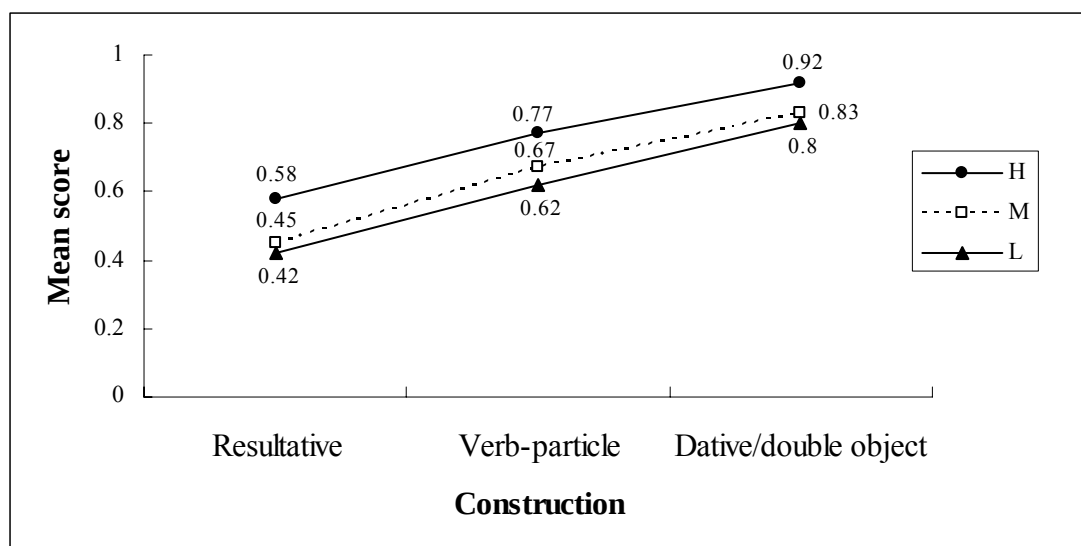


Figure 4-2. Each group's scores on the telicity-related constructions

The higher proficient learners of English received the highest mean score on dative/double object constructions (Mean=.92, SD=.05) and the lowest score on resultative constructions (Mean=.58, SD=.14), with the mean score of the verb-particle constructions being midway between them (Mean=.77, SD=.13). The middle and lower groups demonstrated a similar acquisition order of the three constructions: dative/double object constructions (Mid: Mean=.83, SD=.13; Low: Mean=.80, SD=.10) were followed by verb-particle constructions (Mid: Mean=.67, SD=.13; Low: Mean=.62, SD=.15), which in turn were followed by resultative constructions (Mid: Mean=.45, SD=.12; Low: Mean=.42, SD=.12). The variances between the subjects' performance on the three constructions are tabulated in Table 4-2. Table 4-2 indicates that the H group performed significantly differently than the M and L groups on the three constructions ($p < .05^*$ throughout). On the contrary, the M and L groups showed no significant differences on the three telicity-related

Table 4-2. Mean differences between the experimental groups' scores on the constructions

Group		Resultative	Verb-particle	Dative/ double object
H	M	.000**	.02*	.001**
	L	.000**	.000**	.000**
M	L	.59	.25	.60

Note: The mean difference is significant at the .05 level (* $p < .05$, ** $p < .01$).

constructions ($p > .05$ throughout). The results showed that the higher English proficient group outperformed the middle and lower proficient groups at the statistically significant level and that the M and L groups were at the similar developmental stage. Thus, the variable of L2 proficiency in acquisition is substantiated.

Basically, the results are in tune with Slabakova's (2001) findings with respect to the acquisition of the three constructions. In the present study, all the three groups demonstrated a parallel tendency on the acquisition order of the three constructions (datives/double objects > verb-particles > resultatives). Slabakova reported that the advanced and high-intermediate Bulgarian groups performed better on double object constructions than verb-particles and resultatives and similarly on the latter two constructions (double objects > verb-particles = resultatives), while the low-intermediate learners performed mostly at chance, with the exception of higher accuracy on double objects. According to Slabakova, there are no corresponding resultative, verb-particle, and dative/ double object constructions in Bulgarian. In light of the identical constructions and different L1 subjects under investigation, it is suggested that the L2 complexity of the three constructions is a universal tendency.

In light of the consistent acquisition sequence of the three constructions shown by the holistic results and the between-group analysis, it is worthwhile to probe into

the relationships of these constructions and embark on a regression analysis on the pertinent individual subjects' data. Table 4-3 shows the correlation coefficient of the three constructions and the statistical significance.

Table 4-3. Correlations of the telicity-related constructions

Construction		<i>r</i>	<i>p</i>
Resultative	Verb-particle	.32**	.001**
	Dative/double object	.42**	.000**
Verb-particle	Dative/double object	.40**	.000**

Note: The correlation is significant at the .05 level (* $p < .05$, ** $p < .01$).

It was indicated that the three constructions were significantly correlated ($p < .01$ ** throughout). To cope with the relationships of the telicity-related constructions, individual subjects' data were examined further. Those who successfully acquired each of the three constructions were singled out for the in-depth analysis. The criterion for successful acquisition of one construction was 75% accuracy both on the grammaticality judgment task and on the free translation task (Mean=.75).³ Figure 4-3 below shows the number of the subjects who demonstrated successful acquisition of each construction. As Figure 4-3 exhibits, the number of the successful acquirers of the constructions accorded with the observed acquisition sequence: resultatives (7), verb-particles (34), and datives/double objects (85).

Based on these subjects' data, this study looked into their acquisition of one telicity-related construction in relation to the other two constructions. For the seven successful learners of resultatives, five of them also demonstrated successful acquisition of verb-particle constructions (71.4%), and all the seven subjects showed a perfect command of dative/double object constructions as well (100%). It was

³ According to Slabakova (2001:167-168), the criterion of 75% accuracy as the demonstration of certain knowledge at issue achieved the statistically significant level, where the subjects' performance 'would be different from chance at $p = .02069$ '.

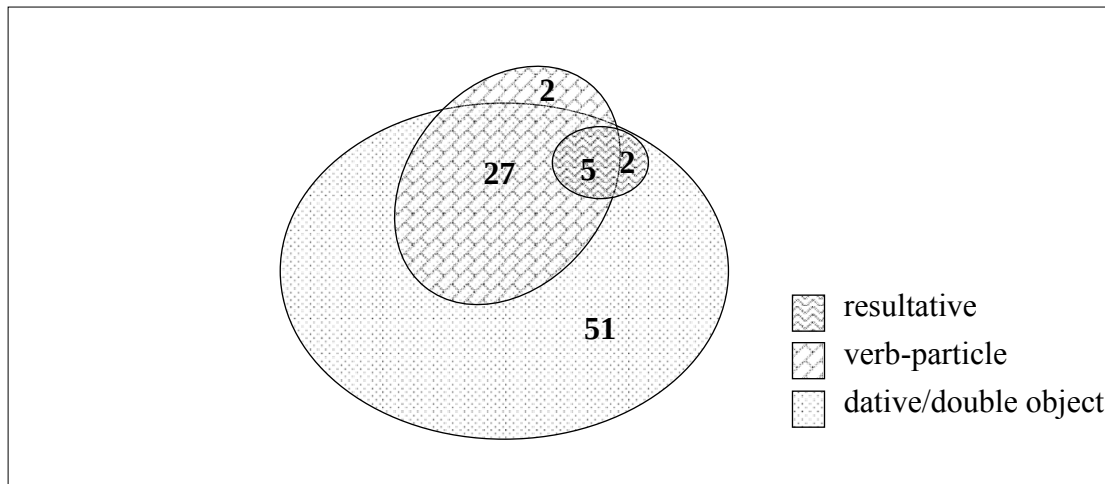


Figure 4-3. The acquisition of one construction vis-à-vis the other two constructions

suggested that the success in the acquisition of resultative constructions would well predict successful acquisition of verb-particle constructions and that of dative/double object constructions.

Of the 34 successful learners of verb-particles, 32 subjects displayed successful acquisition of dative/double object constructions (94.1%), and only five learners succeeded in acquiring resultative constructions (14.7%). The results indicated that verb-particle constructions were a significant predictor of dative/double objects but not of resultatives.

With respect to the successful acquires of datives/double objects, 32 learners demonstrated their success in the acquisition of verb-particles (37.7%), and far fewer subjects met the acquisition criterion of resultatives (8.2%). The findings showed that although dative/double object constructions were well predicted by verb-particles and by resultatives, they were not a significant predictor of the latter two constructions.

As the consistent results showed, the three telicity-related constructions were found significantly correlated and exhibited a difficulty hierarchy, with resultatives as the hierarchically highest construction and datives/double objects as the lowest, as formulated in (2).

(2) The difficulty hierarchy of the telicity-related constructions

RESULTATIVES > VERB-PARTICLES > DATIVES/DOUBLE OBJECTS

On the one hand, the difficulty hierarchy was negatively correlated with the acquisition order. The higher the constructions were in the hierarchy, the greater degree of difficulty they would exhibit and the later they would be acquired. On the other hand, the hierarchically higher constructions were found to be a significant predictor of the lower constructions, but not vice versa. The success in the acquisition of resultatives could predict the successful acquisition of verb-particles and of datives/double objects. Verb-particles were also found to be a significant predictor of datives/double objects but not of resultatives. Datives/double objects were well-predicted by verb-particles and by resultatives, but they could not predict the latter two constructions.

The results of individual scores were to some extent different from the analysis of individual scores by Slabakova (2001). Slabakova reported that each one of the three constructions was significantly well predicted by the other two constructions. Despite the differences, the present study chimes in with Slabakova's in the sense that resultatives, verb-particles, and datives/double objects were significantly correlated and exhibited a predictive relationship. Also, this study indirectly lends empirical support to the theoretical proposal that the three constructions bear a close relationship and should be treated as the same family members (cf. Hoekstra 1988, Snyder 1995).

4.2 Property Effects

After the foregoing discussion about the construction effects, in this section, close attention is switched to the interplay of construction effects and property effects

on the L2 acquisition of the three constructions. In this study, two properties of each construction were examined. One property pertained to verb types, and the other property concerned predication by resultatives, particle movement, and word order of datives/double objects. The subjects' acquisition of these properties is shown in Figure 4-4.

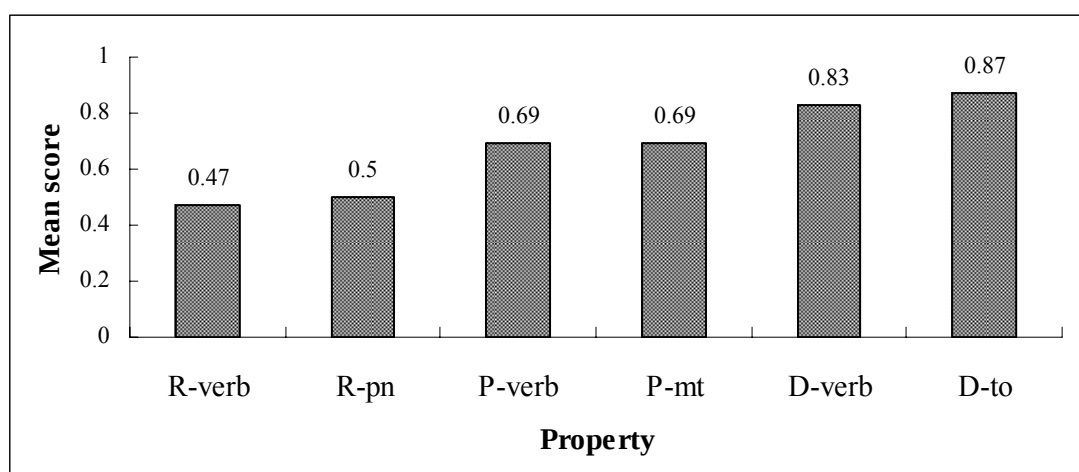


Figure 4-4. Mean scores on different properties of the constructions

When property effects were examined vis-à-vis constructions effects, it was found that the subjects performed significantly better on both properties of dative/double object constructions than those of the other two constructions ($p=.000^{**}$ throughout) and that their performance on the properties of verb-particle constructions was evidently better than those of resultative constructions ($p=.000^{**}$ throughout). As Figure 4-4 shows, the subjects consistently performed the best on dative/double object constructions, the next on verb-particle constructions, and the worst on resultative constructions, irrespective of which properties were considered. It indicated that construction effects might override property effects such that the acquisition of any properties was essentially contingent on their corresponding constructions.

The results confirmed the difficulty hierarchy established in (2), in which resultatives were the hierarchically highest constructions and datives/double objects the lowest. As construction effects could overrule property effects and the hierarchically higher constructions exhibited greater degrees of difficulty than the lower counterparts, any properties of the hierarchically higher constructions would be acquired later than those of the lower ones, as Figure 4-4 shows. In addition to corroborating the hierarchy phenomenon, the results echo the syntactic concept of linear precedence. The structurally more dominant nodes constantly take precedence over the lower ones in the linear order. That is, in the difficulty hierarchy, any properties of the hierarchically higher constructions consistently precede those of the lower constructions on the degree of complexity.

The data presented so far displayed esthetically consistent patterns concerning the relationships of the three telicity-related constructions in L2 acquisition. It merits deeper exploration whether the consistent relationships would hold true when English proficiency as well as property effects interacted with construction effects. Figure 4-5 shows the acquisition of the two properties of each construction by the three experimental groups.

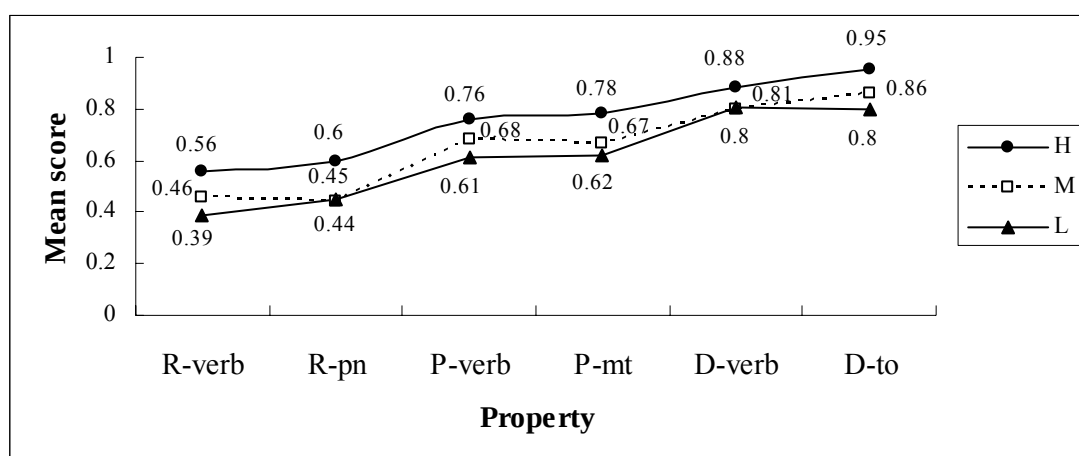


Figure 4-5. Each group's scores on different properties of the constructions

Strikingly, all the three groups exhibited parallel patterns of the acquisition of the three telicity-related constructions. The findings indicated that our subjects performed significantly better on dative/double object constructions than the other two constructions and better on verb-particles than resultatives, regardless of the properties examined ($p < .05^*$ throughout). It is evidenced that construction effects could override property effects throughout different L2 proficient levels and that the consistent relationships of the three constructions could be substantiated as well.

In the within-construction analysis, the group of higher English proficiency performed similarly between the two properties of resultative constructions ($p = .24$) as well as between those of verb-particle constructions ($p = .63$). However, they performed significantly differently on the two properties of dative/double object constructions ($p = .001^{**}$). The M and L groups demonstrated no significant differences between the two properties of the three constructions (resultatives: $p = .51$ and $p = .20$, respectively; verb-particles: $p = .74$ and $p = .84$, respectively; datives/double objects: $p = .06$ and $p = .56$, respectively), indicating that properties might play a marginal role in influencing the L2 acquisition of each construction.

With respect to the factor of English proficiency, group differences on the properties of the telicity-related constructions are shown in Table 4-4.

Table 4-4. Group differences on different properties of the constructions

Groups		R-verb	R-pn	P-verb	P-mt	D-verb	D-to
H	M	.09	.000**	.17	.06	.006**	.02*
	L	.001**	.001**	.003**	.004**	.02*	.000**
M	L	.23	.96	.28	.62	.92	.17

Note: The mean difference is significant at the .05 level ($*p < .05$, $**p < .01$).

It was found that the H and M groups performed significantly differently on three properties, i.e. predication by resultatives ($p = .000^{**}$), verb types of datives/double

objects ($p=.006^{**}$), and word order of datives/double objects ($p=.02^{*}$). Also, marked differences were observed between the H and L groups on all the properties at issue ($p<.05^{*}$ throughout). However, no significant differences were obtained between the M and L groups on the six properties ($p>.05$ throughout). The findings showed that the M and L groups were at a similar developmental stage and that English proficiency was a determinant in affecting our subjects' acquisition of the telicity-related constructions. The more proficient the subjects were, the better they performed on the three constructions. The greater difference their English proficient levels displayed, the larger divergence their performance demonstrated.

In the six properties discussed above, there was an identical property (i.e. verb types) examined throughout the three telicity-related constructions. With respect to this property, the acquisition of the three constructions also exhibited the same trend as observed so far. This property was concerned with two contrasting subproperties, i.e. dynamic versus stative verbs. To avoid a cursorily-drawn conclusion, this study stepped further to investigate the relationships of the three constructions with regard to the property in common. Given the fact that the telicity-related constructions are incompatible with any stative verbs, this study drew on the grammaticality judgment task to investigate the subjects' competence on the property, i.e. grammatical dynamic verbs and ungrammatical stative verbs. Figure 4-6 below presents the subjects' accuracy on the grammaticality judgment of the three constructions with respect to dynamic versus stative verbs.

At first glance, the results on stative verbs shown in Figure 4-6 seemed to be at odds with the formerly observed tendency, although the results on dynamic verbs still demonstrated a consistent trend. On the one hand, the subject were significantly better in judging grammatical dynamic verbs of datives/double objects than those of verb-particles and resultatives ($p=.000^{**}$ both), and they performed significantly

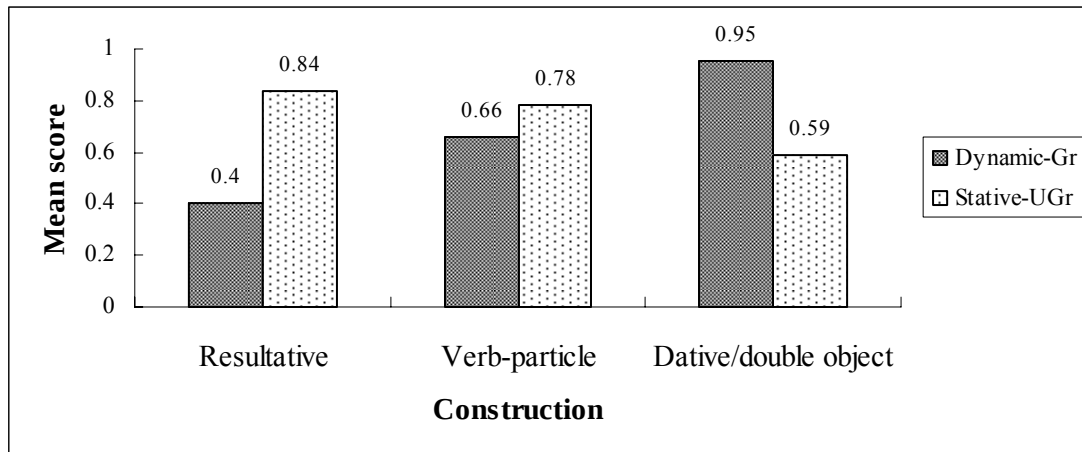


Figure 4-6. Accuracy on the grammaticality judgment of different verb types

better on grammatical dynamic verbs of verb-particles than those of resultatives ($p=.000^{**}$). Nonetheless, the findings concerning ungrammatical stative verbs exhibited a reverse pattern. The subjects' judgment was significantly worse on ungrammatical stative verbs of datives/double objects than those of verb-particles and resultatives ($p=.000^{**}$ both) although their performance on those of the latter two constructions was not significantly different ($p=.13$).

Since the data on the grammatical dynamic verbs still exhibited the corresponding pattern to that observed above, it was speculated whether the inverse tendency on ungrammatical stative verbs might stem from the artificial selection of the test verb items in the methodological design. Fortunately, when this study probed into the raw data of dative/double object constructions, it was found that the subjects performed unanimously better on one verb item than the other, as shown in Table 4-5.

Table 4-5. The two ungrammatical stative verb items in datives/double objects

Stative verb	Mean score	SD	<i>p</i>
possess	.28	.45	.000**
know	.90	.29	

Note: The mean difference is significant at the .05 level (* $p<.05$, ** $p<.01$).

The far lower score on the stative verb *possess* than that of the verb *know* might result from the fact that the subjects were not familiar with the former. Given the distinct discrepancy between the mean scores of the two verb items and the subjects' overall consistent performance on datives/double objects, it seemed that the skewed results on ungrammatical stative verbs could be attributed to the poor selection of the test items. Figure 4-7 shows the results with the data on the item *possess* removed.

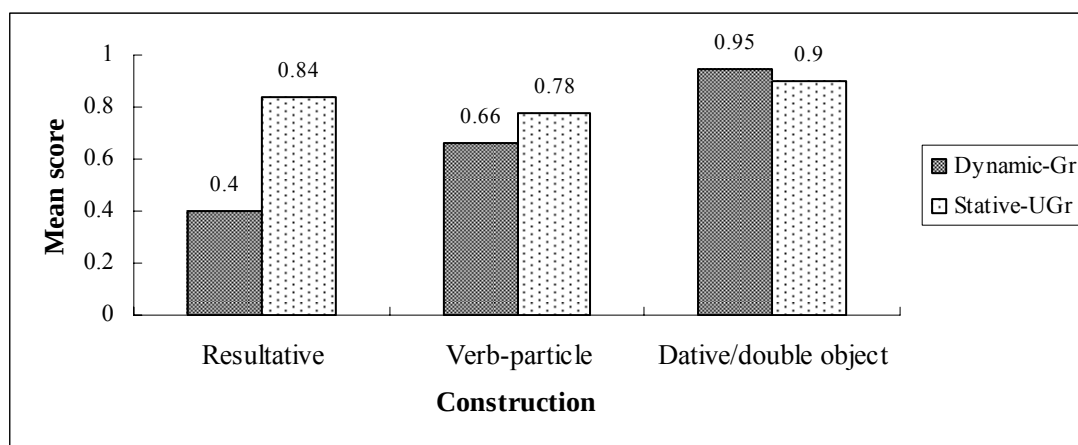


Figure 4-7. Accuracy on the grammaticality judgment of different verb types (Reanalysis)

It turned out that the subjects performed better on ungrammatical stative verbs of datives/double objects than on those of verb-particles ($p=.003^{**}$). Nonetheless, they were not better at judging ungrammatical stative verbs of verb-particles than those of resultatives. Besides, the differences between verb-particles and resultatives did not arrive at the statistically significant level ($p=.13$), and this was the case with those between datives/double objects and resultatives ($p=.06$). Thus, the findings on resultative constructions still posed a challenge for the above-observed trend of the acquisition of the three constructions.

However, when the results on grammatical dynamic verbs of resultatives were compared with those on ungrammatical static counterparts, the comparison pointed to

an inclination of the subjects. The score on the judgment of grammatical resultative sentences only reached 0.4 point, indicating that the subjects tended to indicate ‘incorrect’ for grammatical resultative sentences. On the other hand, the score on the judgment of ungrammatical resultative ones was twice as high as the former (Mean=.84), which also implied that the subjects tended to consider ungrammatical resultatives incorrect sentences. Then, the results implied that the subjects had a propensity to reject the sentences involving resultative constructions. This tendency was also observed on the other test property of resultatives, namely predication of the object versus the subject. In predication, resultatives can be predicated only of the object; thus, sentences in which a resultative complement modifies the subject are ungrammatical. It was found that the subjects judged grammatical resultative sentences (with predication of the object) around chance (Mean=.57, SD=.34) and were inclined to reject ill-formed counterparts (Mean=.72, SD=.33). It was also suggested that the subjects performed poorly on resultatives. In the case of datives/double objects, in contrast, the subjects performed much better on the grammaticality judgment task. The scores on the judgment of grammatical and ungrammatical verb types of the constructions surpassed 0.9 point, showing that the subjects were accurate at accepting grammatical dative/double object sentences and rejecting ungrammatical ones. As regards verb-particles, the subjects’ mean scores lay in between those on the other two constructions. By and large, the subjects’ inclination to reject resultatives suggested that they performed the worst on the constructions, which might result from the fact that English resultatives were novel and difficult constructions to them. Hence, the findings reported here are still generally in concert with the above-observed trend. The overall parallel results favor and lead to the conclusion that the three telicity-related constructions are consistently correlated and that construction effects essentially override property effects on the L2

acquisition of the three constructions.

Last, our attention is turned to other within-construction analyses. In the case of particle movement, the subjects performed significantly better on V-NP-Particle constructions (Mean=.83, SD=.29) than V-Particle-NP constructions (Mean=.69, SD=.31, $p=.001^{**}$). This L2 result is in accordance with Snyder and Stromswold's (1997) L1 finding that V-NP-Particle constructions substantially emerge before V-Particle-NP in child language acquisition. With respect to word order of datives/double objects, when the direct object is followed by the indirect one, the case marker *to* should obligatorily appear before the latter. When the two postverbal NPs are in reverse order, the retention of the case marker before the indirect object will give rise to ungrammatical sentences. It was found that the subjects performed better in judging grammatical V-D.O.-*to*-I.O. constructions (Mean=.97, SD=.14) than ungrammatical V-*to*-I.O.-D.O. counterparts (Mean=.84, SD=.26). In spite of the high scores on ungrammatical constructions, the results demonstrated significant differences between the subjects' judgment of grammatical versus ungrammatical sentences ($p=.000^{**}$), indicating that negative L1 transfer takes effect to some extent, since Chinese licenses V-*to*-I.O.-D.O for a large number of ditransitive verbs.

4.3 Task Effects

There has been a voluminous literature on the issue of methodological effects as well as the sequence of linguistic comprehension and production in acquisition (Janson and Schulman 1983, Tarone 1985, Brown 1996, Wu and Wen 1997, McKee et al. 1998, Rothman 2007, among others). As far as methodological effects are concerned, researchers like Chaudron (1983) claim that the data elicited by a grammaticality judgment task generally epitomize those observed from natural language use, arguing against potential task effects. However, several studies have

reported task-induced variations (e.g. Larson-Freeman 1976, Lococo 1976, Hyltenstam 1984). Tarone (1985), for instance, investigated the effects of different tasks on the production of various morphological and syntactic forms in English. It was found that the subjects performed differently across the tasks.

Moreover, it is conventionally assumed that comprehension precedes production in acquisition (McCarthy 1954) and that comprehension and production exhibit a relationship of the continual mutual modification (e.g. Brown 1996). Empirically, some studies have verified the assumption. For example, Wu and Wen (1997) reported that the subjects in their study performed better on the grammaticality judgment task than on the translation task. However, some experimental results point to another direction. Janson and Schulman (1983) found that Swedish subjects from Lycksele could differentiate two high mid vowels in their production but had difficulty distinguishing them in perception. In the acquisition of syntax, Ehri (1976) observed that comprehension of comparative constructions was subsequent to production of the constructions. McKee et al. (1998) also pointed out that relative clauses emerged around the age of 2 to 3 in production, while the structures were mastered later in comprehension (at the age of 5 or 6).

Given potential task-induced variations and the controversy over the acquisition order of comprehension and production, the present study employed two tasks to investigate the L2 acquisition of the telicity-related constructions. Figure 4-8 below shows our subjects' overall performance on the grammaticality judgment task and the free translation task. On the whole, the subjects performed better on the grammaticality judgment task (Mean=.74, SD=.09) than the free translation task (Mean=.62, SD=.17), and the differences between their performance on the two tasks achieved the statistically significant level ($p=.000^{**}$).

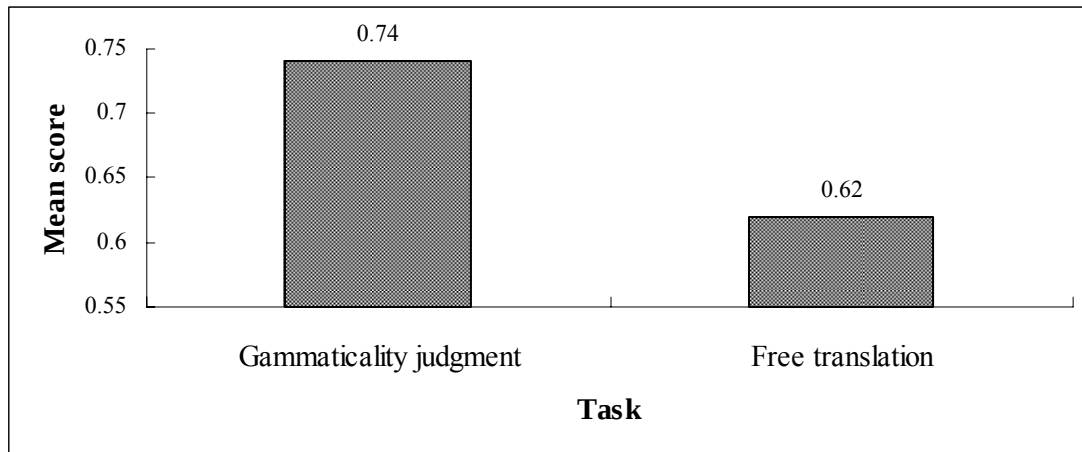


Figure 4-8. The overall results on the two tasks

When our subjects' English proficiency was taken into consideration, similar task effects were found, as shown in Figure 4-9.

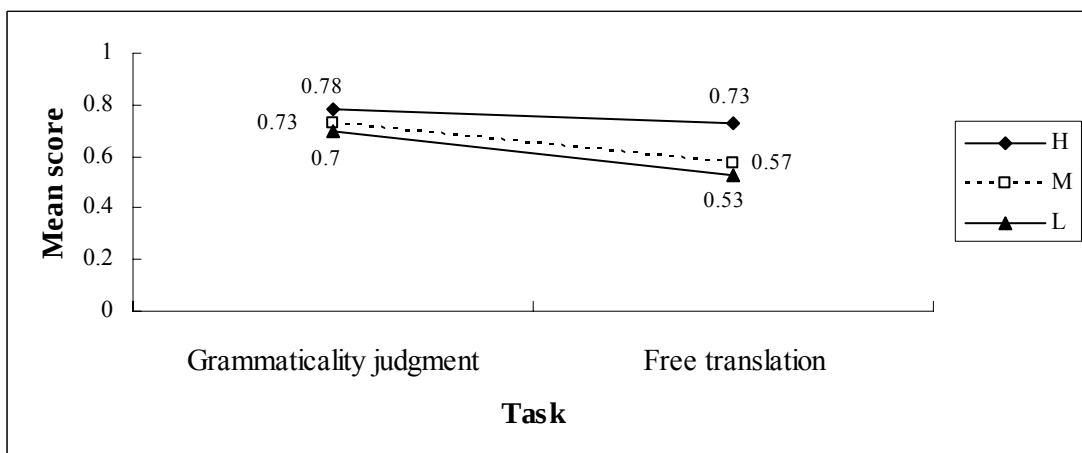


Figure 4-9. Task effects across groups

In line with the general trend, the H group obtained significantly higher scores on the grammaticality judgment task (Mean=.78, SD=.08) than on the free translation task (Mean=.73, SD=.10, $p=.04^*$). Likewise, the M and L groups performed much better on the comprehension task (M: Mean=.73, SD=.09; L: Mean=.7, SD=.08) than on the production task (M: Mean=.57, SD=.15; L: Mean=.53, SD=.17, $p=.000^{**}$ both). This showed that all the three groups' performance was considerably influenced by

different experimental tasks.

In addition, our subjects demonstrated some group differences. Significant group differences were obtained between the H and M groups on the free translation task ($p=.000^{**}$) but not on the grammaticality judgment task ($p=.06$). It was also found that the H and L groups displayed conspicuous differences on the comprehension task ($p=.001^{*}$) and on the production task ($p=.000^{**}$). However, no group differences were found between the mid- and low-level learners on the two tasks ($p=.33$ in comprehension, $p=.43$ in production), suggesting that the two groups were at a similar developmental stage. These results argued for the role of English proficiency in the subjects' L2 development.

To attest to the observed methodological effects, meticulous attention is now directed to task effects across constructions. Figure 4-10 presents the mean scores on the three telicity-related constructions in relation to the two tasks.

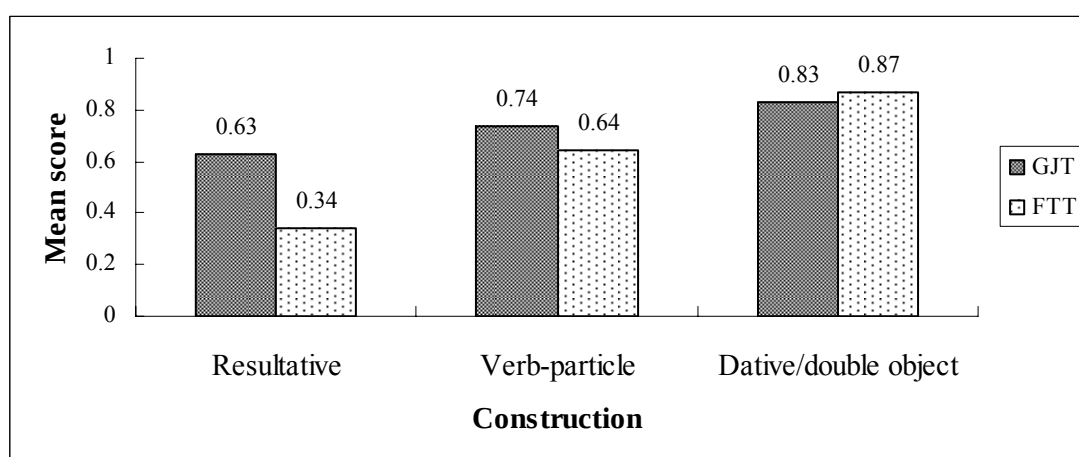


Figure 4-10. Task effects across constructions

In the case of resultatives, the subjects performed far better on the grammaticality judgment task (Mean=.63, SD=.16) than on the free translation task (Mean=.34, SD=.21, $p=.000^{**}$). For verb-particles, likewise, the score on the comprehension task (Mean=.74, SD=.17) was significantly higher than that on the production task

(Mean=.64, SD=.23, $p=.000^{**}$). However, the subjects did not perform better in judging datives/double objects (Mean=.83, SD=.09) than in producing the target constructions (Mean=.87, SD=.17), and the differences were not statistically significant ($p=.051$). The slightly lower scores on the grammaticality judgment task might be due to the fact that one of the two test items on the verb types of datives/double objects was poorly selected, i.e. *possess* versus *know*, as shown in Table 4-5 above. In general, task effects were observed across constructions.

Figure 4-11 below shows the results of task effects across different properties.

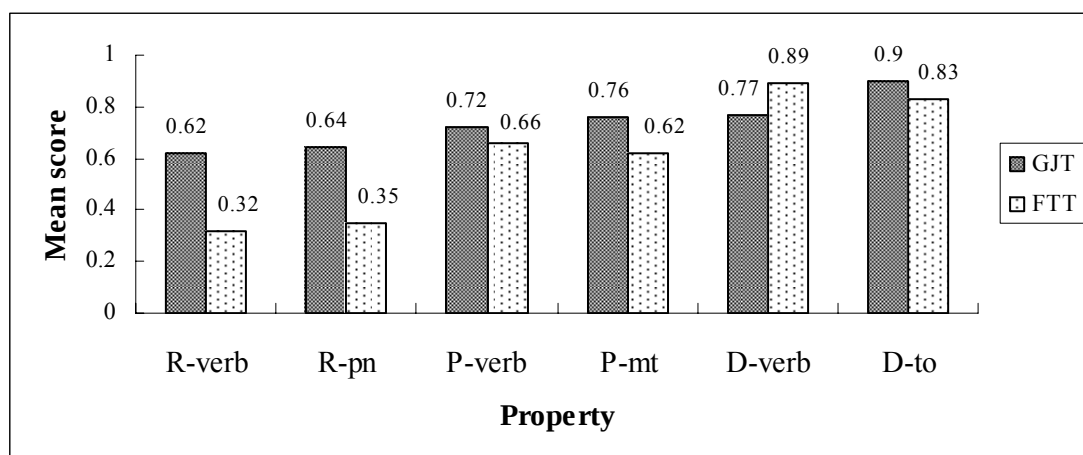


Figure 4-11. Task effects across properties

As shown in Figure 4-11, the mean scores on the comprehension task were significantly higher than those on the production task throughout all the properties ($p<.05^{*}$ throughout) except for the verb types of datives/double objects. Contrary to the other properties, the exceptional result showed that the subjects performed much better in producing the target constructions than in judging the pertinent sentences ($p=.000^{**}$). The opposing finding might stem from the inappropriate selection of the ungrammatical stative verb item *possess* in dative/double object constructions, as shown by the sharp contrast on their mean scores in Table 4-5.

Largely, the findings showed that the comprehension task yielded consistently

higher scores on the acquisition of the telicity-related constructions than the production counterpart, supporting the claim that comprehension precedes production in acquisition (e.g. McCarthy 1954, Wu and Wen 1997).

4.4 Other Patterns Elicited

This study examined the L2 acquisition of the three telicity-related constructions. On the free translation task, however, untargeted patterns were noted. An analysis of the unexpected production data might shed some light on the issue. Hence, this section is devoted to the analysis of the untargeted patterns elicited.

Table 4-6 below presents other patterns of resultative constructions, where the number stands for the frequency of each untargeted pattern elicited.

Table 4-6. Frequency of other patterns of resultatives elicited

Type		Example	H	M	L
Omission (17)		He kicked the door _____. (H4)	4	7	6
Substitution (53)		That boy <i>cleaned up</i> that desk. (H5) The boy <i>made</i> the table <i>clean</i> . (H37) That table <i>was cleaned by</i> that boy. (L24)	17	14	22
Paraphrase (46)		He kicked the door and it opened. (H12) He opened the door by kicking it. (H24)	13	22	11
Grammatical error (182)	Tense (29)	She <i>cuts</i> the bread into pieces. (L28)	4	10	15
	Agreement (40)	The worker <i>paint</i> the door green. (M17)	9	15	16
	Word order (8)	He kicked <i>open</i> the door. (H37)	4	3	1
	Word choice (105)	The worker <i>threw</i> that door green. (L17) She cut the bread <i>pieces</i> . (L1)	14	46	45
No/incomplete elicitation (38)			6	14	18
Total			71	131	134

There were five major untargeted patterns elicited from the production data of resultatives. The most prevailing pattern was grammatical errors. Subsequent to this error type were substitution and paraphrase, followed by no/incomplete elicitation and omission.

Grammatical errors fell into four subtypes, including incorrect word choice, S-V disagreement, misuse of present tense, and wrong word order. Incorrect word choice accounted for the largest proportion of grammatical errors. This error type mainly bore on the misuse of verbs (e.g. *The worker painted that door green.* → *The worker **threw** that door green.*) and the wrong form of resultative complements (e.g. *She cut the bread into pieces.* → *She cut the bread **pieces**.* / *She cut the bread **for a slice**.*). The findings verify that the variability of resultative complements, AP, NP, and PP, gives rise to the great complexity of resultative constructions in L2 acquisition, as proposed in the prior section. S-V disagreement was also a common grammatical error (e.g. *The worker **paint** the door green.*). Since S-V agreement is not overtly marked in Mandarin Chinese, the results entail the trace of negative L1 transfer.

As regards the misuse of tense, since completion of a telic event is expressed in simple past tense in English, the expected tense of the three telicity-related constructions is simple past. However, it was found that some subjects translated resultative sentences in simple present tense (e.g. *She **cuts** the bread into pieces.*), showing that telicity was a latent property of resultative constructions, of which our subjects were unaware.

Also, some of our subjects made wrong word order errors (e.g. *He kicked the door open.* → *He kicked **open** the door.*). As the word order is characteristic of Chinese resultative constructions, these results argued for the effect of negative L1 transfer on the subjects' L2 acquisition. It was observed that the most occurrences of wrong word order were identified from the production data of the H group, who was

expected to make fewer grammatical errors. This might be ascribed to the fact that more resultative sentences were elicited from the H group and that all the three groups had not yet achieved the level of full attainment in their interlanguage grammar. On the whole, the results on grammatical errors showed that the frequency of grammatical errors descended with the increase in the subjects' proficiency levels; the H group outperformed the other proficient groups in most cases.

In addition to grammatical errors, it was found that the subjects employed the avoidance strategy of substitution of other constructions in replace of resultatives, which were novel to them (cf. Butterworth and Hatch 1978). Three types of constructions were used to substitute for resultatives. The first type was verb-particle constructions (e.g. *That boy wiped that desk clean.* → *That boy **cleaned up** that desk.*). This result lends support to our regression analysis that the successful acquisition of verb-particle constructions was well predicted by that of resultative constructions. The second type was causative constructions (e.g. *The boy **made** the table **clean**.*). This finding indirectly echoes Snyder and Stromswold's (1997) conclusion that causative constructions form a cluster with other telicity-related constructions. The third type was passive constructions (e.g. *That table **was cleaned by that boy**.*). This may be attributed to the high degree of affectedness denoted by resultative constructions, in which the postverbal argument NP undergoes a high degree of affectedness. Similarly, passive constructions are characterized by the disposal effect, and the affected argument NP is the focus of passive constructions. This may account for the substitution of passive constructions for resultatives.

Like substitution of other constructions, the subjects were found to draw on the strategy of paraphrase for resultatives as well (e.g. *He kicked the door open.* → *He kicked the door and it opened. / He opened the door by kicking it.*). Paraphrase can be also regarded as an avoidance strategy due to their unfamiliarity with resultative

constructions.

Occasionally, the subjects omitted resultative complements (e.g. *He kicked the door open. → He kicked the door ____.*), which were the parts they were not familiar with. To the extreme of omission, it was found that the subjects chose to produce nothing or incomplete sentences for resultatives. These two strategies also confirm the high degree of difficulty of resultative constructions.

In the case of verb-particle constructions, elicited untargeted patterns and their frequency are tabulated in Table 4-7.

Table 4-7. Frequency of other patterns of verb-particles elicited

Type		Example	H	M	L
Omission (27)		The student took ____ the book. (H12)	6	10	11
Paraphrase (32)		The woman found her key on the ground and then <i>caught it</i> . (M26)	13	6	13
Grammatical error (132)	Tense (29)	That student <i>takes</i> the book away. (L17)	8	12	9
	Agreement (59)	That woman found her key on the ground and <i>pick</i> it up. (L9)	12	23	24
	Word order (7)	The lady found her key on the floor and <i>picked up it</i> . (M20)	0	3	4
	Word choice (37)	Mr. Wang bought a coat and <i>wore</i> it on. (M8) Mr. Wang bought a coat and put it <i>up</i> . (M5)	11	30	30
No/incomplete elicitation (13)			1	7	5
Total			52	91	96

As shown in Table 4-7, four main patterns were elicited from the verb-particle translation data. Like resultatives, grammatical errors accounted for the largest proportion of the unexpected production data, followed by paraphrase, omission, and no/incomplete elicitation.

With respect to grammatical errors, S-V disagreement was the most common type (e.g. *That woman found her key on the ground and **pick** it up.*). Next was the incorrect word choice. One error type involved the inappropriate selection of verbs (e.g. *Mr. Wang bought a coat and put it on. → Mr. Wang bought a coat and **wore** it on.*). This kind of error entails that the subjects could not distinguish the nuances of meaning between the verb *wear* and the verb-particle *put on*. This error type might result from negative L1 interference, for the verb-particle *put on* corresponds to the Chinese verb-particle compound *chuan-shang*, literally meaning ‘to wear on’. As Chinese verb particles can co-occur with some stative verbs, the subjects, as a result of negative L1 transfer, might have no inkling of the incompatibility of stative verbs and telic particles in English. The other type was wrong collocations of verbs and particles. A typical example was the wrong use of the particle *up* in sentences like *Mr. Wang bought a coat and put it **up***. This error type supports our analysis that the variability of particles augments the complexity of verb-particle constructions.

Besides, misuse of present tense was observed in the verb-particle data as well (e.g. *That student **takes** the book away.*), implying that our subjects did not recognize the telic property of the constructions. The last grammatical error type was misordering (e.g. *The lady found her key on the floor and **picked up it***). English particles obligatorily follow a pronoun, whereas Chinese verb-particles exhibit the fixed word order V-Particle-NP. The finding points to the effect of negative L1 transfer. Generally speaking, the H group made fewer grammatical errors than the M and L groups on verb-particle constructions.

Like resultatives, it was found that the subjects drew on the strategy of paraphrase for verb-particle constructions (*The woman found her key on the ground and then **caught it***). They were also observed to omit some particles, which varied according to different verbs (e.g. *The student took away the book. → The student took*

___ *the book*.). Finally, 13 occurrences of no/incomplete elicitation were identified in the verb-particle production data.

Finally, unexpected patterns of dative/double object constructions elicited are shown in Table 4-8.

Table 4-8. Frequency of other patterns of datives/double objects elicited

Type		Example	H	M	L
Grammatical error (102)	Tense (29)	John <i>throws</i> a pen to her. (H2)	7	9	13
	Agreement (46)	That teacher <i>tell</i> her student one thing. (L2)	6	13	27
	Word order (2)	The teacher told <i>to</i> her student one thing. (M5)	0	2	0
	Word choice (25)	The teacher <i>talked</i> one thing to her student. (M7) John threw a pen <i>at</i> her. (H10)	5	7	13
No/incomplete elicitation (3)			1	2	0
Total			19	34	53

Only grammatical errors were elicited in the constructions. S-V disagreement constituted the largest amount of the errors (e.g. *That teacher tell her student one thing*.), indicating that L2 common errors interfered in the L2 acquisition of the constructions. The misuse of present tense (e.g. *John throws a pen to her*.) showed that our subjects were still unaware of the telic property of dative/double object constructions, as they were not on resultatives and verb-particles. In the case of incorrect word choice, one error type was related to the verb choice (e.g. *The teacher told one thing to her student*. → *The teacher talked one thing to her student*.). It is indicated that the subjects could not distinguish (di-)transitivity of the two semantically similar verbs *talk* and *tell*. The other error type bore on the form of the case marker (e.g. *John threw a pen to her*. → *John threw a pen at her*.). The finding

showed that a few subjects did not differentiate prepositions from the case marker *to*, both of which were similar in form. Finally, two occurrences of wrong word order were elicited (e.g. *The teacher told to her student one thing.*). The word order [V-to-I.O. D.O.] is typical of one variant of Chinese dative constructions—another piece of evidence of negative L1 transfer. By and large, the higher L2 proficient learners performed better on dative/double object constructions than the lower counterparts.

Table 4-9 shows the overall distribution and frequency of elicited untargeted patterns of the three telicity-related constructions.

Table 4-9. Other patterns of the telicity-related constructions elicited

Type	Resultative	Verb-particle	Dative/ double object
Omission (40)	17	23	0
Substitution (53)	53	0	0
Paraphrase (78)	46	32	0
Grammatical error (431)	182	167	107
No/incomplete elicitation (54)	38	13	3
Total	336	232	110

As shown in Table 4-9, five main untargeted patterns were noted in this study. They coincide with the error taxonomy by Dulay, Burt, and Krashen (1982) and Butterworth and Hatch (1978), viz. omission, substitution, misordering, and misinformation.

Among the five types, grammatical errors accounted for the largest proportion of unexpected production data. They involved incorrect word choice (essentially verbs, resultative complements, and particles, etc.), misuse of present tense, S-V disagreement, and wrong word order. Intriguingly, the four subtypes of grammatical errors were found across the three constructions. On the one hand, the

construction-universal misuse of present tense shows the covert property of telicity of the three constructions. On the other hand, the wrong word choice, incorrect word order, and S-V disagreement throughout the constructions entail L2 complexity of the telicity-related constructions and negative L1 interference in L2 acquisition, as suggested above.

Besides, paraphrase and omission were found in resultative and verb-particle constructions but not in dative/double object constructions. In accord with the above-observed trend, these findings suggest that datives/double objects were the least difficult constructions and need not be rephrased or avoided by means of other patterns or circumlocution. As for substitution of constructions, the avoidance strategy was specific to the resultative constructions; verb-particle constructions are often used to replace resultatives. This corroborates the formerly established predictive relationship that verb-particle constructions are a precursor of resultatives. Moreover, the frequency of no/incomplete elicitation of the three constructions is consonant with the overall acquisition sequence of the three telicity-related constructions.

As the production analysis suggests, on the whole, resultative constructions exhibit the highest incidence of unexpected patterns, and dative/double object constructions the lowest frequency. The analysis of the untargeted production patterns accords with the relationship of the three telicity-related constructions observed in the prior sections. In the formerly established difficulty hierarchy, resultatives are the hierarchically highest constructions, followed by verb-particles and by datives/double objects. The hierarchy accounts for the ascending acquisition sequence of the three telicity-related constructions: resultatives < verb-particles < datives/double objects.

4.5 Summary of Chapter Four

In this study, the overall results showed an esthetically consistent tendency: the

three telicity-related constructions exhibited a hierarchical acquisition sequence throughout different properties, proficiency levels, and tasks, entailing the close relationship of the three constructions. This study suggests that although resultatives, verb-particles, and datives/double objects belong to the family of telicity-related constructions, the L2 acquisition of the constructions may be accounted for in several terms. Different degrees of L2 complexity, positive/negative L1 transfer, and presence/absence of L2 inputs as a trigger may give rise to the observed acquisition sequence.

CHAPTER FIVE

CONCLUSION

5.1 Summary of the Major Findings

The present study investigated the second language acquisition of three telicity-related constructions in English by Chinese learners, i.e. resultative constructions, verb-particle constructions, and dative/double object constructions. Special attention was devoted to the issues of construction effects, the relationships of the constructions, property effects, group effects, and task effects.

Based on a comprehension task and a production task, the overall results indicated that the three telicity-related constructions were significantly correlated. The acquisition of the three constructions exhibited the following consistent tendency: dative/double object constructions were acquired first, verb-particle constructions next, and resultative constructions last. The regression analysis further suggested that the successful acquisition of dative/double constructions was significantly predicted by the success in the acquisition of verb-particle constructions, which in turn were a significant precursor of resultative constructions. The relationships of the three constructions held true across different properties, tasks, and L2 proficiency levels. Based on the consistent results, it was suggested that the three constructions exhibited hierarchical correlations. In the hierarchy, resultatives were found to be the hierarchically highest constructions, followed by verb-particles and by datives/double objects. The hierarchy is positively correlated with the difficulty of the three constructions and is negatively correlated with the subjects' L2 acquisition. The higher the constructions are in the hierarchy, the greater degree of difficulty they exhibit and the later they are acquired in the subjects' L2 acquisition sequence.

In the between-construction analysis, one property effect was observed—stative

verb types, which however, could be attributed to the poor artificial selection of one test verb item in dative/double object constructions. When the poorly selected test item was excluded, the results showed that the acquisition of the three constructions still displayed a consistent pattern, regardless of properties. It was found that construction effects overrode property effects on the subjects' L2 acquisition of the telicity-related constructions. In the within-construction analysis, the results revealed that properties played a marginal role in influencing the L2 acquisition of the constructions in most cases. Significant property effects were restricted to particle movement and word order of dative/double object constructions.

Also, it was substantiated that L2 proficiency was a linchpin in the L2 acquisition of the three constructions. The higher L2 proficient learners outperformed the lower counterparts, and the subjects made greater progress with the increase in their L2 proficiency levels. With respect to methodological effects, the results showed that the subjects consistently performed better on the comprehension task than on the production task, showing that comprehension might precede production in acquisition. Theoretically, the relationships of resultatives, verb-particle, and datives/double object constructions have been contentious. Some researchers propose that they belong to the same cluster of constructions (e.g. Hoekstra 1988, Snyder 1995), while some linguists contend that they should not be subsumed under the same family (e.g. Tenny 1994, Baker 1997). On the whole, the overall results of the present study lend consistently empirical support to the close correlations of the three constructions. Finally, the analysis of untargeted production data also pointed to the parallel tendency with regard to the relationships of the three telicity-related constructions.

5.2 Pedagogical Implications

According to Krashen's (1982, 1985) Natural Order Hypothesis, second

language acquirers will follow a predictable order of acquisition, just as there is a natural order of development in first language acquisition. The natural acquisition order entails that some linguistic forms, structures, or rules tend to be acquired earlier than others. In the present study, a consistent sequence of acquisition was found regarding the three telicity-related constructions, which was essentially in tune with the pattern reported in Slabakova (2001). It is suggested that the observed acquisition sequence is a universal tendency. This study implies that the pedagogical sequence of the three constructions in teaching material should correspond to the natural acquisition order of the constructions, i.e. dative/double object constructions preceding verb-particle and resultative constructions.

5.3 Limitations of the Present Study and Suggestions for Further Research

This study is subject to the following limitations. To begin with, this study did not have a control group consisting of English native speakers. To avoid methodological effects, this study drew on a comprehension task and a production task. Since production data of resultatives were not easily elicited, this study utilized a free translation task, which was more easily controlled and targeted at the constructions at issue. Nonetheless, the translation task deterred us from including a native control group in our study since the possibility of asking English native speakers to translate Chinese sentences into corresponding English counterparts seems slim. Also, the results might not be justifiable if we merely ask native English speakers to make grammaticality judgment on English sentences without asking them to participate in the translation task. Their results on the comprehension task could not be compared with our experimental groups' on the production task. Due to the limitation, a native control group was not involved in this study. To include a native control group as a comparison, further research may alter the format of the production

task. A picture-cued production task and an interview may be feasible candidates, which should be carefully devised, or targeted constructions will not be elicited easily.

Furthermore, the subjects partaking in this study were limited to senior high school students. This was due to the consideration that this study hoped to factor out other potential variables which might influence the L2 acquisition of the three constructions. As all the subjects were recruited from the classes instructed by the same English teacher, the learning setting might be the same, the subjects might stand at a similar learning site, and the teacher factor might be obviated. As this study showed, the subjects did not perform well on resultative constructions. In further research, high-intermediate, like college students, and advanced learners, such as graduate students majoring in English, can be recruited to complete the task. Their performance can be compared with the intermediate learners' on resultatives as well as the other two telicity-related constructions.

Last but not least, all the constructions under investigation pertain to telicity. The properties of the three telicity-related constructions bear on grammaticality. A related issue, telicity marking in basic SV(O) constructions, on the other hand, is more semantics-oriented, i.e. preferences for certain semantic interpretations or acceptability of relevant sentences. Given the different domains of the two issues, this study did not take telicity marking in basic constructions into examination. However, this study discovered that some subjects had a propensity to express the telic events in simple present tense, showing that telicity is a covert property of the three constructions in question. It is worthwhile to inspect the relationships of the acquisition of the telicity-related constructions and telicity marking in basic constructions in future research.

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APPENDIX A

THE GRAMMATICALITY JUDGMENT TASK

各位同學：

請依據您的直覺，判斷以下英文句子的文法是否正確。文法正確的句子請打勾（✓），文法錯誤的句子請打差（✕）。當您完成每一個題目時，請別再回頭更改您之前的答案，謝謝您的配合。

例如：(✓) He liked the novel more than the magazine.

(✕) Angela liked Brian more Johnson.

此問卷共 30 題，僅供學術研究之用，您的身份及作答將會受到嚴密的保護，絕無資料外洩之虞，請您放心作答，在此先謝謝您的參與和寶貴時間。

碩三學生 何信昌敬上

中華民國九十七年四月二十三日

1. () The girl washed the soap out of her eyes.
2. () The teacher took off her glasses.
3. () The woman wrung the towel dry.
4. () Mr. Smith introduced to me his friend.
5. () Leonard looked the picture at.
6. () James owned three students happy.
7. () The man told her daughter a story.
8. () Steven entered the kitchen and cooked a meal.
9. () The boy turned the light off.
10. () Those children relied their parents on.
11. () Tim possessed the school some money.
12. () Mary loved up John.
13. () Lisa bought me a present.
14. () Linda liked him touched.

15. () The man knocked down the boy.
16. () We elected Annie our class leader.
17. () Adele walked in the park for an hour.
18. () Charles sent to Miss Li a letter.
19. () The man shot Irene dead.
20. () The man gave a toy to his son.
21. () The woman mopped the floor tired.
22. () Janet blew the candles out.
23. () David went to school on feet.
24. () Teresa put aside the magazine.
25. () The lawyer knows out the truth.
26. () George wrote his homework angry.
27. () Jean knew Richard a ball.
28. () Laura taught at a vocational college.
29. () Carol thought through a problem.
30. () Anita threw a ball to Ronald.

~非常感謝您的參與和貢獻!~

APPENDIX B

THE FREE TRANSLATION TASK

各位同學：

請依據以下的中文句子翻譯成完整且對應的英文句子。請盡量把中文句子的每個字的意思都翻譯出來，謝謝您的配合。

例如：他讀了一本書，然後把它放在那張桌上。

He read a book and then put it on the desk. (好的翻譯)

He read a book, put it on the desk. (不好的翻譯)

此問卷共 15 題，僅供學術研究之用，您的身份及作答將會受到嚴密的保護，絕無資料外洩之虞，請您放心作答，在此先謝謝您的參與和寶貴時間。

碩三學生 何信昌敬上

中華民國九十七年四月二十三日

1. 那個學生拿走了那本書。

2. 他踢開了那扇門。

3. 那位老師送了我一本書。

4. 那位婦人在地上發現了她的鑰匙並把它撿起來了。

5. 他以前非常地愛她。

6. 她把麵包切成一片一片了。

7. 約翰丟給了她一枝筆。

8. 那個老師告訴了她的學生一件事。

9. 那位工人把那扇門漆成了綠色。

10. 那位警員過去習慣七點起床。

11. 麗莎昨天參加了一場音樂會。

12. 那個學生想出了一個答案。

13. 瑪麗寄給了我一個包裹。

14. 那個男孩把那張桌子擦乾淨了。

15. 王先生買了一件大衣並把它穿上了。

~非常感謝您的參與和貢獻!~