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碩士論文

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Master's Thesis

The Acquisition of Non-SVC Constructions in English
by Taiwanese College Students: An Error Analysis



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摘要

在英語為第二語言的產出當中，不合文法的多重動詞構式時常出現在第一語言允許連動構式但第二語言為非連動語言（如英語）的語言使用者之輸出，然而這些文法錯誤的本質仍未獲得完整的討論。有鑑於此，本研究立足於認知與形式的關聯，透過錯誤分析法探討受試者對於產出以及正確鑑別華語須以連動結構呈現時英語的非連動結構之能力。本研究有三十六位英語為二語的臺灣籍學習者，在實驗中，受試者首先以指定的行為事件之圖片及二至三個動詞造出非連動結構的句子，為了得到連動或非連動的產出，受試者被引導使用所有指定的動詞造句；另外，在文法判斷任務當中，受試者須針對語料標示其合文法性。研究結果顯示，目的性連動結構、使役連動結構以及「起始+核心+終結」連動結構對於學習者而言最為困難。這些文法錯誤指出，華語為第一語言人士無法從母語當中轉移目的和使役連動構式，而且錯誤地轉移「起始+核心+終結」連動結構。此外，相較於正確地產出話語，正確識別合文法性對於受試者而言較為容易。產出任務中的文法錯誤包含語際和語內錯誤，例如省略、過度泛化、公式化 be-形式插入；至於受試者群體表現，數據上高階初學者在各方面之於初階學習者皆呈現較佳的表現。這些發現能夠幫助學習者進一步了解他們文法錯誤的本質，且示意著如同更緊密的形式和意義之間的連結之必要，更多、更長久的二語輸入是必須的。

關鍵詞：第二語言習得、偏誤分析、連動構式、中介語、語內錯誤

Abstract

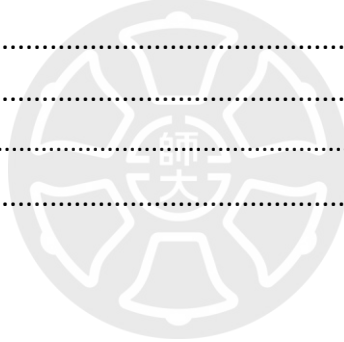
In English L2 production, the use of ungrammatical multi-verb constructions can occur in those whose L1 allows for serial verb constructions (SVC) but whose L2 is a non-SVC like English. There appears to be a gap in the research to better understand the nature of these errors. Adopting the assumption of a connection between cognition and form this study explores through an error analysis participants' abilities to both produce and correctly identify non-SVC structures in English where an SVC is required in Mandarin. In a study of 36 Taiwanese L2 English learners, participants were first given pictures with an action event and two to three verbs to create non-SVC sentences. They were instructed to write out sentences using all the verbs in hopes of producing utterances with SVC where required or a non-SVC. They were also given grammaticality judgements and asked to mark an utterance as grammatical or not. It was found that purposive SVC's, causative SVC's, and the inception + core + termination SVC were the most difficult for learners. These errors indicate L1 Mandarin failed to transfer purposive and causative SVC's from their L1 and incorrectly transferred the inception + core + termination event from the L1. Participants had an easier time correctly identifying grammaticality judgements than correctly producing utterances. The errors in the production task included both interlingual and intralingual errors, such as omission, overgeneralization, and formulaic *be*-form insertions. The high-beginner group scored statistically better in each of these areas compared to the beginner group. These findings may help learners better understand the nature of their errors and indicate more and longer periods of L2 input are needed as well as more connections between form and meaning.

Keywords: second language acquisition, error analysis, serial verb constructions, interlanguage, intralingual error

Table of Contents

Acknowledgements.....	i
Chinese Abstract.....	iii
English Abstract.....	iv
Table of Contents.....	v
Chapter One Introduction.....	1
1.1 Motivation.....	1
1.2 Research Questions.....	5
1.3 Significance of the Study.....	6
1.4 Organization of the Thesis.....	7
Chapter Two Literature Review.....	8
2.1 Important Issues in Second Language Acquisition.....	8
2.1.1 L1 Language transfer.....	8
2.1.2 Markedness.....	10
2.2 Theoretical Studies of Serial Verb Constructions in Mandarin and English.....	11
2.2.1 Mandarin SVC's.....	11
2.2.2 English SVC's and Non'SVC's.....	19
2.2.3 Comparison of Mandarin and English SVC's.....	21
2.3 Empirical Studies of Serial Verb Constructions in English by L2 Learners.....	23
2.3.1 Language transfer in SLA and creoles.....	23
2.3.2 He is find the cat was in a tree: SVC error analysis.....	26
2.4 Summary of Chapter Two.....	29
Chapter Three Research Design.....	31
3.1 Participants.....	31
3.2 Tasks and Materials.....	32
3.2.1 Proficiency test.....	32
3.2.2 Instruments.....	33
3.2.3 Instrument and Task 1.....	34
3.3 Procedures.....	36
3.3.1 Pilot Study.....	36
3.3.2 Formal study.....	38
3.4 Data Analysis.....	39
3.5 Chapter Summary.....	42
Chapter Four Results and Discussion.....	43

4.1 Type Effect	43
4.2 Task Effect	52
4.3 Error Strategies	57
4.3.1 Interlingual errors	57
4.3.2 Intralingual Errors	58
4.3.2.1 Omission	58
4.3.2.2 Insertion	60
4.3.2.3 Overgeneralization	61
4.4 Proficiency Effect	63
4.5 Chapter Summary	64
Chapter Five Conclusion	65
5.1 Major Findings	65
5.2 Pedagogical Implications	66
5.3 Limitations on the Study and Suggestion for Future Research	67
References	68
Appendix A	72
Appendix B	77
Appendix C	90
Appendix D	94



List of Tables

Table 3-1 Participant Information	31
Table 3-2 Chart of Common and Uncommon SVC Properties	34
Table 3-2-1 SVC Properties and Corresponding GJ Task Questions	35
Table 3-3 GJ Task Scoring	40
Table 4-1 Each group's overall performance on different types of SVCs	44
Table 4-2 <i>P</i> -value for the cross-type comparison within the EP group	45
Table 4-3 Within-type between-group overall performance on SVCs	50
Table 4-4 Tukey post hoc test for each type	51
Table 4-5 Each group's performance on different types of SVCs in both tasks on T1	52
Table 4-6 Each group's performance on different types of SVCs in both tasks on T2	55
Table 4-7 Comparison of Achieved Native-like performance in Each Group Throughout Experiments	63

List of Figures

Figure 3-1 Flow Chart of the Study	41
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LIST OF ABBREVIATIONS

CL	classifier
PERF	perfective marker
L1	First language
L2	Second language
TL	Target language
SLA	Second language acquisition
SVC	Serial verb construction
Non-SVC	non-serial verb construction
CVC	Catenative verb construction
IL	interlanguage



Chapter One

Introduction

1.1 Motivation

As someone who teaches English to those acquiring English as a non-native second language (L2 English) to those whose first language is Mandarin Chinese (L1 Mandarin), a phenomenon I come across often is sentences with multiple verbs used incorrectly.

- (1) a. *So I decided had a big fight.
 - b. So I decided **to** have a big fight.
- (2) a. *Take out pizza cut in 8 slices.
 - b. Take out the pizza **and** cut into 8 slices.
 - c. Take out the pizza **to** cut into 8 slices.

Sentence (1a) is ungrammatical due to the missing infinitive causing two verbs to be strung together. The insertion of an infinitive marker would make this grammatical (1b). Another example of a commonly seen error is (2a). Two verbs are found with an intervening noun phrase (NP). To make this utterance grammatical (2b-c) the conjunction 'and' must be inserted before the second verb to indicate a consecutive set of actions or another infinitive marker to indicate purpose. Other errors such as the missing determiner and the wrong preposition also lead to errors, but they are outside the scope of this paper.

There are a number of different possibilities that may lead to students making errors like those seen in (1a and 2a). English does have a few situations where there are two verbs in a sentence (3-4)

- (3) Let's go eat.
- (4) I made him laugh.

Sentences with two or more verbs without an intervening conjunction are known as serial verb constructions (SVC). Sentence (3) has an SVC with two verbs adjacent to each other: 'go' and 'eat'. Sentence (4) is a causative which has two verbs with an intervening NP. It is possible that L2 English learners see or hear such constructions in the input and overgeneralize the rule for multi-verb constructions where they forget to insert an infinitive marker or a require conjunctions.

While not every student had this issue, it was fairly common across different years of English majors at the university I work at. I began wondering what was causing this usage? Was it a grammatical structure in Chinese that students were using in English to fill a grammatical knowledge gap? Or could it be a misuse of intended grammatical structure required of English?

Looking into Chinese grammar revealed a high occurrence of serial verb construction(SVC), which comprise of more than one verb in a monoclausal structure without an intervening conjunction (Li & Thompson 1981). An example of an SVC in English would be (3) where the verbs 'go' and 'eat' both occur without a conjunction, such as 'and'. This construction may be the cause of these multi-verb errors in L2 English. Chinese has been classified an SVC language due to the high occurrence of serializing verbs in Chinese. Conversely, English would be considered a non-SVC language due to the relative low frequency. (Yin 2017)

Although English has been classified as a non-SVC language, as we saw in (3) and (4), SVC's do exist in English. However, some researchers like Roberts (2012) argue that verb sequences like 'keep trying' and 'fail to see' fit the description of a serial verb construction, which would likely increase the frequency.

It is, therefore, possible that L1 Mandarin speakers are influenced by the frequency SVC's in their L1. When a speaker applies a grammatical structure from their L1 to be

used while performing output of the L2, this is known as language transfer. If the transfer of a structure to the L2 produces a grammatical sentence, this is known as positive transfer. Transferring a structure from the L1 that produces an error in the L2 is known as negative transfer or L1 interference. Transfer of the L1 is a strategy for filling in a knowledge gap in the L2 or misunderstanding the grammatical structure of an L2 (Helms-Park 2004). Relexification is one such strategy where a speaker transfers the syntax of the L1 and maps onto it the words from the L2 (Larson-Freeman, 1991).

Error Analysis is a form of research that “starts with learner errors and *explains* at least a subset of them by pointing to the similarities and differences between the language.” (Larson-Freeman 1991:57) Such research revealed that not all language errors are a result of negative language transfer. Some errors were made by multiple speakers with a different L1 and appeared to be a result of incorrectly producing utterances in the target language (TL). As a result, Richards (1971) classified errors into *interlingual* (5a) and *intralingual* (5b).

- (5) a. *He hit break the glass.
- b. *He let me **to** play with the guitar.

An interlingual error is a result of negatively transferring a linguistic construction from the speaker’s L1 into the L2. Sentence (5a) is an example of an interlingual error. In Chinese, an SVC sentence like *ta da po beizi* ‘He broke the glass’ requires both the verbs *da* ‘hit’ and *po* ‘break’ to make the sentence grammatical. An interlingual error is when a speaker would transfer this construction into English and says ‘hit break the glass’. On the other hand, an intralingual error is not a result of transfer, but an error in constructing the TL that is neither transferred or a result TL input. Sentence (5b) shows an example of a speaker overgeneralizing the use of the infinitive marker and inserting it into an utterance that does not require it. There is no infinitive ‘to’ in Chinese, so we can ascertain that it was not transferred from Chinese. It is likely a result of

overgeneralizing the infinitive from other verbs, such as ‘cause X to do something’.

Larson-Freeman (1991) describes a number of interlingual (6) and intralingual (7a-d) errors. (p.59)

(6) *Is the book of my friend. (interference)

Is **this my friend’s** book.

(7) a. *I wonder where are you going. (overgeneralization)

I wonder where **you are** going.

b. *I studied English for two year. (Simplification)

I studied English for two years.

c. *use of the word ‘airball’ . (Communication-based)

Use of ‘balloon’ is the correct term

d. *She cries as if the baby cries. (Induced Errors)

She cries **like** the baby.

(Larson-Freeman 1991: 59)

Sentence (6) is deemed interference as it is believed the missing subject and use of ‘of my friend’ are transferred from Spanish. Overgeneralization is when a speaker applies a rule of the TL and uses it in a situation where it does not apply. For example, (7a) has the rule of putting auxiliary before the subject in a question but putting it in an embedded WH-question correctly. Simplification (7b) involves simplifying the grammar without losing the meaning of the sentence like the missing plural marker on ‘year’. A communication-based error as in (7c) showed the learner coining a new term to fit a lexical gap. Lastly, an induced error like in (7d) is a result of the teacher defining ‘as if’ to being similar to ‘like’ and then using it incorrectly.

To get a better understanding of how interlingual and intralingual errors occur, we must also consider the English proficiency level of the speaker. Are interlingual or

intralingual errors more common for those who are at a low, intermediate, or advanced level? Helms-Park (2004) shows that the negative transfer of causative SVC's from L1 Vietnamese to L2 English were prominently made by low level learners. Very few intermediate and advanced speakers made such an error. For this reason, we can assume that low-level Mandarin L1 speakers would also have more instances of interlingual errors with causative SVC's. Opening up the research to include numerous SVC's will give us a better idea if such a phenomenon is persistent with all SVC's or not.

The question then arises of what constitutes an error and how does it differ from a mistake? Corder (1967) draws a distinction between the two. A mistake is a result of a slip of the tongue. These can be made by native speakers as well as can be self-corrected. An error, on the other hand, is systematic, indicating they have not mastered the rules of the TL. Larsen-Freeman (1991) expounds on this: "A learner cannot self-correct an error because it is a product reflective of his or her current stage of L2 development, or underlying competence (p.59).

1.2 Research Questions

The questions this research attempts to answer are as follows:

- 1) What type of SVC's was easier or more challenging for different proficiencies to judge or perform in general?
- 2) Was the production task more challenging than GJ?
- 3) What strategies do L2 English learners of L1 Mandarin use to express SVC's that would require a non-SVC in English?
- 4) Do these errors correspond in any way to the different proficiency levels?

1.3 Significance of the Study

While there has been a dearth of studies looking into SVC's in languages around the world, most of them are theoretical in nature. A common topic of study is what parameters define a syntactic construction as an SVC. There has been a large debate on what is a true SVC or not (Kroeger 2004, Aikhenvald 2006, Waltraud 2008, Roberts 2009 & 2012, Yin 2017).

Another theoretical aspect has been to determine what constitutes an SVC in Chinese and English. Li and Thompson (1981) indicated that Chinese is an SVC language and laid out four different types of SVC's. Since this publication, numerous other researchers have further defined what an SVC is and which structure in Chinese can be considered canonical SVC's. Roberts (2009 & 2012) argued that some constructions not previously identified as an SVC in English do in fact fit the definition of an SVC as laid out by Aikhenvald in 2006.

A large gap exists in empirical research on SVC and specifically on the transfer effects from an SVC to a non-SVC language. Helms-Parks (2004) carried out a study on the transfer of Causative SVC's from Vietnamese (an SVC language) to English. The literature appears to lack empirical studies on the transfer effects of SVC from Mandarin to English. Additionally, other SVC's, such as purposive, perceptive, and other multiple event series have not been investigated. Other analyses have focused on the broader picture of general error analysis-common mistakes ranging from verbs to noun phrases, adjective, etc- which may or may not include SVC's (Liu 2011, Sun 2013, Yu 2013). The purpose of this research project is to fill this gap of not only looking at the transfer from Mandarin rather than Vietnamese, but broaden the scope of SVC's that are tested beyond the causative SVC's previously done and focus specifically on the different ways an SVC materializes in the English interlanguage.

Additionally, this will provide teaching implications for L2 English learners whose L1 is an SVC.

1.4 Organization of the Thesis

Chapters Two and Three consist of a literature review and methodology. I will cover what has been defined as an SVC in Chinese and as well as a cognitive grammar perspective on a Chinese SVC. This is followed by SVC's that exist in English along with areas that overlap with Chinese and English. The methodology will consist of the breakdown of participants, tasks, and expected findings. Chapter Four looks at the result of the analysis. Chapter Five includes a summary of the findings, pedagogical implications, and limitations and future research areas.



Chapter Two

Literature Review

In this section I will detail some of the important issues in second language acquisition including transfer effects of the L1 and markedness theory. Additionally, we will do a deep-dive into serial verb constructions in both Mandarin and English and where they overlap. I will closely examine two empirical studies looking at the production of English interlanguage data for signs of serial-type construction transfer and other multi-verb errors.

2.1 Important Issues in Second Language Acquisition

Two important areas to second language acquisition is that of language transfer and markedness. Both can give insights as to how certain aspects of a second language can be acquired and where difficulties may lie for learners. The following two sections will discuss each one and its implications for second language acquisition.

2.1.1 L1 Language transfer

A widely held belief in the 1950's and 1960's was that a speaker's L1 had a largely negative effect on the acquisition of an L2 (Larson-Freeman 1991). This was termed 'interference' and was borne out by Contrastive Analysis research. However, later error analysis demonstrated that L1 influence wasn't as decisive and negative as originally thought. Not only were some interlanguage errors found, but that the L1 could have both positive and negative influences on the acquisition of target language (TL) structures. "Transfer can be positive, when a first-language pattern identical with a target-language pattern is transferred, or it can be negative, when a first-language pattern different from the target-language pattern is transferred. In the latter case, L1-

induced errors occur.” (Yun 2013:2). Subsequently, these two forms of transfer are known as positive and negative transfer. Additionally, errors that appear to have transferred negatively from the L1 are known as interlingual errors. Another set of errors, termed intralingual errors, are errors in the L2 that correspond to neither the L1 or the L2. This indicates errors that a speaker makes on the spectrum of acquisition until the accuracy of the TL is fully acquired.

L1 transfer, either positive or negative, is thought of as a strategy employed by the speaker in the interlanguage. According to the Full Transfer/Full Access Hypothesis, L2 learners have full access to the entirety of the L1 grammar at their disposal and may transfer it in its entirety at the beginning of the L2 acquisition process. Helms-Parks (2004) states “L2 learners in any language contact situation are continuously on the lookout for equivalents of L1 items and probably start off with the assumption that there are exact equivalents for L1 lexical and functional categories in the L2.” (p.42). Additionally, transfer may be a strategy when there is a lack of knowledge regarding the needed structures in the TL. For this reason, L2 learners may transfer their L1 knowledge to fill in the missing pieces. Learners may misjudge the pattern and transfer the wrong grammar (VanPatten 2004) resulting in negative transfer.

In a study conducted on Vietnamese causative SVC’s (detailed in 2.3.1) Helms-Parks (2003) concluded that causative SVC’s were transferable from an SVC L1 (Vietnamese) into L2 English resulting at times in ungrammatical sentences. This is evidence that not only that SVC’s are transferable but can be a source of negative language transfer. What is more, Chinese utilizes serial-type constructions and we can expect similar transfer effects into English. Why SVC’s may prove to be a source of negative language transfer rather than positive will be explored in the following section on markedness.

2.1.2 Markedness

A constraint on L1 transfer proposed by some linguists is *linguistic markedness*. Larsen-Freeman (1991) describes markedness as “usually defined in terms of complexity, relative infrequency of use or departure from something that is more basic, typical or canonical in a language”. (p101). Larson-Freeman, among other linguists, argue that unmarked L1 features are more easily transferrable than marked features. What is more, marked features in an L2 are thus more difficult to acquire.

When looking at SVC’s and non-SVC structures, the question arises of which construction is marked and unmarked. In a cross-linguistic study of creoles, McWhorter (1992) argues that SVC’s are more marked due to their relative infrequency in creole languages. Helms-Park (2003) came to the conclusion that the negative transfer of SVC’s into L2 English by Vietnamese speakers resembled the transfer of SVC’s into other creoles. This gives weight to the idea that SVC’s are the marked structure. Further proof of this is demonstrated in Helms-Park (2003) study where most of the transfer errors occurred in those participants who had a low level English proficiency. If SVC’s were unmarked and non-SVC’s marked, we would expect the transfer errors to occur more often and at higher levels of proficiency.

As has been demonstrated in this section, the role of the L1 in the SLA comes into play in acquisition of a second language. These can have either negative or positive effects on TL interlanguage. If a grammatical structure is transferred from the L1 that is found in the L2, this provides positive transfer. If a grammatical structure is transferred that results in an L2 error, it is deemed negative transfer. Another factor in the acquisition process is that of linguistic markedness. A marked structure, such as the assumed non-SVC, would be more difficult to acquire for those with an L1 containing an equivalent unmarked structure. Based on this information, I predict that areas where English takes a non-serial construction, a SVC structure from Chinese will be

transferred more for low-level proficiency learners. This may occur as a result of a direct lexicosemantic transfer or the transfer of conceptualization of events which will produce serialized-type constructions in English. I predict some of these constructions will not adhere to an exact 1-to-1 transfer, but English input may constrain the event series to produce intralingual errors.

2.2 Theoretical Studies of Serial Verb Constructions in Mandarin and English

In order to understand the nature of errors produced in the English interlanguage, a review of Mandarin SVC's structures is needed. From here we will see how SVC's are constructed in English along with non-SVC English structures.

2.2.1 Mandarin SVC's

Serial verb constructions are often explained by linguists as a series of verbs in constituting a single event without an intervening conjunction or complementizer (Li & Thompson 1981, Kroeger 2004, Aikhenvald 2006, Roberts 2009 & 2012, Yin 2015). However, most linguists posit additional requirements that must be met in order for multi-verb constructions to be considered *real* serial verb constructions. Despite the disagreement among linguists on what constitutes an SVC or not, many linguists classify Chinese as a serializing language (Li & Thompson 1981, Tai 2003, Yin 2015, Roberts 2009) and English as a non-serializing language (Payne 2012, Yin 2015).

To understand what an SVC is and its complexity, we begin with the definition and descriptions of an SVC from Li and Thompson. They are among some of the most influential in the world of Chinese linguistics, and their writing covers a wide range of phenomena within Chinese known as SVC (Waltraud 2008). While SVC's can be found

in many other languages, we will focus on Chinese language examples and debates within linguists regarding serial verbs in Chinese rather than other languages. From there, we will delve into some of the ways the linguists have expanded or constrained the different interpretations.

Li and Thompson (1981) describe serial verb constructions as “a sentence that contains two or more verbs phrases or clauses juxtaposed without any marker indicating what the relationship is between them. . .and always refer to events or states of affairs which are understood to be related as *parts of one* overall event or state of affairs. [emphasis from the authors]” (p.594). The form of these serial verb constructions is (NP) + V + (NP) + (NP) + V + (NP).

Li and Thompson (1981) lay out four different types of SVC’s found in Chinese. These are “two or more separate events” (1), “one verb phrase or clause serving as the subject or direct object of another verb” (2), “pivotal constructions” (3), and “descriptive clauses” (4).

- (1) Wo mai piao jin – qu
1sg buy ticket enter – go
(i) I bought a ticket and went in.
(ii) I bought a ticket to go in.

(Li and Thompson 1981:595)

The first serial verb construction (1) utilizes two verbs to indicate two or more separate events. This shows us two separate events described with two verbs or potentially three: *mǎi* ‘buy’ and *jìn-qu*. Li and Thompson don’t clarify whether *jìn-qu* is to be considered two verbs or one. However, there is debate by other scholars whether a subset of these compound verbs should be considered as ‘cause-result’ SVC (Tai 2003; Yin 2015) or not (Waltrand, 2008). This point will be discussed later. Li and Thompson (1981) ascribe four possible different interpretations that result from the two separate event constructions: consecutive, purposive, alternating, and circumstance. For

example, (1) can be interpreted as either consecutive(i) “*I bought a ticket and went in*” or purposive (ii) “*I bought a ticket to go in*”.

The next construction involves the two verbs phrases sharing a subject or an object. In (2), we see *yao* ‘want’ followed by the phrase *shang-jie* ‘ascend street’.

(2) Wo yao shang jie
I want ascend street
“I want to go out.”

(Li & Thompson, 1983:596)

Both *yao* and *shang-jie* share the same subject which is *wo*. The sharing of subject by the first verb and the second verb phrase can be seen as: *wo yao* ‘I want’ and *wo shàng-jiē* ‘I ascend street’.

The sentence in (3) shows us how the phrase can be the object of the same verb *yao*.

(3) Wo yao ta guo-lai
I want 3sg cross-come
‘I want him/her to come over here.’

(Li & Thompson 1983:596)

The third SVC known is as a pivotal construction (11) is defined as “[containing] a noun phrase that is simultaneously the subject of the second verb and the direct object of the first verb.” (Li and Thompson, 1983, p607).

(4) Ta pingping wo bu yonggong
3sg criticize I not be.industrious
‘S/He criticized me for not being industrious

(Li & Thompson 1983:608)

In (4) the NP *wo* is shared by both the verbs *pingping* ‘criticize’ and *yonggong* ‘be.industrious.’ *Wo* is the direct object of *pingping* while simultaneously serving as the subject of *yonggong*: *ta pingping wo* and *wo bu yonggong*. This clearly demonstrates that *wo* is in the object position following *pingping* but the subject position preceding the verb *yonggong*.

The final SVC construction noted by Li and Thompson (1981) is descriptive

clauses (5). This “construction involves a transitive verb whose object is ‘described’ by a following clause.” (Li & Thompson 1981:371).

- (5) Wo pengdao-le yi-ge waiguoren hui shuo Zhongguohua
Isg meet-PERF 1-CL foreigner can speak Chinese
‘I met a foreigner who can speak Chinese.’

(Li & Thompson 1981:371)

The verb *pengdao* ‘meet’ in Chinese is a transitive verb which takes the object *waiguoren* ‘foreigner’. The following clause *hui shuo Zhongguohua* ‘can speak Chinese’ describes the object NP *waiguoren*. On the surface this appears to be a relative clause and in fact the English translation makes use of *such*. However, Li and Thompson (1981) note both syntax and discourse differences differ between relative clauses and the fourth mentioned serial verb construction. Syntactically, the relative clause precedes the object NP.

- (6) Wo pengdao-le yi-ge hui shuo Zhongguohua de
I meet-arrive-PFV one-CL know:how speak China.speech NOM wàiguórén
foreigner
‘I met a foreigner who can speak Chinese.’

(Li and Thompson 1983, p613)

(6) shows (5) rearranged as a relative clause with *hui shuo Zhongguohua* ‘know:how speak China speech’ preceding the NP *wàiguórén*. The meaning in discourse also converges. The SVC form indicates a piece of incidental information, namely one of the speakers met a foreigner who happened to speak Chinese. With the relative clause construction (6), both speakers have previously tacitly acknowledged the existence of the information. In other words, the speakers might have already been talking about foreigners who knew how to speak Chinese.

Since the publication of Li and Thompson’s work and their analysis of Chinese SVC’s, many linguists have argued for a reanalysis of what should be considered an SVC and those that should be excluded. In fact, Waltraud (2008) argues that the term “construction” applied to any set of serial verbs have been used too generously to

describe a variety of different phenomena. He also posits that the SVC's noted by Chinese linguists do not correspond to other known SVC's, such as those found in Niger-Congo languages.

Yin (2015) proposes another model of discerning Chinese serial verbs from a cognitive perspective. They state that there is a “connection between grammatical structure and cognition such that one can link a canonical SVC to a single (or unitary) complex event.” (p2). Events can either be simple or complex depending on the number of phrases or the speaker's conception of the events. Each event, either simple or complex, is comprised of a core event. An example of a single event would have one event like the sentence “The dog chased a cat”. There is only one VP in the case, namely “chased a cat” as well as the speaker viewing this as one core event of a dog running after a cat even.

A complex event would involve multiple verb phrases and actions conceived under one on-going scenario centered around the core event. There can be an inception event followed by a core event.

- (7) Ta na dao sha yizhi zhu.
S/he take knife kill one pig.
'S/he took a knife to kill a pig.

(Yin 2015:2)

In (7) the core event is *sha* ‘kill’ with the inception, or preceding action, being *na* ‘take’. Yin (2015) fails to provide any tests to ensure which verb is the core or the inception, but several of my L1 Chinese informants agree with Yin's assessment. This example commensurate with Li and Thompson's (1981) example in (1). The author translates this sentence with the purposive meaning as evidence by the infinitive ‘to’ in the English translation. It is also possible this is interpreted as consecutive events.

With an interpretation of consecutive events, the semantics of the Chinese word *sha* become more noticeable. The translation with a consecutive interpretation would be translated as “She took a knife and (attempted to) kill the pig.” Unlike the English ‘kill’, *sha* only describes the undertaking of an action with intent while the result is left undefined. This is in contrast to the semantics of the English ‘kill’ which incorporate both the action with intent and achieving the result.

In order to show the result of an action, some verbs require an additional verb to indicate the result. This resultative verb is viewed as the termination event according (Yin 2015:2):

- (8) Ta sha si le yizhi zhu.
S/he kill die PERF one pig
'S/he killed a pig (the pig actually died).'

The core event of (8) is the verb *sha* followed by the termination event with the verb *si* ‘die’. *Si* shows the result of the core event, namely that the pig died.

Lastly, a complex event can contain three phases: the inception, the core, and the termination phase.

- (9) Ta na dao sha si le yizhi zhu.
S/he take knife kill die PERF one pig.
'S/he took a knife and killed a pig.'

(Yin 2015:3)

The verb *na* demonstrates the inception of the events leading to the core *sha* followed by its termination in *si*. The termination verbs are seen as satellite verbs that can express a number of termination events, including: fulfillment (8,9), underfulfillment(10a), overfulfillment(10b), and antifulfillment (10c)

- (10) a. underfulfillment

Wo ba kuaizi zhe wan le.

I OBJ chopstick break bend PERF
'I broke the chopstick bent' (I squeezed in on the chopstick to break it, but only managed to bend it.

(Yin 2007:7)

b. overfulfillment

Wo ba kuaizi wan zhe le.
I OBJ chopstick bend break PERF
'I bent the chopstick broken.' (I squeezed in on the chopstick to bend it, but wound up breaking it.

c. antifulfillment

Wo ba yifu xi zang le.
I OBJ clothes wash be.dirty PERF
'I washed the clothes dirty.' (I washed the clothes [e.g., in a lake] but it turned out dirtier than before.

(Yin 2007:8)

The verb *zhe* 'break' in (10a) indicates the speaker's action of squeezing the chopsticks in order to break them. However, the termination phase with *wan* 'bend' indicates the result of the chopsticks having been bent indicating the underfulfillment of the action. Conversely, the verb *wan* can be the core event with *zhe* being the result indicating overfulfillment. This means the intent was only to bend the chopsticks but broke them instead. Number (10c) is deemed antifulfillment as the intention of the core phase was to wash the clothes, but the resultative verb *zang* 'be.dirty' shows the opposite result incurred. While Waltraud (2008) contends that these satellite verbs do not constitute a real SVC, other linguists readily accept them (Tai 2003, Helms-Park 2003 & 2004).

Yin (2015) places a few more constraints to better identify what is a real or canonical SVC. The first proposes that SVC's should differ in their event structure than events of coordination and subordination. They acknowledge this is controversial among linguists as some, such as Li and Thompson (1981) consider events of coordination and subordination as an SVC. Yin (2015) argues "that canonical SVCs have unique features distinct from typical subordinate constructions or coordinate

constructions.” (p41). They argue for this distinction based on event profiling being an aspect of construal.

- (11) Ta meitian duanlian shenti xuexi hanyu.
3SG everyday exercise body study Chinese
S/he exercises his/her body (and) studies Chinese everyday.’
(Yin 2015:41)

There are two verbs expressed in what appears to be a monoclausal utterance (11). These are *duanlian* ‘exercise’ and *xuexi* ‘study.’ As can be ascertained from this sentence, the two verbs of exercising and studying Chinese are not two equal components construing a complex event. They are two separate events with no relation to each other (coordination) and as such should not be counted as a canonical SVC. Additionally, they argue against subordination as an SVC because “[t]he main clause determines the profile of the overall structure.” (p.42). A true SVC would thus have two events creating the event structure together. According to this argument, (6) would not be considered a true SVC as *pengdao* precedes over the overall structure and not in tandem with *hui shuo Zhongguohua*.

There is a further constraint on what shall be included as a real SVC. These are semantic principles of iconicity: Principle of Temporal Sequence and Scope, Principle of Shared Participants, and Principle of Situational Dependence. A multi-verb sequence must adhere to all three principles in order to be deemed a real SVC. The Principle of Shared Sequence and Scope deems only events that occur in the sequence of real world events, such as (8) where it is expected that one buys a ticket before entering an establishment. The Principle of Shared Participants is based on the two verbs sharing a single subject or an object. A perceptive SVC, such as (19) has two verbs, neither of which share the same subject or object.

- (12) Wo kan ta youyong
I saw he swim
‘I saw him swim’

(Yin 2015:40)

The third semantic principle is the Principle of Situation Dependence. The second verb or event must come as a result or direct connection to the first event. Again (8) fits the bill of being an SVC. Entering a cinema or a concert is predicated on buying a ticket to enter. On the other hand, the act of a person swimming (12) is not dependent on the first event “I saw”. Therefore, (12) or any other events of perception are not canonical SVC’s according to Yin (2015).

There is one area where Yin’s framework does not take into account and remains vague. For example, an inception event and a core event are separated by an intervening NP while a core event and termination event do not. Yi (2015) never addresses this issue. Since syntax is taken to be meaningful in the framework of cognitive linguistics (Tai 2003, Tyler 2012) this is an important distinction to make. Is it possible for an inception event and core event to occur side-by-side in the syntax? Can an NP intervene between the core event and the termination event? The perception of events and how it influences this area of the syntax is greatly lacking.

2.2.2 English SVC’s and Non’SVC’s

English also has quite a few instances where multiple verbs occur in a sentence with many of those constructions not fulfilling the requirements for being a SVC as laid out either by Li and Thompson (1981) or Yin (2007 & 2015). However, being classified as a non-serializing language does not mean that SVC’s do not occur in the language. English does make use of SVC’s in the examples below in the imperative motion forms.:

- (13) a. *Come see* me on Tuesday.
- b. *Run go get* your mother a newspaper.
- c. *Go play* on the freeway!

(Payne 2012:330)

In the above examples, English makes use of both two and even three adjacent head verbs occurring to denote a single event. According to Yin (2015), English is classified as a non-SVC language due to the relative infrequency of such constructions. However, Payne (2012) argues that such utterances are “well-attested in both the BNC [Britain National Corpus] and the COCA [Corpus of Contemporary American English]” (p330).

Sentences (13a-c) are known as purposive SVC’s as they denote a purpose. For example, in (13a) the reasons for going is for the purpose of eating. English also makes use of causative (13a) and perceptive (13b) multi-verb construction. Li and Thompson (1981) would consider (13b) to be a SVC while Yin (2015) would not.

- (14) a. I made him cry.
- b. I saw him swim to the other side.

The causative SVC (14a) has the verbs ‘make’ and ‘cry’ showing a monoclausal causal relationship. Sentence (14b) has the verbs ‘saw’ and ‘swim’ which is perceptive SVC. Yin (2015) disputes the classification of perceptive SVC’s because it violates the Semantic Principle of Situational Dependence. In essence, the ‘see[ing]’ and ‘swim[ming]’ in (14b) are independent events not tied to one another.

English SVC’s also display a consecutive order with motion verbs. The first and second verb an utterance equates to the first and second event of an event series respectively as seen in (22a-b)

- (15) a. Don’t make me *come get* you!
- b. They will *come see* me tomorrow.

(Payne 2012:330)

Sentence (15a) shows the serial verbs ‘come’ and ‘get’. First the speaker will ‘come’ and then ‘get’ the other. The same is seen in (15b). The referents will ‘come and see’. The conjunction has simply been elided.

A brief note on what is not considered an SVC in English. Payne (2012) states

that serial verbs must be head verbs. This excludes auxiliary verbs, such as ‘is’ and ‘will’ as well as ‘have’ denoting the aspect in ‘I have seen him’. Verb compounding is also not considered a serial verb construction although they appear to be SVC’s on the surface.

- (16) a. Heat the butter and *stir fry* the courgettes, red peppers, sweetcorn . . .
b. He’s calling for a change in direction to *kick start* the economy.

The verbs ‘stir’ and ‘fry’ are written consecutively. Sentence (16a) can be mistaken as an SVC because of two possible event series ‘stir[ing]’ and ‘fry[ing]’. However, Payne (2012) notes that a series of verbs where the first verb can be interpreted as a method of performing the second verb are classified as verb-compounds rather than serializing verbs. We see that ‘stirring’ is a method of ‘frying’ and ‘kicking’ is a method of ‘starting’ an object (16b). In contrast to the serializing verbs seen in (15a) and (14b) ‘coming’ is not a type of ‘seeing’ nor is ‘making’ a type of ‘crying’.

The use of catenative verb constructions (CVC) can be found in English. These involve a chain of verbs strung together with the infinitive marker ‘to’. *Ask, seem, and promise* are instances of CVC’s that take an infinitive form as a complement. For example, the sentence *He asked to see the doctor* has the verbs ‘asked’ and ‘see’ with an intervening ‘to’. It is possible that L2 learners of English may incorrectly notice the two verbs and thereby transfer an SVC syntactic structure. Roberts (2012) found that CVC’s have all the syntactic and semantic properties of SVC’s. Therefore, it is possible that L2 English interlanguage of L1 Mandarin speakers would include a serial-like verb construction where a CVC is called for.

2.2.3 Comparison of Mandarin and English SVC’s

Although English has far fewer serial verbs than Chinese, some serial verbs in English share an equivalent in Chinese.

- (17) purposive SVC's
- a. go eat (English)
 - b. qu chifan (Chinese)
- 'go eat'
- (18) causative SVC's
- a. I made him laugh (English)
 - b. wo shi ta xiao (Chinese)
- I make him laugh
'I made him laugh.'
- (19) perceptive SVC's
- a. I saw him laugh (English)
 - b. Wo kan ta youyong (Chinese)
- 'I saw him swim.'

(Yin 2015:1)

The purposive SVC's have two verbs in conjunction with each other: 'go' and 'eat' and *qu* and *chifan*. In both cases, the reason for going is in order to eat something. Causative SVC's as seen in (18) involve a verb initiating a cause to a subsequent action. What is more, causative SVC's fit the definition of a consecutive SVC identified by Li and Thompson (1981). The event of causing someone to perform an action precedes the action. Lastly, perceptive SVC's utilize the subjects observing another action. As previously stated, Yin (2015) provides the Principle of Situational Dependence as a counterclaim to (19) being denoted an SVC.

By taking an L1 Chinese speaker's concept of events and transferring it to English, we would find different types of errors in the English interlanguage. It is predicted that early errors would be interlingual, as in they are transferred from L1, before signs of intralingual errors would emerge. Three errors types have already been found in a preliminary study conducted by myself which are explained in detail in 2.3.2. These errors include auxiliary insertion, V1 + NP + V2, and VP,VP.

If we provide an elicitation task constructed around Yin's perception of event series, we would come observe areas of direct negative transfer in lower learners. According to Slobin (1996), when children acquire their native language, the child

learns particular ways of speaking for thinking which can be resistant to restructuring adult SLA. We would expect a near 1-to-1 transfer of the syntax for beginner level L2 English learners. Such errors would include an inception and core event without an intervening conjunction or infinitive 'to'. Core and termination events would include two sequential verbs such as 'kill die'. This would come as a result of speakers not having yet acquired the full semantic properties of the verbs. As the speakers acquire the semantic properties, these core and termination events would mirror purposive and consecutive events without the intervening 'to' or conjunctions. Helms-Park (2003 & 2004 discussed in 2.3.1) noted many errors from Vietnamese transfer expressing termination or fulfillment. Therefore, we would expect most SVC transfer errors to also fit the core event plus termination event concept of event. As noted in 2.3.2, an auxiliary insertion has been noted which may be an intralingual or interlingual error. This study should hopefully clarify what sort of errors it is.

2.3 Empirical Studies of Serial Verb Constructions in English by L2 Learners

There has been a general lack of empirical studies observing serial verb constructions in English by L2 learners. As stated before, this is an obvious gap in the literature and all the more reason for its importance.

2.3.1 Language transfer in SLA and creoles

One study by Helms-Park in 2003 (which is explained in multiple papers from 2003-224) compared the interlanguage of Vietnamese speakers (an SVC language) and Hindi-Urdu (non-SVC). Helms-Parks (2003) attempted to ascertain whether SVC's are transferred from the L1 or whether they comprise the interlanguage, meaning non-SVC

languages would also produce SVC's in L2 English.

A common form of SVC in Vietnamese is V1 + NP2 + V2. The V2 is unaccusative and both verbs share the NP2 as an object. What is more, the V2 acts as a resultative to the V1.

(20) a. Lá thư đang cháy
CLASS letter PROG burn
'The letter was burning.'

b. Người đàn ông đang đốt bức thư
The man PROG ignite CLAS letter
'The man set fire to the letter.'

c. Người đàn ông đang đốt bức thư cháy
The man PROG ignite CLAS letter burn.
'The man set fire to the letter, resulting in its burning.'

(Helms-Park 2004:44)

In utterances involving verbs denoting a change of state, as the verb *cháy* 'burn' demonstrates, an intransitive form of the verb is seen. In (20a) *cháy* is intransitive. The verb *đốt* 'ignite' is a transitive verb (20b-c) with the NP2 *thư* 'letter' as the object. When the transitive verb is the main verb, the unaccusative *cháy* acts as a resultative. This mirrors the satellite fulfillment verbs in Chinese described by Yin (2015). In this instance (20c), 'burn' appears to be the termination event providing fulfillment.

Another instance of Vietnamese causative serial verbs involves the use of *làm* 'make' or 'cause'. Unlike English, Vietnamese causative make constructions involves an adjective-like unaccusative to express the NP1's lack of volition.

(21) Trâm làm cửa sổ của tôi vỡ.
Tram make CLAS window POSS I break
'Tram broke my window (accidentally).'

(Helms-Park 2003:221)

The causative serial verb *làm* takes the unaccusative verb *vỡ* express accidentally causing something to break.

Helms-Parks conducted a study to determine if SVC's are transferred negatively

from the L1 to L2 in Vietnamese speakers without corresponding interlanguage errors from Hindi-Urdu speakers. A second question was whether any serial-type constructions reflect the lexicosemantic classes of Vietnamese should they emerge in the interlanguage data. Lastly, would these transferred serial constructions vary according to the speakers' L2 English levels (elementary, intermediate, advanced)

Participants were comprised of 45 L1 Vietnamese speakers and 47 Hindi-Urdu speakers residing in Canada with varying degrees of English proficiencies. They undertook a production task comprised of pairs of pictures. The first picture would show a noncausative action with an intransitive sentence like "The bell rang". A second picture showed a causative action with the same object and a choice of four verbs to produce a sentence. Informants were prompted with "What did X [the agent] do to cause Y [patient/theme]. (Helms-Park 2003:225.)

The results showed that 15 of the 45 Vietnamese speakers produce a serial-type construction. Two examples of elicited sentences include: "*The man made the cup broken.*" and "*The man made the shirt burned.*". (Helms-Park 2004:45). The author also notes that "[t]he majority of these sentences had V2s that could be interpreted as the result of the action represented by V1[.]" (Helms-Park 2004:45). The majority of the serial-type errors were produced by beginners. Six beginner English speakers produced serial causatives without 'make' and two with 'make'. The other four speakers to make these mistakes were evenly distributed between intermediate and advanced. Additionally, seven beginners produce make + unaccusative + inanimate NP2 where the intermediate and advanced were produced by two and three speakers respectively.

In contrast to the Vietnamese L1 speakers, Hindi-Urdu speakers produced no serial verb constructions in the English interlanguage data. This is evidence that SVC's are

transferrable from the L1 and not part of the second language acquisition process. Had this been the case, we would expect to see Hindi-Urdu speakers also producing serial-type constructions. What is more, Helms-Park (2003 & 2004) determined the serial constructions produced by the Vietnamese speakers were congruent with the Vietnamese forms. Lastly, the error types largely follow the English proficiency levels.

2.3.2 He is find the cat was in a tree: SVC error analysis

In 2017, I conducted an error analysis of multi-verb constructions of Chinese L1's English L2 interlanguage data. The study sought to identify area of errors in the use of multiple verbs, classify them, attempt to determine the source of the errors, and if there appeared to be an order of acquisition.

The participants comprised of 31 Taiwanese students majoring in English at a university in central Taiwan. The students' English proficiencies varied according to TOEIC scores indicating beginner and intermediate levels. There was a written production task based around a sequence of five pictures telling a story in the hopes of eliciting multi-verb construction errors. The participants were allotted 20 minutes to write a story. The final picture of the story was blank, notifying the participants to write their own creative ending. They were instructed not to fix any writing errors and had previous training in freewriting in my English composition class. 28 participants performed the task in English. Three randomly selected students acted as a control group and wrote the task in Chinese. An additional control of one L1 English speaker conducted the task in English.

The sentences were analyzed for errors in the use of using multiple main verbs. For example, two such errors were the result of omission of conjunctions and the infinitive 'to' or inserting an extra verb. Errors in spelling, morphology, tense, and aspect were not considered. Fleta (2003) identified numerous auxiliary is-insertions in

the interlanguage of Spanish speakers with different functions, such as a past tense marker. Any data that appeared to align with Fleta's data were not considered.

As a result, three distinct error types were identified. These include: auxiliary insertion (“*They are find the orange cat.. .*”), V1 + NP + V2 (“*They saw a cat was on the tree.” and VP, VP (“*Agents took out the cat , bring it to somewhere three of them do not know”*)).*

A definitive cause to some of errors could not be determined. The auxiliary insertion is possibly a transfer error of the Chinese *shi. . . (de)* construction used for emphasis. In Chinese, the *shi* precedes whatever constituent is being emphasized whether it be a verb, noun, adjective, or adverb. However, the auxiliary insertion in the interlanguage data only appeared directly before a main verb in all cases. What is more, none of the Chinese language control groups used the *shi. . . (de)* construction. It is doubtful the auxiliary insertion is due to transfer.

Another option is the possibility of students' transferring their conceptualization of events including the semantics (in this case an additional verb indicating fulfillment) but TL input constrains how the verbs syntax is formed. For example, the Chinese serial verb *zhao-dao* 'find' is comprised of the verb *zhao* 'seek' and *dao* 'arrive'. It is possible that Chinese speakers incorrectly map the meaning of *zhao* onto the word 'find'. With this, speakers might want to provide a second verb fulfilling the event. Because the TL input doesn't contain a serial fulfillment verb succeeding the verb but main verb preceding auxiliaries have a high frequency, perhaps the auxiliary insertion is meant to 'fulfill' the event.

The V1 + NP + V2 serial construction at times mirrors some of the serial verbs found in Chinese. For example, “They saw a cat was on a tree” appears to correspond to the perceptive SVC which Li and Thompson (1981) identify as being a pivotal

construction such as (3). “*Anna will spend more time to take care of her cat won't let it happened again.” identifies two consecutive events. Just as the serial-type verbs in Helms-Park (2003, 2004a, 2004b) mainly showed resultative events, many of the utterances in my own study also appear to be resultative verbs. This furthers the idea that speakers are transferring their conception of events, particularly the fulfillment.*

The last error type was VP , VP with the intervening comma. Some examples showed inception + core (“*Nick and Anna are bad students by not paying attention to class , looking at the tree outside”) and core + termination (*Agents took out the cat , bring it to somewhere three of them do not know”). While these phrases lack a conjunction the way serial verbs do, the intervening comma indicates the speakers’ ability to separate these two consecutive events preventing them from being monoclausal. A professor of mind indicated that this construction is found in quite a few English textbooks in Taiwan and is likely an error of explicit teaching. A third example gives this idea more weight.**

(22) The teacher then went out of the classroom and headed to the tree , climbing it and trying to grab the cat.

While this sentence is grammatically correct, semantically it does not align with the syntax. This sentence shows two correct non-SVC events with conjunctions: VP and VP. This indicates the speaker has acquired the non-SVC event structure and still made the error type. I have not been able to confirm this syntactic structure is commonly taught in Taiwan English textbooks, but this does not rule out the error occurring as a result of explicit teaching.

Of the 28 participants writing in Chinese, 15 of them produced multiverb errors in the interlanguage. The VP + NP + VP structure was the most common error with 16 occurrences. The auxiliary insertion and VP, VP were found eight and six times

respectively. The second question of study was whether or not there was any pattern in regards to English proficiency based on TOEIC proficiency levels. Those who used the auxiliary insertion had scores ranging from 405 to 589 with a mean score of 509. This places them in Elementary Proficiency Plus category. The V1 + NP + V2 spanned 545-750 points with an average of 673 and find themselves on the lower end of Limited Working Proficiency category. Most of the VP , VP phrases were written by those with an average score of 750 placing them at the higher end of Limited Working Proficiency nearing the next category. This data posits that different levels of English proficiency affect the error types produced.

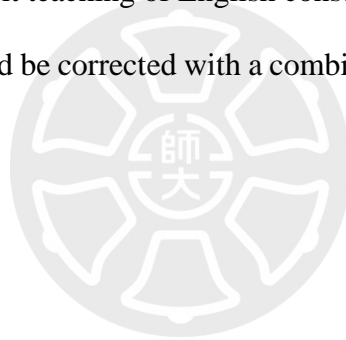
The third question in the study sought to see if an order of acquisition could be found. While the data in indicated a possible order of acquisition, this research question was ultimately not determined.

2.4 Summary of Chapter Two

When learning an L2, transferring meaning and syntax from the L1 is a strategy deployed by many learners. This strategy is known as both negative or positive transfer depending on whether the transfer caused an error in the IL or not. When an error appears as a result of transfer, it is known as an interlingual error. Errors that cannot be placed to either an L1 or L2 structure is an intralingual error. Markedness can also have an effect on acquisition and transfer. Unmarked structures are thought to be easily acquired while unmarked structures would provide difficulty.

Both Chinese and English has a variety of multi-verb structures in their discourses. Some of the structures are known as serial verbs, where two or more verbs are found to construe a single complex event. While there are many cases of multiple verbs in an utterance, only some of them are true SVC's. According to Yin (2015), they

must abide by a few shared semantic principles and not contain coordination of subordination. Furthermore, Chinese speakers' conceptualization of single complex events are viewed as having a core event with either a preceding inception event, a termination event or both. English speakers do not construe events in such ways, and therefore we expect a number of errors in the English IL as a result of negative transfer. Because syntax has meaning and can constrain how an event is realized in English syntax, we expect to find both interlingual and intralingual errors. This has already been witnessed by Vietnamese and Chinese speakers. The object of this paper is to better identify a wider array of errors and classify them as to errors types. From here, we can make pedagogical implications for further teaching of students. Interlingual errors could be rectified with explicit teaching of English construals and perception of events while intralingual errors could be corrected with a combination of construals and input.



Chapter Three

Research Design

This chapter details the research design for my study. Section 3.1 discusses the participants along with their year of study at university, ages, and the number of participants for each group. Next, the two types of tasks and the instruments used to carry out the study are discussed at length in Section 3.2. This is followed by Section 3.3 outlining a pilot study conducted by myself and how the research was carried out in its entirety.

3.1 Participants

The study consisted of 54 participants: 36 L1 Mandarin speakers who major in English at a university in central Taiwan and 18 L1 English speakers. The L1 Mandarin participants' ages are from between 18 to 22 years old and the L1 English native control was 32-65.

Table 3-1. Participant information

Group	Proficiency	TOEIC score	Age Range	Median	Number
EP	Elementary Proficiency	255-400	18-22	20	18
EP+	Elementary Proficiency Plus	405-600	18-22	20	18
Native Control			32-65	36	18
				Total	54

The participants were divided up according to their proficiency levels as stated on <https://toEIC-testpro.com/blog/toEIC-score-what-you-need-to-know/>. Those whose TOEIC score were between 255-400 were marked as Elementary Proficiency (EP) which is akin to a beginner. Elementary Proficiency Plus (EP+) is for those that score between 405 and 600 which are around a high-beginner/low intermediate. Additionally,

the website indicates that the two groups would place between A1 and B1 of the CERF level used in Europe.

Due to the limited time constraints to carry out this study, a qualitative study over a long period of time to track the incremental changes is not possible. By including these different proficiencies which span the four years of levels of students at the university in question, we can better delineate the course of acquisition through four years of formal study. Most students do not progress beyond an intermediate phase by the time they graduate.

For a control group, 18 native English speakers were recruited to be participants. Many of whom live in Taiwan while others are scattered around the US and Europe.

3.2 Tasks and Materials

Prior to the tasks, L1 Mandarin participants took an online TOEIC test beforehand to assess their English abilities. These scores were compared to the errors types to determine if any patterns emerged. This change, compared to the preliminary study, is significant so as to ensure the accurate proficiency level at the time of the research rather than self-reported level that may not be current.

3.2.1 Proficiency test

All participants took a practice TOEIC test to better assess their proficiency levels. The website <https://toEIC-testpro.com/> (the same site offering the breakdown of TOIEC proficiency levels) offers a TOEIC exam simulator for the year 2022. Participants took the mini test due to time constraints. The mini test is comprised of a total of 100 listening and reading questions with one hour to complete (Appendix A). This is half the number of questions and time allotted for the full exam. Reading and listening

sections were conducted to avoid test bias and getting a fuller understanding of the participant's levels.

There are 49 listening questions to complete with four different parts. The first part involves a picture along with a voice recording with four different scenarios. Participants must correctly match the scenario described to the picture presented. The second part is question-response. Participants will hear a question and are offered four possible responses of which one is the correct. Part three is a short conversation. Two or three people will talk with 3 questions about the dialogue. Part four is short talks. A short talk, such as an announcement, will be played once and participants must correctly answer three questions for each talk.

The reading section contains three sections of 51 questions. The first is a complete the sentence activity. Each sentence has a word missing with four possible answers to choose from. Part two consists of a short text with missing words or phrases that and four possible answers. The last part is reading comprehension. Participants will be given a short text from which to answer a series of multiple choice questions.

3.2.2 Instruments

An experimental study was carried out to analyze empirical data. While there is plenty of theoretical studies on the nature of SVC's in Chinese and English (Li & Thompson 1981, Tai 2003, Kroeger 2004, Roberts 2009, Roberts 2012, Yin 2015,), very little has been conducted on empirical transfer of SVC's. The experiment made use of two different tasks: a grammaticality judgement task (GJ Task) and picture description task (PD task). The first reason for two task types was to avoid task bias. Additionally, the mental representation of the language of the participants and their

performance may not be the same. This provided insights into the relationship between the mental representation and the performance of transferring SVC's an event series.

Table 3-2. Chart of common and uncommon SVC properties

Type	Example	Number of Questions
T1 Common Properties	T1-1 purposive SVC's Ex. Let's go eat.	4
	T1-2 causative SVC's Ex. I made him laugh.	4
	T1-3 perceptive SVC's Ex. I saw him swim.	4
T2 Not-common properties	T2-1 inception + core Ex. *I take a knife kill a pig.	4
	T2-2 core + termination Ex. * He kills die a pig.	4
	T2-3 inception + core + termination Ex. *I take a knife kill die a pig.	4

Table 3.2 lays out the SVC properties that can be shared by both English and Chinese and Yin's (2015) proposed framework for identifying a canonical SVC. For each SVC type, participants were given 4 questions to judge grammaticality. Two of each type were grammatical and the two others were ungrammatical. If answers for T1-3 are worse than T1-1 and T1-2, this would then indicate that T1-3 should not be treated as a SVC per Yin's (2015) claims. If the grammaticality judgements from T1 common properties fare better than T2, this would indicate more support for Li & Thompson's (1983) SVC structures than Yin's (2015). This would indicate that English learners care more about syntactic patterns than semantic or semantic/syntactic interface.

3.2.3 Instrument and Task 1

The second instrument was a PD task. Some questions were comprised of one picture, while others used two or three pictures in a story in chronological order. Students were asked a question, such as "What does the man do?". They were asked to

make a sentence using two pre-selected verbs (see Appendix B) in hopes of eliciting non-SVC errors. This forced students to use two verbs in a monoclausal sentence to describe the action. A correct answer would make sure of conjunctions and infinitive markers aligning with the different types, such as perceptive, core + termination, etc.

3.2.4 Instrument and Task 2

There are three different event types as pointed out by Yin (2015). These are inception + core, core + termination, and inception + core + termination. To determine whether the participants' conception of the event series is part of the mental representation of English, a GJ task in the form of a questionnaire was provided. They consisted of 24 sentences testing for the different event series and 6 distractors. Each sentence had a picture of events followed by a sentence explaining the picture. Participants were instructed to mark each sentence as grammatically correct with an 'O' or incorrect with an 'X'.

Table 3-2-1. SVC properties and corresponding GJ task questions

Type		Number of Questions	Question Number
T1 Common Properties	T1-1 purposive SVC's	4	Q4, Q15, Q28, Q30
	T1-2 causative SVC's	4	Q6, Q8, Q9, Q13
	T1-3 perceptive SVC's	4	Q3, Q17, Q18, Q26
T2 Not-common properties	T2-1 inception + core	4	Q2, Q5, Q22, Q27
	T2-2 core + termination	4	Q12, Q14, Q15, Q25
	T2-3 inception + core + termination	4	Q1, Q11, Q20, Q24
	Distractors	6	Q7, Q10, Q19, Q21, Q23, Q29

The test questions were first organized based on the SVC type. A randomizing list generator from www.random.org was used to randomize the questions as noted in Table 3.2.1

3.3 Procedures

3.3.1 Pilot Study

I conducted a pilot study using the materials in Appendix B to get some preliminary results. The purpose of the pilot study was to test out the PD and GJ task for any errors and get an indication as to the types of results that could be expected. I recruited two participants with a low level of English, two intermediate, and two native English speakers. One low level English student failed to do the pilot study. It is possible the test may have been too difficult to complete, but the participant failed to confirm if that was the reason. One of the intermediate speakers mistakenly marked themselves as a native speaker. Additionally, they incorrectly answered 10 of the 24 PD tasks by failing to use all the verbs provided. So their scores were not considered for these results. A low level English participant marked themselves intermediate. This appears to be the only incorrect marking. For this reason, it is important the formal study use a graded level proficiency rather than self-reported level.

The native speakers both scored 24 points on the PD task as to be expected. Both the intermediate and the low level learners scored 17.5 points each. With a closer look, we see a pattern to the types of errors made. The intermediate learner had mostly intralingual errors and verbal morphology. Examples of a common intralingual error for this participant is an overgeneralized infinitive marker in the *'The older woman let her granddauther to help her.'* A common morphology error with a missing third person singular marking like 'sit' in *'The monkey climb inside the bus and sit down on*

the seat.’ The intermediate participant only had one interlingual SVC error, which was *‘The woman is using hose spray water and fill up the pool’* An infinitive marker before the verb spray would render this grammatically correct.

The low level English participant also had mostly intralingual errors, with one as a result of negative transfer. The resulting negative transfer was *‘He’s using a camera taking pictures for them.’* Interestingly enough, both the intermediate and the low level learner negatively transferred an SVC with the verb ‘use’. An interesting response was with a core + termination utterance is *‘She climbs to grab that cat.’* ‘Climb’ and ‘grab’ are not catenative verbs and must have an intervening NP. It appears the participant transferred the core + termination sequence while correctly producing an infinitive marker. This is perhaps an indication of an error from a participant that is close to reaching a low intermediate stage. Again, the use of a precise proficiency level can help better make this assessment. Additionally, this participant correctly answered the causative SVC’s and did not overgeneralize the infinitive marker as the intermediate participant had. This indicates the low level participant is likely more highly relying on language transfer to produce grammatically correct SVC’s.

Some interesting results were acquired from the GJ task. The intermediate participant almost always correctly identified grammatical and ungrammatical sentences except for 3 instances out of 30 while the low level missed 7. Questions 11 and 12 both provided an interesting analysis. In response to question 11’s *‘He take a knife kill die a pig’* both participants correctly marked this as ungrammatical. However, in Question 12 *‘He kill a pig die.’*, both participants accepted this as grammatical. It appears that the syntax of a core + termination wasn’t transferred (as indicated by their responses to Q11) but the semantics of the verb ‘kill’ was which indicates the need for a termination verb with died. The low level participant also marked “He made he dance”

as grammatical. This indicates that they have negatively transferred the sentence from Chinese as this is how it would be formed. However, the same participant marked Q13 ‘He made I work harder.’ Ungrammatical which involve the same uninflected form of the object NP. Some sentences which were grammatically correct were missing a period at the end. This might be a reason for some of the errors in grammaticality judgement.

The result of this pilot indicate that some SVC’s are negatively transferred as well as the semantics of some of the verbs. However, most of the errors from both participants were largely intralingual, indicating they had largely stopped transferred SVC’s and consequently made more intralingual errors on the continuum to fully formed non-SVC’s. These results show the importance of precise proficiency levels needed in the formal study.

3.3.2 Formal study

This study sought to fix the issues with the pilot study. Additionally, it provided a more comprehensive look at student errors through increased number of proficiency levels. The errors were organized to TL grammaticality along with an assessment of the acceptability of event transfer SVC in the participants’ interlanguage.

Students from a central Taiwanese university from all four years of study were recruited to ensure a wide range of proficiencies. They were provided with a consent form (Appendix D). Before the first task, an online TOEIC test was administered to assess each participant’s proficiency score. In the following weeks, the students performed the two tasks. Both sections were taken on the same day. Section 1 of the research questionnaire was the PD task. The second section had the grammaticality judgements. Before starting the test, participants answered which TOEIC score they received. This was followed by 24 questions with a picture and an English sentence for

the PD task and 30 questions for the GJ task. Participants were given 40 minutes to complete both tasks.

The native control group performed the same task writing in L1 English. This was for the purpose of determining what SVC's may appear. They were also given 40 minutes to complete both of the tasks.

3.4 Data Analysis

Based on previous error analysis, my own preliminary and pilot studies, we ascertained which type of errors to expect on the PD task. For the scoring, one point was given to each grammatical rendering of a sentence. One point was deducted for an incorrect use of SVC, and half a point for morphological errors where the syntax was still correct. Points were deducted for specific error types. One major error was the lack of a conjunction. Based on the definition of an SVC involving multiple monoclausal verbs without an intervening conjunction (Li & Thompson 1983, Kroeger 2004, Tai 2004, Roberts 2009), negative transfer from L1 would predict the lack of a conjunction before a series of verbs. For example: '*They got on the bus drove to the park'. The only word needed to render this utterance grammatical is the conjunction 'and'. The only time an SVC without a conjunction or infinitive marker is not needed in English is with purposives with two simultaneous verbs ('go eat), causatives ('make him laugh') and perceptives ('see him swim'). An overgeneralized infinitive marker or a conjunction lost a point. An error, such as 'go eats' lost 0.5 points due to it being a morphological error but with correct use of syntax. Spelling errors were not deducted points in this study. For each sentence type, participants could score up to 4 points for correctly producing utterances. The points for each type were calculated together. For instance, the purposive SVC's had four PD tasks with 1 point being allotted to each. A

participant receiving 2 out of the 4 points was marked 0.5 while 4 out of 4 correct answers resulted in one point total for that SVC type.

The GJ task was graded similarly with a correct response being allocated one point and an incorrect judgement as 0. There were 4 questions per SVC type. The total or correct judgements were divided by the total number of judgements for that SVC type. So a participant with 3 correct judgements and 1 incorrect judgment under the causative SVC would receive 0.75 points for their judgement. This was done so that we may better compare the correct usage types against each other.

Table 3.3. GJ task scoring

Type	Students production	Points given	Reason
T1-1 Purposive SVC's	Go get on the bus	1	Grammatical
	Go and get on the bus	1	Grammatical
	Go gets on the bus	0.5	Morphological error but syntactically correctly
	Go to get on the bus	0	Overgeneralized infinitive marker
	I buy ticket go in.	0	Lack of infinitive or conjunction
T1-2 Causative SVC's	I made him laugh.	1	Grammatical
	I made him to laugh.	0	Overgeneralized infinitive marker or conjunction
	I made he laugh.	0.5	False NP form
	I made him laughed	0.5	Morphological error but syntactically correctly
T1-3 Perceptive SVC's	I saw him swim.	1	Grammatical
	I saw him swimming	1	Grammatical
	I saw he swim.	0.5	False NP Form
	I saw him to swim	0	Overgeneralized infinitive marker or conjunction

Table 3.3 (continued)

Type	Students production	Points given	Reason
	I saw him swam	0.5	Morphological error but syntactically correctly
T2-1 Inception + Core Events	They got on the bus and drove to the zoo	1	Grammatical
	They got on the bus drove to the zoo	0	Missing conjunction
	They got on the bus to drive to the zoo	1	Grammatical
	When they got on the bus, they drove to the zoo	1	Grammatical
T2-2 Core + Termination Events	He sat down and relaxed.	1	Grammatical
	He sat down to relax	1	Grammatical
	He sat down relax	0	No Conjunction or infinitive marker
	He sat down to be relax	0.5	copular insertion
	He is sit down and relax		<i>Be</i> -form insertion
	When he sat down, he relaxed	1	Grammatical
T2-3 Inception + Core + Termination Events	He used the fork to take a French fry and eat it	1	Grammatical
	He used a fork and took a French fry to eat it	1	grammatical
	He used a fork take French fry eat	0	No conjunction or infinitive
	He used a fork to taking a French fry eating it	0.5	Morphological error but syntactically correctly
	He is use a fork to take. . .	0	<i>Be</i> -form insertion

The scoring of the sentences was conducted by myself and another native English speaker. Any disputes as to how a sentence should be analyzed, a third party was used for some of the sentences while a fourth party was brought in to make the final decisions.

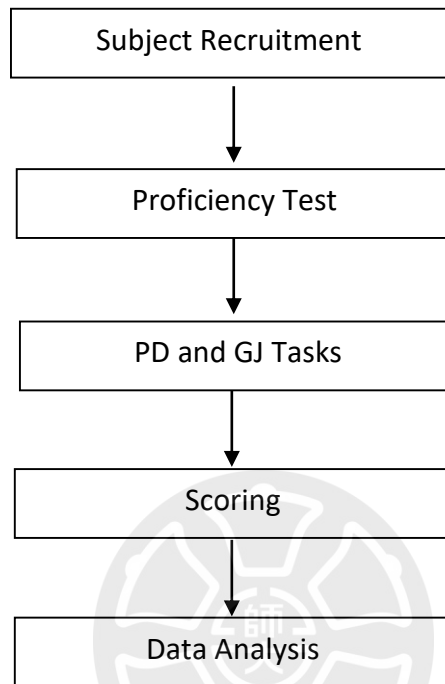


Figure 3.1 Flow chart of the study

3.5 Chapter Summary

This chapter covered the research design utilized throughout this study. It discussed the participants that were recruited and the different proficiency groups. The different tasks and the materials were expounded upon along with the procedures of conducting the study.

Chapter Four

Results and Discussion

In this chapter, we will look at the results of the two tests taking by the participants. First, we begin with looking at the type effects in Section 4.1. This will help us determine what type of SVC's the groups are able to accurately complete and which ones they could not do as well. Next, we move on to Section 4.2 with task effects to determine if there's a difference between the scores on the grammaticality judgements and the productions tasks. Section 4.3 will look at some of the errors that regularly surfaced and which strategies were being used along with pedagogical implications. Then we will compare the proficiency effects in Section 4.4 to determine in what areas, if any, are native-like for the two groups. Lastly, there will be a summary of Chapter Four.

4.1 Type Effect

The first question this study has tried to address is whether any certain type of SVC was easier or more challenging for different proficiencies to judge or perform in general. No significant difference was found in the performance of different types of SVC's for the EP+ group ($F(2) = 0.244, p < 0.784$) and the native speaking control ($F(2)=1.663, p < 0.784$). Table 4-1 shows the overall performance of each group on the different types of SVC's.

Table 4-1. Each group's overall performance on different types of SVCs

Type Group	T1-1		T1-2		T1-3		<i>p</i> - value
	Mean	SD	Mean	SD	Mean	SD	
EP+	0.66	0.42	0.66	0.45	0.69	0.44	0.784 D = 2 F = 0.244
EP	0.51	0.45	0.55	0.48	0.72	0.44	0.000285 *** D = 2 F = 8.321
N	0.95	0.22	0.97	0.12	0.98	0.15	0.191 D = 2 F = 1.663
Type Group	T2-1		T2-2		T2-3		<i>p</i> - value
	Mean	SD	Mean	SD	Mean	SD	
EP+	0.62	0.42	0.69	0.41	0.58	0.45	0.107 D = 2 F = 2.244
EP	0.56	0.43	0.64	0.41	0.46	0.47	0.00294 ** D = 2 F = 5.91
NC	0.97	0.18	0.99	0.09	0.94	0.22	0.0916 D = 2 F = 2.404

I found a statistically-significant difference in the overall performance of EP group for both the T1 ($F(2)=8.321, p < 0.001$) and T2 ($F(2)=5.91, p < 0.001$). The highest performance was the perceptive SVC's (T1-3) with a mean score of 0.72. The mean causative SVC (T1-2) score was 0.55 with the perceptive SVC's (T1-1) trailing with 0.51. This indicates that the Elementary Proficiency had an easier time correctly producing or identifying grammaticality in perceptive SVC's. Table 4-2 displays the *p*-value of cross-type comparison within the EP group.

Table 4-2. *P*-value for the cross-type comparison within the EP group

	T1-1	T1-2	T1-3
--	------	------	------

T1-1	---	0.6783084	0.0003589***
T1-2	0.6783084	---	0.0071375***
T1-3	0.0003589***	0.0071375***	---
	T2-1	T2-2	T2-3
T2-1	----	0.3374523	0.1105387
T2-2	0.3374523	---	0.0019776**
T2-3	0.1105387	0.0019776**	---

We see that there is a significance between the scores of the T1-1 and T1-3 ($p < 0.001$) as well as the T1-2 and T1-3 ($p < 0.05$). However, there was no significant difference between T1-1 and T1-2 indicating a similar difficulty. The perceptive SVC's (T1-3) may be easier due to less complexity in its construction. A perceptive SVC, such as 'I saw him swim' can be largely transferred from L1 Mandarin, *wo kan ta youyong*. The syntactic construction NP1 + V1 + NP2 + V2 is both the same in English and Mandarin. English differs in that the NP2 might take a different form, such as 'him' rather than 'he' as well as inflectional morphemes on the verbs. This is, indeed, one of the reasons for both EP and EP+ showing a significant distinction between answers provided by native speakers. Number (1) shows an answer from EP for question number 12 requiring the use a perceptive SVC (T1-3)

(1) *They don't see the monkey climbs in the bus (EP Participant 8)

The participant correctly used the SVC construction in English but whose only mistake was the overgeneralized third person singular inflection on the V2 which is not present in Mandarin. Otherwise, the SVC provides positive transfer from Mandarin to English.

One factor might make causatives more different than perceptives (despite both using SVC's in both Mandarin and English) are that the different verb possibilities for V1 are largely synonyms in perceptive SVC's, i.e. see, watch, observe, etc. On the other hand, causative SVC's (T1-2) have a multitude of possible verbs, such as, 'make', 'have', and 'let' while Mandarin also has numerous causatives, such as *rang*, *jiao*, *qing*. Participants may mistakenly believe each of the different causative English verbs

requires a different construction and have failed to have enough exposure to each of the English causative verbs to correctly render judgements or productions. Numbers (2a-b) are both causative verbs utilizing different grammatical errors despite both requiring the same SVC structure.

(2) a. *She let her grand-daughter to help. (EP+ Participant 17)

b. *The mom make her daughter to do homework. (EP Participant 13)

We observe an overgeneralized ‘to’ in both (2a) and (2b) along with a morphosyntactic error in (2b) on the V1. While morphosyntactic errors were observed across proficiencies and SVC types, the overgeneralized ‘to’ was common among the causative SVC’s. This would explain the discrepancy between T1-3 and T1-2 types as no overgeneralized ‘to’ was found in the data for perceptive SVC’s.

The purposive SVC’s (T1-1) may propose problems due in part to the need of a different syntax. While some perceptive SVC’s in English mirror those 1-to-1 in Chinese, i.e. ‘go eat’ and *qu chi-fan*, these only occur in English with the verbs ‘go’ and ‘come’ (Payne 2012). The use of any other verbs along with ‘go + preposition phrase’ requires either the insertion of an infinitive, which Mandarin lacks and therefore cannot be transferred, or the insertion of a conjunction, which Mandarin utilizes but not in this construction, limiting its ability to provide positive language transfer. Some participants struggled with this construction as can be seen in (3) below.

(3) *The man use a camera take a picture. (EP+ Participant 7)

Again we observe the absence of a third person singular marker on the V1 ‘use’. Additionally, V2 is written directly after the NP2 ‘a camera’ without a conjunction or infinitive. The addition of ‘to’ or ‘and’ would make this utterance grammatical. However, use of a conjunction before the V2 would require a second third person singular ‘s’ on the verb ‘take’.

Turning now to the T2-type constructions which cannot be expressed with an SVC in English, we see again that the EP had difficulty in providing grammaticality judgements and productions for this type, ($F(2) = 5.91, p < 0.05$). EP showed the most difficulty in Inception + core + termination SVC (T2-3) with a mean score of 0.47. The easiest type was the core + termination SVC (T2-2) averaging 0.64. The T2-1 type mean came in at 0.56. There was a statistically significant difference between T2-2 and T2-3 ($p < 0.05$). Inception + core + termination involves the use of three verbs to dictate the actions, i.e. ‘He used a fork to take a French fry and eat it.’ In order for such a construction to be grammatical in English, the utterance requires both an infinitive and conjunction or possibly the use of a dependent clause, such as ‘When I took a French fry, I used a fork to eat it’. Both examples are a more complex construction because the utterance requires the insertion of the infinitive, which as stated before does not occur in L1 Mandarin, and the insertion of a conjunction where one is not required in the L1. Two different answers from participants are shown in (4a-b)

- (4) a. *The girl uses takes the fork to eat the fries. (EP+ Participant 11)
b. *He is grab the cookies and drop break down the cookies. (EP Participant 11)

To correctly produce (4a) the participant could have written “The girl uses the fork to take the fries and eats them”. While the participant did correctly use an infinitive marker, they failed to use a conjunction along with having both verbs ‘uses’ and ‘takes’ consecutively. Number (4b) shows another type of error found through verb types is the ‘is’ or auxiliary insertion in “He is grab. . .” which might be the result of negative transfer of the *shi . . (de)* construction from L1 Mandarin. The verbs ‘drop’ and ‘break’ appear as core + termination verbs that may have been transferred from Mandarin.

An additional problem is the inflectional morphemes on all three of the verbs in (4b) which Mandarin lacks. In previous examples, the verb ‘used’ took on the past tense

of ‘used’ followed by two bare infinitives for ‘to take’ and ‘(to) eat’. Not only would the participants need to be familiar with the required morphemes (or lack thereof) on the V1, they would also require knowledge on how the two subsequent verbs should be inflected if so required. This is in contrast to T2-1 and T2-2, inception + core and core + termination respectively, both of which only require two verbs. These are less complex in structure as there is one less verb to inflect as well as only requiring the insertion of one infinitive or conjunction. This might go to explain why there was no significant difference between the answers on T2-1 and T2-3.

The core + termination SVC (T2-2) proved to be the easiest for the EP group. Most participants correctly used a conjunction or infinitive to separate the two actions. The errors came largely in the form of the formulaic expression of a *be*-form insertion or morphosyntactic errors (5a)

(5) a. *She is climb the tree and grab the squirrel. (EP Participant 11)

b. *The monkey is climb into the bus and sit down. (EP Participant 18)

The correct form of the above sentences would have third person singular inflection on the verbs ‘climb’ and ‘grab’ in (5a) and ‘climb’ and ‘sit’ in (5b) both without the ‘is’. It is not clear what makes T2-2 constructions easier than T2-1. The results from T2-1 (inception + core) showed similar responses with conjunctions showing the two verbs are separate actions. The third personal singular markers and formulaic *be*-form were also common errors.

The difficulty may not lie in the SVC construction itself but the constructions of the individual verbs. Questions 11 and 20 in the production task had participants use the verbs ‘make’ and ‘bring’ and ‘give’ and ‘eat’ respectively. The use of ‘make’ may have caused difficulty in the verbs additional use in causative SVC’s. The verb ‘give’ requires the construction “X Gives Y Z to eat”. This may be simpler than “X makes Y

and brings to Z” or occurs more frequently in the input (Ellis & Wulff, 2020).

Pedagogically speaking, this indicates that targeted input and output can be applied to each SVC type for Elementary Proficiency. Students’ attention can be drawn to the similarities in the T1-2 and T1-3 types to their Mandarin counterparts. This in turn, which hopefully makes use of the Noticing Hypothesis proposed by Schmidt (1990) whereby the participants would then notice how the structures transfer from the L1 and improve their judgements and output. Targeted input and output practice along with the use of conjunctions and infinitive insertion and verb inflection consistency would better assist the EP in the acquisition of T1-1, T2-2, and T2-3 types. Those in the Elementary Proficiency Plus are not likely to benefit from such practices. Additional verb constructions, such as “X gives Y Z to do” and “ X uses Y to do” would be additionally be beneficial for troublesome constructions.

When we compared the overall performance within the different types between the different groups, we found a statistically significant difference in the mean scores for T1-1 purposive SVC ($F(X)=51.42, p < 0.001$), T1-2 causative SVC’s ($F(X)=48.88, p < 0.001$), and T2-3 inception + core + termination SVC’s ($F(X)=58.92, p < 0.001$). See Tables 4-3 and 4-4.

Table 4-3. Within-type between-group overall performance on SVCs

Type		EP+		EP		NC		p- value
		Mean	SD	Mean	SD	Mean	SD	
T1	T1-1	0.66	0.422	0.51	0.45	0.95	0.22	<2e-16

Common Properties	purposive SVC's							*** DF = 2 F = 51.42
	T1-2 causative SVC's	0.66	0.45	0.55	0.48	0.99	0.18	<2e-16 *** DF = 2 F = 48.88
	T1-3 perceptive SVC's	0.69	0.44	0.72	0.44	0.98	0.15	1.95e-11 *** DF = 2 F = 26.14
	Total Mean	0.67	0.44	0.59	0.46	0.97	0.17	<2e-16 *** DF = 2 F= 119.2
T2 Not-common properties	T2-1 inception + core	0.62	0.42	0.56	0.43	0.97	0.18	<2e-16 *** DF = 2 F= 51.86
	T2-2 core + termination	0.69	0.41	0.64	0.42	0.99	0.09	<2e-16 *** DF = 2 F= 45.38
	T2-3 inception + core + termination	0.58	0.45	0.49	0.47	0.94	0.22	<2e-16 *** DF = 2 F= 58.92
	Total Mean	0.63	0.43	0.55	0.44	0.97	0.18	<2e-16 *** DF = 2 F =153.5

Table 4-4. Tukey post hoc test for each type

	L-H	N-H	N-L
T1	0.0043616***	0.0000000***	0.0000000***
T1-1	0.001415***	0.0000000***	0.0000000***

T1-2	0.0403286***	0.0000000***	0.0000000***
T1-3	0.8805289	0.0000000***	0.0000000***
T2	0.0059086***	0.0000000***	0.0000000***
T2-1	0.398178	0.0000000***	0.0000000***
T2-2	0.3974258	0.0000000***	0.0000000***
T2-3	0.0203847***	0.0000000***	0.0000000***

The EP+ group outperformed on the T1-1 (0.66) and T1-2 (0.66) compared to the EP (0.51 and 0.55 respectively). This indicates the Elementary Proficiency Plus has acquired better production and judgements than Elementary Proficiency. On the other hand, both Elementary Proficiency and Elementary Proficiency Plus scored significantly lower than the native control on the same task types (0.95 and 0.99 respectively). Not only have the Elementary Proficiency Plus shown to have further acquired these SVC's in their interlanguage than Elementary Proficiency, but they still have not reached the same level as native speakers. Both proficiency groups can make use of further targeted practice to increase their acquisition of these structures.

The only areas that the EP and EP+ didn't have any significant difference in scores was on the Perceptive SVCs (T1-3) Inception + Core (T2-1), and Core + Termination (T2-2). As previously stated, perceptive SVC's not only can be transferred from Mandarin to English, but the relatively few verbs needed for this construction in the study were synonyms. Other perceptive SVC's such as 'hear' and 'feel' were not tested. The lack of significant between T2-1 and T2-2 may due to both constructions comprised of two verbs often with either a conjunction or an infinitive to make grammatical. T2-3, on the hand, required three verbs and multiple conjunctions or infinitives. This increases the complexity of the construction and would therefore result in significant difference within groups on each construction and the failure to score closer to the native control. The T2-3 construction is a rather awkward construction

which lends to its difficulty. Even the native control group scored lowered (0.94) than all the other types (0.97 and higher).

4.2 Task Effect

The second question this thesis attempts to answer is whether the production or the grammaticality task was more challenging. Let us first look at the data regarding each group's performance on the different T1 SVC tasks in Table 4-5.

Table 4-5. Each group's performance on different types of SVCs in both tasks on T1

Type		GJ		PD		<i>p</i> - value
		Mean	SD	Mean	SD	
EP+	T1-1	0.76	0.43	0.56	0.39	0.00381 ** DF = 1 F = 8.655
	T1-2	0.81	0.40	0.52	0.46	0.00012 *** DF = 1 F = 15.64
	T1-3	0.65	0.48	0.74	0.39	0.256 DF = 1 F = 1.3
	T1	0.74	0.44	0.61	0.42	0.00136 ** DF = 1 F = 10.4
EP	T1-1	0.71	0.46	0.31	0.34	1.68e-08 *** DF = 1 F = 35.82
	T1-2	0.75	0.44	0.35	0.44	2.44e-07 *** DF = 1 F = 29.43
	T1-3	0.79	0.41	0.64	0.45	0.0355 * DF = 1 F = 4.505
	T1	0.75	0.43	0.43	0.44	2.5e-13 *** DF = 1 F = 57.11

Table 4-5. (continued)

Type		GJ		PD		<i>p</i> - value
		Mean	SD	Mean	SD	
NC	T1-1	0.958	0.201	0.94	0.231	0.701 DF = 1 F = 0.148
	T1-2	1	0	0.972	0.165	0.157 DF = 1 F = 2.029
	T1-3	0.986	0.118	0.965	0.175	0.403 DF = 1 F = 0.705
	T1	0.981	0.135	0.961	0.192	0.193 DF = 1 F = 1.702

If we first look at the EP+ group, we notice a marked difference in the overall scores for T1 ($F(1) = 10.4, p < 0.001$). EP+ performed better on the GJ (0.74) than the PT (0.61). It is only on the T1-3 task that EP+ achieved a higher score on the PD but no statistical difference was detected. Within each of the T1-1 and T1-2 types, participants were better able to perform on the GJ rather than the PT tasks.

We see similar results with the Elementary Proficiency group. Overall, there was a significant difference between production and grammaticality judgements ($F(1) = 57.11, p < 0.001$). In fact, there was a wider gap between grammaticality and production tasks than for the EP+. EP scored a 0.75 on the GJ task and a 0.43 on the PT compared to 0.74 and 0.61 for the EP+ respectively. This indicates a higher proficiency for the EP+ than the EP which is to be expected. Unlike the EP+, EP scored lower on the PD task than the GJ across the board for each type. The native control scored 0.96 and higher on each type with no significant difference between each of the scores.

If we take a closer look at some of the production task answers and grammaticality judgements from a participant, it gives us a clearer picture of the

discrepancy between the two tasks. In the EP group, Participant 4 had a TOEIC score of 305. On the production task for the Purposive SVC's (T1-1), they scored 0 out of 4 points. Their answers to the PD task are in (6a-d).

- (6) a. *The woman take a water pipe spray to a dog and want fill up the pool.
- b. *Wear helmet can be safe more.
- c. *The man use a camera take picture of a family.
- d. *Alien invite the man come his to eat dinner.

The most interesting sentences are (6a-b, d). There are two errors we consistently see throughout. The first is that the V1's lack of verb agreement. We also see the absence of an infinitive or conjunction which are needed for to make the sentences grammatical or the verb constructions more in line with grammaticality barring other grammaticality issues not addressed in this study. In (6a) a conjunction or an infinitive would have to precede the verbs 'spray' and 'fill up' which the participant was missing. The same can be seen in (6c-d) with a missing 'to' before the verbs 'take' and 'come'. This indicates that the participant has not acquired the non-SVC structures needed for grammaticality.

If we now go to the grammaticality judgement tasks, we observe that the same participant (EP Participant 4) scored 3 out of 4 correct judgements for the T1-1 with a mean score of 0.75.

- (7) a. *I play sports get healthy
- b. Go get me a newspaper
- c. Come see me tomorrow
- d. *I buy a movie ticket go in

Number (7a-d) shows the sentences that the participant made the grammaticality judgements. They correctly identified (7a, d) as ungrammatical and (7c) as grammatical. The only error was judging (7b) as ungrammatical. This indicates that the participant has acquired the purposive SVC for 'come' but not the same construction with 'go'. The interesting judgements are the correctly identifying (7a, d) as

ungrammatical. The participant correctly identified that they are ungrammatical as they are missing a conjunction or infinitive before the second verbs. However, their production task answers show the participant making the same construction they deemed ungrammatical in the GJ tasks.

Moving on to the second type (T2), we see a similar pattern with grammaticality judgements largely higher than production tasks in Table 4-6.

Table 4-6. Each group's performance on different types of SVCs in both tasks on T2

Type		GJ		PD		<i>p</i> - value
		Mean	SD	Mean	SD	
EP+	T2-1	0.61	0.49	0.63	0.33	0.843 DF = 1 F = 0.039
	T2-2	0.81	0.40	0.57	0.39	0.000431 *** DF = 1 F = 13
	T2-3	0.79	0.41	0.38	0.38	3.24e-09 *** DF = 1 F = 39.89
	T2	0.74	0.44	0.52	0.38	1.37e-07 *** DF = 1 F = 28.72
EP	T2-1	0.68	0.47	0.44	0.36	0.000933 *** DF = 1 F = 11.43
	T2-2	0.81	0.40	0.47	0.40	2.98e-07 *** DF = 1 F = 28.96
	T2-3	0.71	0.46	0.21	0.32	4.11e-12 *** DF = 1 F = 57.44
	T2	0.73	0.44	0.37	0.37	<2e-16 *** DF = 1 F = 84
NC	T2-1	0.97	0.17	0.96	0.20	0.652 DF = 1 F = 0.205
	T2-2	0.99	0.12	0.99	0.06	0.655 DF = 1 F = 0.2

Table 4-6. (continued)

Type		GJ		PD		<i>p</i> - value
		Mean	SD	Mean	SD	
	T2-3	0.99	0.12	0.90	0.29	0.0239 * DF = 1 F = 5.216
	T2	0.981	0.135	0.951	0.207	0.0746 DF = 1 F =

The EP+ had a mean score of 0.74 for GJ and 0.52 on the PD ($F(1) = 28.72$, $p < 0.001$) indicating a clear significance in EP+ ability to correctly identify grammaticality over producing grammatical sentences. The only area that where there was no difference for EP was T2-1. This indicates they had equal difficulty with grammaticality and judgements. The Elementary Proficiency group scored a mean of 0.74 on GJ and 0.37 on the PD ($F(1) = 84$, $p < 0.001$) outperforming on the GJ tasks compared to the PD tasks.

Let's take another look at Participant 4. On the PD tasks, their mean score for T2-3 was 0.25 while the GJ task was 0.75. In looking at the answers for T2-3, the participant produced two sentences that had syntactic problems being unable to produce a largely coherent sentence. For example: "The boy get ready with run race and he win this race." The other two sentences correctly used conjunctions and infinitives but lacked verbal morphology, such as "The girl get some branch to make camp fire and cook dinner." The error lies in the morphosyntax with failing to include a third person singular inflection on the verbs 'get' and 'cook'. However, the participant correctly identified T2-3 (inception + core + termination) sentences 75% of the time in the GJ tasks.

This indicates that the participant has begun to acquire the non-SVC structure but it has not begun to emerge in the output. According to Bardovi-Harlig (2002), the emergence of a grammatical structure in the output is not itself acquisition but the onset

of the use of the structure in the output. Even Krashen (1983) points out that listening is preceded by speaking. While Krashen mention's listening and speaking, these can also be taken as input (listening) and out (speaking). Writing, as has been tested in this study, is a form of output and thereby applies. This means that an L2 English learner will be able to listening and process the input (as in the cases of the grammaticality judgement) before they are able to correctly produce it in output, or in the case of this study, writing output.

Pedagogical implications for these results indicate that both more input and output are needed to obtain full acquisition. Because both EP and EP+ groups showed a significant difference compared to the native control, more input is needed for so more form-meaning connections can be made in the syntax and non-SVC constructions. On the other hand, the output of the participants is significantly lower than grammatical judgements indicating that more output practice is needed so that these structures may not only emerge but attain full acquisition.

4.3 Error Strategies

This next section will cover some of the common errors produced by the participants and their error strategy. This will, in turn, help decide on pedagogically appropriate suggestions for their correction.

4.3.1 Interlingual errors

The final error we will discuss is the incorrect use of SVC's in English.

(8) *The man use camera take a picture. (EP Participant 5)

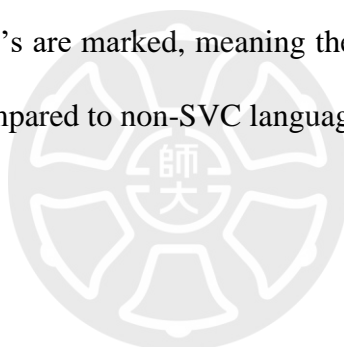
We see in (8) the verbs 'use' and 'take'. There is a missing infinitive before the verb 'take' which would make this grammatical. This appears to be a transfer of the core + termination SVC (T2-2) which does not require an infinitive with the verb *yong* 'use'

as seen in (9).

(9) Nanren yong xiangji pai zhao.
man use camera take picture

“The man uses a camera to take a picture” (lit. Man uses camera take picture).

We can use the A-not-A test to determine which is the main verb which indicates a core + termination has been transferred. This means negative L1 transferred has occurred. Surprisingly, the amount of errors of this type was much less than I was expecting. On average, only two or three such errors were noted per production task. These transfer errors were almost always from the EP group, indicating the EP+ had acquired enough of non-SVC syntax to avoid this error. Because the use of incorrect SVC's appears to disappear by the time they reach a 405 TOEIC score, this correspond with McWhorter's (1992) explanation that SVC's are marked, meaning the use of non-SVC's should be relatively easy to acquire compared to non-SVC language speakers acquiring an SVC.



4.3.2 Intralingual Errors

A number of different types of intralingual errors emerged in the production data. These errors include omission, insertions, and overgeneralizations. These are a result of L2 complexity that the learner has not yet fully acquired nor can they be determined to have arisen from negative L2 transfer.

4.3.2.1 Omission

By far the most commonly seen error was the omission of morpho-syntactic errors in the verb inflectional endings. Quite often this took the form of a missing third person singular suffix on the verbs as many production tasks required the use of a third person subject. Number (4a, c, and d) all show examples of the missing third person

singular. This error existed in both EP and EP+ groups but not the native control.

The problem was made more difficult by the existence of multiple verbs in a sentence, such as (34a). There are four verbs in the sentence: ‘use’, ‘spray’, ‘want’ and ‘fill up’. Based on the syntax used by the participant, the verbs ‘use’ and ‘want’ should take a third person singular verb inflection while ‘spray’ and ‘fill up’ should remain in the bare infinitive form due to the infinitive ‘to’ that should have been used. This can be quite troublesome for L1 Mandarin speakers as neither verb inflections nor invectives are a property of the L1. They will have to try out many hypotheses before coming to the correct usage. And we can assume that the higher number of verbs in a sentence, the more hypotheses that will need to be tested.

It is difficult to pin down exactly what error strategy verb endings should fall under. Mandarin lacks such verb endings, so it’s possible this is an avoidance strategy – that is they avoid using it despite the error that it makes. Another possibility is overgeneralization. L2 English learners may incorrectly see that some verb forms take no suffix and therefore overgeneralize the rule to mean that verbs occur without a suffix. Some utterances involved the first verb in a sentence having correct suffix morphology while the remaining verbs did not, such as in (10).

(10) *She gets some branches and make a help on cooking. (EP+ Participant 10)

We see that correct use of the subject-verb agreement on the verb ‘gets’ but the participant failed to inflect the verb ‘make’. This as well may be as a result of noticing some verbs after the main verb lacking morphology and therefore overgeneralize this property.

The reason for the underdevelopment of using the third person singular and or regular simple past *-ed* ending can be traced to research done in morpheme studies. Lightbown and Spada (2013) claim that the regular past *-ed* along with the third person

singular *-s* are produced with lower accuracy than other morphemes, such as the progressive *-ing* or auxiliaries for the progressive. This would explain the lack of verb affixes in many responses although the present progressive was often used correctly.

4.3.2.2 Insertion

Another common error was *be*-form insertion otherwise referred to as an auxiliary insertion. This occurs before verbs as seen in example (11)

(11) The monkey is sit down on a chair and relax. (EP+ Participant 15)

We can see that the auxiliary ‘is’ has been inserted before the verb ‘sit’. The nature of this insertion is unclear but there are a few possibilities. First, it is unlikely to be the failure of the progressive *-ing* on the verb ‘sit’. The same morpheme development discussed by Lightbown & Spada show the progressive *-ing* being less difficult to acquire than progressive auxiliary. We would first expect to see the *-ing* at the end of the verb ‘sit’ followed by a further development of ‘is sitting’. Indeed, this same participant used a fully-formed simple progressive on a different question, “The woman is walking to the tree and try to help the little animal stuck on the tree.” Therefore, we can rule out the likelihood the same participant simply dropped the *-ing* suffix.

A second possibility is that it is due to L1 interference in the form of the *shi . . . (de)* construction from Mandarin. *Shi* directly translates to ‘to be’ in English and used for emphasis. If this is indeed the case, the *shi* has been transferred and conjugated. One problem with this idea is that the inserted auxiliary is only ever seen before the main verb. On the other hand, the *shi . . . (de)* construction can occur before verbs, adjectives, and nouns in Mandarin. If participants were, in fact, transferring the ‘is’ for emphasis, we would expect to see this pop up before other lexical categories. Yet, not a single ‘is’ was incorrectly inserted before any adjectives or nouns leading me to believe this is not a result of negative L1 transfer.

The last possibility is that the inserted auxiliary is used as a tense/agreement marker. Another participant wrote a response similar to (11) but with a past tense ‘was’:
“The monkey was sit down on a chair and relax”. This gives more evidence to the idea that this is tense/agreement marker. Fleta (2003) has found similar findings in L1 Spanish speakers and Shaffer (2005) also came to the same conclusion with L1 Korean speakers. Nam (2019) claimed this may be a universal L2 Interlanguage strategy. In researching whether L1 Korean speakers interpret the *be*-insertion as a topic marker or tense/agreement marker, Nam (2019) came to the conclusion that they were likely interpreting it as both markers, either simultaneously or independently. Because Mandarin does not have an overt topic marker like Korean, it is unlikely to be interpreted as such. However, it is possible that the auxiliary insertion could at times be a tense/agreement marker or a negatively transferred *shi* . . . (*de*) or both. Further research is needed to verify this claim.

4.3.2.3 Overgeneralization

Overgeneralization is a type of intralingual error. This comes as a result of incorrectly applying a rule or structure from the TL to a structure where it is not needed. This often came in the form of an overgeneralized infinitive ‘to’ marker.

- (12) a. *The mother make her son to clean his room (EP Participant 5)
b. *The older woman let her granddaughter to help her. (EP Participant 7)

The causative SVC can occur with either the verbs ‘make’ or ‘let’. There are a few others, but they were not included in this study. Causative SVC’s are similar in both English and Chinese except for the morphosyntactic properties. Yet, we see instances of an infinitive ‘to’ preceding the second verb. In (12a) we have “make her son to clean” and (12b) has “let her granddaughter to help”. Both sentences would be made

grammatical if it weren't for the 'to'. This may be an overgeneralization of the purposive SVC or other instances where the second verb in a sentence requires an infinitive, such as "I want him to go home". The study had four production tasks with causative SVC's, two with 'make' and two with 'let'. In total, there were 42 instances of an overgeneralized 'to' with almost half of the mistakes made by the EP+ and slightly more than half by the EP group.

When we look at the number of errors by verb and proficiency group, the pattern becomes a bit clearer. With the causative 'make' there were nine errors in the EP group compared to 12 for the EP+. This indicates that EP has a slightly better grasp of using the 'make' in an SVC. There were 14 overgeneralized errors in the use of 'let' for the EP group and only seven for EP+. This reveals that most lower levels have a good grasp of the syntactic structure of 'make' but as the proficiency increases, more overgeneralized infinitive occurs. With 'let', we see the opposite. As the proficiency increases, the number of errors decreases by 50%. Thus, while the EP+ continues to make errors with the verb 'make' in a causative SVC, they are simultaneously correcting their errors for the verb 'let'. It is likely that students assume each verb has a different syntactic structure when, in fact, they are not only the same, they are similar to their Mandarin equivalents.

Additionally, Krashen (1983) likens the instances of negative transfer errors to the lack of enough compelling and comprehensible input. Taiwan is a country with a robust emphasis on taking tests. Too many students in Taiwan learn English for test taking rather than communicative ability and lack the necessary input needed (Krashen, 2006). It is therefore likely that many students have not received enough input in their years of studying English and therefore rely on L1 transfer. Pedagogically speaking, this error could be fixed with classes being centered around providing more compelling

and comprehensible input.

4.4 Proficiency Effect

The results of the previous experiments show some correlation between the different proficiency groups compared to each other and the native control group. These results are summarized in Table 4-7 and expanded upon.

Table 4-7. Comparison of achieved native-like performance in each group throughout experiments

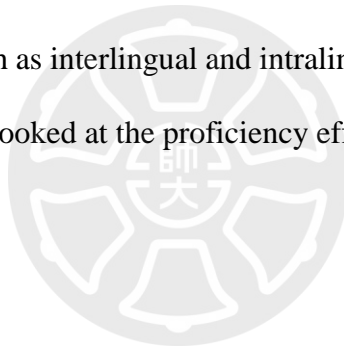
Elementary Proficiency	Elementary Proficiency Plus
Types T1 and T2: Performing significantly worse on T1 and T2 Not native-like	Types T1 and T2: Performing significantly better on T1 and T2 Not native-like
Sub-types of T1 and T2: Performing significantly worse on T1-1, T1-2, and T2-3 Not native-like	Sub-types of T1 and T2: Performing significantly better on T1-1, T1-2, and T2-3 Not native-like
Tasks: GJ better than PD + not native-like	Tasks: GJ better than PD + not native-like
Interlingual errors: Yes Intralingual errors: Yes Omission: Yes Insertion: Yes Overgeneralization: Yes	Interlingual errors: No Intralingual errors: Yes Omission: Yes Insertion: Yes Overgeneralization: Yes

According to table 4-7, neither the EP nor the EP+ exhibited native-like behavior through the two experiment tasks. For both T1 and T2 types, the EP group performed significantly worse on both production tasks and grammaticality judgements than the EP+ group, which scored significantly better. However, both groups were not native-like in the experiments. The same can be said for some of the sub-types. Sub-types T1-1, T1-2, and T2-3 were especially difficult for both groups either neither

achieving native-like status. The Elementary Proficiency Plus outperformed the EP group on all of these three sub-types. Additionally, both groups scored statistically better on the grammaticality judgement section of the study compared to the production task. Both groups had significant intralingual errors, including omission, insertion, and overgeneralization. However, it is the EP group which showed some instances of L1 interference in the production tasks.

4.5 Chapter Summary

This chapter first delved into the type effects of the different SVC's showing that some SVC's such as were more difficult than others. Section 4.2. look at the task effects indicating that GJ tasks were easier than PD tasks. The next section viewed the different error strategies, such as interlingual and intralingual errors that were made by the participants. Section 4.4 looked at the proficiency effects of the results.



Chapter Five

Conclusion

This final chapter is the conclusion of this study. Section 5.1 will present a summary of the major findings discussed in detail in Chapter Four. Pedagogical implications will cover what conclusions we can draw to better assist L2 English learners better acquire these structures. This is followed by limitations of the study and possible future directions for additional research.

5.1 Major Findings

The first research question sought to determine the type effects of the different SVC types across one proficiency group. Only the EP group showed a significant difference between each of three T1 types and T2 types. This means they performed significantly better or worse on different types that was not determined by chance alone. The perceptive SVC's were comparatively easier than the Purposive or Causative SVC's. The EP+ group, while having some different scores, were determined to be more likely as the result of chance than any significant ability.

After the type effects, we looked at the task effects. As had been expected, both the Elementary Proficiency and the Elementary Proficiency Plus groups outperformed on the grammaticality judgement tasks than the production tasks. This indicates that the participants can better understand the input and distinguish a grammatical utterance before they can produce some of them correctly themselves.

A deep dive in the production tasks revealed what sort of strategies were being employed by the participants on utterances they had not fully acquired. It was clear that many had not yet acquired the verbal morphology needed to correctly produce the SVC's and non-SVC structures. Insertion of lexical items, such as a *be*-form was

another common strategy which may have been a result of adjusting for a tense marker or L1 interference, but this distinction could not be determined. Overgeneralizations were used by participants who failed to transfer the syntactic structures that otherwise would have provided positive language transfer. Lastly, there were some instances of L1 interference where an SVC in Mandarin was negatively transferred to a non-SVC English structure.

Lastly, we looked at the proficiency effects. We determined that both groups failed to reach native-like responses in both production and grammaticality judgement tasks. Despite this, the Elementary Proficiency Plus group performed significantly better in all areas than the Elementary Proficiency group. The different intralingual error strategies were utilized by both groups. However, only the Elementary Proficiency group showed clear signs of L1 transfer interference.

5.2 Pedagogical Implications

With the knowledge gained from this study, there are implications we can make regarding the further instruction and acquisition process to ensure ESL learners can better acquire these SVC's. Since input is the driving force behind all acquisition when it comes to most theories of second language acquisition (VanPatten 2020), the need for more compelling and comprehensible input is the first step to getting learners to know when and where an SVC is acceptable in English and when a non-SVC is required.

From there we can look at more targeted input or output practice to further solidify these structures and attain full acquisition. Purposive SVC's (T1-1), Causative SVC's (T1-2), and inception + core + termination sequences (T2-3) will require more targeted practice. The only areas not specifically needed would be T1-3, T2-1, and T2-

1 as low achievers appeared to have a basic grasp of these constructions. It appears that the easiest construction was T1-3. Following this, learners would have a bit more difficulty with T1-1 and T1-2. The most difficult in the sequence was the T2-3 which requires the use of three verbs in an event series.

It is important that learners fully understand the differences in the constructions along with which ones can be transferred from the L1 and which ones cannot. If not, we can expect further unsatisfactory output. For example, learners should be made aware of the functions of a purposive construction along with how a series of events can be constructed together grammatically. This could come in the form of worksheets denoting comprehension and identification of the different event and SVC types before they are ready for production.

5.3 Limitations on the Study and Suggestion for Future Research

Originally, this study had hoped to get more participants in higher proficiencies to a broader contrast. Further studies should incorporate more intermediate and advanced proficiency speakers to determine a bigger picture of process of acquisition these SVC and non-SVC structures in the target language.

An additional suggestion would be to recruit studies of different L1 backgrounds. This would better indicate any universality of acquiring such constructions.

Need more high proficiency studies in the future to see if any more stages and differences. Recruit students with different L1 backgrounds.

The task design of this study had many similarities to the studies of Helms-Park (2003 & 2004). Further studies should utilize different tasks than present in this study to determine if similar results can be gained. Moreover, different constructions can be tested for their rate of acquisition, such as conditionals or relative clauses.

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Appendix A

TOEIC Test Pro Mini Test

<https://toEIC-testpro.com/study/test/test-1-62b3dee2bbc57b27fe103b72/>
Question 3

00:56:30

00:00 / 00:19




(A)

(B)

(C)

(D)

< Previous Next >



🕒 00:50:43

▶ 00:22 / 01:10 🔊

17. When will a meeting take place?

- (A) In one day
- (B) In two days
- (C) In three days
- (D) In four days

18. What does the woman want to do?

- (A) Speak with a department head
- (B) Set a project timeline
- (C) Practice giving a presentation

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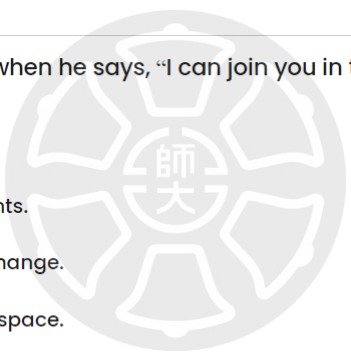
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19. What does the man mean when he says, "I can join you in the conference room"?

- (A) He will finish a task soon.
- (B) He will offer some comments.
- (C) He has agreed to a time change.
- (D) He has booked a meeting space.

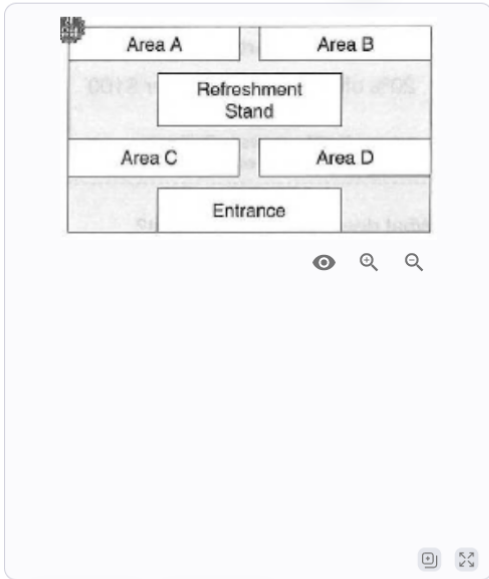
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🕒 00:49:18

⏸ 00:13 / 01:14 🔊



26. What type of event is happening tonight?

- (A) A performance rehearsal
- (B) An awards ceremony
- (C) A movie screening
- (D) A play opening

27. What does the woman ask the man to do?

- (A) Arrange some furniture
- (B) Work a late shift
- (C) Hang up some frames

< Previous

Next >

🕒 00:48:04

Automat CEO Sergei Rostov's speech on trends in the high-tech industry drew an audience consisting mostly of ----- entrepreneurs.

- (A) aspiring
- (B) aspired
- (C) aspire
- (D) aspiration

< Previous

Next >

🕒 00:44:38

To whom it may concern,

On July 27 th, I (65) ... High Skies Flight 725 from Glasgow, Scotland to Rio de Janeiro, Brazil. The flight itself was very pleasant. Upon arrival in Rio de Janeiro, I went through immigration and then went to collect my baggage. However, I was extremely (66) ... to learn that my luggage was missing. I reported to your service desk that my baggage was missing. Then, I spent my whole week in Brazil without any luggage.

(67)

Since my luggage seems to have disappeared, I am submitting the enclosed list of what was lost in the luggage for reimbursement.

I hope to hear from you (68) ... the next few days. Thank you for your attention to this matter.

65.

- (A) took
- (B) taking
- (C) will take
- (D) have taken

66.

- (A) satisfied
- (B) informed
- (C) disappointed
- (D) relieved

< Previous

Next >

🕒 00:57:30

Pure Mix
PO Box 12525
Oregon City, OR 97045
Paul McCall
898 Manatee Lane
Madison, WI 53716
Dear Mr. McCall,

We have received your inquiry about our natural daily vitamin supplement. You asked if our product contained any chemicals or nonorganic materials. Also, you inquired about some of the ingredients used to make the vitamin powder, as you are allergic to strawberries and cannot ingest grapefruit for medical reasons.

As advertised, we are a provider of certified organic products as there are no chemical or unnatural materials

79. Why was the letter written?

- (A) To place a vitamin order
- (B) To obtain organic certification
- (C) To inquire about an advertisement
- (D) To respond to a prior inquiry

80. What does Ms. Mills say about Pure Mix's products?

- (A) They all have strawberries as ingredients.
- (B) They do not contain any animal materials.
- (C) They are all completely organic.

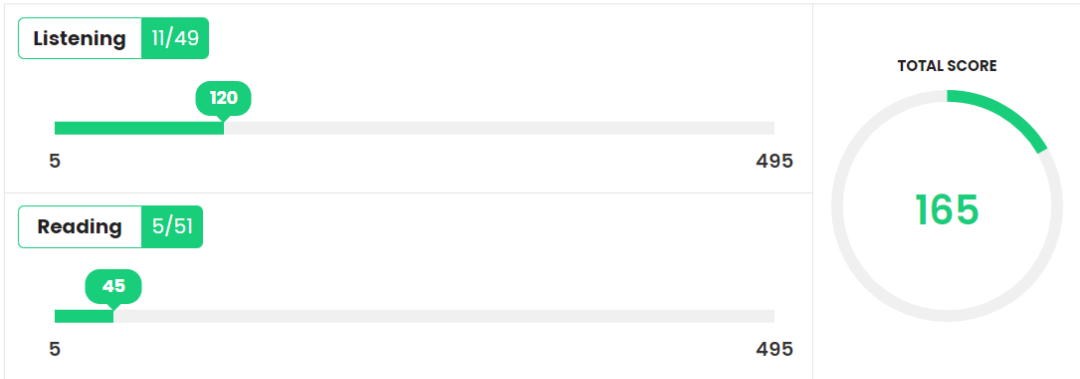
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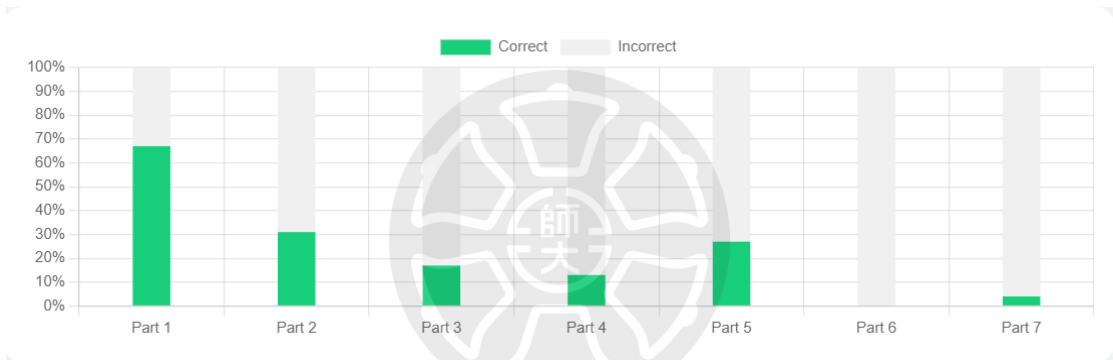
100 Questions for the reading and listening

🕒 00:43:34

Congratulations



[TRY AGAIN](#) [REVIEW](#)



Appendix B

Test Items Used in PD task

1. What are they doing? Make one sentence with the verbs 'see' and 'stuck'



source: Cambridge English Qualifications :
sample papers for exams 2018

Your answer

2. Why is the woman using the hose?
Make one sentence with the verbs 'spray' and 'fill up'



source: Cambridge English Qualifications : sample
papers for exams 2018

Your answer

3. What are the girls doing?

Make one sentence with the verbs "watch" and "play"



source: Cambridge English Qualifications :
sample papers for exams 2018

Your answer _____

4. What does the woman do?

Make one sentence with the verbs 'climb' and 'grab'



source: Cambridge English Qualifications : Sample
Papers for exams 2018

Your answer _____

5. What does the monkey do?

Make one sentence with the verbs 'climb inside' and 'sit down'



source: Cambridge English Qualifications : Sample Papers for exams 2018

Your answer _____

6. What does the boy do?

Make one sentence with the verbs 'grab' 'drop' 'break'



source: Cambridge English Qualifications : Sample Papers for exams 2018

Short answer text _____

7. What don't the students see?

Make one sentence with the verbs 'don't see' and 'climb in'



..'

source: Cambridge English Qualifications : Sample Papers for exams 2018

Short answer text

8. The granddaughter asked to help her grandmother walk. The grandmother said yes. What did the older woman do?

Make one sentence with the verbs 'let' and 'help'



Source: <https://steemit.com/life/@curiousguy/10-things-you-should-do-at-least-one-time-in-your-life>

Your answer

9. The child wanted to help. What did the mom do?

Make one sentence with the verbs 'let' and 'carry'



Source: <https://www.dreamstime.com/photos-images/helping-to-carry-box.html>

Your answer

10. Why does the boy have a helmet?

Make one sentence with the verbs 'wear' and 'be safe'



source: Cambridge English Qualifications :
Sample Papers for exams 2018

Your answer

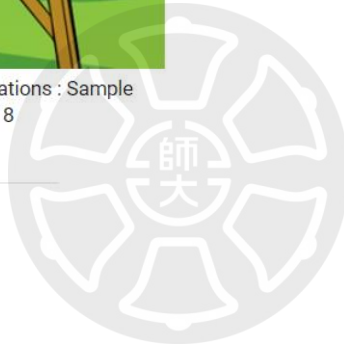
11. What did the boy in white do?

Make one sentence with the verbs 'make' and 'bring'



source: Cambridge English Qualifications : Sample Papers for exams 2018

Your answer



12. What are the students doing?

Make one sentence with the verbs 'watch' and 'walk'



source: Cambridge English Qualifications :
Sample Papers for exams 2018

Your answer

13. Why does the man use a camera?

Make one sentence with the verbs 'use' and 'take'



Source: Cambridge English Qualifications : Sample Papers for exams 2018

Your answer

14. What is the woman doing?

Make one sentence with the verbs 'walk' and 'help'



Source: Cambridge English Qualifications :
Sample Papers for exams 2018

Your answer



15. The mom said the daughter must do homework. What did the mom do?

Make one sentence with the verbs 'make' and 'do'



Source: <https://www.parentingforbrain.com/how-to-get-your-kindergartener-to-do-homework/>

Your answer

16. The mom said the boy must clean his room. What did the mom do?

Make one sentence with the verbs 'make' and 'clean'



Source: <https://www.lifesavvy.com/7643/how-to-get-your-kids-to-clean-their-room/>

Your answer

17. What does the Alien do?

Make one sentence with the verbs 'invite' and 'eat'



Source: Cambridge English Qualifications :
Sample Papers for exams 2018

Your answer

18. What does the monkey do?

Make one sentence with the verbs 'sit down' and 'relax'.



Source: Cambridge English Qualifications : Sample Papers
for exams 2018

Your answer

19. What does the boy do?

Make one sentence with the verbs "get ready" 'run' and 'win'



Source: Cambridge English Qualifications : Sample Papers for exams 2018

Your answer

20. What does the girl do?

Make one sentence with the verbs Use 'give' and 'eat'



Source: Cambridge English Qualifications :
Sample Papers for exams 2018

Your answer

21. What do the students do?

Make one sentence with the verbs 'get on' and 'drive' in one sentence.



Source: Cambridge English Qualifications : Sample Papers for exams 2018

Your answer

22. What is the woman doing?

Make one sentence with the verbs 'climb' and 'hang'



Source: Cambridge English Qualifications : Sample Papers for exams 2018

Your answer

23. What does the boy in red do with a fork?

Make a sentence with the verbs 'use' 'take' 'eat'



Source: Cambridge English Qualifications : Sample Papers for exams 2018

Your answer

24. What does the girl do?

Make one sentence with the verbs 'get' 'make' 'cook'



Source: Cambridge English Qualifications : Sample Papers for exams 2018

Your answer

Appendix C

Test Items Used in the GJ Task

Instructions

Read each sentence.

If the grammar is correct, click 'O'
If the grammar is wrong, Click 'X'

1. The doctor took my blood to test it and gave me the results

o

x

2. I opened the book and read the first page.

o

x

3. She saw him to swim.

o

x

4. I play sports get healthy.

o

x

5. The chef gets the knife carves the turkey.

o

x

6. He made me laugh.

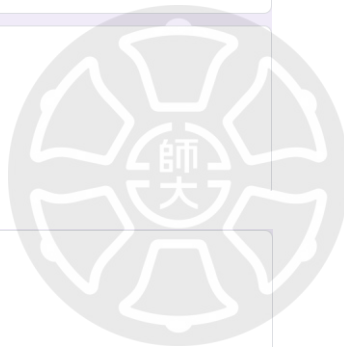
o

x

7. Jim wanted a dog

o

x



8. I made her cry.

- o
- x

9. We made he dance.

- o
- x

10. He to lie me

- o
- x

11. He take a knife kill die the pig.

- o
- x

12. He kill the pig died.

- o
- x

13. The boss made I work harder.

- o
- x

14. James took the test and got a high score.

- o
- x

15. Go get me a newspaper.

- o
- x



16. The car drove fast crashed into a wall.

- o
- x

17. She saw me run away.

- o
- x

18. The cat watched the mouse hide.

- o
- x

19. Mary hid in the basement

- o
- x

20. I grabbed my car keys and drove my car to the restaurant to eat dinner.

- o
- x

21. The man walked to his car.

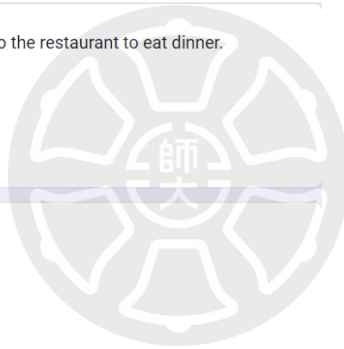
- o
- x

22. Jessica put on her shoes and went jogging.

- o
- x

23. The dog barked the car angrily.

- o
- x



24. I used a chair stand paint the ceiling.

- o
- x

25. Kathy fell down and hurt her ankle.

- o
- x

26. He saw the dog and swim

- o
- x

27. The glass fell over broke.

- o
- x

28. Come see me tomorrow.

- o
- x

29. Jessica should have studied for her test.

- o
- x

30. I buy a movie ticket go in.

- o
- x



Appendix D

Research Consent Form

同意書

這封信是為了邀請您參加我碩士論文中的一項研究，其目的是探索台灣成年人如何獲得用英語表達某些中文語法的方法。下面是一些細節，以確保您在開始實驗前充分了解重要信息。做這個實驗和其結果不會影響您在這門課的成績。

參與者：台灣成人英語學習者與英語為母語者，英語為母語者作為對照組和台灣成人作為實驗組。所有受試者將使用相同的程序進行相同的實驗。

實驗：這個實驗有三個部分。第一部分是參加一個在線 TOEIC 測試，以評估你的英語水平。有 100 個問題，您有一個小時的時間進行測試。第二部分有 24 張圖片。每張圖片顯示一個動作。您要寫一個簡單的句子，只用英語來描述這個動作。您必須自己寫出答案。不能使用字典或外部幫助。第二個實驗有 30 個問題。您將閱讀一個英語句子，您必須確認這是否是一個符合語法的英語句子。如果它是正確的，您將標記 "O"。如果不正確，您將標記 "X"。拼寫和標點錯誤如逗號和句號並不重要。您將有大約 30 分鐘時間來完成第二和第三部分的測試。

實驗將在網上進行，並將全程記錄。您有權決定參加或以任何理由退出這項研究。您的個人數據和在實驗中的反應將被保密，並只用於研究目的。

我希望您的參與能讓您對中文母語的人學習英語有更深入的了解。

姓名：_____ 性別：男性 女性 出生年份：_____

我同意參與此研究

我不同意參與研究