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THE ACQUISITION OF ENGLISH COMPLEMENTIZERS IN CANONICAL VS. NONCANONICAL STRUCTURES

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ABSTRACT

This research aims to scrutinize the acquisition of English complementizers (comps) by Chinese EFL learners, whose L1 does not have overt comps. Two questionnaires were designed and 73 English majors from a national university in Southern Taiwan were invited to participate in this experiment. Responses to Questionnaire One comprising 20 sentences of canonical structures showed that all five comps were acquired well except for the comp *for.* Responses to Questionnaire Two consisting of 39 sentences of noncanonical structures showed an opposite result that no comps were acquired except for *that* by High group participants. It was found the grammatical features of [finite] and [WH] in English comps and their compatibility with the matrix verb were not fully mastered by Chinese EFL learners because structural alternations in comp usage often confused them. The grammatical function of case assignment of English comps was not acquired. Further, Chinese EFL learners lacked the concept that English clauses were CP in structure and hence invariably dropped or misused the semantic-empty comp when the clause was dislocated to noncanonical positions. The results of this study support the Functional Module of Full Transfer Partial Access Hypothesis.

Key Words: complementizer, interlanguage, functional category, noncanonical structure

INTRODUCTION

Generative studies of interlanguage (IL) grammar have been of interest to researchers over the past decades and much attention has been focused on the possibility of parameter resetting and the availability of functional categories in Universal Grammar (UG). Functional categories such as IP, DP, and CP have been discussed enthusiastically among linguists, who have addressed questions of whether functional

projections are present in IL grammars and whether learners can acquire second language (L2) well when some features are inert or absent in their L1 (Epstein, Flynn, & Martohardjono, 1996, 1998; Eubank & Schwartz, 1996; Hawkins & Hattori, 2006; Lakshmanan & Selinker, 1994; Schwartz & Sprouse, 1996; Tsimpli, 2003; Tsimpli & Dimitrakopoulou, 2007; Tsimpli & Roussou, 1991; White, 1989, 1995, 2000, 2003; White *et al.*, 1999; White, Valenzuela, Macgregor, Leung, & Ben-Ayed, 2001.).

Chinese is a language without overt complementizers (comps), though some dialects have been observed to have one or two lexical comps, such as *kong* in Taiwan Southern Min and *waa* in Cantonese (Yeung, 2006). These examples are formed as a result of the grammaticalization of the verb 'say' and are restricted to lead only the declarative clause. A complete well-rounded set of comps in Chinese is unseen. Due to the lack of comps and hence the structure of CPs, the question as to whether Chinese EFL learners would encounter difficulty when acquiring English comps appears an interesting one to investigate. This study, therefore, focuses on the acquisition development of English comps of Chinese EFL learners in Taiwan by comparing their responses to English CPs in various syntactic positions. If the English CP is truly acquired, Chinese EFL learners should have no problem identifying a proper English comp no matter which syntactic structure it occurs in.

CROSS-LINGUISTIC COMPARISON OF CP SYSTEM BETWEEN ENGLISH AND CHINESE

English CP System

Categories of complementizer

Complementizers are functors, as proposed by Radford (2004, p. 53), in the sense that they encode particular sets of grammatical properties and they serve three grammatical functions. First, they mark the embedded clause they introduce; second, they indicate the finiteness of the clause; thirdly, they display the force of the clause. It is generally agreed that the English comps *that* and *if* introduce finite clauses, *for* nonfinite (particularly infinitival clauses), and *whether* both types.[1] In

[1] Among other researchers, Radford categorizes *whether* as an interrogative *wh*-adverb

regard to the force of the clause, declaratives can be introduced with *that* and *for*, while interrogatives with *if* and *whether*. Examples in (1) illustrate the types of embedded clauses introduced by the four comps. Table 1 summarizes the finite and force features (i.e. ±WH) the four comps serve to effect.

1. a. Tom asked [$_{CP}$ [$_{C}$ if] [we could come earlier]].
   b. Tom suggested [$_{CP}$ [$_{C}$ that] [we had a vacation]].
   c. We desired [$_{CP}$ [$_{C}$ for] [him to succeed]].
   d. Tom does not know [$_{CP}$ [$_{C}$ whether] [she will appear]].
   e. Tom is not sure [$_{CP}$ [$_{C}$ whether] [to buy the expensive car]].

Table 1

Feature Analysis of Four English Comps

	that	**for**	**if**	**whether**
finite	+	-	+	-/+
WH	-	-	+	+

CP in noncanonical positions

According to Government and Binding (GB) theory and Move α (Hornstein, 1999, 2000), syntactic variations can be conducted via transformational rules as long as the trace after movement is properly governed abiding by the Empty Category Principle (ECP) (Kayne, 1981). Observing ECP, CPs, in the following sentences, are moved from their canonical to noncanonical positions through transformations of topicalization, extraposition, pseudocleft, and right rode raising (RNR), as shown in (2a-d). Sentence (2e) has gone through a transformation of verb gapping although CP did not move.

2. a. [$_{CP}$ *Whether* he can swim] we don't know $\underline{t}$. (topicalization)
   b. She preferred $\underline{t}$ at that time [$_{CP}$ *for* you to give her a call]. (extraposition)

in the CP-spec position instead of as a Comp. Even so, he assumes the co-existence of feature +WH in Comp when *whether* appears. For the sake of convenience in categorization, we take *whether* to replace a null complementizer in such types and research the development of the five Comps in this study.

c. What our teachers hope *t* is [$_{CP}$ *for* us to learn happily]. (pseudocleft)
d. Sam remembered *t* but I forgot *t* [$_{CP}$ *that* Tim wrote a novel]. (RNR)
e. Kim expected that you did your best and Bill ~~expected~~ [$_{CP}$ *that* you won the prize]. (gapping)

In (2a), the CP *whether he can swim* is base-generated after the verb *know* and then goes through topicalization and IP-adjoins to the sentence. The CP *for you to give her a call*, in (2b), is base-generated after the verb *preferred* and then extraposes to sentence final to adjoin to VP across the temporal phrase *at that time*. Sentence (2c) originally is *Our teachers hope for us to learn happily*; after the pseudocleft transformation, the focused CP is moved to a position after the predicate *is*. Sentence (2d) goes through RNR and the CP complement clauses of the verbs in the two coordinated sentences both moved rightward and merges in a higher node above VP. In sentence (2e), the verb *expected* in the second conjunct of the conjoined structure is deleted due to identification and parallel sentence structure, called gapping.

These five structures all involve movement or variations of CP in relation with matrix verbs. The affected clauses, after the transformation, should all be headed with proper comps, or will be ungrammatical if the comps are absent. The traces left after the transformations in these five structures, as indicated by *t*, are all lexically governed by the verbs, hence observing the ECP. Though the verb is deleted in (2e), the CP complement is licensed and merged with it in the derivation process before the verb deletion, which occurs at PF component, as proposed in PF-deletion by Bošković (1997) and Bošković and Lasnik (2003).

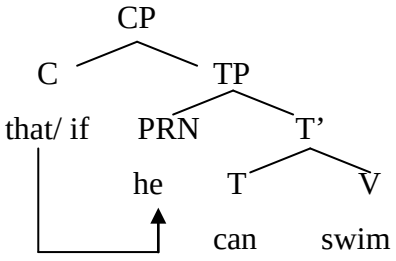
Case assignment and complementizers

English is a language with overt case marking in its pronouns. According to Case Theory, all nominal expressions in English bear case. The complementizer, in addition to displaying the linguistic force of the clause, has a close relation with the case assignment of the embedded subject. Based on Radford (2004), complementizers of varied types assign different cases to the subjects of the embedded clauses following the comps, as illustrated in (3).

3. Case Assignment of Clausal Subject and Comps (Radford, 2004)
   (i) An intransitive finite complementizer assigns nominative case to a noun or pronoun expression which it c-commands.
   (ii) A transitive head assigns accusative case to a noun or pronoun expression which it c-commands.
   (iii) A null intransitive non-finite complementizer Ø assigns null case to a noun or pronoun expression which it c-commands.

Given that the English finite Comps *that* and *if* (including the finite *whether*) are both intransitive, the subject of the complement clause, such as *he* in (4), which is c-commanded by *that* or *if*, is assigned nominative case in accordance with (3i). In contrast, *for* is a transitive complementizer (a functional head) and, according to (3ii), assigns the accusative case to the infinitive subject that it c-commands, as shown by *her* in (5). Declarative or interrogative non-finite (as headed by *whether-to*) clauses containing a null subject PRO are CP projections as CP presents a barrier to the government by the preceding matrix verb. The null Comp Ø assigns null case to the complement clause subject PRO, as illustrated in (6).

4.



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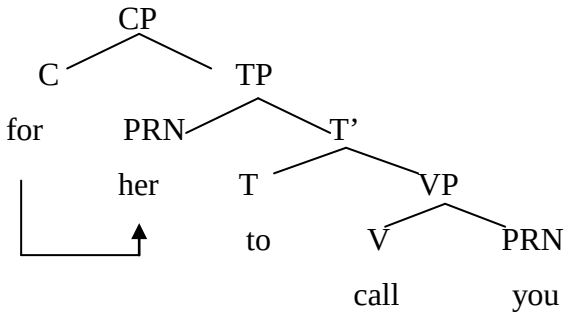
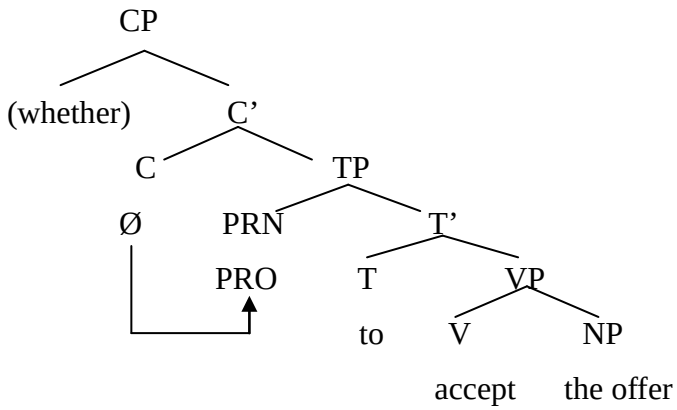


6.



The Question of a Chinese CP System

The existence of Comp

Whether Mandarin Chinese has a CP structure is controversial. The CP system in Mandarin Chinese differs from that in English in several respects. First, even though the functional category C is postulated to be present in Chinese (Ernst, 1994; Gasde & Paul, 1996; Shi, 1997; Soh, 2005; Zhang, 2000), there is no overt corresponding complementizer. Gasde and Paul propose that sentence-final particles indicate sentence types, e.g., *de* signifies declaratives, *ma* yes-no questions, and *ne* *wh*-questions. The sentence final particles are a root phenomenon, different from the comps in English that generally introduce different types of embedded clauses. Second, in contrast to English in which functional heads like Tense are overtly marked by free morphemes or affixes, Chinese has little inflectional morphology (Ernst, 1994; Gasde & Paul, 1996; Hu, Pan, & Xu, 2001). This condition makes the investigation of the distinction between Chinese finiteness and comps very difficult, for the comp head is not inflectionally marked if indeed any exist in Chinese. Third, Chinese is a *wh*-in-situ language and *wh*-elements remain in their canonical positions at PF, although some linguists claim that Chinese *wh*-elements do undergo covert movement to CP-spec at LF as in the movement in English (Huang 1982, as cited in Shi, 1997). Without overt wh-movement, it is difficult to judge whether CP structure exists in Chinese.

The [WH] and [finite] features of Comp

Many researchers have devoted attention to the issue of [finite] in Chinese embedded clauses, but few have questioned the existence of [WH] feature. As a root sentence can be a statement or a question in force, embedded clauses can be either declarative or interrogative, and thus carry [-WH] or [+WH] feature, which is natural and universal in all languages. Moreover, the preceding matrix verb must have a corresponding agreement feature of [-Q] or [+Q] to match with the [-WH] or [+WH] feature of the comp leading the embedded clause. For instance, the statement verb with [-Q] feature can only co-occur with a clause with [-WH] feature; the inquiry verb with a [+Q] feature can only co-occur with a clause with a [+WH] feature. This universality of syntactic agreement is across all languages, as shown in both English and Chinese sentences in (7-8).

7 a. We believed {that /*whether} Jack did not lie.
b. We wondered {*that /whether} Jack liked the girl.

8 a. Women xiangxin Jieke {meiyou/* you-mei-you} shuo-huang.
we believe Jack not / Aux-not-Aux tell-lie
We believed {that /*whether} Jack did not lie.
b. Women xiang-zhidao Jieke {*xi-huan/ xi-bu-xi huan} na-ge nyu-hai.
we wonder Jack {*like/ like-not-like} that-CL girl
We wondered {*that /whether} Jack liked the girl.

Although English and Chinese share the agreement between the verb and its complement clause, the moved and the in-situ wh-element between English and Chinese interrogative clauses is an obvious distinction. Hawkins and Chan (1997) assume that [WH] feature is absent in C in Chinese, resulting in no motivation for movement in relative clauses (as cited in White, 2003). Contrary to Hawkins and Chan, many findings support the argument that the [WH] feature in Chinese is weak rather than absent in C, and hence overt movement does not take place (White, 2003), but covert movement does occur at LF (Huang, 1982). Hence, whereas the presence of a [WH] feature in Chinese remains a subject of controversy, it is accepted that English [WH] feature is present and strong.

In terms of finiteness, there are even more debates on whether Chinese has a clear-cut finite vs. non-finite distinction as English does.

Ernst (1994) notes that finite is a head in all languages but that it has no lexical representation in Chinese. Similarly, Gretsch (2004, p. 461) stresses that Chinese is a language of 'morphological finiteness.' Functional features, as claimed by Gasde and Paul (1996), are specified by grammatical words rather than inflectional morphemes or affixes. That condition is distinct from English, in which inflectional elements address (non-)finiteness to verbs: tense/agreement in finite clauses and infinitive forms in nonfinite (Campbell, 1995). From a different perspective, Huang (1984, 1987, 1989) argues that modals or aspectual elements can serve as AUX to encode finiteness and license lexical subjects which only occur in finite clauses. In other words, nonfinite clauses cannot contain overt lexical subjects but PRO, due to a lack of formal license from AUX or case assigners (Ernst, 1994; Li, 1985, 1990) such as Comp *for* in English. Sentences (9)-(10) are some examples from Huang, cited in Hu *et al*. (2001, p1121-1122). That the embedded nonfinite clause in (9) is correct can be accounted for by the fact that there is no AUX or case assigner in the clause, leaving PRO ungoverned. In contrast, the inaccuracy of (10a) and (10b) arise from the occurrence of AUX, the modal *hui* and the aspectual marker *you*, in the nonfinite clauses.

9. wo zhunbei [PRO mingtian lai]
   I prepare tomorrow come
   I expect to come tomorrow.

10 a. *wo zhunbei [PRO mingtian hui lai]
   I prepare tomorrow will come

   b. *wo quan Zhangsan [PRO mei you mai zheben shu]
   I persuade Zhangsan not ASP buy this book
   *'I persuade Zhangsan not to have bought this book.'

Some linguists oppose the existence of (non-)finiteness in Chinese. Under Hu *et al.*'s (2001, p1122) exposition, the ungrammaticality of (10) results from semantic incompatibility rather than the nonfinite status. In (10a), the modal *hui* indicates possibility and uncertainty, but not futurity. The modality of uncertain possibility is incompatible with the semantics of *zhunbei* 'prepare' which describes an intended incident. In (10b), *mei you* expresses negation of the previous event, which produces semantic incompatibility with the proposition of the verb *quan* 'persuade' because 'one cannot persuade somebody not to have done something in the past'.

Due to the lack of overt marking for the finiteness of a clause, it is difficult to distinguish between finite and non-finite clauses, and speakers of Chinese seem to rely heavily on semantics to make judgments.

Even though Chinese lacks overt lexical comps, the syntactic categorization, i.e., declarative vs. interrogative and finite vs. nonfinite, lies in the semantic agreement between verbs and their complement clauses. If the grammatical function of comp can be taken care of by the semantic linkage, the projection of CP in Chinese is then not necessary in the embedded clause. This study, therefore, intends to investigate the development of the acquisition and results of the use of English comps by Chinese EFL learners, whose L1 lacks overt lexical comps. We aim to explore whether CP projection exists in the final stages of the IL grammar of Taiwanese EFL learners by examining their uses of comps in a variety of syntactic structures. It is assumed that if English comps can be successfully acquired by Taiwanese advanced EFL learners over a long period of time of learning and input, then the syntactic variation of canonical structures would not be a hindrance for their understanding of English clauses as CPs.

LITERATURE REVIEW

Comp Acquisition

Among the limited amount of research on comp acquisition, Haznedar (2003) observed the Turkish-speaking learners of English and argued for the existence of CPs in the learner's final interlanguage (IL). Bhatt and Hancin-Bhatt (2002) undertook a close investigation into the development of CP structures in Hindi-speaking ESL learners' IL. They find that the initial IL grammars do not contain a CP system, but that it is well-established after approximately five years of learning. Furthermore, the participants successfully replaced the weak *wh*-feature in Hindi with the strong one in English. Although the acquisition of CP projections by learners of various languages has been an object of study, a study of its acquisition by Taiwanese EFL learners is lacking. Shirahata (2003) carried out longitudinal research on Japanese-speaking child learners' acquisition of the English comps, *that*, *if* and *for*. The four children had had no knowledge of English before they moved to Canada or Australia. The four participants produced *that*-deleted sentences the earliest and the

most frequently in their spontaneous speech due to the frequency of *that*-omission in the native speakers' conversations. Overt *that* sentences also occurred sometimes, indicating that they knew that *that* could appear optionally in the object position. Later, they produced *if*-clauses correctly; and last, *for* as a comp appeared accurately in their speech data. L1 transfer was found but occurred for a brief period of time at the early stage for only about a month and then the parameter reset successfully with universal grammar (UG).

Acquisition Hypotheses

Two acquisition hypotheses which have been hotly discussed in the past decades present contrasting perspectives on functional categories in UG and on the discrepancies in the end-state. First, the Full transfer/Full Access (FTFA) hypothesis claims that L1 grammar constitutes the L2 initial state (Full transfer), and L2 input plays an important role in the subsequent development. When grammatical properties of L2 contained in the input conform to those of L1, it is predicted that learners will make few or no mistakes. On the other hand, if disagreement between L1 and L2 grammar occurs, IL grammar will be restructured by UG to become more suited to the L2 input. During the restructuring, transfer errors are expected to appear initially, but to disappear gradually. Furthermore, parameter resetting is possible, meaning that learners will not confine themselves to L1 properties. Even though features are originally set at L1 values, they will be reset once learners realize that their L1-based concept is incorrect. The end-state of IL grammars is claimed to be UG-constrained (Full Access) and L2-like grammar is possible but not inevitable (Schwartz & Sprouse, 1996; White, 2000; White *et al.*, 2001; Yuan, 1997).

Second, the Full transfer/Partial access (FTPA) hypothesis agrees with the FTFA in the initial state but differs in the end-state. The FTPA claims that although the parameters in IL grammar are set at the values of L1 (Full transfer), parameter resetting in L2 is possible only in lexical categories but not in functional categories (Partial access). Functional categories form an independent component of UG, which is subject to maturation during childhood. This Functional Module can match with the Critical Age Hypothesis in SLA, and account for some failure of adult L2 learners in target language acquisitions, as some parameters cannot be reset beyond the critical period (Hawkins, 1998; Hawkins & Chan, 1997; Smith & Tsimpli, 1995; Tsimpli & Roussou, 1991). This

Functional Module has been further developed into the Interpretability Hypothesis proposed by Tsimpli and Dimitrakopoulou (2007). According to the hypothesis, uninterpretable, but not interpretable, syntactic features are problematic for second language speakers and are the fundamental source of fossilized errors in second and foreign language acquisition. As hypothesized, uninterpretable features disappear and become unavailable in the subsequent acquisition of a language if they are not selected from the inventory of features assumed to be given by genetic endowment, i.e., UG, in the construction of a mental grammar during a 'critical period' when all such features are available. In later language learning, all other aspects of UG remain available: the computational devices, their associated operating principles, interpretable syntactic features and uninterpretable features already selected during the acquisition of primary grammar during the critical period. The Interpretability Hypothesis makes an explicit claim about the area where L2 speaker knowledge is permanently divergent from that of native speakers.

The above-mentioned research on comp acquisition seems to all confirm a successful acquisition of English comps by learners of various L1 backgrounds. However, if the comp is a functional category, it is supposed to cause learning hindrance in the IL of adult L2 learners according to the Functional Module of Full Transfer Partial Access (FTPA) Hypothesis, which asserts that the parameters of functional categories cannot be reset beyond the critical period due to the effect of the inaccessibility of features of functional categories from the Universal Grammar (UG). Hawkins and Hattori (2006, p. 298) in their study of Japanese speakers' learning of English multiple wh-questions also proposed the necessity of scrutiny of false acquisition. "…[C]aution is required in interpreting apparent target-like performance as evidence for the acquisition of underlying properties of grammar assumed to be present in the grammars of native speakers. If, in a given domain, the only difference between a native grammar and the IL grammar of a late second language learner is an uninterpretable feature, but all other resources of UG are still available, then the performance of that learner could look like that of a native. Subtle testing of a range of properties in the relevant domain might be required before one can say with confidence that feature is present in the grammar."

As English comps are limited in number and L2 learners may utilize effective learning strategies to learn them and thus present a false image

of successful acquisition, in this study test sentences with English comps in varied syntactic structures, especially in non-canonical positions, are composed to examine if English comps are truly acquired by more advanced Chinese EFL learners in Taiwan.

The research questions in the study address the following aspects:

a. What is the pattern of the development of English comp acquisition among advanced EFL learners in Taiwan?
b. Are features of [finite] and [WH] able to provide a good analysis of English comp acquisition for Chinese EFL learners?
c. How are English comps acquired when CP occurs in canonical vs. noncanonical positions? Will the acquisition be affected by the syntactic transformation?
d. Will advanced EFL learners in Taiwan eventually acquire the English CP structure and the function of comps? That is, can the comps be truly acquired in the final stage?
e. Which interlanguage hypothesis can best account for the pattern of comp acquisition found in this study?

METHOD

Participants

Seventy-three English majors from a national university in southern Taiwan were invited to join this project; they were categorized into two proficiency levels based on their number of years of learning English at school. The High Group, comprising 37 graduate school students, including those holding master's or doctoral degrees, had been studying English for more than 11 years. The Mid Group, comprising 36 undergraduate English majors**,** had been studying English for more than eight years. These participants were considered high intermediate and advanced EFL learners due to their reading of subject matter in English in their area of professionalism and the many years they had devoted to learning English. Also, to maintain the same level of proficiency, the members of the group at either extreme based on their previous semester performances in English courses were not included.[2]

[2] The number of years of learning is adopted as a criterion for division by level of proficiency in this study though conventionally it is not used. To keep the level of the

As there are sentences with complex English structures in the experiment in this study, only English majors with a high intermediate level of proficiency and above were recruited to avoid possible difficulty in comprehension due to the structural complexity of the experiment questions. In addition, as the purpose of the study is to examine the final stage of the comp acquisition, the performance of the advanced learners is therefore the main focus in this study.

Research Design

In contrast to previous studies on comp acquisition, which gathered data mainly from observations of participants' spontaneous speech, this research utilized sentence grammaticality judgments in a questionnaire-format. As language users often imitate other people's speech, the simple occurrence of a particular element or structure might not mean the existence of true acquisition. On the other hand, a judgment test of the target structure can examine better if the subject has truly acquired a particular element or structure since s/he must face all of the possible occurrences of the structure arranged in the test and cannot avoid the parts that s/he has doubts about. To observe the actual acquisition, the reliability of tests with questionnaires is believed to be higher than mere observation of spontaneous speech.

Two questionnaires with varying comps were designed to test the participants of two different proficiency levels. Questionnaire One, consisting of comps of *that, whether, if, for* and *whether-to* (standing for *whether* leading a nonfinite clause) in 20 common sentences, was conducted first. Later, to inquire further, Questionnaire Two, comprising comps in 39 sentences in noncanonical structures of *topicalization, extraposition, pseudocleft, RNR,* and *gapping,* was distributed to the same groups of participants about one month after Questionnaire One. To avoid confusion to the participants and invalidity of their answers, we avoided the vague verbs and predicates based on Quirk, Greenbaum,

English ability of members similar within the Mid group, only the middle 80% of the sophomore students (36 out of 45) were included, with to reference their scores in English skill courses, such as reading and writing, in the previous semester. For the High group, only the upper 70% of the graduate students (37 out of 54) were included, screened by their scores in the graduate writing course. With the above measurements and the difference of a length of at least 3 years or more of intensive study in English, we believe the two chosen groups can legitimately represent the two levels of proficiency intended in this study.

Leech, and Svartvik (1985) and Dor (2005). Moreover, all of the test sentences were composed of commonly-used vocabulary with which the participants were familiar so as to increase the content validity.

Questionnaire one: Comp identification and correction

Questionnaire One was designed to observe how comp was acquired when CP occurs in the canonical position and whether or not there were acquisition orders for different comps or for different syntactic structures. Each comp had four token sentences in this questionnaire for participants to judge whether they were grammatical or not. Their categorization and distribution in the questionnaire are shown in Table 2. The participants needed to circle T(true) when they judged the sentence grammatical and F(false) when ungrammatical. If their answer was T, they left the sentence intact. If they chose F, they had to identify the incorrect part and put their revision in the blank provided. They could also select N (not sure) if they were not sure about the grammaticality of the sentence.

Table 2

Comp Categorization and Distribution in Questionnaire One

	that	***whether***	***if***	***for***	***whether-to***
Sentence no.	5,11,15,18	6,9,14,16	1,7,10,17	3,13,19, 20	2,4,8,12

The correctness of the sentence depended on whether or not the comps carried proper (non)finite and [±WH] feature clauses and whether or not the comps were compatible with the matrix predicate. Examples of the wrong use of the five comps are displayed in (11a-e), with their corrections in the sentence right below in (11a'-e'). The complete Questionnaire One is provided in Appendix A.

11. a. *He convinced Amy *that* Jim to win the first prize.
    a' He convinced Amy *that* Jim had won the first prize.
    b. *It seems *whether* it will snow tonight.
    b' It seems *that* it will snow tonight.
    c. *Bill wanted to know *if* to help his father wash the car.
    c' Bill wanted to know *whether* to help his father wash the car.

d. * It is still uncertain *for* Simon to sell his house.
d' It is still uncertain *whether* Simon wants to sell his house.
e. * *Whether* he to join the activity is surprising to me.
e' *For* him to join the activity is surprising to me.

Questionnaire two: Comp recognition in noncanonical structures

Questionnaire Two was designed to inquire into whether comp acquisition could be as equally successful when CP exists in the noncanonical syntactic positions as in the canonical ones. We adopted transformations of topicalization, extraposition, pseudo- cleft, RNR and gapping to alter the CP position in the sentence, shown in (2) now repeated in (12). The italicized *t* in the examples indicates the original position from which the embedded CP was extracted.

12. a. [$_{CP}$ *Whether* he can swim] we don't know *t* . (topicalization)
b. She preferred *t* at that time [$_{CP}$ *for* you to give her a call]. (extraposition)
c. What our teachers hope *t* is [$_{CP}$ *for* us to learn happily]. (pseudocleft)
d. Sam remembered *t* but I forgot *t* [$_{CP}$ *that* Tim wrote a novel]. (RNR)
e. Kim expected that you did your best and Bill ~~expected~~ [$_{CP}$ *that* you won the prize]. (gapping)

Table 3

Distribution of Sentence Tokens in Questionnaire Two

Types	***that***	***whether***	***for***
Topicalization	6,20,31	1,15,30	10,22,39
Extraposition	2,17,28	11,24,36	7,14,33
Pseudocleft	9,23,29	13,26,37	5,19,34
RNR	12,27,38	3,18,32	x
Gapping	4,16,25	8,21,35	x

As there were five types of transformation structures, we chose the three comps of *that, whether,* and *for* only for inclusion in the experiment so that there would not be too many sentences in the questionnaire to cause fatigue and confusion in the participants. Three tokens for each comp in each type of transformation structure were designed except for the comp *for* in the RNR and gapping structures, in which no suitable sentences with comp *for* existed. There were 39 token sentences in total in this questionnaire; their categorization and distribution is displayed in Table 3. The complete Questionnaire Two is provided in Appendix B.

Due to the adjacency requirement of the comp to assign the case to the embedded subject NP (Radford, 2004), the comp has to be close to the moved IP; i.e., no part of the CP can be divided from the function head comp and the whole CP must move as a chunk when the transformation applies. After the transformation, the dislocated CP is in a noncanonical position and is away from the matrix predicate; however, the features of [±finite] and [±WH] between the comp and the matrix predicate must be maintained. For instance, in a pseudocleft context as in (13), the participants need to know that the matrix verb *believe* subcategorizes for a declarative clause and the comp *whether* in the dislocated CP takes the incompatible interrogative property. The sentence, therefore, is ungrammatical due to the incompatibility of [±WH] feature. The sentence can be corrected immediately by a change of an interrogative comp of *whether* to a declarative comp of *that.* (14) presents an example of the incompatible feature of the [±finite]. In a topicalized context, the comp *for* requires a nonfinite clause and hence it cannot match with the finite clause here. The sentence can be correct only when the topicalized CP alters to become a nonfinite clause.

In this experiment the performance of the participants was

investigated to observe if they had truly acquired the English comps by showing that they knew the matching features of [±finite] and [±WH] not only between the comp and the clause it leads but also between the clause and the matrix predicate that was not adjacent due to the transformation.

13. a. * What the man believed was *whether* he needed to work hard.
    b. What the man believed was *that* he needed to work hard.

14. a. **For* you will be successful your parents desire.
    b. *For* you to be successful your parents desire.

Scoring and Data Analysis

The standard of scoring was consistent to make the analysis intelligible and objective. Correct answers were scored one point, whereas incorrect or N answers zero. Spelling, tense, and capitalization errors were not conceived to be incorrect answers as our interest was in the attainment of CPs, and one point was also given for a correct answer including these circumstances in Questionnaire One. In providing an answer, the participants could choose T for a grammatical sentence and leave the sentence unchanged, or they could pick F for an ungrammatical sentence, circle or mark the problematic part, and then revise it correctly. No point was given if the revision was incorrect. In Questionnaire Two, only grammaticality judgment was required due to the numerous amount of items and the high complexity of the sentence structures. The participants would obtain one point if they answered the question correctly, i.e., T for correct sentences or F for incorrect sentences. No point was given if they provided wrong or N answers.

After scoring, the data were subjected to statistical analysis (SPSS software). A two-way analysis of variance (two-way ANOVA) was adopted to assess the performances of the participants in the two levels of proficiency on their acquisition order of comps based on their responses to the items for [finite], [WH] features and the CP position in a sentence. A simple main effect, an independent *t* test, and a one-way analysis of variance (one-way ANOVA) were conducted to run *post hoc* analyses if necessary. In addition to the statistical results, an error analysis and discussion of possible causes are provided for qualitative analysis to examine learners' development of the acquisition of English comps.

RESULTS

Results of Questionnaire One

Figure 1 displays the accuracy averages for the five English comps of the two subject groups. Both groups did well in all the comps except for the comp *for*, the accuracy means of which were below the passing score for both groups (High: 0.3311; Mid: 0.2708). For the other four comps, the accuracy means were all above 80% for the High group and were between 63% and 78% for the Mid group, as shown in Table 4. As all of the accuracy means were all above the passing grade of 60% (Vainikka & Young-Scholten, 1996),[3] Chinese EFL learners seemed to have acquired English comps (except for *for*) when CP occurs in canonical positions.

The acquisition order of English comps for the Mid group can be roughly classified into three stages: *whether/whether-to* >(meaning 'before') *that/if* > *for*; the High group, however, presents two stages: *that/if/whether/whether-to* > *for*, with all comps acquired except for *for*. Why comps *whether/whether-to* with marked [+WH] feature was acquired earlier than the comp *that* with unmarked [-WH] feature in the Mid group is an interesting question and will be explored in the discussion section.

[3] Vainikka and Young-Scholten (1996) propose that 'the criterion for acquisition is an accuracy level of 60%' (as cited in White, 2003, p.77).

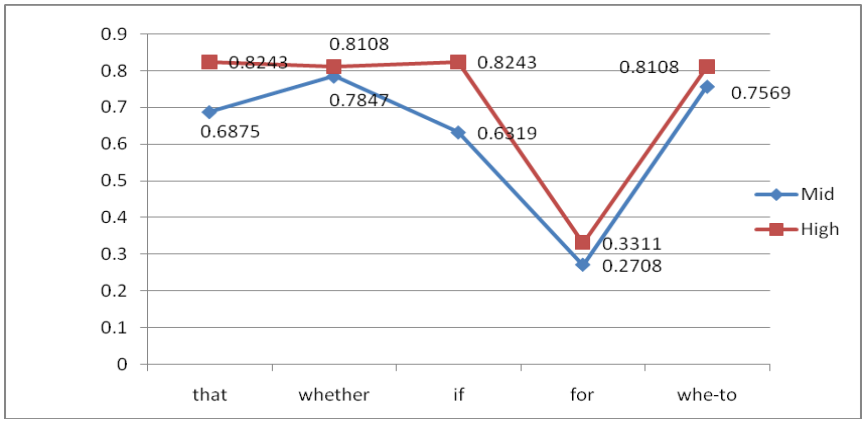


Figure 1. The Rates of Accuracy for the Five Comps in Questionnaire One

The development of acquisition was not equal in the two subject groups. The High group outperformed the Mid group in the results for all five comps and the difference was significant (t=3.613, p=0.001***), indicating that the High group had acquired the use of English comps much better than the Mid group and hence the comp acquisition was still progressing for learners from the high intermediate to advanced levels such as in the case of the participants in this study. A further statistical analysis showed that among the five English comps, a significant difference between the High and Mid groups was mainly from the comps of *that* and *if*, as shown in Table 4 (*that:* t=3.022 p=0.003**; *if:* t=3.498 p=0.001***).

Table 4

Accuracy Means (SD) of Comps Between the two Groups

Comp type	**Mid group**	**High group**	**Comparison**
that	0.6875 (0.2186)	0.8243 (0.1653)	t=3.022 p=0.003**
whether	0.7847 (0.2326)	0.8108 (0.1901)	t=0.525 p=0.601
if	0.6319 (0.2352)	0.8243 (0.2347)	t=3.498 p=0.001***
for	0.2708 (0.1925)	0.3311 (0.1868)	t=1.357 p=0.179
whether-to	0.7569 (0.2275)	0.8108 (0.2075)	t=1.057 p=0.294
All comps	0.6264 (0.1149)	0.7203 (0.1070)	t=3.613 p=0.001***

An examination of the four token sentences involving comp *that* showed that the High-Mid cross-group difference resulted mainly from the distinction in the most common structure, i.e.**,** when CP existed in the object position (such as in S15 in Questionnaire 1), as indicated in the M-H comparison in Table 5 (t=2.776 p=0.007*). Both groups did poorly in the case of the sentential subject structure, i.e., when CP existed in the subject position (such as in S18 in Questionnaire 1), and hence no cross-group distinction was observed here; yet, both groups showed a significant difference in the object-subject *that* contrast, as indicated in the within group comparisons in Table 5 (Mid: t=6.437 p=0.000***; High: t=5.075 p=0.000***). These statistics show that the comp *that* was acquired gradually mainly in object *that* structures when participants' proficiency improved from high intermediate to advanced level and that little improvement occurred for subject *that* structures.

Table 5

Means in 'That' and 'If' Clauses Between Mid and High Groups

Comp *that*	**Mid group**	**High group**	**M-H comparison**
object *that*	0.814	0.936	t=2.776 *p*=0.007*
subject *that*	0.3056	0.4865	t=1.585 *p*=0.117
Within group comparison	t=6.437 *p*=0.000***	t=5.075 *p*=0.000***	
Comp *if*	**Mid group**	**High group**	**M-H comparison**
Finite clause	0.7778	0.7973	t=0.288 *p*=0.774
Nonfinite clause	0.4861	0.8514	t=4.226 *p*=0.000***
Within group comparison	t=3.244 *p*=0.003**	t=-0.850 *p*=0.401	

For the comp *if*, the difference in the High-Mid cross-group comparison came from the nonfinite clause, shown in Table 5 (*t*=4.226 *p*=0.000***), and finite-nonfinite contrast was a problem for the Mid group, but not for the High group (Mid: *t*=3.244 *p*=0.003**; High: t=-0.850 *p*=0.401). Both groups did well in finite clauses; hence, no significant distinction was observed in the cross-group comparison. Mid group participants seemed to confuse comp *if* with comp *whether*, as they tended to regard the sentences in (15a-b) as correct. This shows that they had not fully mastered the finite feature of comp *if* and also that the improvement of [±finite] in *if* acquisition is gradual, too.

15. a. *I wonder if to buy this expensive watch.
    b. * Bill doubted if to help his father wash the car.

The very low accuracy means of *for* may indicate that neither subject group had acquired the comp at the stage when they were responding to the questionnaires. They did not recognize this comp and deleted or changed it in their corrections of the sentences, shown in (16a-b). Many

stated that *for* was a preposition in our personal communications with them after the experiment. However, the preposition *for* and the comp *for* are different in English (Radford, 2004, p. 53-55). As comps are case assigners as part of their function, not knowing that *for* can be a comp indicates that Chinese EFL learners, even advanced ones with a high level of proficiency, did not have the concept of structural case for argument NPs based on the Case theory and had difficulty in detecting that the sentences in (17) were ungrammatical due to the lack of case in the embedded subject NP.

16. a. *It is still uncertain {~~for~~ /that}Simon to sell his house.
    b. *I questioned ~~for~~ Leo to have enough confidence to do it.

17. a. *It is still uncertain that Simon to sell his house.
    b. *I questioned Leo to have enough confidence to do it.

Results of Questionnaire Two

In Questionnaire Two, the participants only gave a grammaticality judgment of the sentences and no correction was required for the incorrect sentences they identified. Due to this criterion, the true acquisition standard was set to a 75% accuracy rate, as pure guessing can only produce a 50% accuracy rate statistically and hence another 25% accuracy rate is required to ensure the true competence of comp knowledge.[4] The accuracy rates achieved for the three targeted comps in this questionnaire are shown in Figure 2. Except for the performance for the comp *that* by High Group participants, the accuracy rates for all comps for both groups were all lower than 75%, meaning that these Chinese EFL learners had not really acquired English comps, when the CP was displaced to other syntactic positions, except for the comp *that* among the High group.

[4] Though the N (not sure) option was provided in the questionnaire, its function was to avoid random choice by the participants which could influence the reliability of the calculation of accuracy. In order to investigate the actual acquisition state, a requirement of 75% accuracy means is quite fair for a test composed of True or False binary choice questions.

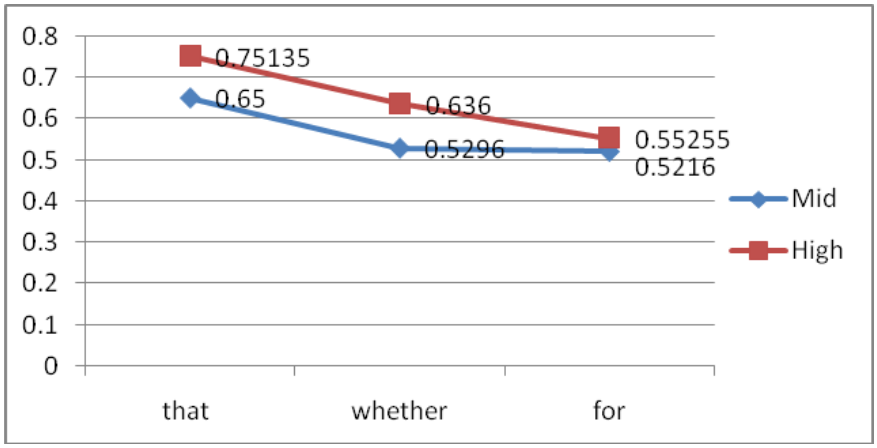


Figure 2. Accuracy Rates of Three Comps in Questionnaire Two

The performance of the High group excelled that of the Mid group for all three comps and the difference was significant between the two proficiency groups (t=3.018, p=0.003**), indicating that the acquisition of comps in the noncanonical structures was also gradual. As the accuracy rates of the comp *for* were equally low, the cross-group distinction resulted mainly from the results for the comps *that* and *whether,* and the accuracy differences for the two comps were both significant, as indicated in Table 6. These rates show at least three facts. First, the comp *for* was clearly not acquired by the Chinese EFL learners since the accuracy rates from both groups were near the guessing rates, and the result from Questionnaire One also supported the failure of the acquisition of *for.* Second, *whether* was more difficult to acquire than *that*, as indicated by the lower accuracy rates of *whether* than *that* for both groups here as well as by the result of the High group in Questionnaire One.[5] This is in accordance with the concept that comps with a [+WH] feature are more marked and harder to acquire than the ones with a [-WH] feature. Third, the significant distinction in Questionnaire Two between the two proficiency groups revealed that

[5] That the means of the comp *that* was lower than that of *whether* and *whether-to* in the Mid group was probably due to one token sentence involving *that*, the very low average (i.e., 0.3) of which dragged down the total average of *that.* Why this sentence was particularly difficult will be discussed in a later section.

English comp acquisition was gradual and slow and progress was observed even in EFL learners of high proficiency levels, indicating that English comps, though limited in number and seemingly simple, are not easy for Chinese learners to **…** . This is partly because Chinese learners haven't acquired the rule that CP is a basic structure of an English clause and that confusion often arises due to the variation of syntactic positions of the clause in a sentence via transformations. Chinese clauses are IP only in form without corresponding functors; this L1-L2 contrast makes comp learning difficult, especially when the CP shifts to other noncanonical positions. As functional heads, comps carry grammatical features and contain little semantic property to refer to, and the difficulty in acquisition was revealed in the low means of Questionnaire Two.

Table 6

Accuracy Means (SD) of Comps in Questionnaire Two

Comp type	**Mid group**	**High group**	**M-H Comparison**	
that	0.6500 (0.1446)	0.7514 (0.1471)	t=2.967	p=0.003**
whether	0.5296 (0.1389)	0.6360 (0.1660)	t=2.966	p=0.004**
for	0.5216 (0.1390)	0.5526 (0.1687)	t=0.730	p=0.468
All comps	0.5741 (0.1160)	0.6611 (0.1251)	t=3.081	p=0.003**

Table 7 shows the accuracy means of the comps of the two groups in the five noncanonical structures. The comp acquisition order in these structures was: RNR/ extraposition > pseudocleft > gapping > topicalization. If 75% is taken as the criterion for acquisition, comps acquisition failed in the case of all of these five structures except for the RNR by the High group participants, who demonstrated a 76% accuracy rate. Both RNR and extraposition were relatively easier than other structures, for both groups showed the highest accuracy means here; in contrast, topicalization was the hardest, shown in the lowest accuracy means of both groups. Significant differences between the groups were observed for the easy RNR and for the difficult topicalization structures, but not for other structures.

Table 7

Accuracy Means (SD) of Comps in Five Noncanonical Structures

Comp type	**Mid group**	**High group**	**Comparison**	
Topicalization	0.4630 (0.1925)	0.5706 (0.1997)	t=2.343	p=0.022*
Extraposition	0.6451 (0.1567)	0.7027 (0.1483)	t=1.615	p=0.111
Pseudocleft	0.6111(0.1850)	0.6487 (0.1728)	t=1.757	p=0.083
RNR	0.6389 (0.2089)	0.7568 (0.1501)	t=2.774	p=0.007*
Gapping	0.5139 (0.2593)	0.6036 (0.3650)	t=1.207	p=0.231

A scrutiny of the individual comps in different noncanonical structures, as shown in Figures 3 and 4, reveals that different comps displayed very different results. As a comp with unmarked features of [finite] and [WH], *that* was the best acquired comp among the three comps. The comp *that* was learned without much difficulty in extraposed structures, as illustrated in the high accuracy means of both groups (High: 0.919 ; Mid: 0.833), and it improved quickly in RNR structure from Mid to High groups (Mid: 0.657; High: 0.811). The results for the comp *whether* did not show much variation in the five noncanonical structures (except for a dip for gapping structure for Mid group participants) and there was an invariably lower average for accuracy than for *that* in both groups. This result means that *whether* was comparatively more difficult to produce than *that* in the noncanonical structures. The comp *for* also presented a similar pattern of acquisition between the two groups in the three structures, with the lowest accuracy for topicalized, median accuracy for extraposed, and the highest accuracy for pseudocleft structures; the slope differences among the three noncanonical structures were equally great in both groups.

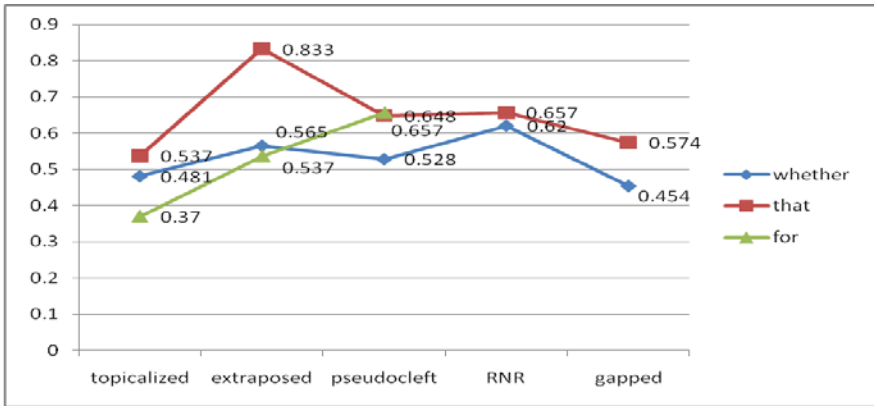


Figure 3. Accuracy Means of Comps in Varied Structures for the Mid Group

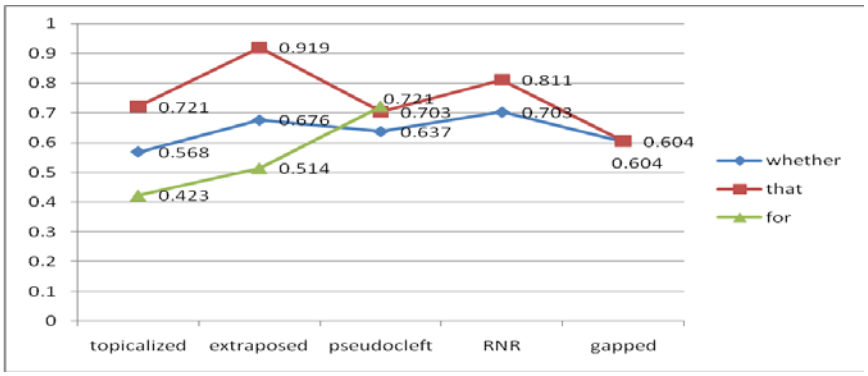


Figure 4. Accuracy Means of Comps in Varied Structures for the High Group

That Chinese EFL learner's acquisition of comps in noncanonical structures was not successful can be seen from the average means for the responses in Questionnaire Two. Yet, failure was not seen in the case of all comps. Individual comps displayed different developments in different structures**;** for example, *that* had been gradually learned by the High group participants in extraposed and RNR structures and *for* was not too difficult in the pseudocleft structure. This study reveals that the

acquisition of functional categories of comps in the noncanonical structures is arduously slow and develops individually even among advanced EFL learners. The development of acquisition might not be as easy and abrupt as suggested in the model of parameter resetting.

DISCUSSION

In the following, the research questions will be discussed one by one based on the results from the two questionnaires and the above-mentioned theories or hypotheses.

Development of Comp Acquisition

What is the development of English comp acquisition like in advanced EFL learners in Taiwan? Are the comps acquired fast and well as stated in previous studies? As there are only five comps in English, it is naturally assumed that they can be learned quickly by EFL learners and the high accuracy means in Questionnaire One seem to support this idea. However, the results from Questionnaire Two were not very satisfactory, indicating the comp acquisition probably is not as fast and simple as it might seem extrapolating from the results for Questionnaire One. To avoid the false acquisition as described in Hawkins and Hattori (2006, p. 298), we need to scrutinize further from a different perspective.

From the cross-group analysis, the means of all comps of the High group were invariably higher than for those of the Mid group in both questionnaires, indicating that the High group excelled the Mid group in learning English comps. These significant differences in the use of comps between the two proficiency groups meant that though English comps may seem easy to acquire due to their limited number, the process of acquisition is rather long and that it was still going on for high level learners such as the participants in the two proficiency groups in this study. English comps might not be simple and straight forward as we might think since cross-group distinctions were observed in the responses to both questionnaires. Hence, the development of English comps is gradual and slow for Chinese EFL learners.

Another interesting point to observe is the distinction of *for* from the other comps. It was found that the comps for which greatest acquisition was shown were *that, if,* and *whether* but not *for.* The High group performed significantly better than the Mid group for the comps *that* and

if in the first questionnaire and for the comps *that* and *whether* in the second questionnaire, but no significant improvement between the groups for *for* was ever shown in either of the questionnaires. This phenomenon indicates that the improvement from Mid to High levels was mainly from progress in *that*, *if* and *whether,* and little from that in *for.* As comps, especially comp *for,* are rarely discussed in the English grammar books or taught by English teachers in Taiwan, they were mainly self-learned by the EFL learners through L2 input and constant adaptation of the comp rule in their mind. The Comp *for,* less frequently-found than *that* and more vacuous than *whether* and *if* in semantics, is naturally harder to acquire and hence the development of its acquisition lagged far behind**,** not to mention the role of the interference due to its similarity to the preposition *for*. Among the five English comps examined in this study, *for* is least discussed and taught in EFL classes in Taiwan and most EFL learners are unfamiliar with or ignorant of its function. With the advance of linguistic research, temporal prepositions followed by a tensed IP such as *after*, *before* and *while* are also recognized as comps in English (Dubinsky & Williams, 1995); however, most L2 learners rarely have much sense about the nature of this functional category. In short, without the help of formal instruction, English comps are not easily acquired by Chinese EFL learners and the development of their acquisition can only be gradual and slow, probably due to the lack of comps in their native language and therefore the inability to access the grammatical functions of English comps.

Features of [Finite] and [WH] in Comp Acquisition

Are features of [finite] and [WH] able to provide a good analysis of English comp acquisition for Chinese EFL learners? Based on Markedness Theory, unmarked categories represent default features that are simple, frequent, basic and typical, and have wider applications whereas marked categories are the opposite. Cinque (1999) asserts that declarative and realis are default values whereas interrogative and irrealis are marked ones. Such being the case, [-WH] and [+finite], which are typical and frequent, are unmarked features, while [+WH] and [-finite], which represent irrealis semantically, are marked features. According to this, *that* is supposed to be acquired first, *whether- to* last, and other comps in between.

From the average means of both groups of participants in both questionnaires, the acquisition order of comps can be roughly assumed to be *that* > *whether/ if* > *for.* Comp *that*, with both unmarked features of [+finite] and [-WH]**,** was invariably acquired best. The comps *whether* and *if* have one marked feature of [+WH] and hence were acquired later than *that;* the comp *whether* has the advantage of being correct in both finite and nonfinite clauses, and therefore showed a higher accuracy means than *if,* which often showed a low means in nonfinite clauses, as illustrated in the means of comps for Questionnaire One**.** So far the nature of the features of [finite] and [WH] can account for the acquisition well. However, this analysis encounters a problem for *for,* a comp with one unmarked [-WH] feature and one marked [-finite] feature, which none of the participants in either of the questionnaires had been able to acquire. The features traditionally used to categorize the types of English comps are probably inadequate to allow for a full interpretation of the grammatical functions of comps.

In Questionnaire One, the Mid group, to our surprise, performed worse in comp *that* than in comp *whether.* A scrutiny found that the low accuracy mean of the comp *that* was greatly affected by the score of Sentence 18 in Questionnaire One, shown in (18a), which has a sentential subject introduced by the comp *that*. Partly due to the uncommon sentential subject structure and partly due to the nominal predicate 'is a question,' which requires an interrogative clause to be a subject, the results for both participants groups show relatively low means for this sentence (Mid: 0.3; High: 0.5). The poor results for the performance of this sentence dragged down the total mean of the results for the comp *that* for the Mid group and made it lower than that of those for the comp *whether.* Since usually the [±WH] agreement focuses on the matrix verb and the following complement clause, this sentence presents extra difficulty because the [±WH] agreement is in a different order, between the sentential subject and a nominal predicate. If the order is reversed in a regular structure, as shown in (18b), it is easier for the participants to judge which comp to choose. Moreover, if a verb, such as *question* in (18c), is used instead of a nominal predicate, the comp choice will be even easier than in (18b) and (18a). Hence, in addition to features of [±finite] and [±WH], structures also play a critical role in the difficulty of a decision on comps. This study of comp acquisition, hence, displays that *an analysis of* features of [finite] and [WH] alone does not provide a good analysis of English comp acquisition and that syntactic

complexity such as uncommon and transformed structures also invariably add extra obstacles for language learners.

18 a. *That Ed has time to play tennis with you is still a question.
b. It is still a question whether Ed has time to play tennis with you.
c. Ted questions whether Ed has time to play tennis with you.

Canonical vs. Noncanonical Positions

How are English comps acquired when CP occurs in canonical vs. noncanonical positions? Will the acquisition be affected by differences in structure? As English comps are introducers of clause types and case assigners of the embedded subjects, a clause should contain a comp (overt or covert) to show its nature no matter where it occurs. Only the default comp *that* has the privilege of having a covert comp when it appears in the canonical position such as '*We believe (that) he was an engineer before*.' This privilege is not shared by the other comps unless the case-assigning function of comps is replaced by other grammatical elements, such as ECM verbs in assigning structural case to the adjacent embedded subject in IP, and, therefore, not CP structures. Hence, due to the necessity of case assignment for the following subject, the comp is invariably overt in noncanonical positions.

English native speakers have this concept of CP as the basic clause structure rooted in their grammar, so when the sentence goes under transformation, the CP structure remains and the comp is always present. For the EFL learners, if the concept of CP is not solidified in the interlanguage grammar, the comp could easily drop when the clause appears in a noncanonical position. The L1 grammar often comes in to interfere and negative L1 transfers will occur if the L1 grammar is different from the L2 grammar. To investigate if the comps are truly acquired by the advanced EFL learners in Taiwan, tests on the canonical vs. noncanonical CP structures were scrutinized to reveal the true learning stage of comp acquisition.

Table 8

Comp Accuracy Means in Canonical-Noncanonical Structures

All subjects	**Canonical (Q1)**	**Noncanonical (Q2)**	**Comparison**
that	07568 (0.2186)	0.7014 (0.1536)	t=1.926 p=0.058
whether	0.7911 (0.1667)	0.5836 (0.1613)	t=7.691 p=0.000***
for	0.3013(0.1908)	0.5373 (0.805)	t=-8.805 p=0.000***
Mid group	**Canonical**	**Noncanonical**	**Comparison**
that	0.6875 (0.1925)	0.6500 (0.1446)	t=0.829 p=0.413
whether	0.7708 (0.1729)	0.5296 (0.1389)	t=6.567 p=0.000***
for	0.2708 (0.1925)	0.5216 (0.1930)	t=-5.834 p=0.000***
High group	**Canonical**	**Noncanonical**	**Comparison**
that	0.8243 (0.1653)	0.7514 (0.1471)	t=2.007 p=0.052
whether	0.8108 (0.1604)	0.6360 (0.1660)	t=4.459 p=0.000***
for	0.3311(0.1868)	0.5526 (0.1687)	t=-6.760 p=0.000***

A comparison of the comp accuracy means in canonical-noncanonical structures in Table 8 shows that all comps had higher means for canonical than for noncanonical structures except for *for*. *For* presented a very odd acquisition pattern in this study and will be discussed in a later section. In both *that* and *whether*, the accuracy means for canonical structures were invariably higher than those for noncanonical structures and the difference for *whether* even reached a significant level; both proficiency groups showed the same pattern. This phenomenon indicates that the Chinese learners probably did not have *the concept* of CP and therefore when CP occurred in a noncanonical position, the comp was often dropped or misused due to negative L1 transfer. The fact that the results for the two participant groups revealed a significant difference in canonical-noncanonical contrast in this research

confirmed that little progress in the acquisition of comps in noncanonical structures was made. As the concept of English CP had not developed in their interlanguage grammar, structural complexity naturally exercised a great effect on their comp performances.

Another reason why noncanonical structures are more difficult to deal with is because they all require overt comps before the clauses. Comps in the canonical structure act like cliticizers and can attach to elements that have a [+V] feature, such as verbs or adjectives but not nouns, as illustrated in (19a-c) (Bošković, 2005). In the noncanonical structures, the comp is not adjacent to the verbal element and therefore cliticization is not possible for covert comps, as shown in (20). Bošković and Lasnik (2003) and Bošković (2005) propose that only object and base-exposed clauses permit both the presence and absence of *that*, while an overt comp is a must in subject, topicalization, extraposition, pseudocleft, right node raising (RNR), and gapping contexts.

19 a. We all believe (that) he is honest.
b. We are happy (that) he will accept our offer.
c. We don't like his idea *(that) women are weaker than men.

20 a. *(That) he is honest, we all believe. (topicalization)
b. He claimed at that time *(that) he did not mean to hurt us. (extraposition)
c. What our parents hope is *(that) we grow up happily. (pseudocleft).
d. Sam remembered <u>*t*</u> but I forgot *(that) Tim wrote a song. (RNR)
e. Kim expected you did your best and we *(that) you won the prize. (gapping)

Comp *For*

As the use of *for* was scored to a stricter standard in Questionnaire 1 (i.e., the point was given only when the error was both identified and revised correctly), the means for the responses in Q1 are hence lower than those in Questionnaire 2. If we examine Q2 alone, all of the means for *for* were relatively low compared with those of the other comps and were close to the guessing score for both groups (cf. Table 8), which could imply that either *for* was the most difficult comp to acquire or that

Chinese learners did not know that *for* was a comp. The former does not make sense since *for* is not conceptually difficult, with one marked feature of [-finite] and one unmarked feature of [+WH]. Since most of the participants we questioned in personal communications after the tests in the questionnaires regarded *for* as a preposition, we believe the latter is the reason why failure occurred in the acquisition of the comp *for* here. For instance, the participants knew better that *that* and *whether* should appear as comps at the beginning of a topicalized clause, as shown in (21a-b), but they did not know that *for* acted with the same function, as shown in (21c), and often made a wrong grammaticality judgment here. *For* as a comp was a rather weak concept to them (cf. the very low means for *for* in comparison with those for *that* and *whether,* in topicalized structures in Figures 3 and 4.)

21 a. That you spent 100 dollars on the bag I couldn't believe. (S20 in Q2)
b. Whether he likes sports I'm guessing. (S1 in Q2)
c. For his child to tell lies Frank hates. (S10 in Q2)

Chinese EFL learners have little knowledge of the grammatical function of the case assignment of *for.* In addition to introducing a declarative infinitive clause, *for* is a transitive comp and assigns the accusative case to the infinitive subject that it c-commands. Hence, the sentence would be ungrammatical if *for* is absent, such as in (21c). In addition, *for* is more complicated in use than other comps because it can be overtly or covertly present in complements of *want*-type verbs (Bošković & Lasnik, 2003; Chomsky, 1981; Lasnik & Saito, 1991; Martin, 2001) or verbs which denote fondness or desire such as *prefer, like,* and *want* (Quirk, *et al.,* 1985). The covert or null *for* (hereafter symbolized as ~~*for*~~) is a counterpart of the overt *for* and behaves like it in some ways (Bošković, 1997). For instance, ~~*for*~~ also assigns accusative case to its c-commanding infinitival subject according to Radford's case assignment conditions. (22a) has the structure (22b) below, and ~~*for*~~ c-commands and assigns accusative case to the infinitival subject *his child*.

22 a. Ken prefers his child to go to bed at nine.
b. Ken prefers [$_{CP}$ [$_{C}$ ~~*for*~~] [$_{TP}$ his child [$_{T}$ to] go to bed at nine]].

However, the distribution of the null *for* has a limitation. Radford (2004) states that ~~*for*~~ must fulfill the immediate adjacency requirement. It is plausible for the overt *for* to be non-adjacent to the matrix verb in (23a), whereas the adverbial expression *very much* intervenes between the verb *want* and the ~~for~~-clause, accounting for the ungrammaticality of (23b). For the same reason, *for* in sentence (21c) cannot be covert, either. To sum up, due to the similarity to the preposition *for* and the overt-covert complexities in form and availability in case assignment, it is very likely that Chinese learners did not learn that *for* is a comp and an indispensable case-assigner. Other reasons could come from the fact that *for* itself is a complicated and blurring element since it has been through a prolonged process of chronic grammaticalization and re-analysis (Jarad, 2010) and often is not uniformly regarded as a complementizer across English dialects (Pak, 2005). All of these points might explain why *for* was not easy to acquire and was undeveloped in the participants' interlanguage grammar, as illustrated by the dramatically low means in both questionnaires from both groups.

23 a. She wants very much [*for* them to celebrate her birthday].
b. *She wants very much [~~*for*~~ them to celebrate her birthday].

Besides the more relaxing scoring rule, the reason why the results for *for* in the noncanonical position in Q2 are better than those for the canonical position in Q1 is probably also due to the same misconception of *for* as a preposition. For instance, in (24a) the verb *want* is a transitive verb and *for*, mistakenly assumed to be as a preposition, was considered unneeded by the participants in the experiment, and therefore the sentence was judged ungrammatical. In noncanonical structures such as in (24b-c), as the verb is not close enough to give case, the participants would think it appropriate for the preposition *for* to appear here to assign case and hence judged the sentences grammatical. The misunderstanding of *for* as a preposition consequently led to better performances in noncanonical structures by EFL learners in Taiwan. However, the correct judgment was based on the wrong conception instead of being based on the successful acquisition of the comp *for.*

24 a. She wants *for* her children to be healthy and happy.
b. She wants very much *for* her children to be healthy and happy.

c. *For* her children to be healthy and happy is something she wants very much.

Existence of CP in Interlanguage Grammar

Did the advanced EFL learners in Taiwan eventually acquire the English CP structure and the functions of comps? From the observations above, the interlanguage grammar of Chinese learners probably did not include the structure of CP. First, the low accuracy means for *for* indicated that they did not recognize this comp and therefore their CP system of English was incomplete, if there was one. Second, if they had the concept of CP in their IL grammar, the alternation of the clause position via transformations should not affect the CP structure. However, the significant differences in the means between canonical-noncanonical structures show that the participants' concept of CP was rather vague and weak when the clause was moved to a noncanonical position. They either could not judge if a transformed sentence were correct or not or could not detect the error when a wrong comp was used in a displaced clause. Third, the Chinese participants did not realize that English comps are case assigners and that absence of comps would lead to ungrammaticality due to case violation. The CP system was usually not well-developed since case does not contribute to the semantic interpretation of a sentence and thus it was hard for EFL learners to detect case violation. Consequently judgments on the grammaticality of noncanonical structures were often incorrect and revealed significantly low means in contrast to judgments on canonical structures. Structural case is an uninterpretable feature and is inaccessible for adult learners after the critical age, as asserted by Hawkins and Hattori (2006). Not realizing the grammatical function of comps, the EFL learners in Taiwan, as shown in this study, probably have not developed a full-fledged CP system as native speakers of English do.

Interlanguage Hypotheses

Which interlanguage hypothesis can best account for the acquisition pattern in this study? The markedness analysis model with features of [±finite] and [±WH] cannot fully account for some of the acquisition phenomena in this study. The results for the comp *for, which has* only one marked feature of [-finite], showed the worst acquisition; the results

for the Mid group in Q1 showed that they had learned the comp *whether* better than *that*, which has two unmarked features, and learned *whether-to*, with two marked features, better than *if*, with one marked feature. The feature analysis can categorize the comp types well but seems inadequate in explaining the acquisition of comps by EFL learners.

The FTFA Hypothesis asserts that Full transfer will occur in the initial stage and that learners will have full access to UG and eventually the parameters will be reset in the final stage. The FTPA Hypothesis, in contrast, proposes that only partial access to UG is possible; functional categories that are different between L1 and L2 are not available after the critical age and therefore impossible to reset. English comps, though only five in number, presented great difficulty in acquisition, especially in the case of the comp *for* and in the noncanonical structures. English comps are functors, whose function is to lead the compatible type of clause and to assign appropriate case to the subjects they c-command. These grammatical functors, abstract in semantic properties and variant in overt and covert forms in different structures, were hard for Chinese learners, whose native language does not have comps, to acquire as observed in this study. The results of this study are in agreement with the Functional Module of the FTPA Hypothesis.

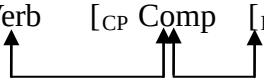
TEACHING IMPLICATIONS

This study shows that English comps are seemingly easy but actually are not. As a functional category, they carry grammatical features that are not as transparent as lexical categories and they are inaccessible in UG after the critical period in L2 acquisition. To help EFL learners realize the nature and function of English comps, proper classroom instructions and effective input are necessary to accelerate and upgrade acquisition efficiency (Doughty, 2003).

First, the relation of English comps with case assignment must be explained clearly to Chinese EFL adult learners, whose mother tongue is a language without overt case marking, since this grammatical function of comps is not available in their UG after the critical period. Secondly, the comps' grammatical features of [finite] and [WH], both in strict compatibility with the matrix verb and with the clause it leads**,** should be illustrated in a systematic way in the L2 classroom, as shown in (25). For example, while the verb *believe* requires a [+finite] [-WH] comp *that*, the verb *inquire* matches with a [+finite] [+WH] comp *whether* or *if* or other

wh-words, and the verb *desire* needs a [-finite] [-WH] comp *for.* The comp also leads its own particular type of IP. For instance, *that* and *if* introduce only finite clauses, *for* only nonfinite clauses, and *whether* both.

25. [$_{\text{Matrix C}}$ Subj Verb [$_{\text{CP}}$ Comp [$_{\text{IP}}$ Subj ……]]



[±finite] [±WH] [±finite] [±WH]

Thirdly, the concept that CP is the basic structure of an English clause should be introduced to EFL learners, to demonstrate that when CP is dislocated in other noncanonical positions, the comp should be maintained for two reasons: to keep the connection with the distant verb, to which the CP is a complement, and to properly assign a case to the subject it c-commands. Take the sentences of (26a-c) and (26a'-c') before and after the pseudocleft transformation as an example. The sentences are like the sentences in (27a) originally, and become the sentences in (27b) after they are pseudocleft. As the features of [finite] and [WH] must be matched between the verb and the CP, although now separated by the intervention of the verb to *be*, the compatibility of features after the pseudocleft transformation should still be kept.

26. a. John believes [$_{\text{CP}}$ that Jill is a wonderful girl].
b. John desires very much [$_{\text{CP}}$ for Jill to marry him].
c. John wonders [$_{\text{CP}}$ whether Jill will marry him].
a' What John believes is [$_{\text{CP}}$ that Jill is a wonderful girl].
b' What John desires very much is [$_{\text{CP}}$ for Jill to marry him].
c' What John wonders is [$_{\text{CP}}$ whether Jill will marry him].

27. a. NP_1 V { $[_{CP}$ that NP_2…] / $[_{CP}$ for NP_2…to V…] / $[_{CP}$ whether NP_2…] } [±finite] [±WH]

b. What NP_1 V is { $[_{CP}$ that NP_2…] / $[_{CP}$ for NP_2…to V…] / $[_{CP}$ whether NP_2…] } [±finite] [±WH]

Other noncanonical structures can also be accounted for with a similar concept. Thus, English comps can be analyzed in a systematic and unified way not only in canonical but also in noncanonical structures so as to enhance acquisition by regularity for Chinese EFL learners. Though functional categories are hard to acquire in L2 acquisition according to the Functional Module Hypothesis, good classroom instruction can help overcome the obstacle presented by physiological maturation by bringing the inaccessible knowledge in UG found by linguists to conscious learning. These ideas are not new and were suggested long ago. Krashen (1981) asserts in his Monitor Theory that L2 classroom instruction can serve as a beneficial source of comprehensible input for language learners, particularly when they live in acquisition-poor surroundings. Long (1983) also states that properly arranged instruction and input not only speeds acquisition but also help learners to have native-like competence.

CONCLUSION

This study showed that English comp acquisition seemed easy but was actually difficult for Chinese EFL learners. Two questionnaires were designed to investigate the acquisition. The results for Questionnaire One comprising 20 ordinary sentences showed that all of the comps were acquired well except for the comp *for,* which was usually regarded as a

preposition by EFL learners. The results for Questionnaire Two comprising 39 sentences with noncanonical structures showed that no comps had been acquired except for *that* in extraposed and RNR structures by High group participants. It was found that Chinese EFL learners did not fully understand that CP is the basic structure of an English clause and hence when the clause was dislocated to noncanonical positions, the comp was often dropped or its use confused since it did not provide any lexical meaning and the learners did not know of the indispensability of comps for case-assignment. The results of the study indicate that the acquisition of English comps is gradual and slow, especially that of the comps in dislocated clauses after certain syntactic transformations. It was found that not all English comps were truly acquired as they were claimed to be in the previous research, even for advanced Chinese EFL learners. The results of this experiment support the Functional Module Hypothesis of IL research.

REFERENCES

Bhatt, R. M. & Hancin-Bhatt, B. (2002). Structural minimality, CP and the initial state in second language acquisition. *Second Language Research*, *18*, 348-392.

Bošković, Ž. (1997). *The syntax of nonfinite complementation: An economy approach*. Cambridge, Mass.: MIT Press.

Bošković, Ž. (2005). Null C in English as an enclitic. *Lingvisticki Vidici*, *34*, 39-57.

Bošković, Ž., & Lasnik, H. (2003). On the distribution of null complementizers. *Linguistic Inquiry*, *34*, 527-546.

Campbell, R. (1995). Inflectional domains and Comp features. *Lingua*, *96*, 119-138.

Chomsky, N. (1981). *Lectures on government and binding*. Dordrecht: Foris.

Cinque, G. (1999). *Adverbs and functional heads: A cross-linguistic perspective.* Oxford, New York: Oxford University Press.

Dor, D. (2005). Toward a semantic account of *that*-deletion in English. *Linguistics*, *43*, 345-382.

Doughty, C. J. (2003). Instructed SLA: Constraints, compensation, and enhancement. In C. J. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 256-310). Malden, MA: Blackwell.

Dubinsky, S., & Williams, K. (1995). Recategorization of prepositions as complementizers: The case of temporal prepositions in English. *Linguistic Inquiry, 26*(1), 125-137.

Epstein, S., Flynn, S., & Martohardjono, G. (1996). Second language acquisition: theoretical and experimental issues in contemporary research. *Brain and Behavioral Sciences*, *19*, 677-758.

Epstein, S., Flynn, S., & Martohardjono, G. (1998). The strong continuity hypothesis: some evidence concerning functional categories in adult L2 acquisition. In S. Flynn, G. Martohardjono, & W. O'Neil (Eds.), *The generative study of second language acquisition* (pp. 61-77). Mahwah, NJ: Lawrence Erlbaum.

Ernst, T. (1994). Functional categories and the Chinese Infl. *Linguistics*, *32*, 191-212.

Eubank, L., & Schwartz, B. D. (1996). The L2 initial state. Special issue of *Second Language Research, 12*(1), 40-72.

Gasde, H. D., & Paul, W. (1996). Functional categories, topic prominence, and complex sentences in Mandarin Chinese. *Linguistics*, *34*, 263-294.

Gretsch, P. (2004). What does finiteness mean to children? A cross-linguistic perspective on root infinitives. *Linguistics*, *42*, 419-468.

Hawkins, R. (1998, March). *The inaccessibility of formal features of functional categories in second language acquisition*. Paper presented at The Pacific Second Language Research Forum, Tokyo, Japan.

Hawkins, R., & Chan., Y. H. (1997). The partial availability of Universal Grammar in second language acquisition: the 'failed functional features hypothesis'. *Second Language Research*, *13*, 187-226.

Hawkins, R., & Hattori, H. (2006). Interpretation of English multiple wh-questions by Japanese speakers: A missing uninterpretable feature account. *Second Language Research*, *22*, 269-301.

Haznedar, B. (2003). The status of functional categories in child second language acquisition: Evidence from the acquisition of CP. *Second Language Research*, *19*, 1-41.

Hornstein, N. (1999). Movement and control. *Linguistic Inquiry*, *30*, 69-96.

Hornstein, N. (2000). *Move! A Minimalist Theory of Construal*. Malden, Mass.: Blackwell.

Hu, J., Pan, H., & Xu, L. (2001). Is there a finite vs. nonfinite distinction in Chinese? *Linguistics*, *39*, 1117-1148.

Huang, C. T. J. (1982). *Logical relations in Chinese and the theory of grammar.* Doctoral dissertation, MIT, Cambridge, Mass.

Huang, C. T. J. (1984). On the distribution and reference of empty pronouns. *Linguistic Inquiry*, *15*, 531-574.

Huang, C. T. J. (1987). Remarks on empty categories. *Linguistic Inquiry*, *18*, 321-337.

Huang, C. T. J. (1989). Pro-drop in Chinese: A generalized control theory. In O. Jaeggli & K. Safir (Eds.), *The null subject parameter* (pp. 185-214). Dordrecht: Kluwer.

Jarad, N. I. (2010). On the relationship between grammaticalization and reanalysis. *Studia Anglica Posnaniensia*, *46*(1), 51-70. doi: 10.2478/v10121-009-0028-z

Kayne, R. (1981). ECP extensions. *Linguistic Inquiry*, *12*, 93-133.

Krashen, S. D. (1981). *Second language acquisition and second language learning.* London: Pergamon Press.

Lakshmanan, U., & Selinker, L. (1994). The status of CP and the tensed complemntizer *that* in the developing L2 grammar of English. *Second Language Research*, *10*, 25-48.

Lasnik, H., & Saito, M. (1991, April). *On the subject of infinitives*. Presented at the meeting of the Chicago Linguistic Society Part One: The General Session, Chicago Linguistic Society, University of Chicago, Chicago, I11.

Li, Y. H. A. (1985). *Abstract case in Chinese* (Unpublished doctoral dissertation). University of Southern California, Los Angeles, CA.

Li, Y. H. A. (1990). *Order and constituency in Mandarin Chinese*. Dordrecht: Kluwer.

Long, M. H. (1983). Does second language instruction make a difference? A review of research. TESOL Quarterly, *17*, 359-382

Martin, R. (2001). Null case and the distribution of PRO. *Linguistic Inquiry*, *32*(1), 141-166.

Pak, M. (2005). Infinitive marking with *for*: a diachronic account. *U-Penn Working Papers in Linguistics*, *1*(1), 1-14

Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of the English language.* London: New York: Longman.

Radford, A. (2004). *Minimalist syntax: Exploring the structure of English.* Cambridge; New York: Cambridge University Press.

Schwartz. B. D., & Sprouse, R. (1996). L2 cognitive states and the full transfer/full

access model. *Second Language Research*, *12*, 40-72.

Shi, Y. Z. (1997). On the properties of the wh-elements in Chinese. *Journal of Chinese Linguistics*, *25*(1), 131-145.

Shirahata, T. (2003). The acquisition of a second language C-system by Japanese learners of English. In S. Wakabayashi (Ed.), *Generative approaches to the acquisition of English by native speakers of Japanese* (pp. 109-142). Berlin: Die Deutsche Bibliothek.

Smith, N. V., & Tsimpli, I. M. (1995). *The mind of a savant: Language learning and modularity.* Oxford: Blackwell.

Soh, H. L. (2005). Wh-in-situ in Mandarin Chinese. *Linguistic Inquiry*, *36*(1), 143-155.

Tsimpli, I. M. (2003, September). *Features in language development*. Paper presented at the Eurosla conference, University of Edinburgh.

Tsimpli, I. M., & Dimitrakopoulou, M. (2007). The interpretability hypothesis: evidence from wh-interrogatives in L2 acquisition. *Second Language Research*, *23*, 215–242.

Tsimpli, I. M., & Roussou, A. (1991). Parameter-resetting in L2? *UCL Working Papers in Linguistics*, *3*, 149-170.

Vainikka, A., & Young-Scholten, M. (1996). Gradual development of L2 phrase structure. *Second Language Research*, *12*, 7-39.

White, L. (1989). *Universal grammar and second language acquisition.* Amsterdam/Philadelphia: John Benjamins Publishing Company.

White, L. (1995). Input, triggers and second language acquisition: can binding be taught? In F. Eckman, D. Highland, P. Lee, J. Mileham, & R. Weber (Eds.), *Second Language Acquisition And pedagogy* (pp. 63-78). Hillsdale, NJ: Lawrence Erlbaum.

White, L. (2000). Second language acquisition: from initial to final state. In J. Archibald (Ed.), *Second Language Acquisition and Linguistic Theory* (pp.130-55). Oxford: Blackwell.

White, L. (2003). *Second language acquisition and universal grammar.* Cambridge: Cambridge University Press.

White. L., Brown, C., Bruhn de Garavito, J., Chen, D., Hirakawa, M., & Montrul, S. (1999). Psych verbs in second language acquisition. In G. Martohardjono, & E. Klein (Eds.), *The development of second language grammars: A generative approach* (pp. 173-99). Amsterdam: John Benjamins.

White, L., Valenzuela, E., Kozlowska-Macgregor, M., Leung, I., & Ben-Ayed, H. (2001). The status of abstract features in interlanguage grammars: gender and number in L2 Spanish. In A. H. J. Do, L. Dominguez, & A. Johansen (Eds.), *Proceedings of the 25th Annual Boston University Conference on Language Development* (pp. 792-802). Somerville, MA: Cascadilla Press.

Yeung, K. W. (2006). On the status of complementizer waa6 in Cantonese. *Taiwan Journal of Linguistics*, *4*(1), 1-48.

Yuan, B. P. (1997). Asymmetry of null subjects and null objects in Chinese speakers' L2 English. *Studies in Second Language Acquisition*, *2*, 16-32.

Zhang, N. (2000). Object shift in Mandarin Chinese. *Journal of Chinese Linguistics, 28*, 201-246.

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APPENDIX

Appendix A. Questionnaire One

Please judge whether the sentences are T(rue) or F(alse). If true, please leave the sentence intact; if false, please underline the incorrect part and write the correction in the blank provided. If you are not sure, you may circle N(ot sure).

1. **T N F** _____ I wonder if to buy this expensive watch.
2. **T N F** _____ Whether he to join the activity is surprising to me.
3. **T N F** _____ They are glad for Laura to have her second baby.
4. **T N F** _____ Whether to look for a new job now is not important to Sue.
5. **T N F** _____ He convinced Amy that Jim to win the first prize.
6. **T N F** _____ We want to know whether she has seen the movie three times.
7. **T N F** _____ I don't know if it will rain tomorrow.
8. **T N F** _____ They are discussing whether to take a trip next month.
9. **T N F** _____ The little boy asked whether he could eat the cake.
10. **T N F** _____ Bill doubted if to help his father wash the car.
11. **T N F** _____ The tall man agreed that she was the leader.
12. **T N F** _____ I don't mind whether to take a plane there.
13. **T N F** _____ She prefers for her child to eat healthy food.
14. **T N F** _____ It seems whether it will snow tonight.
15. **T N F** _____ She pretended that she hadn't broken the window.
16. **T N F** _____ I felt whether you were weak.
17. **T N F** _____ All of us are doubtful if the man in blue is the thief.
18. **T N F** _____ That Ed has time to play tennis with you is still a question.
19. **T N F** _____ It is still uncertain for Simon to sell his house.
20. **T N F** _____ I questioned for Leo to have enough confidence to do it.

Appendix B. Questionnaire Two

Please judge whether the sentences are T(rue) or F(alse).

1. **T N F** Whether he likes sports I'm guessing.
2. **T N F** She told me last week that Mary went to Japan.
3. **T N F** He remembered but I forgot whether to come.
4. **T N F** They learned that telling lies to be bad and he that liars to go to jail.
5. **T N F** What your parents hope is for you to live happily.
6. **T N F** That Lynn to plan the party everyone knew.
7. **T N F** I asked Tom just now for my brother had to come here.
8. **T N F** We trusted whether they were sisters and Tom whether they were twins.
9. **T N F** What this puppy needs is that you care for it.
10. **T N F** For his child to tell lies Frank hates.
11. **T N F** We thought last Friday whether we should join the club.
12. **T N F** Tim believes but his friends suspect that he will be a lawyer.
13. **T N F** What they feel confused about is whether to wear suits.
14. **T N F** The boy couldn't bear yesterday for his classmates to laugh at him.
15. **T N F** Whether to make dinner tonight Mary suggested.
16. **T N F** She knows that he is allergic to milk and we that he is allergic to seafood.
17. **T N F** They said two weeks ago that Bill to enjoy dancing.
18. **T N F** He doubted and she worried whether their child got flu.
19. **T N F** What we prefer is for Mary should lose some weight.
20. **T N F** That you spent 100 dollars on the bag I couldn't believe.
21. **T N F** She asked whether to buy the book and they whether to pay with a credit card.
22. **T N F** For you will be successful your parents desire.
23. **T N F** What the police assumed was that he committed the crime.
24. **T N F** Ken didn't mind last time whether we took our dog to his place.
25. **T N F** Bill expected that you tried your best and Ken that you won the prize.
26. **T N F** What the man believed was whether he needed to work

hard.
27. **T N F** They enjoy but we dislike that the birds keep singing in the tree.
28. **T N F** I noticed this morning that something was wrong with my cat.
29. **T N F** What we inquired was that Tony to like swimming.
30. **T N F** Whether to keep a pet my parents haven't decided.
31. **T N F** That Carl was the principal they finally realized.
32. **T N F** Sam expected and Lynn assumed whether there would be a typhoon.
33. **T N F** We preferred at that time for you to give us a call.
34. **T N F** What the coach wants is for the players to win the game.
35. **T N F** They are discussing whether the project can be carried out and we whether the project will be successful.
36. **T N F** Nina asked the clerk just now whether to open an account.
37. **T N F** What the result showed was whether you had tried your best.
38. **T N F** We observed and Sally heard that the famous singer to come here.
39. **T N F** For the company to make money the boss wants to achieve.

典型與非典型結構中英語補語連詞的習得

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由於華語並無顯性補語連詞，本研究的目的為細究華語英語學習者習得英語補語連詞的情形。研究方式為設計兩型問卷及邀請南部一所國立大學七十三位英語主修生參加測試。問卷一包含二十句補語連詞位於典型結構中的句子，受試者的回答顯示英語的五個補語連詞除了 for 以外都已習得，問卷二包含三十九句補語連詞位於非典型結構中的句子，受試者的回答卻呈現相反的結果，除了進階組顯現習得 that 以外，其他補語連詞都沒有呈現已習得現象。研究結果顯現華語學習者對英語子句補語連詞的[finite]與[WH]屬性與母句動詞的協調一致性掌握得並不完全，因為當結構有變化時常會造成使用的混淆，補語連詞授予格位的句法功能也未習得，足證明華語學習者並無學會英語子句是 CP 結構的認知，因此當子句移位到非典性位置時總是誤用或掉了補語連詞，因為補語連詞語意空靈。本研究的結果支持完全轉移部分獲得(FTPA)的功能模組習得理論。

關鍵字：補語連詞、中介語、功能範疇、非典性結構