ตัวแทนทางวากยสัมพันธ์ที่เหมือนเป้าหมายของผู้เรียนชาวไทยที่ใช้ภาษาไทยเป็นภาษาแรก: กรณีความคล้อยตามทางพจน์ในภาษาอังกฤษที่เป็นภาษาที่สอง

นายธนาพันธ์ ทับทิมหิน

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Target-like Syntactic Representations of L1 Thai Learners: A Case of L2 English Number Agreement

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ธนาพันธ์ ทับทิมหิน : ตัวแทนทางวากยสัมพันธ์ที่เหมือนเป้าหมายของผู้เรียนชาวไทยที่ใช้ภาษาไทยเป็นภาษาแรก: กรณีความคล้อยตามทางพจน์ในภาษาอังกฤษที่เป็นภาษาที่สอง (Target-like Syntactic Representations of L1 Thai Learners: A Case of L2 English Number Agreement) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: รศ. ดร. ณัฐมา พงศ์ไพโรจน์, อ.ที่ปรึกษาวิทยานิพนธ์ร่วม: ผศ. ดร. รักสงบ วิจิตรโสภณ, 74 หน้า.

งานวิจัยนี้สำรวจรูปแทนวากยสัมพันธ์ของผู้เรียนชาวไทยที่ใช้ภาษาไทยเป็นภาษาแรกในกรณีความคล้อยตามทางพจน์ในภาษาอังกฤษซึ่งโครงสร้างดังกล่าวไม่ปรากฏในภาษาไทย สมมุติฐานของงานวิจัยนี้คือผู้เรียนภาษาอังกฤษเป็นภาษาที่สองนั้นมีรูปแทนวากยสัมพันธ์ที่เหมือนเป้าหมายตามแนวความคิดเกี่ยวกับความสมบูรณ์ (non-impairment view) ของสมมุติฐานการผันคำระดับพื้นผิวที่หายไป (Missing Surface Inflection Hypothesis) และตรงกันข้ามกับแนวความคิดเกี่ยวกับความไม่สมบูรณ์ (impairment view) ของสมมุติฐานลักษณะแสดงหน้าที่ที่ล้มเหลว (Failed Functional Feature Hypothesis) ผู้ให้ข้อมูลคือผู้เรียนชาวไทยที่เรียนภาษาอังกฤษเป็นภาษาที่สอง ระดับปริญญาตรี แบ่งออกเป็นผู้เรียนที่มีสมิทธิภาพกลาง (intermediate learners) จำนวน 58 คน และผู้เรียนที่มีสมิทธิภาพสูง (advanced learners) จำนวน 45 คน งานวิจัยชิ้นนี้ใช้แบบทดสอบจำนวนสองชุด ได้แก่ แบบทดสอบโคลซ (Cloze Test) และ แบบทดสอบการตัดสินทางไวยากรณ์ (Grammatical Judgment Task) ผลการวิจัยแสดงให้เห็นว่าความถูกต้องของผู้เรียนในเรื่องของความคล้อยตามทางพจน์ในภาษาอังกฤษของผู้เรียนชาวไทยที่เรียนภาษาอังกฤษเป็นภาษาที่สองดังกล่าวมีมากกว่า 80% ในโครงสร้างส่วนหลักเป็นเอกพจน์/พหูพจน์ที่มีส่วนขยาย อย่างไรก็ตาม การใช้ที่ไม่ถูกต้องพบมากกว่ากับคำนามไม่ปกติ (irregular nouns) ผลการวิจัยบ่งชี้ว่าผู้เรียนชาวไทยดังกล่าวมีรูปแทนวากยสัมพันธ์ในความคล้อยตามทางพจน์ในภาษาอังกฤษที่เหมือนเป้าหมาย แต่มีความรู้ด้านคลังศัพท์ไม่สมบูรณ์ ผู้เรียนชาวไทยดังกล่าวสามารถเข้าถึงไวยากรณ์สากลในด้านไวยากรณ์ที่ไม่พบในภาษาที่หนึ่งของตน ผู้เรียนชาวไทยดังกล่าวไม่ได้รับรู้ลักษณ์ของคำนามไม่ปกติในงานวิจัยชิ้นนี้อย่างเพียงพอจึงทำให้ผู้เรียนชาวไทยดังกล่าวไม่มีคำนามที่มีข้อมูลทางวากยสัมพันธ์ที่เหมือนเป้าหมายในคลังคำ เนื่องจากผลการวิจัยบ่งชี้ว่าผู้เรียนชาวไทยที่เรียนภาษาอังกฤษเป็นภาษาที่สองดังกล่าวมีความสมบูรณ์ในความคล้อยตามทางพจน์ในภาษาอังกฤษ แต่มีความรู้ด้านคลังศัพท์ไม่สมบูรณ์ซึ่งส่งผลต่อการใช้ที่ไม่ถูกต้องของคำนามไม่ปกติ งานวิจัยครั้งนี้จึงหักล้างสมมุติฐานลักษณะแสดงหน้าที่ที่ล้มเหลว และยืนยันสมมุติฐานการผันคำระดับพื้นผิวที่หายไป

ภาควิชา ภาษาอังกฤษ ลายมือชื่อนิสิต .....

สาขาวิชา ภาษาอังกฤษ ลายมือชื่อ อ.ที่ปรึกษาหลัก .....

ปีการศึกษา 2558 ลายมือชื่อ อ.ที่ปรึกษาร่วม .....

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THANAPHAN THAPTHIMHIN: Target-like Syntactic Representations of L1 Thai Learners: A Case of L2 English Number Agreement. ADVISOR: ASSOC. PROF. NATTAMA PONGPAIROJ, Ph.D., CO-ADVISOR: ASST. PROF. RAKSANGOB WIJITSOPON, Ph.D., 74 pp.

The study investigated the representations of L1 Thai learners on English number agreement, a form which is non-existent in Thai. It is hypothesized that the L2 learners have target-like syntactic representations of English number agreement according to the non-impairment view of the Missing Surface Inflectional Hypothesis (MSIH), and against the impairment view of the Failed Functional Feature Hypothesis (FFFH). The participants were 58 intermediate and 45 advanced Thai undergraduates. The study was conducted via two tests, a Cloze Test and a Grammatical Judgment Task. Both tests featured singular/plural head nouns with modification and irregular nouns. The results showed that the L2 learners' accuracy on English number agreement was above 80% on the structures of singular/plural head with modification. However, deviant production was found on irregular nouns. The results indicated the learners' target-like syntactic representations of English number agreement but incomplete knowledge of lexicon. The L2 learners can access Universal Grammar on the grammatical area not found in their L1. The participants were assumed to be less exposed to the irregular nouns featured in the study so those nouns in their lexicon were not tagged with target-like syntactic information. Since the results indicated that the L2 learners do not have syntactic impairment of English number agreement and incomplete knowledge of lexicon can explain the deviant production of the irregular nouns, FFFH is contradicted and MSIH is confirmed.

Department:	English	Student's Signature	.....
Field of Study:	English	Advisor's Signature	.....
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Any possible errors are my own.

CONTENTS

Page

Page

Page

LIST OF TABLES

LIST OF FIGURES

Chapter 1
Introduction

1.1 Background of the study

Second Language Acquisition (SLA) is the acquisition of any language that takes place later than the first language. By nature, SLA is different from the acquisition of the first language. “Variability,” non-target like production by L2 learners with respect to omissions and/or substitutions of grammatical morphemes, is usually evidenced (Mitchell, Marsden, & Myles, 2013). Variable production among L2 learners usually persists among L2 learners of different proficiency levels. Failure to supply target-like functional morphology has drawn SLA researchers’ attention to explore possible causes of the variability. Some of the researchers support the incompetence view of the learners. They argue that learners’ fundamental syntax fails to operate like that of the natives. Others claim that both learners and native speakers share the intact universal competence. By this view, the learners’ syntax is indeed not deficit and target-like.

During the first language acquisition, it is assumed that the reason language learners of very young ages are able to develop their L1 at a rapid and more accurate rate is that they can access Universal Grammar (UG). Chomsky (1965, 1995) claimed that UG is an innate ability applied to every child. Children are then able to acquire their L1 quickly because they access UG which is assumed to be ready in their

representations. Questions then arise: will L2 learners be able to access UG during SLA? If yes, is the access partial or full? Why is there a high degree of variability or errors in SLA as compared with L1 acquisition? Performance and competence of different L2 adult learners who are different from L1 child learners in terms of ages, language backgrounds and motivations (Mitchell et al., 2013) have been evaluated and assessed for decades. L2 learners are found to behave differently from the first language acquisition. SLA researchers adopt different hypotheses to explain the phenomenon, causing a debate over largely the two different views.

The opposite views lead to two different accounts in SLA, the Failed Functional Feature Hypothesis (FFFH) and Missing Surface Inflectional Hypothesis (MSIH). The former claims the learners' syntax as the source of errors. Since the learners appear to show traces of L1 in L2 production, FFFH proponents propose that learners' interlanguage grammar is L1 influenced. In other words, their syntax is non-target-like. L1 syntactic characteristics including parameter setting are transferred to the learners' interlanguage when learning a second language. Adult L2 learners are claimed by this hypothesis to be stuck in their L1 grammar and unable to acquire complete target-like production (Hawkins & Chan, 1997; White, 2003). In contrast, MSIH adopts the Universal Grammar (UG) concept in the explanation; that is, the learners' knowledge of syntax is, like the natives', constrained by UG. They can fully access the underlying syntax. This includes the innate ability to modify their parameter setting and areas of syntax not initiated by L1. A lack of fully-specified morphological knowledge causes wrong

mapping between the underlying target-like syntax and incomplete morphology, inducing errors in L2 production (Bergeron-Matoba, 2007; Haznedar & Schwartz, 1997; Prévost & White, 2000b; White, 2003).

The production of English subject-verb agreement structure by L1 Thai/L2 English learners is of interest of the present study. A few studies have mentioned production problems of L1 Thai/L2 English learners on the said structure. For instance, Lekawatana (1971) mentioned in her contrastive study of English and Thai that number agreement along with others such as tense and person on English verbs are new to L1 Thai learners as this feature is not instantiated in L1 Thai. Moreover, functional morphology showing subject-verb agreement in L2 production has been captured by various SLA studies (Ali Muftah & Eng, 2011; Franceschina, 2003; Hopp, 2010; Jiang 2004; Prévost & White, 2000b). However, not much research studied the structure of English subject-verb agreement in both competence and performance of L2 learners. Additionally, to the best of my knowledge, performance and competence of such a structure by L1 Thai/L2 English learners, whose L1 Thai does not have the syntactic structure of number agreement, has not been investigated yet, causing a gap in the field of SLA. This has led to the objective of the present study.

Moreover, production problems of L1 Thai/L2 English learners always involve L2 English grammar (Lekawatana, 1971). Their production, even of the advanced ones, does not always sound target-like. The point this study investigated further was whether the production problems were from either knowledge of morphology or

syntax. If the problem is found to be located at the morphological level, the learners then are likely to achieve target-likeness in principle because their syntax is not impaired. All they need to do, if the case is the morphological problem, is to fill in gaps in their lexicon with target-like knowledge of L2 English morphological items. However, if the problem is of the reason of defective syntax, the solution to fix the production problem seems to be out of reach since the learners' fundamental syntax is impaired. The conclusion of the two prediction extremes is believed to be able to clue teachers of L2 English so that they could know the states of their learners.

The objectives and hypotheses of the present study are listed as follows:

1.2 Objective

- To look into target-like syntactic representations of the English number agreement feature by L1 Thai learners.

1.3 Hypothesis

- The performance and competence data of L1 Thai/L2 English learners with respect to the English number agreement are asymmetric. While variability occurs at the surface level as the problems occur at the morphological level, their competence correlates with that of the native speakers.

The present study is organized as follows. Chapter 2 presents literature review of the study. Chapter 3 details the methodology of the study. Chapter 4 reports and discusses the results. Chapter 5 concludes the study and presents implications.

Chapter 2
Literature Review

This chapter is organized as follows: Sectionde 2.1 introduces the concept of interlanguage. Section 2.2 explains variability. Section 2.3 explains the two accounts, Missing Surface Inflection Hypothesis (MSIH) and Failed Functional Feature Hypothesis (FFFH). Section 2.4 presents previous studies related to L2 English subject-verb number agreement. Section 2.5 presents number agreement structure in both English and Thai. Lastly, Section 2.6 presents predictions of the study.

2.1 Interlanguage

This section discusses the definition of the interlanguage, its 5 psychological processes and its characteristics.

L2 adult learners may have their own L2 language system during the process of learning L2. The learners' language is called "interlanguage." The term was first coined by Selinker (1972), referring to L2 learners' grammar involving all L2 language perspectives such as phonology, morphology, syntax, pragmatics, etc., during SLA. Interlanguage (IL) emerges as the L2 learners progress the learning towards the target language (TL). Interlanguage, different from the target language and the native language, is dynamic: it changes over time, reflecting developmental stages. Since learners' interlanguage keeps changing, variability or variable production on performance of L2 learners may occur during the development stages. The variability

also reflects the development and changing nature of their interlanguage. Thus, interlanguage should be considered as a language system full of rules and strategies and ready to optimize or change, reflecting dynamic characteristics of interlanguage.

At the initial stage of L2 learning, adult learners are motivated by L2 inputs to generate rule-based grammars to cope with L2. This is the emergence of the interlanguage. As different learners are exposed to different amounts of L2 inputs, the learners' individual interlanguages are different. The learners will have more opportunities to develop their interlanguage to sound closer to be target-like if they are more exposed to the language. The development does not occur as rapid or big jumps but rather as a gradual single stage moving to another stage further in a continual fashion. The learners modify their rules in their interlanguage strategically and modify other rules if related. Since interlanguage is an on-going language whose developmental stages located between the non-target and target-like language, the interlanguage can be referred to as "possible grammar," "wild grammar" and "in-between language" (White, 2003). The next section explains 5 psychological processes that L2 learners undergo during the course of interlanguage development.

2.1.1 Five psychological strategic processes

Rules, items and subsystems emerge as interlanguage continues to develop. Selinker (1972) claimed that interlanguage materials such as items, rules and subsystems can be fossilized or surface up during interlanguage development due to

5 psychological strategic processes that play the central role to second language learning. The 5 psychological processes are as follows:

1. Language transfer

Some L1 structures can be transferred to the learner's interlanguage. As a result, the learners tend to occasionally produce L1-like structures in their target-language developmental stages; for instance, recognition of long-distance reflexives by L1 Japanese beginner learners of L2 Chinese (Yuan, 1998) and application of verb-final order by L1 Turkish L2 English beginner learner (Haznedar, 1997).

2. Transfer of training

Drills from L2 classroom can affect interlanguage. The learners may produce their L2 according to teaching materials or strategies drilled by L2 teachers. Transfer of training can occur especially when excessive drills from classroom lead the learners to extensively produce one particular structure and generalize that to other structures. For example, L1 Thai/L2 English learners overproduced more subjective relative clauses than direct-object relative clauses as well as excessive uses of "who" instead of "whom" due to unbalanced drills of subjective relative clauses and frequent instances of "who" found in textbooks (Phoocharoensil & Simargool, 2010).

3. Strategies of second language learning

The learner may sometimes construct a problem-solving strategy or self-made metalinguistic solution to cope with L2 structures (Flynn, Martohardjono, & O'Neil, 2014). The strategies of second language learning are considered as methods of

the learners to master a target-language. One example of the strategies is that Indian speakers might adopt a strategy to simplify target language by realizing all English verbs as either transitive or intransitive. Another example is L1 English learner may realize all unknown L2 Spanish nouns as masculine gender by default (Selinker, 1972).

4. Strategies of second language communication

The strategies for communication are created by the learners to overcome difficulties during communication in target language especially with native speakers. An example of this kind is two Russian speakers of English avoiding using articles, plural forms and past tense forms because it was claimed that those target-language structures were not necessary to convey during conversation. If the structures were attempted to convey, the conversation would be slowed down and disconnected and would cause the native speakers to be impatient in conversation (Selinker, 1972).

5. Overgeneralization of target-language linguistic material

Overgeneralization can be considered as strategies during earlier developmental stages of interlanguage where multiple rules are competing with each other and a total elimination of incorrect rules is not yet made. The learner may overgeneralize a particular linguistic material in his interlanguage. For example, the learner may overgeneralize regular past tense morpheme –ed in irregular contexts such as “goed” instead of “went” (Lightbown & Spada, 2013). Another example is L2 English beginner learners overgeneralizing “that” in non-restrictive relative clauses (Phoocharoensil & Simargool, 2010).

All 5 psychological processes, hypothesized by Selinker (1972), play a central role in second language learning. Through courses of interlanguage developmental stages, the learner may undergo the 5 central psychological processes as strategies to develop their interlanguage.

2.1.2 Characteristics of interlanguage

Interlanguage is said to have 3 characteristics worth noting as evidence of L2 development by L2 learners (Song, 2012):

1. Permeability: Interlanguage is not fixed to one stage but open to amend. As the learning motivation of the learners is to make their interlanguage sound as close to the target language as possible, interlanguage is thus ready to change. Through the interlanguage development, all non-target rules and variant forms will be discarded eventually.

2. Dynamism: As the interlanguage is permeable, it gradually changes over time. Unlike the native speaker's language which remains constant, the interlanguage continues to change if the learners are more exposed to L2 input. The learners will keep monitoring their grammar and optimize the interlanguage to sound more target-like.

3. Systematicity: Rule-based behaviors are usually found in the interlanguage. The learners produce some kinds of rules to deal with the L2 input once exposed to it. The learners change or modify the rules to develop their interlanguage.

Although the interlanguage itself is as systematic as other natural languages since it is possible to detect rule-based behaviors in the interlanguage, it seems to show deviant production more often than other natural languages. Variability is noted as an important factor to indicate the development of the interlanguage. As the learners continue their L2 acquisition, they are motivated by L2 target-like input and gradually modify their rule-based interlanguage to conform to L2 grammars. By this process, the learners may produce two or more variable forms alternating on one particular L2 structure; that is, they may have more than one rule at a time, resulting in two or more rules competing with each other in the interlangauge (Ellis, 1986). This rule conflict may also cause variability. The next section discusses variability of the interlanguage and different views regarding causes of variability.

2.2 Variability

This section covers details of variability including the definition, systematicity and different views toward the causes of variability.

2.2.1 Definition of variability

Variability is best described as a non-native characteristic of L2 learners in producing two or more variants of a particular L2 grammar whereas the native speaker produces only one form, i.e. *“I read book” and “I read a book.” The native speaker should show invariant form of the kind by only saying “I read a book.” The reason why there are two or more variant forms in the interlanguage is that while they are acquiring L2, they may create rules to cope with L2 structures. There are some occasions when

two or more rules are produced and elicited at the same time as they are competing, resulting in variability in one situation. Other related and similar terms used by second language acquisition scholars are optionality (Hawkins & Liszka, 2003), deviant production and non-targetlikeness (Franceschina, 2001).

Variability can be either systematic or non-systematic. As there are two or more possible variants forms L2 learners produce, the variants, if systematic, seem to occur consistently in one particular grammatical setting while the other occurs in the other setting, showing consistency and systematicity (Prévost & White, 2000b; White, 2003). In other words, systematic variants when occurring in the same context seem to be controlled by specific conditions and do not occur interchangeably. The variability is considered non-systematic if the variants occur interchangeably under the same grammatical conditions, such as “no look my card” and “Don’t look my card” (Ellis, 1986). The two usages if produced randomly by the learners are considered as non-systematic and less likely to reflect the learners’ competence. In other words, non-systematic variations do not seem to be triggered by syntax (Franceschina, 2001) but it results from the two or more rules competing with each other. In later stages of the acquisition, the fault rule will be eliminated as the learners no more produce errors on that domain. For instance, a sentence like “no look my card” will be replaced by “don’t look my card” or “don’t look at my card” in the eventual stage of SLA.

2.2.2 Views on variability

Apart from the characteristics of being systematic and non-systematic, variability, as referred to as deviant production by the learners, is considered as evidence of a breakdown in the learners' competence. The breakdown or the impairment in the competence has been examined by a number of SLA studies and received a number of different explanations. Since variability seems to be prominent in the learners' interlanguage, some researchers propose a view of global impairment (White, 2003). Regarding the notion of SLA being an error-full track and first language acquisition is error-free by default, L1 and L2 acquisition are considered as two different language acquisition paths. While L1 acquisition is assumed to rely on UG, L2 acquisition is considered not constrained by UG.

Researchers with the global impairment view claimed that the parameters, in the framework of Principles and Parameters by Chomsky,[1] of the learners in SLA are inaccessible. Since the parameters in the learners' competence are impaired, the learners do not rely on or reflect their parametric competence on SLA. Their production would be more considered as the outcome or rote learning or linear sequencing rather than syntactically triggered utterances.

[1] In Chomsky's Principles and Parameters, Principles are universal fundamental rules that all natural languages are assumed to conform. Parameters, on the other hand, control certain grammatical structures of the language and differentiate a language from others in a binary fashion. For example, the Thai language is parameterized to be a head-initial language while English is parameterized to be head-final.

Other SLA researchers proposed counter evidence to global impairment, initiating the concept of local impairment (Beck, 1998; Eubank, 1993; Hawkins & Chan, 1997). In this view, L1 and L2 acquisition are not totally different paths. If some L2 structures have been initiated by L1 or, strictly speaking, the learners have acquired through their L1, the learners will then be able to acquire those L2 structures eventually. They are assumed unable to acquire L2 structures that are not found in their L1 because they have never acquired them before through L1 during early ages. For instance, L2 gender marking structure might be easy to acquire by L2 learners whose L1 has the grammatical gender structure specified. However, it would be assumed impossible for the learners whose L1 is not specified for gender to acquire the gender structure, i.e. L1 English learners learning L2 Spanish gender structure (Franceschina, 2005).

Opposed to the two previous views, the non-impairment view provides counter evidence to explain cases where the learners seem to reflect target-like competence during SLA (White, 2003). The non-impairment view would assume that the learners' interlanguage is indeed UG-constrained and fully accessible. L1 transfer may occur during the initial stage of SLA. The learners, however, are claimed to be able to recover from the representational damage by resetting their parameters through their interlanguage development. This explains cases where L2 learners in later stages are able to deliver higher accurate performance. The learners by this view are considered, in principle, able to acquire structures non-existent in the L1. Thus, it is predicted that

there is possibility of the learners representing a new target-language when acquiring L2 structures contrastive to L1 grammar.

In conclusion, variability always occurs as L2 learners develop their interlanguage during second language acquisition (Selinker, 1972). Variability thus reflects possible defects on the learners. The different views of variability lead to different hypothetical frameworks in SLA. The present study chooses two hypotheses, the impairment view of Failed Functional Feature Hypothesis (FFFH) and the non-impairment view of Missing Surface Inflectional Hypothesis (MSIH) and tests both hypotheses in explaining results of the study. The following section describes the two hypotheses in details.

2.3 Two accounts on variable production of functional morphology

This section explains two hypotheses involving the impairment and non-impairment views of the competence.

2.3.1 The Failed Functional Feature Hypothesis (FFFH)

Based on the ground that L2 learners' syntactic representations are impaired, the Failed Functional Feature Hypothesis (FFFH) claims L2 learners fail and are unable to acquire L2 syntactic features, resulting in variability. They can, however, acquire L2 syntactic features if the features are triggered in early life or by acquisition of L1. If not, L2 learners by this hypothesis will never acquire the said feature. L2 acquisition will be at best close to, but not, native-likeness.

FFFH proponents claim that syntactic representations of L2 learners are non-target-like because of L1-L2 difference in syntax (Franceschina, 2001; Hawkins & Chan, 1997). Specifically, FFFH claims that , after they hit puberty or pass the critical age period, the learners' syntax is impaired or locked-up by L1 syntax permanently (Birdsong, 2004; Birdsong & Paik, 2008) and there is no way to reset it (Franceschina, 2003; Hawkins & Chan, 1997; White, 2003). In other words, the non-L1 syntactic categories, features and parameters of the learners fail to operate due to differences between L1 and L2 grammar. If a certain shape of L2 syntax exists in the L1, the learners will reflect target-like syntactic representations as the syntax of both languages are alike. However, with an L2 feature not realized in the L1, the learners will fail to acquire such an L2 feature. Should the learners produce non-L1 L2 structures, they are predicted to resort to other mechanisms since they may realize that their competence is incompatible with the structures (Selinker, 1972). Therefore, FFFH would be compatible to the concept of (syntactic) language transfer in the sense that L1 influences the acquisition of L2. The transfer of L1 grammar facilitates the learners' L2 acquisition if L1 and L2 grammars are alike. In the contrast, the transfer hinders the possibility of achieving target-likeness of L2 if L1 and L2 grammars are different.

Indeed, the impairment concept of FFFH originated from degrees of UG-access and the local impairment view. The local impairment implies that the degree of syntactic deficit or accessibility is not all impaired but only partial. Syntactic features if triggered by L1 will be able to be accessed by L2 learners in SLA. Other alienate

syntactic features not previously triggered will fail to be accessed by the learners. The non-syntactically triggered features are prone to be erroneous in production as UG does not regulate structures of the features. The idea of accessibility of UG is derived from the hypothesis of age effects or Critical Age Period Hypothesis, which states possible effects by certain ages of L2 learners on the success of second language learning. Since a number of SLA studies found that accurate production decreases with the increasing age, the hypothesis proposes that postpubertal learners have different syntactic representations compared with child learners. Birdsong and Molis (2001) proposed that adult learners have a "different shape" of syntax and such an entity is unable to be modified. Since the production of adult learners leave traces of L1, Birdsong and Molis (2001) concluded that adult L2 learners are permanently stuck to L1 grammar, supporting the impairment view.

2.3.2 The Missing Surface Inflectional Hypothesis (MSIH)

In contrast to the impairment view of FFFH, L2 learners' syntactic representation, according to the Missing Surface Inflection hypothesis, is not impaired or defective. The learners' syntax is fundamentally "target-like." Errors are due to surface factors such as morphological deficit (Haznedar & Schwartz, 1997) and realization or mapping between morphology and intact syntax (Lardiere, 1998a, 1998b, 2000; Prévost & White, 2000b). While variability occurs among L2 learners, it is claimed that such errors are not a good judgment of defective syntactic representation. Instead, errors may result from morphological deficit or other surface performance problems

that are considered not related to the learners' competence such as communication pressure or slip of tongue (Chomsky, 1995).

The incomplete knowledge of morphology or morphological deficit includes morphological knowledge of L2 learners not fully specified to be target-like. MSIH proponents explain the deficit morphological knowledge by claiming that morphology of L2 learners does not match that of the natives but the syntactic representations do (Haznedar & Schwartz, 1997; Prévost & White, 2000b). Moreover, MSIH proponents claim other sources of variability such as the incomplete realization or mapping between morphology and syntax (Lardiere, 1998a) as well as psychological pressure or the nerve breakdown that hinders the effectiveness of computational processing (Hopp, 2010) to reflect the competence. Given more time and effort, L2 learners are assumed to supply more accurate or native-like production to map their knowledge of morphology and target-like underlying syntax which is considered by UG.

MSIH proponents support the application of UG in SLA. Like L1 acquisition, L2 learners rely on the Language Acquisition Device (LAD) (Lardiere, 1998a). Because UG can be fully-accessible, L2 learners are claimed to be able to execute their parameter settings to be like those of L2. This results in variability in various stages of SLA because the learners then are in progress of trying to set their parameters to target L2 grammar. In other words, they are trying to depart from L1. As they are trying so, they may leave L1-like grammars in their production. Beginners thus have a higher tendency to produce L1 grammar-traced errors in L2 production since they are still not used to L2 structures

or they still have a long way to go in their L2 learning. Advanced L2 learners should produce fewer errors of these kinds or be able to produce more target-like production because they are likely to be on the on-going process of resetting the parameters.

Since the claim of MSIH is L2 learners already having target-like syntactic representation, it implies that they stand a chance of acquiring target-likeness or native-likeness in production. For the fact that errors persist among even higher proficiency L2 learners, MSIH proponents argue that there are some hindrances that obstruct L2 learners from successfully achieving target-likeness in production. The hindrances are claimed to be surface factors and are considered separate from the underlying syntax or competence which is assumed to be target-like. Weak L2 learners may still have problems with the surface factors just mentioned. Stronger or even excellent near-native learners are predicted to withstand the pressure of the surface problems and able to elicit native-like production (Hopp, 2010). Learners of other lower levels may have lower chances of achieving so due to being in the middle of second language development stages where more variable production occurs. In other words, target-like production increases with increasing proficiency. The more proficient L2 learners they are, the better access they may have to UG.

To sum up MSIH, the learners can, in principle, fully access UG. They can access syntactic parameters not instantiated by L1 and be able to reset parameter setting. The problem of SLA, according to the MSIH view, is surface morphology and other

computational processing problems just discussed, resulting in “asymmetry” between target-like syntax and non-target-like morphology of the L2 learners.

2.4 Previous studies related to FFFH, MSIH and the subject-verb agreement structure

Production errors on the structure of English subject-verb agreement by L1 Thai L2 English learners have been investigated and mentioned by some studies. Lekawatana (1971) described the number structure on English verbs as one of “a whole new set of differentiations” which L1 Thai learners have never produced in their L1 Thai. Target-like production on number agreement, along with other structures on English verbs, was predicted to be the most difficult skill to acquire. Some errors mentioned in her study are such as “*He have many problems” and “*John do homework every night” (Lekawatana (1971), p. 67). The equivalent Thai verbs of both English verbs “have” and “do” do not take any inflections. This difference was predicted to be the reason of the resulting errors.

A number of SLA studies supporting MSIH and the non-impairment view confirmed that L2 learners actually have built-in target-like syntactic representations similar to native speakers since they can perform accurate production on L2 grammar not found in L1. They claimed that L2 learners’ syntactic representations are intact and UG constrained while surface factors including deficit knowledge of morphology or psychological pressure are claimed to worsen the learners’ access to their

competence (Ali Muftah & Eng, 2011; Haznedar & Schwartz, 1997; Hopp, 2010, 2013; Lardiere, 1998a, 1998b, 2000, 2008; Prévost & White, 2000a, 2000b).

Haznedar and Schwartz (1997) conducted a longitudinal study examining the L2 English acquisition by a Turkish speaking Child, Erdem, aged 4. They found that during the initial stages Erdem failed to inflect English verbs as he sometimes produced the inflection and at other times did not. However, the degrees of inflection increased in the later stages of his acquisition which showed a gradual development of Erdem's interlangauge. Haznedar and Schwartz claimed that Erdem produced some uninflected verbs although he had knowledge of T or Infl by his L1 Turkish because the inflected forms of verbs at that time were not part of Erdem's lexicon. Erdem's representations were considered target-like. His variable production, however, was considered to be a result of incomplete knowledge of morphological surface.

Lardiere (Lardiere, 1998a, 1998b) studied on one Chinese, named Patty, whose L1 lacks past-tense inflections and pronominal Case. Although her participant supplied low accuracy on the past tense, she performed perfectly on pronominal Case, reflecting the existence of her innate target-like representations with problems of mapping between the target-like syntax and morphology.

The non-impairment view was also confirmed by Prévost and White (2000b). Their participants, L2 French and German learners whose first languages are Moroccan Arabic, Spanish and Portuguese, could perform accurately on verb inflections. Prevost and White also found systematicity on variable production of the L2 learners as they

supplied non-finite verbs on finite contexts but not the other way around. The L2 learners' variants did not occur interchangeably or at random; thus the impairment view was not confirmed. During the initial stages, they claimed that the L2 learners learned to create their default forms out of L2 morphemes. As the L2 learning progressed, they later realized syntactic properties of L2 morphemes and started to specify them according to their L2 exposure, gradually eliminating the use of default forms and better shaping their interlanguage. In other words, the knowledge of morphology of L2 learners was claimed to be "missing," resulting in crashed or erroneous sentences such as finite verbs without proper inflections. The L2 learners indeed knew the syntactic mechanism of inflections but they employed uninflected verbs as their default forms. However, there were times when L2 learners successfully supplied accurate inflections with some verbs because the morphological realization on those domains was complete. The data was then interpreted as the evidence of existence of target-like representations. Nevertheless, the learners' knowledge of morphology was claimed to be deficit and non-target-like.

Ali Muftah and Eng (2011) supported the non-impairment view and deficit on morphology by investigating suppliances of English non-past thematic verbs and the auxiliary "be" by L1 Arab L2 English learners. The performance of L2 learners were overall accurate but with some variable production. They claimed that the small errors found in their study resulted from morphological transfer or missing overt L2 morphology in L2 learners' L1. It was concluded that the transfer was confirmed to be

plausible during SLA but only for morphological reasons. Syntax was found to be unaffected by the transfer.

Hopp (2010) found similarities between the native's and the L2 learners' syntactic representations. He found that possible effects of psychological pressures caused the native speakers of German to perform subject-verb agreement production much as similarly as the L1 English, Dutch and Russian L2 German learners who were not stimulated with the time pressures. On the ground of these similarities, he concluded that the L2 learners had the native like syntactic representations.

The studies on MSIH or the non-impairment view would assume that the learners' syntax is target-like and claimed other sources of errors including defective morphological knowledge. Studies on FFFH or the impairment view, on the other hand, would argue for non-target-like syntactic presentation. Jiang (2004) supported the impairment view by investigating reading time spent by L2 Chinese learners when reading L2 English sentences with L2 grammar not found in L1 Chinese. He found that while the natives spent significantly longer time with sentences with subject-verb (number) disagreement such as wrong number concord of plural head nouns with singular modification, the non-native speakers instead did not show any significantly longer time when reading such sentences. The lagging time of reading by the natives suggests certain syntactic strategies unique to the natives. The non-natives however were not sensitive to the number disagreement sentences. This insensitivity by the non-natives suggested the impossibility of them possessing L2 syntactic feature of

subject-verb (number) agreement. As their syntax is defective, the learners then used their metalinguistic strategy to "patch up" the damage (White, 2003), losing the sensitivity through L1-L2 differences. The L2 production of L2 learners was considered thus not structurally determined, supporting the view of the non-target-like syntactic presentation of L2 learners.

As argued in the previous studies, SLA researchers were investigating L2 acquisition of various L2 structures based on the two hypotheses. However, not much research studied the structure of English subject-verb number agreement. Moreover, production and competence of such a structure by L1 Thai/L2 English learners, whose L1 Thai does not have the syntactic structure of number agreement, has not been investigated yet, causing a gap in the field of SLA. This has led to the objective of the present study.

2.5 Number agreement in English and Thai

This section discusses number agreement in English and Thai.

2.5.1 Number agreement in English

English nouns and verbs are marked with number suffixal morphemes. Most English nouns take plural morpheme if they are plural. Singular ones do not take any number morpheme. English verbs, on the other hand, take the singular morpheme if the subject, except the first person singular subject I, is singular. English verbs do not take any number morphemes if the subject is plural. English number concord on verbs is limited to the present tense except the auxiliary and copular verb "be" which also

has subject-verb concord in the past tense. Other usages of English verbs including most modal auxiliaries, non-finite verbs or verbs in imperative clauses are not marked for subject-verb concord. Table 1 presents the subject-verb concord in the present tense English on the lexical verb “walk” and the auxiliary and the copula “be.”

Table 1: Subject-verb concord of the lexical verb “walk” and the auxiliary and the copula “be”

“walk”		**“be”**	
Present tense	**Past tense**	**Present tense**	**Past tense**
I walk	I walked	I am	I was
You walk	You walked	You are	You were
He/she/it walks	He/she/it walked	He/she/it is	He/she/it was
We/you/they walk	We/you/they walked	We/you/they are	We/you/they were
A dog walks	A dog walked	A dog is	A dog was
Dogs walk	Dogs walked	Dogs are	Dogs were

From the perspective of the minimalist program on number agreement, the inflectional morpheme for number feature in English is assigned to merge with the finite verb in the lexicon. The subject noun phrase assigns the plurality over the verb. The verb with the assigned value of number will then be inflected or change forms

accordingly to pass the number feature checking in Infl (I) or T node (Chomsky, 1993, 1995; Webelhuth, 1995).

The derivation process of assigning the present-day English inflectional morpheme is explained by Radford (2004) in terms of affix hopping (or affix lowering by Carnie (2002)). Before the speaker derives a sentence, s/he would select lexical items relevant to what is being expressed. These include some morphemes with phonetic forms and ones that are given a null phonetic form, if any, but with syntactic features assigned. All items at this stage are not yet checked for their subject-verb concord. All items would be projected in situ first and then moved according to the syntactic motivation.

Consider sentence (1):

(1) The horse eats the apple.

Before the sentence is spelled out as “The horse eats the apple,” the visible lexical items, “the,” “horse,” “eat,” “the,” “apple,” are selected from the lexicon. Other null-formed constituents including the (present tense) affix “Af” which is required and assigned on the verb are selected also[2]. The speaker then projects all items in situ: all items should be in the right nodes before the derivation begins.

[2] As far as affix lowering by Carnie (2002) is concerned, affix projected at the T node is given a phonological form at the D-level. In this case, it is [s] and needs to attach (move) to the verbal host to get support so that it can be pronounced at the S-level.

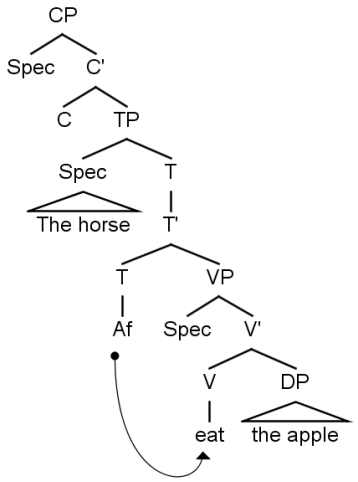

Figure 1: The syntactic tree of "The horse eats the apple" before the spell-out

The singular feature (marked as "Af" in the tree) then undergoes the syntactic movement operation of Affix Hopping to pass feature checking, resulting in the form "eat + Af." Since verb features in English are weak, the affix is moved in to attach the verbal host at the PF level or moved covertly. Once the movement is done correctly, the feature checking is made. The affix at the T node is then deleted[3], leaving the inflected form of the verb "eat + Af," which is specified to finally pronounce as "eats" in the PF level. After the derivation process, all items will be spelled out as "The horse eats the apple."

[3] Radford (2004) explained the deletion of the moved element by using the metaphor "copy." The movement operation is the process of copying the original moved item and pasting to the landing site. The original copied item is then deleted but leaves "trace" (*t*) on the original node so that no other items can be moved or pasted stacking on the same site.

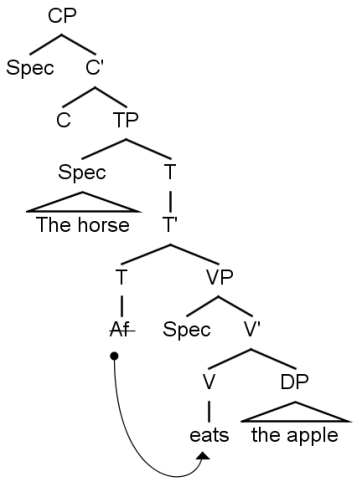

Figure 2: The syntactic tree of "The horse eats the apple" after the spell-out

Consider the following English sentence with the plural subjects:

(2) They eat the apple.

The lexical items selected for the derivation are "they," "eat," "the," "apple" and the null form of plural number agreement, since it is given null form in English, to inflect the verb. The injection of all items should take place like in Figure 3. The affix, given the null form and marked as Af in the tree, is also moved to inflect the verb to perform the checking. Once moved, the original affix is deleted since the checking is satisfied.

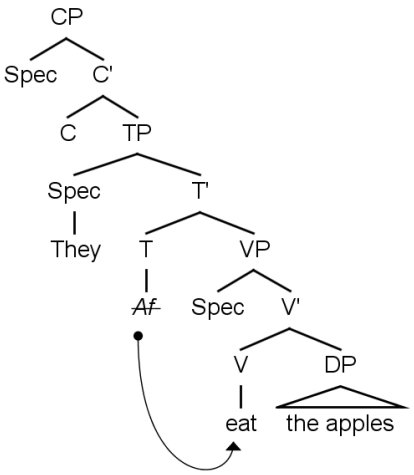

Figure 3: The syntactic tree of "They eat the apple" after the spell-out

The movement that involves the number agreement in English is done by the process of feature checking. If the feature checking did not exist, the derivation would crash, leading to ungrammatical sentences (Carnie, 2002). For the feature checking to occur, the T node needs to be present so the affix has a landing site to place in situ before the derivation begins. The affix can be specified to have a physical form like the case of English singular subjects, or it can be given a null-form like the case of the plural.

2.5.2 Number agreement in Thai

While English is a largely suffixal language, a language rich in final inflectional suffixes (Radford, 2004), Thai is observed not to have affixations for case, gender, tense or number (Comrie, 1990) and is therefore classified as an analytic language which conveys grammatical relationships without inflections (Boonkwan & Supnithi, 2007). Since there is no spell-out form for the number inflectional morpheme in Thai, native

speakers of Thai utilize strategies on semantics and pragmatics. Context interpretation is vital when identifying plurality of the subject. Since Thai verbs are not marked, they do not show plurality. Only nominals and their modifiers do through context interpretation.

Numerals and quantifiers are also used along with the subject noun phrases in Thai to clarify the number (Iwasaki & Horie, 2005).

(3) nɯ̀ŋ khon
one person

"one person."

(4) sɔ̌ɔŋ khon
two person

"two persons/people."

In (3) and (4), "khon" is a noun that is modified by numerals "nɯ̀ŋ" and "sɔ̌ɔŋ."

(5) khon diaw
person only

"only one person"

(6) lǎi khon
many person

"many persons/people."

In (5) and (6), "khon" is modified by quantifiers "diaw" and "lǎi."

Another way to indicate plurality in Thai is reduplication of some nouns.

(7) dèk

child

“a child.”

(8) dèk dèk
child child

“children.”

To sum up, the meaning of number on subjects in Thai are not conveyed by relationships of syntax. In other words, L1 Thai does not realize number agreement morphologically because Thai verbs are not specified for any affixes in the PF level.

2.6 Predictions

Based on the differences on number structures in both languages and the two hypotheses, FFFH and MSIH, predictions can be made in two ways.

1. Following the impairment view of FFFH, L1 Thai/L2 English learners will fail to achieve target-likeness in both performance and competence in L2 English number agreement because their L1 Thai does not realize number agreement morphologically.

2. Following the non-impairment view of MSIH, L1 Thai/L2 English learners will have non-target-like performance on L2 English number agreement, but their competence should correlate with that of the natives because they possess target-like syntactic representation.

The next chapter discusses the methodology of the study to investigate performance and competence of L2 English number agreement by L1 Thai/L2 English learners.

Chapter 3
Methodology

This chapter describes the methodology of the study including the participants and the tests employed in the study in sections 3.1 and 3.2, respectively.

3.1 The participants

There were 103 L1 Thai participants who were undergraduates from the Faculty of Arts and the Faculty of Engineering, Chulalongkorn University. Their age range was 17-20. Their experience in English exposure was similar, i.e. they have been studying English in the country for 12-15 years; some had lived in English speaking countries for 2 or 3 years. The subjects were classified into two groups of English proficiency: 58 for intermediate and the other 45 for advanced. To access their proficiency level, all the participants took the Oxford Quick Placement Test (Syndicate, 2004) (see Appendix A for biographical details and the Oxford Quick Placement Test scores of the L1 Thai participants).

Five English natives were also included as the control group of the study. They were lecturers in the Department of English, Faculty of Arts, Chulalongkorn University. The 5 native speakers received university diplomas in language teaching and studies.

3.2 The instruments

The following section describes the two instruments, the Grammatical Judgment Task (GJT) and the Cloze Test.

3.2.1 The Grammatical Judgment Task (GJT)

The Grammatical Judgment Task (GJT) was used to assess the learners' competence in number agreement of English. Nominal types included singular and plural nouns. All the vocabulary level featured in the two tasks matched what the learners have learned from their national high school textbook "Upstream" series (Evans & Dooley, 2002) regulated by the Office of the Basic Education Commission. The nominal types were classified into nouns with postmodification and irregular nouns with and without –s ending as shown in Table 2. The idea of including postmodification with subject regular nouns was to "trick" the test takers whether they could locate the head nouns that require the verb to agree with while having modification with the contrast number value.

The irregular nouns in the study were selected based on the same criteria set for the vocabulary level featured in the study: all of them matched the difficulty level of the "Upstream" textbook series

Table 2: Types and numbers of the test items in the Grammatical Judgment Task (GJT)

Singular (4 items)	- Nouns with postmodifiers (2 items) - Irregular singular nouns with -s ending without modification (2 items)

Plural (4 items)	- Nouns with postmodifiers (2 items) - Irregular plural nouns without -s ending without modification (2 items)

To keep the variables constant, the test featured the present tense only on subject-verb concord. In nominals with postmodification, postmodifiers were of the opposite [number] agreement; that is, a singular noun subject was modified by a plural noun and vice versa. For example,

(9) Pasta from fine Italian food factories **comes** in controlled atmosphere packaging.

(10) The captions under the image **are** too blurred to read.

In sentence 9, “pasta” is the head word modified by the prepositional phrase “from fine Italian food factories.” Since it is the head of the whole subject NP, “pasta” assigns the singular value to the main verb “comes.” The closest noun in the postmodifier preceding the finite verb “comes” is “factories,” which is plural. This difference in number between the two nouns is an elicitation strategy of the present study. Sentence 10 served the same purpose. In sentence 10, the head of the subject NP “captions” is plural and the noun in the postmodifier is “image,” which is closest to the finite main verb “are,” is singular.

Each nominal type was composed of 2 items; one was correct and the other was not. Four items showed correct subject-verb agreement. Four items showed disagreement of number concord. The other 12 items were fillers, making a total of 20 items in the test. There were more filler items than targeted test items so that the test takers would possibly not be aware of the actual targeted test items in the study, reducing chances of the test takers inducing their L2 metalinguistic rules when taking the test.

In the GJT, the participants were asked to evaluate the test items whether they were grammatically correct or incorrect. If the test items were labeled by the participants as incorrect, they would mark the items as wrong and rewrite the whole sentences in the space provided. All accurate corrections were scored. All wrong labeled and incorrect rewritten items were marked as zero. If the items were rewritten with errors on other areas of grammar; for instance, “The classification of today's ballets **has became** more difficult ...,” but shows correct number concord, the items were also scored. The GJT items are shown in Appendix B.

3.2.2 The Cloze Test

The production test was a cloze test focusing on suppliance of appropriate [number] feature morphemes on plurality concord. To provide consistency of the test and to keep the variables constant, the target test items in the production test featured the present tense verbs only. The nouns featured in this test were also concrete. There were 20 cloze items which were divided into 3 groups: 4 items for singular, another 4

for plural and the other 12 for fillers. The test takers were instructed to complete the sentence with the right forms of verbs provided in the parentheses. The nominal types featured in the cloze test were as same as those in the GJT.

In the Cloze Test, the participants were asked to fill in the blanks with the accurate verb forms of the given word in parentheses. The context was intended to elicit verb forms in the present tense. Misspelt words also counted if they showed number concord. The Cloze Test items are shown in Appendix C (see Appendix D for evaluation of test validity of both tests).

3.3 Data collection

The tests, the Cloze Test and GJT as well as the placement test for the L2 learners were given to the test takers on the same day. The test takers were asked to conduct the test procedures including all the 3 tests in 1 hour without using other tools such as dictionaries or grammar references.

In both tests, if the test takers answered the targeted test items with verbs in the present participle form in (11) and in the past form in (12) below which do not show number concord, it would not be counted:

(11) When we get up, the fluid of our bodies (compress) **compressing** our internal organs.

(12) The classification of today's ballets (become) **became** more difficult as their stories, themes and music get more complicated.

In (11), “compressing” is a verb in in present participle form, which does not show any number agreement. This data would then be disregarded from the study. In (12), “became” is a past tense verb, which also does not show evidence of number agreement. It would also be discounted from the study.

The next chapter reports results of the tests and provides discussions of the results.

Chapter 4
Results and Discussions

This chapter reports results and discussions of the present study. It is organized as follows: 4.1 reports the results and 4.2 provides the discussions.

4.1 Results

The section is organized as follows: 4.1.1 reports on results from the Cloze Test, and 4.1.2 reports on results from the Grammatical Judgment Task (GJT).

Table 3 and Figure 4 below present the Cloze Test scores by the L2 learners and the native speakers. The scores of accurate production were counted and presented with total production that showed number agreement. In each score cell in Table 3, scores are presented in pair: accurate production and total number agreement production. The number on the left of the slash represents the accurate production. The number on the right hand-side of the slash presents the total counted number agreement production. Note that production that did not show number agreement as just mentioned in 3.3 was not counted. Thus, the total production scores would not be of the same number in the same participant groups. Also, please note that since the native speakers were the control group, they were asked again for confirmation after taking both Cloze and GJT to review the tests so that their answers would not be the results of carelessness in reading.

Table 3: Cloze Test scores by the participant groups in relation to different nominal types

Proficiency level	Cloze Test							
	Singular heads +modification		Irregular singular		Plural heads + modification		Irregular plural	
Intermediate	78/102	76.47%	47/100	47.00%	96/107	89.72%	42/109	38.53%
Advanced	69/72	95.83%	51/72	70.83%	79/86	91.86%	40/88	45.45%
Native	10/10	100.00%	7/10	70.00%	8/8	100.00%	10/10	100.00%

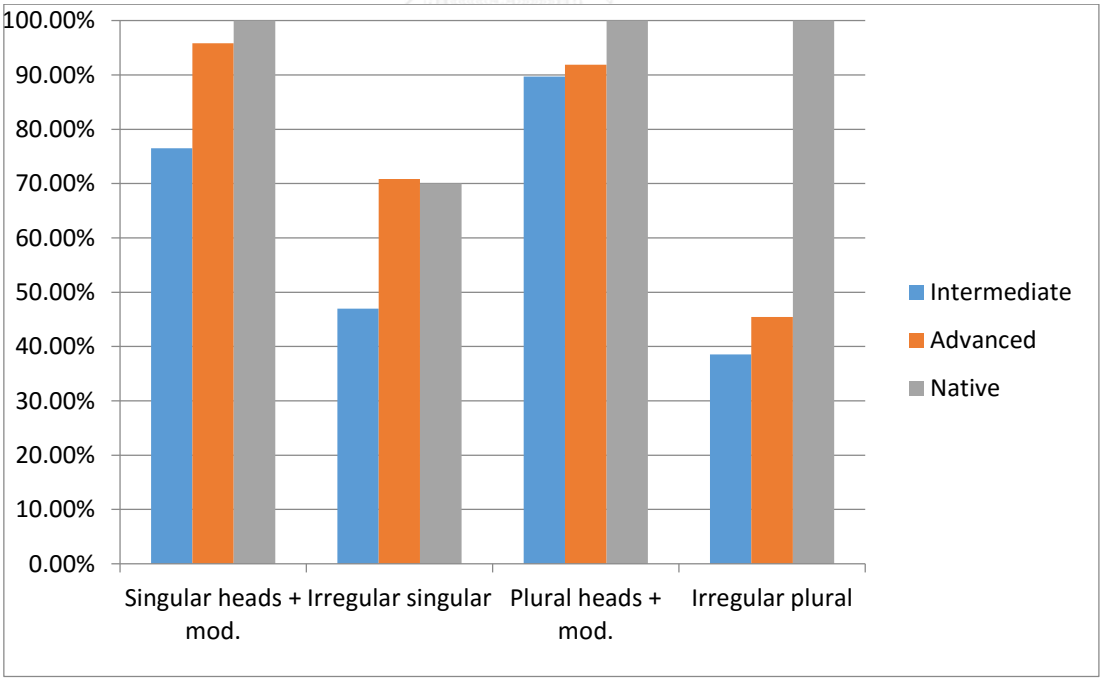

Figure 4: Cloze Test scores by the participant groups in relation to different nominal types

Table 3 and Figure 4 show the production data of the study. The data showed a similar pattern of production between both L1 proficiency groups and the native speakers group in the structure of regular noun heads with modification. From Table 3 and Figure 4, most of the performances of the native controls were at the ceiling (100%). However, the native produced some errors (30%) on the type of irregular singular nouns. The L1 Thai proficiency groups performed more accurately on the nominal types with modification than the irregular types. For the singular heads with modification, the rate of accurate suppliance by the advanced was 95.83% and that of the intermediate equaled 76.47%. On plural heads with modification, the rate of accurate suppliance by the advanced equaled 91.86% while that of the intermediate was 89.72%. The advanced performed 70.83% and the intermediate performed 47.00% of the irregular singular nominal type. Of the irregular plural nominal type, the advanced scored 45.45 while the intermediate scored 38.53%. The two singular nominal types, the heads with modification and the irregular singular nouns, showed a greater difference in scores between the two L1 Thai/L2 English learner groups when compared with the plural types (19.36% and 23.83%, respectively). Both learner groups, however, performed similarly in the plural nominal types as compared with the singular nominal types.

Considering Grammaticality Judgment Task (GJT), the scores of all L1 proficiency groups are shown below in Table 4 and Figure 5.

Table 4: GJT scores by the participant groups in relation to different nominal types

Proficiency level	GJT							
	Singular heads +modification		Irregular singular		Plural heads + modification		Irregular plural	
Intermediate	95/110	86.61%	63/109	57.66%	92/99	93%	51/112	44.74%
Advanced	79/86	91.86%	62/87	71.26%	79/82	96.34%	41/86	47.67%
Native	10/10	100%	7/10	70%	10/10	100%	5/10	50%

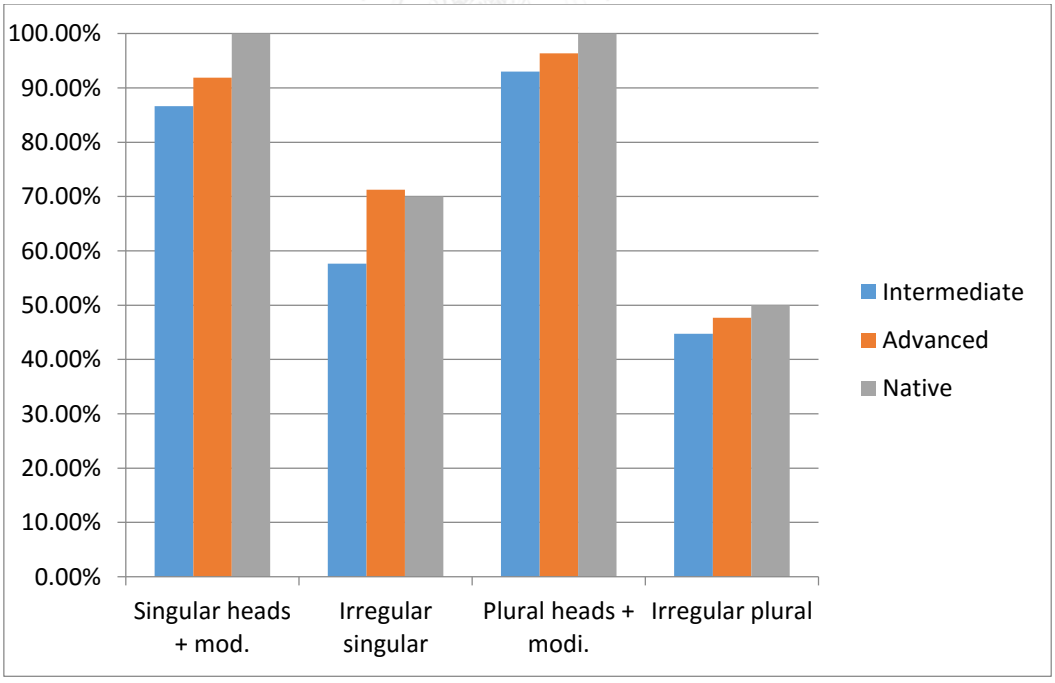

Figure 5: GJT scores by the participant groups in relation to different nominal types

In the GJT, the only structures that the native could perform at ceiling (100%) were the singular and plural heads with modification. They made more errors on the irregular types. Although they could not achieve 100% accuracy on the irregular types (70% for the irregular singular and 50% for the irregular plural), they scored more than the learners except for the irregular singular type where they performed fairly less than the advanced (70% as opposed to 71.26%).

Similar to what was found in the Cloze Test, all the learners performed more accurately in nominal heads with modification while they still made errors of the irregulars. The intermediate and the advanced learners' scores of singular heads with modification equaled 86.61% and 91.86%, and 93% and 96.34% of the plural ones, respectively, which are similar to the scores of the native controls. Of irregular singular nominal type, the accurate suppliance rate by the intermediate and the advanced were 57.66% and 71.26%, respectively. Both groups performed the worst in the irregular plural nominal type as the intermediate supplied 44.74% and the advanced supplied 47.67% of the irregular plural type.

4.2 Discussions

The following section discusses the findings in details. 4.2.1 discusses the target-likeness and 4.2.2 discusses the non-target-likeness of the learners.

4.2.1. Target-like production of the learners

The production data from Table 3 and Figure 4 showed that the L2 learners in both proficiency groups supplied subject-verb concord on regular subject noun heads

with modification more than 80% accurately on average, which is more than the acceptable threshold level (80%) (Bardovi-Harlig & Comajoan, 2008). Moreover, the learners' data of regular subject noun heads with modification seemed to conform to that of the native speakers. Postmodifiers with contrast number NP do not affect the production of the L2 learners at large. Thus, the L2 learners are likely to have competence on the regular L2 English subject-verb agreement.

The production data from Table 4 and Figure 5 showed similar results to the production data from Table 3 and Figure 4. The accurate scores of the learners of both proficiency levels were also more than 80% on average, which were close to those of the native speakers, who performed 100% accurate results. It could then be assumed that the learners have target-like syntactic representations on the said structure. The learners then reflected their target-like competence through the high accurate production of the structure.

However, the high accurate performance and competence data from both tests on the structure featuring regular nouns with modification could be argued by the impairment view of FFFH. One prediction on the impairment view was that since the learners' L1 Thai does not have overt morphological inflection on verbs for number, the learners may produce less accurate or random results on the L2 number agreement structure due to the inability to reset their parameters. In this study, however, the learners produced more than 80% accurate results. It shows that the learners are likely to be able to fully access their UG and able to reset their parameters

to conform to the L2 structure. To specify this argument syntactically, a [number] feature and other syntactic operations involving suppliance of number concord in English including affix lowering, [number] feature checking on verbs and finiteness mechanism are present in the learners' syntactic representations although they do not show in the learners' L1 grammars. If their [number] feature was not triggered and their representation was impaired, the learners would not have performed the target-like concord on the head nouns with modification at the rate of more than 80%. Additionally, since the advanced outperformed the intermediate, it is obvious that the production is more accurate with higher proficiency of the learners; that is, the learners are assumed to have capacity of accessing and resetting their parameters. The more proficient they are, the more possible they have target-like performance because they, motivated by more L2 input, are assumed to have a better access to UG (White, 2003). In this study, the learners were likely not to permanently be locked-up with their L1 grammar, but they were in progress of acquiring their L2 English as their interlanguage is getting developed (Selinker, 1972) and getting closer to native-like performance (White, 2003). The intermediate were still in the state of interlanguage development so errors occasionally occurred among their production.

It is possible, then, to say by FFFH view that the results of the structures of regular subject noun heads with modification were not the production of fully-accessed UG but the production of rote learning according to Selinker's 5 psychological processes mentioned in Section 2.1 such as transfer of training or strategies of second

language learning. The learners' representations by the view of FFFH were indeed non-target-like. The prediction of FFFH would say that they did not rely on their impaired competence and produced the accurate results out of their metalinguistic rules. However, it is unlikely for the present study since it was found that both performance and competence of the learners seemed to conform to those of the native speakers. It could be explained further by the ground of Universal Grammar (UG) that since English is the native language of the native speakers, whenever the native speakers produce their L1 production, they are assumed to fully access their target-like competence or UG. It is unlikely that the native speakers may have employed L2 learners' psychological processes. Likewise, since the results on both performance and competence of the learners seemed to conform to those of the native speakers, they indicated that the learners may also have employed the same strategies the native speakers did. The metalinguistic rules argument possibly made by FFFH is thus weakened by the similarity of the results by both native speakers and L2 learners.

Then, MSIH was confirmed because, on the ground of similarities of the results by both native speakers and L2 learners, the learners seemed to have target-like syntactic representations. Although the structure of subject-verb number agreement is non-existent in their L1, it is assumed that L1 Thai does not allow such a structure to elicit. Actually, the structure of subject-verb number agreement is predicted to represent in the learners' competence. Thus, they were able to reflect the said structure through the Cloze Test and the Grammatical Judgment Task (GJT). There was,

however, variability found in the structure of subject-verb number agreement with regular nouns produced by the learners. Since the account of FFFH is found incompatible to the case, MSIH would explain that the variability results from the surface factors of incomplete or pressurized computational process that affects the learners' performance on the structure. Hindrances such as close proximity or locality on a closest noun and the main verb (Biber, 1999) are predicted to obscure the learners' computational process. In case of English subject head nouns with modification, the string ibetween the subject head and the verbal host where the affix is attached is longer. Consider a part of one target test item in the present study "...the fluid in our bodies compresses our internal organ". The subject head is "fluid" and the target verb is "compresses." The two items however were not immediately merged but an adjunct of the subject head "in our bodies" is placed between them. Since the adjunct "in our bodies" was closer to the main verb "compresses" in the linear order fashion than the subject head "the fluid," it was likely that Af at the T node where the main verb "compresses" is placed in situ may be influenced by the closer noun "bodies" in the linear order. Without careful reading, the participants may have supplied a verb form that agrees with the NP in the adjunct "bodies" instead of the subject head "fluid". The movement mechanism for feature checking was still found to operate but it was done with a wrong noun. Thus, the learners' competence is assumed to be target-like because the mechanisms of number agreement seemed to occur, but the production failed to reflect target-likeness since the performance

reflected number disagreement. However, such errors by the learners were hardly found since the learners still produced results with more than 80% accuracy, leading to a possible conclusion that L2 learners could have target-like representations of the said structure when compared with the natives who produced results in the ceiling level (100%). Another reason to explain this phenomenon of errors is that L2 learners were assumed to suffer greater pressure[4] when producing L2 sentences (Hopp, 2010), leading to worsened performance when compared with the native speakers. It is assumed that although both participant groups may have the same shape of syntactic representations, the L2 learners were not primed with the L2 structures like the native speakers who were exposed to the language from birth. The learners then sustained greater psychological pressure, and so they performed less accurately.

4.2.2. Non-target-like production of the L2 learners

While the syntactic representations of the learners on the structure of subject-verb number agreement were found more likely to be target-like as discussed in 4.2.1, the learners' production of the structure with the irregular nouns was, contradictorily, less likely. It is considered that the learners' competence of irregular nouns to trigger number agreement on verbs might be incompetent, resulting in more deviant production of the structure with the irregular nouns. It is predicted that the learners

[4] Confusion or communication pressure that affects mental load or syntactic derivation is irrelevant to the syntactic impairment. It was mentioned by Chomsky (1995) that errors caused by pressure are not produced by the language user's competence. In other words, pressure blocks reflection of the language user's competence. Non-target-like performance due to confusion or communication pressure is considered irrelevant to the speakers' competence.

may be less exposed than the native speakers to the irregular nouns featured in the study. According to Hawkins and Liszka (2003) irregular past tense verbs were claimed to be easier for L2 learners to produce because some L2 learners may have impairment on the Infl node where [± past] feature is not triggered during the critical age period mentioned in Section 2.3.1. Hawkins and Liszka (2003) assumed that the learners applied L2 learning strategies of remembering individual past forms of verbs. However, the high percentage of errors on the irregular nouns found in the study is likely not to be results of the impaired representations, but it could be the results of defective lexical competence the learners had. Their performances on the irregular of both tests were less accurate (52.89%) than the head nouns with modification (90.21%). This could mean that their lexicon on the irregular nouns is impaired when compared with that of the native controls while the learners' representations of subject-verb number agreement can be assumed to be target-like. Thus, the claim Hawkins and Liszka (2003) grounded their explanation that the learners have non-target-like representations was found to be contradicted.

The data from British National Corpus (BNC) could confirm the uncommon use of the targeted irregular nouns in the study. Most of them returned fewer relative frequencies in British National Corpus (BNC) in Table 5. Compared with the most frequent noun in BNC "time" with the relative frequency in both spoken and written English data at 1833.35 per million words, the relative frequencies of the irregular nouns in the study range from 2.39 to 274.66 per million words which is more than 6

times lower than the most frequent noun “time.” This rarity of the irregular nouns could be a reason why the irregular nouns were problematic to the participants as well as the native speakers of the present study.

Table 5: Frequencies of the irregular nouns in the study from British National Corpus (BNC)

Nouns	Number	Frequency per million words in BNC
news	Singular	143.57
measles	Singular	2.39
diabetes	Singular	6.62
aerobics	Singular	3.14
police	Plural	274.66
staff	Plural	228.6
bacteria	Plural	12.84
cattle	Plural	25.88

From all the irregular nouns featured in the study, “measles” and “aerobics” are found the least in BNC. This might be able to explain why the native controls made

more errors on “measles” and “aerobics”: only 2 of 5 native controls produced accurate results. “Bacteria” was also found less in BNC as opposed to “news,” “police” and “staff.” Only 1 native control could produce number concord for “bacteria” without optionality. As the native speakers may have problems with inadequate exposure of the irregular nouns, the learners are assumed to suffer greater dilemma (Hopp, 2010). Since English is simply not their L1, the learners may have fewer chances to be exposed to proper usages of the irregular nouns and are likely to have more problems when using the words. That is, L1 speakers of Thai seem to be less primed to the English lexical items than L1 speakers of English. There are thus more reasonable chances for the learners to tag non-target-like syntactic information with the irregular nouns when compared with the native speakers. The number agreement mechanism still takes place but with wrong plurality information assigned to the lexical items.

4.2.3. The asymmetry between lexical knowledge and syntactic representations of the learners

The performance especially of the irregular nouns and the competence of the participants seemed to show asymmetry. With the structures of regular nouns with modification, the learners and native speakers produced a satisfactory rate of performance and competence. With the structures featuring irregular nouns, however, both the native speaker group and the learner group produced more errors while the learners performed worse. The situation of the irregular nouns was likely to be a phenomenon where the participants failed to meet lexical competence; that is, the

participants' lexicon is likely to be non-target-like. On the other hand, the situation of the regular nouns which required less specific vocabulary knowledge reflected greater accurate results, showing possible target-like competence both participant groups have. It can be concluded that the participants', especially the learners', lexicon or grammatical properties of lexical items, is likely to be non-target-like while the underlying syntax on English subject-verb agreement seems to be target-like. Representations of lexicon and syntax therefore seemed to show distinct asymmetry in the study.

Since the asymmetry is found in the study, MSIH then can better account for the data in the study than FFFH. The reason is that MSIH considers knowledge of lexicon or surface morphology and syntax as separate components. L2 learners' lexical representations may be missing or non-target-like but they are assumed to have target-like syntactic representations. On the contrary, the asymmetry seems to contradict FFFH. Since FFFH may assume that the syntactic representations are impaired when variability is found, the variability in the study was found not parallel to the syntactic representations of the learners which were actually found to be similar to those of the native speakers. Thus, FFFH is considered incompatible to explain the results in the study.

Chapter 5
Conclusion

This chapter is organized as follows: 5.1 presents the conclusion of the study. 5.2 concerns pedagogical implications. 5.3 discusses the limitations of the study, and 5.4 provides suggestions for further research.

5.1 Conclusion of the study

The objective of the study is to investigate target-like syntactic representations of English number agreement by L1 Thai/L2 English adult learners. It was hypothesized that the learners have target-like syntactic representations of English number agreement according to the non-impairment view of the Missing Surface Inflectional Hypothesis (MSIH), and against the impairment view of the Failed Functional Feature Hypothesis (FFFH). To complete the study, the two tests, Cloze Test and Grammatical Judgment Task, were employed.

The results of the two tests confirmed the hypothesis. In the structures of head nouns with modification, the participants performed overall accurately (above 80%), confirming the hypothesis of the target-like syntactic representations of the learners. In the structures with irregular nouns, however, the participants performed much less accurately. The inaccurate performance on the irregular nouns could result from incomplete knowledge of lexicon. The learners were assumed to be less primed to L2 English lexical items than the native speakers. Consequently, the learners failed to

meet lexical competence, while their syntactic competence of subject-verb number agreement is likely to be present.

The asymmetry between knowledge of syntax and lexicon confirmed MSIH and contradicted FFFH. First, the learners were assumed to be able to access their target-like syntactic representations because they could perform accurately on the structures non-existent in their L1 Thai. The results did not confirm FFFH since the learners did not perform inaccurately on the non-existent structure. Second, according to the impairment view of FFFH, the learners might have employed metalinguistic rules to produce L2 structures assumed to be non-existent in their syntactic competence. According to the FFFH view, the learners' metalinguistic rules then started to be inapplicable when the learners confronted the irregular nouns, resulting in more deviant production of the said structure. This second claim of FFFH was also rejected because of the similarity in results between the native and the learners found in the study. The native speakers, like the learners, also showed more variability on the irregular nouns. It was unlikely that the native speakers would rely on metalinguistic rules when producing the said structures because, by the virtue of UG, they should be able to access UG during their L1 acquisition. Since the data showed similarities of competence and performance between the native speakers and L2 learners on both structures, it is assumed that the learners also employed what the native speakers should rely on. The deviant production found in the study was possibly not the result of impaired syntax but the incomplete knowledge of lexicon. The participants of the

study were assumed to be less exposed to the irregular nouns featured in the study so these nouns in their lexicon were not tagged with target-like syntactic information. Since the results indicated that the learners do not have syntactic impairment of English number agreement and incomplete knowledge of lexicon on grammatical properties is presumably the reason of deviant production of the irregular nouns, FFFH is contradicted and MSIH is confirmed.

5.2 Pedagogical implications

As the deviant production found in the study was rooted in the knowledge of lexicon, L2 adult learners should be more exposed to accurate English usages of irregular nouns so they would learn more lexical items with target-like syntactic information tagged on. In other words, they should receive better exposure to contexts where irregular L2 English nouns are used so that they could be more familiar with English lexical items. Teachers of L2 English courses should provide L2 English instruction with more target-like usages to induce target-like representation lexical items and number agreement.

5.3 Limitations

Although they were instructed by their teachers and the researcher of the study, the participants were not monitored when they took the tests. The data, although it seemed to be rigid and appropriate to analyze, could be manipulated by malpractice of the test takers. Careful monitoring of all the participants is suggested to avoid the participants cheating or manipulating results of the study.

Moreover, since the test takers were instructed to complete the three tests in one hour, it would be overwhelming for the test takers to complete 100 test items at total. The overwhelming effect could possibly force the test takers to take a wild guess.

Additionally, there were still problems with the targeted test items featured in the study. One is that the targeted irregular noun "staff." Biber (1999) stated that "staff" is found around 80% in corpora to be used as plural. However, it is also acceptable to refer to "staff" as a singular noun in some contexts. Although the context of the targeted test item no.15 in the Cloze Test "When staff (be) _____ absent, the class is split between other teachers" is clear for "staff" to convey the plural meaning, this possible contrast number agreement of the same noun could affect the grammar violation judgment by the test takers. Moreover, although there was an effort to keep the variable constant by using the targeted test items with the context of the present tense, there are some targeted test items that could possibly be answered with another tense such as item 4 of the Cloze test "It does not matter why the news (reach) _____ him so late." The correct answer could be "reached," which does not show subject-verb number agreement, consequently forcing the researcher to discard the fault result. The ambiguous usages and possible contexts of the targeted test items should then be reconsidered in future research.

5.4 Future research

Although it is claimed by this study that the learners did not produce accurate results by relying on metalinguistic rules, there is a still a room to claim the opposite

direction; that is, the learners might have employed metalinguistic rules to pass the tests. Their L2 rules then seemed to be inapplicable when they came across the irregular nouns featured in the study so their scores dropped in the cases of the irregulars. Although some techniques such as fillers were used to prevent the test takers from thinking of the rules, the limitation was still possible because the tests themselves in the study were written. They were thus offline, allowing more time for the learners to think of L2 rules to complete the tests. A speaking test, in contrast, is spontaneous. It can induce online production and allows automatic and intuitive responses than what the written tests could do. Thus, to eliminate this limitation, a speaking test could be employed.

Data collected in the study was written based. If spoken data was collected, it could lead to new possible incidents such as communication pressure during verbal communication by L2 learners.

Data was collected from the intermediate and advanced learners. If more data was collected from beginners, it might be more data in relation to proficiency levels of L2 learners.

Moreover, the different nature of the two nominal structures may result in a flaw of the study as it can manipulate the outcome. The structure of the regular noun with modification can elicit syntactic analysis. The structure of the irregulars without modification may, however, only elicit lexical analysis. It is suggested that a structure

type that induces both lexical and syntactic analysis such as the irregulars with modification should be added in future research.

Additionally, since data was collected only from L1 Thai/L2 English learners, only differences between the two languages could make the prediction. If more data was collected from L2 learners of other native languages such as Chinese or Malay, data might show more results. Moreover, if more data was collected from L2 learners whose L1 such as French and German has number agreement structure, the results might be different.

Last but not the least, since it is found in the study that knowledge of lexicon is problematic to the learners, the learners' lexicon such as topics on L2 learners' lexicon, such as lexicon building or lexicon decision, are suggested to investigate further. Future studies may be able to explain L2 learners' lexicon competence as well as sources of deviant production, contributing to the field of Second Language Acquisition.

APPENDICES

Appendix A: Details of the participants

1. Advanced learners (N = 45)

Participants	Age	Years of English exposure	The first age of English exposure	Score on Proficiency Test
A 1	21	12	9	51/60
A 2	22	16	7	49/60
A 3	22	10	12	52/60
A 4	21	15	6	51/60
A 5	22	16	7	52/60
A 6	22	16	7	51/60
A 7	21	14	7	54/60
A 8	20	14	6	54/60
A 9	22	19	3	56/60
A 10	19	13	7	60/60
A 11	18	14	4	60/60
A 12	18	16	3	57/60
A 13	18	11	7	55/60
A 14	18	13	5	50/60
A 15	18	12	7	56/60
A 16	18	13	5	60/60
A 17	18	15	3	51/60
A 18	18	18	1	50/60
A 19	18	15	3	50/60
A 20	17	12	5	55/60
A 21	20	16	6	54/60
A 22	24	18	7	53/60
A 23	20	20	1	55/60
A 24	20	17	3	50/60
A 25	21	12	9	51/60

Participants	Age	Years of English exposure	The first age of English exposure	Score on Proficiency Test
A 26	21	18	3	51/60
A 27	20	17	3	50/60
A 28	22	19	3	49/60
A 29	22	13	9	49/60
A 30	21	15	6	48/60
A 31	19	19	1	48/60
A 32	19	15	4	48/60
A 33	20	16	4	48/60
A 34	18	12	6	48/60
A 35	20	14	6	49/60
A 36	20	13	7	49/60
A 37	19	14	5	49/60
A 38	19	12	7	49/60
A 39	18	12	6	49/60
A 40	22	18	4	49/60
A 41	22	18	4	56/60
A 42	23	20	4	52/60
A 43	18	15	3	53/60
A 44	21	18	3	59/60
A 45	21	17	4	51/60
$\bar{x}$	20.02	15.16	5.16	52.02

2. Intermediate learners (N=58)

Participants	Age	Years of English exposure	The first age of English exposure	Score on Proficiency Test
I 1	21	18	3	42/60
I 2	20	14	6	45/60

Participants	Age	Years of English exposure	The first age of English exposure	Score on Proficiency Test
I 3	21	18	3	43/60
I 4	22	18	4	42/60
I 5	21	17	4	47/60
I 6	21	17	4	47/60
I 7	18	16	2	45/60
I 8	19	12	6	40/60
I 9	18	15	3	39/60
I 10	19	16	4	40/60
I 11	18	16	2	38/60
I 12	18	14	4	37/60
I 13	20	18	2	46/60
I 14	20	17	3	47/60
I 15	20	17	3	45/60
I 16	20	15	5	43/60
I 17	18	14	4	45/60
I 18	19	13	7	39/60
I 19	20	12	8	40/60
I 20	20	13	7	40/60
I 21	19	15	4	38/60
I 22	18	10	8	36/60
I 23	18	15	3	44/60
I 24	19	15	4	45/60
I 25	19	12	7	45/60
I 26	19	11	8	44/60
I 27	19	16	3	45/60
I 28	18	12	6	44/60
I 29	19	15	4	42/60
I 30	18	10	8	44/60

Participants	Age	Years of English exposure	The first age of English exposure	Score on Proficiency Test
I 31	20	10	10	32/60
I 32	21	15	6	42/60
I 33	19	17	2	37/60
I 34	18	11	7	47/60
I 35	19	11	9	47/60
I 36	19	15	4	45/60
I 37	19	15	4	47/60
I 38	18	13	5	44/60
I 39	23	14	9	46/60
I 40	19	17	2	43/60
I 41	18	14	4	44/60
I 42	19	14	5	44/60
I 43	21	14	7	44/60
I 44	20	15	5	37/60
I 45	19	14	5	30/60
I 46	18	12	6	37/60
I 47	18	12	6	34/60
I 48	20	13	7	37/60
I 49	19	15	4	36/60
I 50	18	12	6	36/60
I 51	18	15	3	36/60
I 52	21	18	3	45/60
I 53	21	18	3	44/60
I 54	18	15	3	36/60
I 55	19	12	7	36/60
I 56	18	12	6	44/60
I 57	19	13	6	31/60
I 58	19	12	7	37/60

Participants	Age	Years of English exposure	The first age of English exposure	Score on Proficiency Test
$\bar{x}$	19.26	14.29	5.00	41.29

3. Native speakers (N=5)

Participants	Age
N 1	31
N 2	73
N 3	57
N 4	29
N 5	25
$\bar{x}$	43

Appendix B: Grammaticality Judgment Task (GJT)

Instruction: Identify the bold part of the sentences. If correct, mark ✓. If incorrect, mark ✘ and rewrite the incorrect part in the space provided.

Example: This test is divided into two **part**.

✘ parts

1. When the silkworm gets through to **lay** its eggs, it dies.

   _____

2. Pasta from fine Italian food factories **comes** in controlled-atmosphere packaging.

   _____

3. Many ancient cultures begin **their** spiritual life by worshipping the Sun.

   _____

4. Diabetes **affects** about 1 in every 300 children.

   _____

5. Few airports in the United States are as modern as **that** of Atlanta.

   _____

6. The bacteria **reproduces** every 20 minutes or so until the food source has expired and the smell gone.

   _____

7. If a person does not have an attorney, the court will appoint **one**.

   _____

8. Today on the fertile plains of Central America, cattle **graze** peacefully.

   _____

9. Put the ingredients altogether in a bowl when you make **the** cake.

   _____

10. If Robert Kennedy would have lived a little longer, he probably **would** have won the election.

    _____

11. In the 1920s, Art Deco, **knew** for plastic and chrome-plated objects, was very popular.

_____

12. Bob was chosen as the first male name for a hurricane **which** was traditionally named for women.

_____

13. Ice skating and **to go skiing** are popular winter sports in the northern United States.

_____

14. Aerobics **work** on the areas you'd rather not think about such as hips and thighs.

_____

15. The classification of today's ballets **become** more difficult as their stories, themes and music get more complicated.

_____

16. Some international students use a cassette recorder to make tapes of their classes so that they can repeat the lectures **again**.

_____

17. The captions under the image **are** too blurred to read.

_____

18. World hunger **it is** one of the most urgent problems that we face today.

_____

19. Critics of this idea **says** it would be very expensive to renovate the old buildings.

_____

20. Some metals **such as** gold, silver, copper and tin occur naturally, and are easy to work.

_____

Appendix C: Cloze Test

Instruction: Complete the cloze questions with the right form of words given in the parentheses.

1. When we get up, the fluid in our bodies (compress) _____ our internal organs.
2. The author of these books (make) _____ clear the nature of their importance.
3. New pieces of equipment for medical diagnosis have (make) _____ many unpleasant procedures quite painless.
4. It does not matter why the news (reach) _____ him so late.
5. Photographs of herself taken by her lover (look) _____ like lots of different women.
6. The church can communicate more (effective) _____ to young people today for the benefit of their safety and emotional health.
7. AIDS is the (big) _____ health challenge we have had to face this century.
8. We operate in an unfair world where corrupt police (limit) _____ people's rights.
9. Symptoms of sunburn (include) _____ hot, painful skin, redness and tautness.
10. The food theater where Lincoln was shot must have been (restore) _____.
11. German measles (be) _____ not as harmless as you think.
12. To remove stains from permanent press clothing, carefully (soak) _____ in cold water before washing with a regular detergent.
13. The examiner made us (show) _____ our identification in order to be admitted to the test center.
14. You are warm in my arms, your body right next to (my) _____.

15. When staff (be) _____ absent, the class is split between other teachers.
16. For him, critical writing has to take up (wide) _____ issues than enjoyment of a picture or a sculpture.
17. Women nowadays are becoming (fierce) _____ than men.
18. I will be able to take (he) _____ and continue into London to pick up another guy.
19. The gold used in jewelry is not strong enough unless it is (alloy) _____.
20. (she) _____ mother was only about 21 at the time — she had been married when only 13.

Appendix D: Evaluation of Test Validity

1. Validity of Cloze Test

Test items	Rater 1	Rater 2	Rater 3	IOC
1. When we get up, the fluid in our bodies (compress) _____ our internal organs.	+1	+1	+1	1.00
2. The author of these books (make) _____ clear the nature of their importance.	+1	+1	+1	1.00
3. It does not matter why the news (reach) _____ him so late.	+1	+1	+1	1.00
4. Photographs of herself taken by her lover (look) _____ like lots of different women.	+1	+1	+1	1.00
5. We operate in an unfair world where corrupt police (limit) _____ people's rights.	+1	+1	+1	1.00
6. Symptoms of sunburn (include) _____ hot, painful skin, redness and tautness.	+1	+1	+1	1.00
7. German measles (be) _____ not as harmless as you think.	+1	+1	+1	1.00
8. When staff (be) _____ absent, the class is split between other teachers.	+1	+1	+1	1.00

2. Validity of Grammaticality Judgment Task

Test items	Rater 1	Rater 2	Rater 3	IOC
1. Pasta from fine Italian food factories **comes** in controlled-atmosphere packaging.	+1	+1	+1	1.00
2. Diabetes **affects** about 1 in every 300 children.	+1	+1	+1	1.00
3. The bacteria **reproduces** every 20 minutes or so until the food source has expired and the smell gone.	+1	+1	+1	1.00
4. Today on the fertile plains of Central America, cattle **graze** peacefully.	+1	+1	+1	1.00
5. Aerobics **work** on the areas you'd rather not think about such as hips and thighs.	+1	+1	+1	1.00
6. The classification of today's ballets **become** more difficult as their stories, themes and music get more complicated.	+1	+1	+1	1.00
7. The captions under the image **are** too blurred to read.	+1	+1	+1	1.00
8. Critics of this idea **says** it would be very expensive to renovate the old buildings.	+1	+1	+1	1.00

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