L2 Production and Mental Representation: A Case of L2 English Article Substitutionss by L1 Thai Learners

Nattama Pongpairoj[*]

|국문초록|

　　본 연구는 타이어를 모국어로 하는 학습자들의 제2언어인 영어관사에 관한 통사적 표상을 연구하였다. 이 분야의 대부분의 연구들은 학습자의 영어관사 선택의 원인에 관해 연구하였다. 이 연구는 관사 대체현상이 제1언어 즉 모국어의 통사적 표상에 기인하는 지를 알아보기 위해

* Chulalongkorn Universtiy

타이어를 모국어로 하는 학습자들의 영어관사에 관한 심리적 표상을 살펴보았다. 관사선택 측정과 문법능력 측정을 통하여 데이터를 도출하였다. Failed Functional Features Hypothesis (FFFH) (Hawkins and Chan 1997)에 기초하여 제1언어요소와 관련이 없는 제2언어 기능적 요인들이 모국어 사용자들에 의해 습득되지 않는 다는 것을 전제하였다. 영어관사선택에 관한 FFFH의 예상은 위의 두 가지 측정을 통하여 알 수 있다. 대응표본 T검정을 통하여 타이어를 모국어로 하는 학습자들의 관사선택이 관사표상에 관한 문법적 결여와 관련있다는 것을 알 수 있었다. 즉, 모국어에 관사체계가 없기 때문에 학습자들은 이 기능적 언어 요인들을 자유롭게 재형성시키는 것이 어렵다는 것이다. 이러한 결과는 형태적-통사적 매칭 문제에 기인한다는 Missing Surface Inflection Hypothesis (MSIH) (Prévost and White 1999)와도 연동되어 있다. 본 연구의 결과는 제2언어의 관사선택과 통사적 표상에 관한 연구들이 좀 더 설득력 있는 문제의 해결책을 제시하는데 기여할 수 있을 것이다.

주제어: 타이어, 통사적 표상, 관사, 심리적 표상

Ⅰ. Introduction

Variable production of functional morphology (i.e. omissions and/or substitutionss of grammatical morphemes) by second language (L2) post-childhood learners has been well-attested. Research studies often

report persistent problems of producing L2 functional morphemes among L2 learners in various tasks (cf. Goodluck 1991; Ellis 1994; Hawkins and Chan 1997; Lardiere 2000; Prévost and White 2000; Hawkins 2000, 2001; Franceschina 2001; Hawkins and Liszka 2003; White et al. 2004; among others).

However, most studies on variable production of functional morphemes seem to focus on only L2 production. Recent arguments on causes of L2 variable production of functional morphology have been based on two hypotheses under Generative Grammar. They could be argued in one of the following ways. One is based on the Missing Surface Inflection Hypothesis (MSIH), which assumes that although such variability in production occurs, L2 learners might in fact possess those functional morphemes in their mental representation. The other argument – the Failed Functional Features Hypothesis (FFFH), follows the opposite notion. According to this view, the evidence that L2 learners have problems producing some aspects of L2 grammatical morphemes reflects a lack of functional morphemes in their mental representation.

One grammatical aspect causing difficulties for L2 learners from some language backgrounds is English articles (cf. Kuribara 1999; Robertson 2000; Trenkic 2000, 2002, 2007, 2008; Kowaluk 2001; Leung 2001, 2005; Ionin and Wexler 2003; Ionin, Ko and Wexler 2004; White 2003a; Goad and White 2004; Dirdal 2005; Sharma 2005; among others). It has been found that variability in production of English articles also occurs among first language (L1) Thai learners (cf. Lekawatana et al. 1968; Oller and Redding 1971; Ubol 1988; Srioutai

2001; Pongpairoj 2002, 2004; 2007; Trenkic and Pongpairoj (2013); among others). The problems are evidenced in article omissions (i.e. omissions of 'a(n)' and 'the') and article substitutionss (i.e. inappropriate suppliance of the indefinite article and/or a zero article (i.e. where an article is not obligatory on a noun or a noun phrase) in an obligatory definite context and production of the definite article in an obligatory indefinite context). As Lekawatana et al. (1968: 96) claims, "Mistakes involving the misuse or omission of articles in English are probably more prevalent than any other single grammatical error in the speech of Thai students".

Therefore, the aim of this research is to investigate if variable article production among L1 Thai/L2 English actually reflects existence of this L2 grammatical category in their mental representation or not by looking into problems in both production and mental representation with respect to article substitutionss.

The organization of the paper is as follows. Section 2 presents the two opposing hypotheses on causes of L2 variable production of functional morphemes. Section 3 looks into definiteness in English, a language with the article system and the L2 in this study, and in Thai, an articleless language and the native language of the learners in this study. Section 4 presents different notions on acquisition of English articles by L2 learners from articleless languages. Section 5 then explores previous research on variable production of L2 English articles in terms of article substitutionss. Section 6 presents hypotheses of the study. Section 7 describes the methodological approaches, followed by predictions in Section 8. Section 9 concerns

results and discussions. Finally, Section 10 concludes the study.

Ⅱ. Two hypotheses on causes of variability in production of L2 functional morphemes

As mentioned in Section 1, recently, an ongoing debate has occurred in Second Language Acquisition (L2A) related to causes of L2 variable production of functional features. Two opposing hypotheses within the framework of generative grammar are widely supported: MSIH and FFFH. While the former hypothesis is under the target-like syntactic representation, the latter is based on the non-target-like grammatical one. Each hypothesis will be discussed in detail.

The MSIH accounts for variability in terms of L2 learners' syntax-morphology processing problems. Under Universal Grammar (UG) (Chomsky 1986), it is assumed that L2 learners' grammatical representation is target-like due to universal innate knowledge (Larsen-Freeman and Long 1991). Even if L2 functional parameters are non-existent in the learners' native language, their syntax is postulated to be intact. The problems therefore arise out of access of syntactic representation (cf. Haznedar and Schwartz 1997; Herschensohn and Stevenson 2003; Slabakova 2003; Ionin and Wexler 2002; Lardiere 1998a, b, 2000; Lardiere and Schwartz 1997; Prévost and White 1999, 2000; Sorace 2000; White et al. 2004; Sundquist 2005; Bergeron-Matoba 2007; among others).

On the other hand, the FFFH attributes inappropriate L2 production to non-target-like syntactic representation. It is postulated that UG plays a role in L2A, but only partially through L1. That is, syntactic features non-existent in the learners' L1 are inaccessible in L2A, resulting in variable production (cf. Tsimpli and Roussou 1991; Smith and Tsimpli 1995; Hawkins 2000, 2001, 2003; Hawkins and Chan 1997; Beck 1997; Eubank and Grace 1998; Tsimpli and Stavrakaki 1999; Franceschina 2001a, b, 2002; Liszka 2002; Hawkins and Liszka 2003; Hawkins and Franceschina 2004; among others).

III. Definiteness

The notion of definiteness has been widely discussed relating to languages with articles. Hawkins (1991: 414) assumes that, in these languages, the definite article signals that "a referent exists and is unique in a pragmatically delimited set (or a P-set) in the universe of discourse mutually manifest to the speaker and the hearer on-line" (see also Sperber and Wilson 1986/1995). However, according to Trenkic (2002), this definition could be extended to any definite referent whether that referent occurs with a syntactic marker of definiteness (i.e. the definite article) or not. Put simply, this definition could be used with definite referents in languages with and without articles. A definite referent is therefore grammatically definite (i.e. syntactically marked by the definite article) in languages containing articles and conceptually definite (i.e. via context) in languages

without articles.

As the research is concerned with L2 English article production and representation by native speakers of Thai, this section presents how definiteness is expressed in languages with and without articles, i.e. definiteness in English (3.1) and Thai (3.2), respectively.

1. Definiteness in English

This section briefly describes general rules for English articles. Note that specific rules of article use and article use in expressions are not included in the discussions (For details of specific rules of English article use, see Biber et al. 1999 and Carter and McCarthy 2006).

Typically, in English, the system of articles is employed to mark definiteness of nominal phrases in English, i.e. the indefinite article *a(n)*, the definite article *the* and the zero article (The discussions thus exclude pronouns and proper nouns in English)[1].

The indefinite article *a(n)* is used with a singular NP referent representing a member of a class, as exemplified in (1).

(1) The boy has become a *singer*.

The definite article *the* is placed before a singular noun, a plural noun and a non-count noun acting as (a) particular referent(s), as shown in (2a), (2b) and (2c), respectively.

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1) See Lyons 1999 for detailed discussions of the relevant issues.

(2) a. *The dining room* is just right there.

　　b. *The administrators* visiting our office have given some useful advice.

　　c. We found out *the water* in this well is drinkable.

The zero article is employed with a non-count noun and a plural (indefinite) NP referent. For instance, as shown in (3a) and (3b), respectively.

(3) a. Thai people usually have *rice* in every meal.

　　b. You can see *people* lying on the beach.

Concerning a generic interpretation, i.e. a whole class representing all entities, an English NP referent is typically used with any article type, as shown.

(4) a. *A book* is useful. (indefinite singular generic)

　　b. *The* tiger is fierce . (definite singular generic)

　　c. Computers are useful. (plural generic)

　　d. Pollution is almost everywhere now. (mass generic)[2]

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2) The definite article can also be used with some NP types such as NPs of nationality and groups of animals/plants to render a generic interpretation. For example, 'The Thais usually like spicy food' (See Lyons 1999: 18 for details of this issue). Also, the four types of generic forms in (4) render different generic readings (See Chierchia 1998 and Dayal 2004 for detailed discussions).

2. Definiteness in Thai

Thai is classified as an isolating or a non-inflecting language. There are no articles encoding definiteness in Thai (See discussions of Thai nominals in Lekawatana et al. 1969; Warotamasikkhadit 1972; Stein 1981; Panthumetha 1982; Ooppakitsillapasan 1996; Naksakul 1998; Pankhuenkhat 1998; Panupong 2000; Smyth 2002; Thonglor 2004; Iwasaki and Ingkaphirom 2005; among others).

Most nominal referents in Thai are usually bare nominals. The definite status or identifiability of a nominal phrase is usually interpreted semantically/pragmatically through discourse contexts. A bare nominal in Thai may thus be inferred as definite or indefinite depending on the contexts of use, as shown in (5):

(5) nakrien deun pai rongrien meuchau ni
　 student walk go   school   morning this
　 'A student   walked to school this morning'
　 The student
　 Some students
　 The students

Whether the bare nominal nakrien 'student' is identifiable or unidentifiable is context-dependent. It is noteworthy that a nominal phrase can also be rendered singular or plural via the relevant contexts as there is no inflectional morphology denoting number in Thai.

IV. Different notions on the acquisition of L2 English articles by learners from articleless languages

As discussed in Section 2 there are two opposing hypotheses on the acquisition of grammatical morphology: the MSIH and the FFFH. While the former hypothesis postulates that variability in production of L2 functional morphology is due to processing problems despite target-like syntactic representation, the latter attributes the production problem to non-target-like grammatical representation.

Based on the two hypotheses, different interpretations have been made on causes of variable production of L2 English articles. Proponents of the MSIH suggest that L2 learners from languages without articles possess appropriate fully specified syntax of definiteness. Variability in article production occurs because of syntax-morphology mapping problems (Goad and White 2004). The FFFH, on the other hand, assumes that, as determiner does not appear in languages without an article system. This syntactic category is therefore non-existent in the grammars of languages without articles and ultimately unattainable (cf. Kuribara 1999; Trenkic 2007).

V. Previous studies on L2 English article substitutions

L2 English article substitutions has been well-documented in a number of studies. These studies attempt to explain causes of the

substitutionss.

A classic and influential work on L2 English article substitutions is Huebner (1983). Based on Bickerton (1981), Huebner developed a system of article use based on semantic NP types. Each NP is assigned a semantic function in terms of two binary features: assumed known to the hearer [±HK] and specific referent [±SR]. Huebner specifies four semantic environments from four combinations of the two binary features. These NP contexts determine English article use as follows:

> (6) [–SR][+HK] (generics): the, a(n) (singular); ø (plural)
>
> [+SR][+HK] (referential definites, i.e. unique referents and
>   previous mentions): the
>
> [+SR][–HK] (referential indefinites – first mentions):
>   a(n)(singular); ø (plural or non-count nouns)
>
> [–SR] [–HK] (non-referentials): a(n)(singular); ø (plural or
>   non-count nouns)
>
> <div align="right">(Huebner 1983: p.287)</div>

Huebner investigated English article production by an L1 Laotian-speaking learner from a longitudinal study. The results showed that, at first, the L2 learner tended to employ *the* in every NP context. However, at later stages of development, the definite article was mainly used in contexts with the feature [+HK], i.e.[–SR; +HK] and [+SR; +HK]. Huebner took this as evidence for the learner's relating 'the' with the semantic feature [+HK].

Many researchers explored L2 English article substitutionss by adopting Huebner's NP classification system based on the aforementioned semantic functions. For example, Master (1990) found that her L2 learners from different native language backgrounds attributed *the* to [+HK] contexts. Similarly, Chaudron and Parker (1990) and Young (1990) claimed that their low proficiency L1 learners (i.e. L1 speakers of Japanese in the former study and L1 speakers of Czech and Slovak in the latter) tended to overgeneralize the definite article. These studies therefore corresponded with Huebner (1983). Some studies however reported contradictory findings. For instance, Parrish (1987) conducted a longitudinal study with an L1 Japanese learner and found that the learner had a tendency to relate *the* with the [+SR] feature. In a similar vein, Thomas (1989) and Butler (2002) reported that [+SR] appeared to determine the use of the definite article by the learners from different L1s and native speakers of Japanese, respectively. It is noteworthy that interpretations of the results from the studies seemed to be inconsistent.

The aforementioned studies attempted to account for L2 English article substitutionss based on Huebner's system of the association between NP semantic contexts and article use. Later research on L2 English article substitutions appeared to develop a different picture.

Trenkic (2002) investigated English article substitutions by L1 Serbian speakers. It is reported that the learners tended to employ '*the*' with indefinite NP referents when the referents were concrete and countable (e.g. 'letter') rather than when they were abstract and

countable (e.g. 'disaster'), mass (e.g. 'sand') and plural (e.g. 'dogs'). The findings were taken to indicate that concreteness and countability lead to identifiability and imaginality and thus definiteness of NP referents. The L2 learners tended to attribute the to referents that are "discrete", i.e. precise in form, and thus 'identifiable' (Trenkic 2002: 11).

What can be concluded is that all the studies mentioned thus far attempted to show some kind of non-native-like association between form and meaning that L2 learners established.

Ionin, Ko and Wexler (2004) examined English article substitutionss by native speakers of Korean and Russian. They proposed the Article Choice Parameter (ACP) for languages that have two articles (2004: 12). According to the ACP, 'definiteness' and 'specificity' are cross-linguistic article semantic features found in languages with two articles. So, there can be two settings in the ACP, i.e. the Definiteness setting and the Specificity Setting. For example, the article system in English encodes 'definiteness' and that in Samoan encodes 'specificity'. It is assumed that articles distinguished on the basis of definiteness cut across the specificity distinction in English and vice versa in Samoan. Therefore, articles in English can be understood as [+spec] and [-spec] and those in Samoan can be read as [+def] and [-def].

For instance, 'a' in English can be read as specific and non-specific in (7a) and (7b), respectively:

> (7) a. Peter intends to marry **a merchant banker** – even though
> he doesn't get on at all with her.

a. Peter intends to marry **a merchant banker** – though he hasn't met one yet.

<div align="right">(Lyons 1999: p.167)</div>

Similarly, the in English can be interpreted as [+spec] in (8a) and [-spec] as in (8b):

(8) a. We can't start the seminar, because **the student who's giving the presentation** is absent – typical of Bill, he's so unreliable.

a. We can't start the seminar, because **the student who's giving the presentation is absent** – I'd go and find whoever it is, but no-one can remember, and half the class is absent.

<div align="right">(Lyons 1999: p.172)</div>

Based on UG and the ACP, Ionin, Ko and Wexler formulated the Fluctuation Hypothesis (FH). According to the FH, the two article settings in the ACP are accessible by L2 learners from articleless languages. It is assumed that L2 fluctuation between the two parameter settings occurs until the input is sufficient for the semantic parameter to be set to the appropriate setting for the language.

Ionin, Ko and Wexler conducted a study on English substitutionss by using a forced-choice elicitation task. The L2 learners in their study, native speakers of articleless languages: Korean and Russian, were asked to choose articles based on the context in the given

dialogues. The results showed the learners' overgeneralization of *the* in [-def; +spec] contexts and overuse of *a(n)* in [+def; - spec] contexts. The reported article fluctutations were claimed to support the ACP and the FH.

Trenkic (2008) conducted a semi-replication of Ionin, Ko and Wexler's (2004) study with L1 Chinese speakers. The L2 learners' substitutionss of *the* and a(n) were attested but the substitutionss were not influenced by the specificity feature. The findings were therefore reported to be contradictory to the ACP and the FH. Note that Trenkic (2008) addressed some problems in Ionin, Ko and Wexler's (2004) test materials concerning operationalization of 'specificity' in the materials. This issue is however irrelevant to the present study. What is relevant is these two studies examined L2 English article substitutionss by L1 speakers of articleless languages.

It can be seen that previous research on L2 English article substitutionss tended to look at the English article *production* by L1 speakers from languages not containing articles. These studies attempted to account for L2 English article substitutionss in this case by providing systematic accounts of semantic features. However, what is also worth investigating is whether the L2 learners' article production, i.e. article substitutionss in this case reflect the learners' deficit syntax in their mental representation (according to the FFFH) or whether the learners' mental representation of English articles is intact despite the substitutions in production (in accordance with the MSIH). The point I pick up in this research is to explore whether native speakers of Thai, a language without articles, will exhibit

English article substitutionss in their production and whether the production reflecting their syntactic representation of English articles is target-like or non-target-like grammatically.

VI. Hypotheses

The research set out to test the two opposing hypotheses, i.e. the MSIH and the FFFH on L2 English article substitutions with respect to production and mental representation: H1 (the MSIH): L1 Thai learners exhibit L2 English article substitutionss in their production. The variable production, however, is not in accordance with the learners' mental representation of English articles. Article substitutionss are the result of the L2 learners processing problems in production despite their target-like syntactic representation.

H2 (the FFFH): L1 Thai learners exhibit L2 English article substitutionss in their production. The variable production reflects the learners' deficit syntax of English articles. Article substitutionss are the result of the L2 learners' non-target-like syntactic representation.

VII. Methodology

The tasks used to explore L2 English article substitutions in this study were the Grammaticality Judgment Test (GJT) and the modified forced-choice elicitation task (FET) based on Ionin, Ko and

Wexler (2004). The objective of each task is presented, followed by materials, procedures and participants.

The first task was the GJT. Since the study is concerned with examining L1 Thai learners' mental representation and production, the GJT was employed to check on the former, i.e. the learners' linguistic competence of English articles. According to Ellis (1990), L2 learners' internalized mental knowledge could be drawn out from GJT data. In a similar vein, it is claimed that "the learner's interlanguage representations cannot be accessed directly, but only through her intuitions of grammaticality" (Sorace 1985: 240). Thus, GJT data could reflect L2 learners' underlying syntactic knowledge.

The GJT in this study was composed of 40 items (16 sentences were to test knowledge on English articles and the other 32 acted as distracters). The focused NPs in the 16 tested items were classified into 3 contexts, i.e. [+def], [+spec] contexts, [−def], [+spec] contexts, and [−def], [−spec] contexts. Four items were given for each context type. Two items in each context were on correct usage of the article for that particular context while the other two were on inappropriate usage. All the 40 items were arranged in random order.

Each participant's total number of misjudgments on English article use was combined. The incorrect judgment items were calculated relative to the total number of NP contexts where articles were employed. The incorrect judgments were therefore of two categories, i.e. misjudgment of correct use of an article in an NP context and misjudgment of incorrect use of an article in an NP context as shown in (9a) and (9b), respectively (see Appendix A on the GJT materials).

(9) a. ___ It's windy today and so Jane's wearing a scarf
to work.

b. ___ *Do you see the man standing near a kitchen? He
moved to this town just last week.

The other task was the FET, the objective of which was to investigate the learners' English article production. The FET employed in this study is a modified version of the FET in Ionin, Ko and Wexler (2004). Some problems with the materials in Ionin, Ko and Wexler (2004) were raised in Trenkic (2008). That is, the last part of each dialogue in the materials contained contexts where the speaker claimed or denied knowledge of a person mentioned in the dialogue. It was claimed that L2 learners' article choices could be influenced by the speaker's knowledge or denial of a referent mentioned. In the materials used in the present study, the last part of the dialogue was deleted so that there would not be any counter-argument as to whether L2 learners' article choices were influenced by the point made[3].

The FET was a discrete-item test, consisting of three context types, i.e. [+def], [+spec] contexts, [−def], [+spec] contexts and [−def], [−spec] contexts[4]. There were four items for each context type. Items consisting of each of the three contexts were arranged in a random order. All the NP tokens' variables were kept constant, i.e. all of them were concrete, countable and singular and every NP was in an

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3) As mentioned, the problems of the materials in Ionin, Ko and Wexler are not relevant in this study (See Trenkic 2008 for a detailed discussions of the problem).
4) It is illogical to have [+def], [−spec] contexts.

object position (a direct object or an object of preposition) (see Appendix B on the FET materials).

An example of each context type is shown below.

(10) Context: [+def], [+spec]

Paul: Will Bob join us for lunch?

Sheila: No, he's very busy. He is meeting with (a, the, --) director of his company.

(11) Context: [-def], [+spec] Meeting on a street

Roberta: Hi, William! It's nice to see you again. I didn't know that you were in Boston.

William: I am here for a week. I am visiting (a, the, --) friend from College.

(12) Context: [-def], [-spec]

Chris: I need to find your roommate Jonathan right away.

Clara: He is not here—he went to New York.

Chris: Really? In what part of New York is he staying?

Clara: I don't really know. He is staying with (a, the, --) friend.

The L2 learners in this study were native speakers of Thai. At the time of the experiment, they were first-year students from three faculties at Chulalonkorn University, i.e. Faculty of Commerce and Accountancy, Faculty of Economics and Faculty of Arts. There were two participant groups, i.e. an intermediate group and an advanced

group, 20 participants per group. The proficiency levels of English were determined by the Oxford Placement Test (Allan 2004).

The tasks were administered in a classroom environment. The participants did the GJT first. The participants were informed that they would read 40 sentences and then had to consider if the underlined part in each sentence was correct or not. Time allowance for the GJT was 20 minutes. After all the papers were collected, the participants were given a 10-minute break. Then, they were asked to do the FET. In this task, they were informed that they would read 12 short dialogues. The participants had to decide whether 'a(n)', 'the' or no article should be used based on the context in each dialogue. Time allowance for the test was 10 minutes.

After the tests, the participants were asked to fill in their biographical information, which would be kept confidential and employed for research purposes only.

Besides the two L2 learner groups, a native English control group of 3 participants was included to provide baseline data of English articles. The L1 English-speaking participants were homogenous in terms of age (30s), nationality (American) and educational background (Master of Arts).

As far as the analysis is concerned, in the GJT, each L2 learner group's appropriate/inappropriate judgments of articles were added up. The same procedure was done with article production in the FET. That is, each learner group's correct/incorrect uses of articles were calculated. The statistical method employed was a dependent t-test (i.e. a paired-samples t-test). It was used to determine the significance of

each participant group's grammatical misjudgments in the use of English articles relative to the production.

Ⅷ. Predictions

Based on the hypotheses, the predictions for the GJT and the FET were as follows:

If the assumption of the MSIH is correct and L2 English article substitutionss do not result from non-target-like syntactic representation but from syntax-morphology mapping problems, the following predictions could be made:

(a) The two Thai learner groups would make some misjudgements in the GJT and also produce English article substitutionss in the FET.

(b) The L1 Thai learners' rates of grammatical misjudgement of English articles would be at an inconsistent level with those of English article substitutionss, i.e. lower rates in the misjudgements than the production.

If the assumption of the FFFH is correct and L2 English article substitutionss result from grammatical impair, the following predictions could be made:

(a) The two Thai learner groups would make some misjudgements in the GJT and also produce English article substitutionss in the FET.

(b) The L1 Thai learners' rates of grammatical misjudgement of English articles would be at a consistent level with those of English

article substitutionss, i.e. approximately the same rates in both the misjudgements and the production.

IX. Results and Discussions

Results from the GJT and the FET by the intermediate and the advanced L1 Thai / L2 English learners are shown in Tables 1 and Figure 2, respectively.

	Intermediate group		Advanced group	
	ratio	percentage	ratio	percentage
GJT	172/240	71.67	194/240	80.83
FET	166/240	69.17	198/240	82.50

Table 1: English article judgments and English article choices by the intermediate and the advanced L1 Thai groups from the GJT (n = 20 per group)
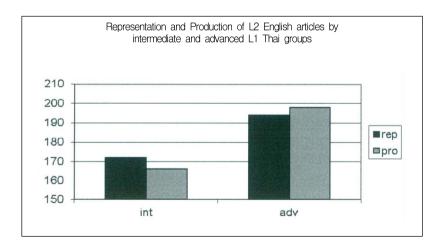

Representation and Production of L2 English articles by intermediate and advanced L1 Thai groups

Figure 1: English article judgments and English article choices by the intermediate and the advanced L1 Thai groups from the GJT (n = 20 per group)

Individual learner proportions of grammaticality judgment scores as well as production scores out of the 12 obligatory contexts for English articles were calculated into percentages. For the intermediate Thai-speaking group, the data showed that both the grammaticality judgment scores and the production scores were at quite low rates and they were all at similar levels, i.e. 71.67% for grammaticality judgment and 69.17% for production.

The data from the advanced learner group showed a similar picture. That is, although the grammaticality judgment scores and the production scores were higher than those in the intermediate group, they were at consistent levels, i.e. 80.83% for grammaticality judgment and 82.50% for production.

As expected, the native control group made both correct judgments and also appropriate English article production in both tasks, i.e. 100%.

The statistical method, a dependent t-test (or a paired-samples t-test) was performed on the L1 Thai-speaking participant groups' grammatical misjudgements in the use of English articles and also English article substitutionss. Results were as follows: On average, the intermediate L1 Thai group received quite low scores on the GJT and the FET. The total score of the intermediate learner group from the GJT (M = 8.60, SE = .17) was higher than that from the FET (M = 8.30, SE = .18). This difference was not significant t(19) = 1.45,

p > .05; however, it did represent a medium-sized effect r = .32.

On average, the advanced L1 Thai group received higher scores on the GJT and the FET, compared with the intermediate group. The total score of the advanced learner group from the FET (M = 9.90, SE = .30) was higher than that from the GJT (M = 9.70, SE = .23l). This difference was not significant t(19) = 1.45, p > .05; however, it did represent a medium-sized effect r = .32.

The findings contradicted the predictions of the MSIH since the misjudgement rates and article substitutions rates in the production task were at non-significant levels. As no statistical difference was found between mental representation and production of English articles by the two L1 Thai groups, Hypothesis 1 (the MSIH) was rejected. If the L1 Thai groups' mental representation of English articles had been intact according to the MSIH, the English article substitutions rates in the FET should have been significantly higher than the misjudgement rates in the GJT.

In light of the experimental evidence, the data did not demonstrate consistent results from the reception and the production tasks. The predictions of the MSIH were therefore contradicted. The MSIH could not explain why the L1 Thai groups exhibited not only article misjudgements but also inappropriate article choices. According to the MSIH, it is assumed that L2 learners' syntactic representation is intact and variable production of functional morphology results from problems of mapping between syntax and morphology. L1 backgrounds are postulated not to have any influence on L2 production. However, in this study, the results from the GJT and the

FET indicated that the L1 Thai learners' syntactic representation of L2 English articles is impaired and their article choices are inappropriate. So, the MSIH cannot be used to account for such results.

The predictions of the FFFH on L2 misjudgements and production of English articles seemed to be borne out by the statistical results that emerged from both tasks. The L1 Thai speakers of both English proficiency levels made grammatical misjudgements of English articles and also English article substitutionss. Although the misjudgement rates and article substitutionss were higher in the intermediate group than the advanced group, they were at significant levels ($p > .05$) in either L2 learner group. As the misjudgements rates of English articles was at a consistent level with English article substitutionss, Hypothesis 2 (the FFFH) was therefore confirmed.

As mentioned, Lyons (1999: 282) assumes that the evidence that a formal marker of definiteness (i.e. the definite article) is existent in a language signals a grammatical representation of the category definiteness in that language. As far as the indefinite article is concerned, it is considered to signal indefiniteness indirectly by the non-existence of the definite article (cf. J. Hawkins 1991; Lyons 1994). Therefore, along the same line, it is postulated that the syntactic category determiner is non-existent in grammars of languages without articles.

In Thai, definiteness is not syntactically categorized in the article system. Identifiability of a referent is generally inferable through available contexts. According to the FFFH, it is assumed that, since

grammatical definiteness (i.e. the category determiner) does not exist in the L1 Thai learners' native language, this functional category is not acquirable by the learners.

The results from the GJT and the FET lent support to the FFFH. A lack of articles could lead to both syntactic deficit representation and syntactically impaired production since the L1 Thai learners were assumed not to possess this grammatical category to be transferred from their L1 into L2 English article production. It could then be assumed that L1 Thai mental representation of this functional category is non-target-like, causing the production of English articles not to be syntactically motivated.

X. Conclusions

As the outcome from the two tasks in the study demonstrated variability in L2 English article substitutionss with respect to both mental representation and production, it could be accounted for in terms of syntactically deficit representation, i.e. the Failed Functional Features Hypothesis. The assumption based on target-like grammatical representation, i.e. the Missing Surface Inflection Hypothesis was thus confounded. For future research, it might be worth investigating L2 English substitutionss from natural production to see if the results go along the same direction as those from elicited production tasks.

Acknowledgments

|References|

Allan, D., *The Oxford Placement Test*. Oxford: Oxford University Press, 2004.

Beck, M., Regular verbs, past tense and frequency: Tracking down a potential source of NS/NNS competence differences. Studies in Second Language Acquisition, 13 , 1997, pp. 93~115.

Bergeron-Matoba, J., Acquisition of the English article system in SLA and the Missing Surface Inflection Hypothesis. The University of Queensland Working Papers in Linguistics, 1, 1997, pp. 1~25.

Ellis, R., Grammaticality judgments and learner variability. In R. Burmeister, & P. Tounds (Eds.), *Variability in second language acquisition: Proceedings of the Tenth Meeting of the Second Language Research Forum*, 1990, pp. 25~60. Eugene, Oregon: University of Oregon, Department of Linguistics.

_____. *The study of second language acquisition*. Oxford: Oxford University Press, 2009.

Eubank, L., & Grace, S. V-to-I and inflection in non-native grammars. In M. Beck (Ed.), *Morphology and its interface in L2 knowledge* 1998, pp. 69~88. Amsterdam: John Benjamins Publishing Company.

Franceschina, F., Morphological or syntactic deficits in near-native speakers?: An assessment of some current proposals. Second Language Research 17, 2001a. pp. 213~47.

_____. Against an L2 morphological deficit as an explanation for the differences between native and non-native grammars. In S. Foster-Cohen & A. Nizegorodcew (Eds.), *EUROSLA yearbook 1*

2001b, pp. 143~58. Amsterdam: John Benjamins Publishing Company.

_____. Case and Φ-feature agreement in advanced L2 Spanish grammars. In S. Foster-Cohen, T. Ruthenburg, & M. Poschen (Eds.), *EUROSLA yearbook 2*, 2002, pp. 71~86. Amsterdam: John Benjamins Publishing Company.

_____. *Fossilized second language grammars: the acquisition of grammatical gender*. Amsterdam: John Benjamins Publishing Company, 2005.

Goodluck, H., *Language acquisition: a linguistic introduction*. Massachusetts: Basil Blackwell Ltd, 1991.

Hawkins, R., Persistent selective fossilization in second language acquisition and the optimal design of the language faculty. Essex Research Reports in Linguistics 48, 2000, pp. 243~63.

_____. *Second language syntax: a generative introduction*. Oxford: Blackwell, 2001.

_____. 'Representational deficit' theories of (adult) SLA: Evidence, counterevidence and implications. Paper presented at the European Second Language Association Conference (EUROSLA), Edinburgh, 2003.

Hawkins, R., & Chan, C., The partial availability of Universal Grammar in second language acquisition: the 'Failed Functional Features Hypothesis.' Second Language Research, 13, 2003, pp. 187~226.

Hawkins, R., & Liszka, S., Locating the source of defective past tense marking in advanced L2 English speakers. In R. Hout, A. Hulk, F. Kuiken, & R. Towell (Eds.), *The lexicon-syntax interface in second*

language acquisition, 2003, pp. 21~44. Amsterdam: John Benjamins Publishing Company.

Hawkins, R., & Franceschina, F., Explaining the acquisition and non-acquisition of determiner-noun gender concord in French and Spanish. In P. Prévost & J. Paradis (Eds.), *The acquisition of French in different contexts: Focus on functional categories*. Amsterdam: John Benjamins Publishing Company, 2004.

Haznedar, B., & Schwartz, B., Are there optional infinitives in child L2 acquisition? In E. Hughes, M. Hughes, & A. Greenhill (Eds.), BUCLD 21: *Proceedings of the Annual Boston University Conference on Language Development,* 1997, pp. 257~68. Somerville, MA: Cascadilla Press.

Herschensohn, J., Missing inflection in second language French: accidental infinitives and other verbal deficits. Second Language Research, 17, 2001, pp. 273~305.

Herschensohn, J., & Stevenson, J., Failed features or missing inflection?: Child L2 acquisition of Spanish morphology. In B. Beachley, A. Brown, & F. Conlin (Eds.), *BUCLD 27: Proceedings of the Annual Boston University Conference on Language Development* (2003), (pp. 299~310). Somerville, MA: Cascadilla Press.

Ionin, T., & Wexler, K., Why is 'is' easier than '-s'?: Acquisition of tense/ agreement morphology by child second language learners of English. Second Language Research,18 (2002), pp. 95~136.

Iwasaki, S., & Ingkaphirom, P., *A reference grammar of Thai. Cambridge.* Cambridge University Press, 2005.

Jiang, N., Morphological insensitivity in second language processing.

Applied Psycholinguistics, 25 (2004), pp. 603~34.

Lardiere, D., Case and tense in the 'fossilized' steady state. Second Language Research, 14 (1998a), pp. 1~26.

_____. Dissociating syntax from morphology in a divergent end-state grammar. Second Language Research 14 (1998b), pp. 359~75.

_____. Mapping features to forms in second language acquisition. In J. Archibald (Ed.), *Second language acquisition and linguistic theory* (2000), (pp. 102~29). Oxford: Blackwell.

Lardiere, D., & Schwartz, B., Feature-marking in the L2 development of deverbal compounds. Journal of Linguistics, 33 (1997), pp. 329~53.

Larsen-Freeman, D., & Long, M., *An introduction to second language acquisition research*. London: Longman, 1991.

Lekawatana, P., Littell J., Palmer, J., Scovel, T., & Spenser, S., *A contrastive study of English and Thai*. Ann Arbor: The University of Michigan, 1968.

Liszka, S., The development of tense and the present perfect in second language English. PhD. Thesis, University of Essex, Essex, 2002.

Pankhuenkhat, R., *Phasasatphasathai [Thai linguistics]*. Bangkok: Mahachulalongkorn University, 1998.

Panthumetha, N., *Waiyakornthai [Thai grammar]*. Bangkok: Rungruengsarn Publishing House, 1982.

Prévost, P., & White, L., Finiteness and variability in SLA: More evidence for missing surface inflection. In A. Greenhill, H. Littlefield, & C. Tano (Eds.), *BUCLD 23: Proceedings of the Annual Boston University Conference on Language Development* (1999), (pp. 575-86). Somerville, MA: Cascadilla Press.

_____. Missing surface inflection or impairment in second language acquisition? : Evidence from tense and agreement. Second Language Research, 16 (2000), pp. 103~33.

Pinker, S., *Learnability and cognition: the acquisition of argument structure*. Cambridge, MA: MIT Press, 1989.

Radford, A., *Minimalist syntax: Exploring the structure of English*. Cambridge: Cambridge University Press, 2004.

Rutherford, W., Interlanguage and pragmatic word order. In S. Gass & J. Schachter (Eds.), *Linguistic perspectives on second language acquisition* (1989), (pp. 163~182). Cambridge: Cambridge University Press.

Slabakova, R., Semantic evidence for functional categories in interlanguage grammars. Second Language Research, 19 (2003), pp.42~75.

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

Sorace, A., Missing surface inflection or impairment in second language. Syntactic optionality in non-native grammars. Second Language Research, 16 (2000), pp. 93~102.

Sundquist, J., The mapping problem and missing surface inflection in Turkish-German interlanguage. In L. Dekydtspotter et al (Eds.), *Proceedings of the 7th Generatice Approaches to Second Language Acquisition Conference (GASLA 2005)* (2005), (pp. 238~250). Somerville, MA: Cascadilla Proceedings Project.

Thonglor, K., *Lakphasathai [Principles of Thai]*. Bangkok: Amornkarnpim, 2004.

Trenkic, D. & Pongpairoj, N., Referent salience affects second language

article use. *Bilingualism: Language and Cognition* 16 (1) (2013), pp.152~166. Cambridge: Cambridge University.

Tsimpli, I., & Roussou, A., Parameter-resetting in L2? UCL Working Papers in Linguistics, 3 (1991), pp. 149~70.

Tsimpli, I., & Stavrakaki, S., The effects of a morphosyntactic deficit in the determiner system: The case of a Greek SLI child. Lingua, 108 (1999), pp. 31~85.

Warotamasikkhadit, U., *Thai syntax: an outline*. The Hague: Mouton 1972.

White, L., Fossilization in steady state L2 grammars: implications of persistent problems with inflectional morphology. Bilingualism: Language and Cognition, 6 (2003), pp. 129~41.

White, L., Valenzuela, E., Kozlowska-Macgregor, M., & Leung, Y., Gender and number agreement in nonnative Spanish. Applied Psycholinguistics, 25 (2004), pp. 105~33.

<Abstract>

L2 Production and Mental Representation: A Case of L2 English Article Substitutionss by L1 Thai Learners

Nattama Pongpairoj

The paper explores L2 production and syntactic representation of English articles by an advanced group of native Thais. Most research in L2 acquisition tends to focus only on learners' production and makes assumptions about the causes of variability in production. The study seeks to look into L1 Thai speakers' mental representation of English articles to see if article substitutions stem from non-target-like syntactic representation. The data are obtained from a forced-choice elicitation task and a grammaticality judgment test. Based on the Failed Functional Features Hypothesis (FFFH) (Hawkins and Chan 1997), it is assumed that L2 functional parameters not instantiated in the L1 are unattainable by native speakers. The predictions of the FFFH on L2 English article choice are borne out by the data from the two tasks. The statistical results from a dependent t-test indicate that L1 Thais' English article substitutions are on a par with their grammatical deficit in their representation (>.05). In line with the FFFH, it is postulated that a lack of the

article system in L1 Thai makes this functional parameter unresettable for the learners. As the variable production is a reflection of the non-existence of articles in the learners' representation, the results confound the Missing Surface Inflection Hypothesis (MSIH) (Prévost and White 1999), which assumes that variability in production is caused by syntax-morphology mapping problems. The results contribute to the debate on causes of variable production in that investigations of both L2 learners' production and their syntactic representation should be made in order to arrive at more convincing causes of the problems.