SYSTEMATICITY OF L1 THAI LEARNERS' ENGLISH INTERLANGUAGE OF DEPENDENT PREPOSITIONS

Piyaboot Sumonsriworakun
Nattama Pongpairoj
Chulalongkorn University
kunkusiaclub@hotmail.com, pnattama@gmail.com

Abstract

The study investigates systematicity in English interlanguage of dependent prepositions among L1 Thai learners of L2 English. It is hypothesized that Thai learners show non-random use of English dependent prepositions in their English interlanguage, and that the systematicity is largely attributable to cross-linguistic influence and certain cognitive factors. To test the hypothesis, 30 L1 Thai undergraduate students of L2 English at elementary, intermediate, and advanced proficiency levels took two tests: a Thai–English translation test and a cloze test. The tests involved four types of relationship between English and Thai dependent prepositions: (1) [–prep] in English but [+prep] in Thai, (2) [+prep] in English but [–prep] in Thai, (3) [+prep$_1$] in English but [+prep$_2$] in Thai, and (4) [+prep] in English and [+prep] in Thai. The findings demonstrate that systematicity occurred in the learners' English usage of prepositions of all such types, possibly due to negative transfer from the learners' native language. Also, the L2 learners tended to exhibit such systematicity irrespective of their English proficiency level. It may be assumed that the cognitive aspect of L2 learners' working memory is involved in processing the usage of the four types of English dependent prepositions. The results of the study are expected to shed light on the problems of L2 English interlanguage of dependent prepositions among L1 Thai learners.

Keywords: systematicity; interlanguage; English dependent prepositions; L1 Thai learners

English prepositional usage after verbs is highly problematic for second language (L2) learners from a variety of first language (L1) backgrounds (Catalán**,** 1996; Asma, 2010; Mahmoodzadeh, 2012; Chang, 2012; Humeid, 2013). This problem also occurs among L1 Thai learners of English (Lekawatana et al., 1969; Khampang, 1974; Pongpairoj, 2002; Humphries & Phoocharoensil, 2011). This may be due to differences in prepositional usage after verbs in English and Thai (Pongpairoj, 2002). However, there has never been any research on English interlanguage (IL) (Selinker, 1972) of dependent prepositions, a type of preposition which generally follows some verbs among L1 Thai learners of English. This study, therefore, fills in the gap by exploring English IL and systematicity of prepositional usage after verbs among L1 Thai learners of English with the goal of identifying possible causes of the problems. The results and implications of the study will contribute to research in the field of Second Language Acquisition (SLA).

The aims of the study are as follows: (1) to examine whether systematicity in Thai students' IL of English dependent prepositions exists, (2) to characterize systematicity among L1 Thai students' use of L2 English dependent prepositions, and (3) to identify possible influences on systematicity among L1 Thai students' IL of L2 English dependent prepositions.

Language transfer

Language transfer (also known as cross-linguistic influence), usually refers to the influence which the learner's L1 exercises over L2A. As Odlin (1989, p. 27) puts it, "Transfer is the influence resulting from similarities and differences between the target language and any other language that has been previously (perhaps imperfectly) acquired." In cases where the L1 and the L2 have identical patterns, "positive transfer" may arise. In other words, learners may apply knowledge from the L1 to facilitate L2 learning. On the other hand, in cases where the L1 differs from the L2, the difference may bring about "negative transfer" or "interference" (Weinreich, 1953). That is, learners may commit errors since properties of their L1 are negatively, or interferingly, transferred to L2A. Thus, the L1 can both help and hinder L2A.

In terms of the direction of linguistic influence, language transfer can typically be divided into two types: "borrowing transfer" and "substratum transfer" (Odlin, 1989). The former describes the phenomenon where the L2 has an impact on the L1, whereas the latter describes the reverse situation, where the L1 affects the L2. "Substratum transfer" is of particular interest in L2A.

Language transfer is a cornerstone of the contrastive analysis (CA). This method is employed to predict when negative transfer from the L1 will take place in L2A.

Contrastive analysis

CA is a linguistic approach to the study of L2A which involves a comparison between the L1 and the L2 (James, 1980). The contrastive analysis hypothesis (CAH) proposes that identical structures or systems between the L1 and the L2 will allow the L2 learner to acquire the L2 easily (Lado, 1957). Also, this hypothesis predicts that different structures or systems between the L1 and the L2 will impede the learner's L2A (Lado, 1957). This impediment tends to cause errors in L2A primarily due to interference from the L1.

As the interference of the learner's L1 with L2A becomes a great difficulty for the L2 learner, this difficulty is claimed to be predicted by CA. As Lado (1957) puts it, patterns that will and will not cause difficulty in learning can be predicted and described. CA's predictive ability caused it to become popular with a large number of linguists and language teachers during the 1940s and 1950s. This is because CA was principally being used for pedagogical reasons; that is, CA served to enhance the effectiveness of L2 teaching (James, 1980).

The CAH was founded on behaviorism and structuralism theories highly central to linguistics and psychology in the US in the 1940s and 1950s. Behaviorism maintains that the learner acquires a language through a stimulus–response process. To acquire an L2, the learner receives input, or stimulus to which she habitually responds. Structuralism deals with a comparison of L1 and L2 structures, which leads to the identification of contrastive structures between the L1 and the L2. These structures are predicted to be difficult for the L2 learner and are consequently taught to prevent the learner errors.

Wardhaugh (1970) classified two versions of CA: strong and weak. The strong version holds the predictive might of CA. In contrast, the weak version is concerned with the power of CA in error diagnosis (Wardhaugh, 1970). That is, CA is adopted to explain learner errors evidenced by real data and to analyze the causes of problems. This version is favored by Wardhaugh (1970) since what is analyzed by the weak version is primarily based on errors by L2 learners which the teacher has actually found.

While some linguists advocate the CAH, others do not. The opposition argues that evidence in favor of the CAH draws excessive attention to interference. They assume that, aside from interference, there are other causes of learner errors. Additionally, certain errors predicted by CA do not actually emerge. These weaknesses of CA have led to another linguistic approach: error analysis (EA).

Error analysis

As CA is inadequate to explain all likely causes of L2 learners' errors, the approach was supplanted by EA in the late 1960s. EA assumes that errors may be induced by several other factors in addition to the L1 interference predicted by CA. EA is more realistic than CA in that, rather than predicting errors, it identifies and analyzes the learner errors which actually arise.

In order to identify instances of a learner's linguistic production as errors, it is necessary to distinguish between mistakes and errors. *Mistakes* refer to performance errors, for example, "memory lapses," "tiredness," "slips of the tongue," etc. (Corder, 1981: 168). They do not really reflect a learner's actual competence. Mistakes occur randomly in the normal speech or writing of both L1 and L2 users, and they cannot, therefore, be said to be caused by a lack of competence. *Errors,* in contrast, are deviant items indicative of the current state of the learner's L2 system, which is still in the process of development. Errors are deemed to be systematic because they generally mirror the learner's 'transitional competence' (Corder, 1981: 168).

According to EA, there are two sources of errors: interlingual transfer and intralingual transfer. Interlingual transfer deals with interference from the L1, while intralingual transfer concerns the difficulty of learning L2 rules and illustrates the learner's strategies for learning the rules, which include "overgeneralization," "ignorance of rules," "incomplete applications of rules," and "false concepts hypothesized" (Richards, 1975: 174).

The first source of intralingual errors is overgeneralization, which refers to the overuse of previously known L2 structures in a new environment (Richards, 1975: 174). In other words, the L2 learner uses one deviant rule for two particular structures (Richards, 1975). Overgeneralization implies that the learner knows linguistic rules but simplifies them for unnecessary reasons. For instance, the learner might tend to omit the third-person singular inflectional morpheme -s with the third-person singular subject. This might be due to the morpheme's lack of lexical meaning and to the strong influence of the absence of the morpheme -s with most subjects in English, such as *swim* in **He/She/It **swim** every day.*

Another source of intralingual errors is "ignorance of rule restrictions" (Richards, 1975: 175). It is strikingly different from overgeneralization in that the latter occurs when the learner knows the rule, but applies it in contexts where it should not be imposed, whereas ignorance of rule restrictions is due to the fact that the L2 learner does not know linguistic rules or fails to follow rule restrictions. Put simply, the learner applies rules in inappropriate contexts (Richards, 1975) because she/he seeks to draw an analogy to what she/he has previously

known. For example, the learner might use **My mom **let** me **to walk** my dog* because she equates usage of the verb <u>let</u> to that of *allow, permit*, and *authorize.*

The third source of intralingual errors is "incomplete application of rules" (Richards, 1975: 177). In committing this, the learner may not internalize complete linguistic rules in her developmental stage and may, therefore, apply them partially and incorrectly. Put another way, the learner fails to apply a redundant structure in the L2 because she/he assigns top priority to meaning and fluency in communication, not to correct grammatical usage. For example, the learner may not produce verbs with the simple past tense morpheme -ed in obligatory past contexts where past tense adverbs co-occur, e.g., **I buy a new car last Sunday*.

The final source of intralingual errors is "false concepts hypothesized" (Richards, 1975: 178). This source of error involves learner misapprehension of L2 grammatical rules. The learner knows the rules but does not understand them. For instance, the ungrammatical sentence **one day it **was** happened* suggests that the learner has falsely hypothesized that <u>was</u> is a past tense marker (Richards, 1975: 178).

Despite the fact that EA is realistic and practical, many researchers have pointed out shortcomings. Firstly, EA fails to provide a comprehensive picture of learners' language. That is, it pays too much attention to learners' errors without taking into account what learners do appropriately. Secondly, EA, by taking only errors into account, cannot examine avoidance, a phenomenon where a learner finds a particular L2 structure difficult and complicated and so, in order to avoid errors, rarely uses that structure (cf. Dušková, 1969; Schachter, 1974; Kleinmann, 1977). The final weakness of EA is that, contrary to its claim, it does not typically reveal learners' developmental knowledge of L2A. This is because errors are often identified and collected at a single point of learner acquisition.

Interlanguage

IL, a term coined by Selinker in the 1970s, refers to a learner's mental grammar as it is being developed toward the L2. Selinker (1972) claims that IL is systematic in that it is primarily governed by rules established in the learner's internal grammar at a particular period of time. The learner's rules deviate more or less from both the learner's L1 and her L2. Although IL is systematic, it is assumed to be variable as it is continually changing in diverse contexts until it becomes "fossilized," or steady. In other words, learners' mental grammars change over time as they go through a developmental stage of L2A.

Selinker (1972) identifies five cognitive processes of IL construction. The first process is language transfer, which occurs when some rules of a learner's L1 are transferred to the IL. Secondly, the process of transfer of training refers to instruction, giving rise to some IL grammars. The third process is L2 learning strategies, which the learner applies to L2 learning materials. Put another way, a learner uses a number of learning strategies to develop her IL. Fourthly, L2 communication strategies are approaches the learner adopts to communicate with native speakers of the L2. The last process is overgeneralization of target language material. That is, some IL rules are used in inapplicable contexts.

IL is highly intriguing for the study of L2A because it is the first attempt to understand the learner's language system. Rather than paying attention solely to whether or not learners are making errors, IL is interested in the source of a learner's linguistic system, in the development and fossilization of learner rules, and in the influence of instruction on each developmental stage (Macaro, 2013).

Previous studies on L2A of English prepositions

A great deal of research on prepositions in L2A from various L1 backgrounds has been conducted. Catalán (1996) investigated errors and their variable patterns of English prepositional usage through descriptive essays written by Spanish students of English in three secondary schools. The results revealed that English prepositions were problematic for the subjects. Furthermore, it has been found that there was a high percentage of relative frequency of prepositional errors and their systematic occurrences in the three schools, at 11.58%.

Koosha & Jakapour (2006) studied the effect of data-driven learning (DDL) on the teaching and learning of prepositional collocations among Iranian EFL learners. In the study, the subjects were 200 fourth-year English major students at three universities in Shahrekord who took a Michigan Test of English Language Proficiency and were randomly divided into two groups: one assigned a conventional treatment of prepositional collocations and the other taking the DDL approach to the same subject matter. The results suggested that DDL was very effective in the teaching and learning of prepositional collocations and that learner performance on prepositional collocations generally corresponded with their proficiency levels. Moreover, the analysis of errors in collocations suggested that Iranian EFL learners were assumed to transfer L1 collocational patterns to their L2 counterparts.

Asma (2010) studied transfer of simple prepositions[1] from Standard Arabic into English by 30 Algerian EFL learners. The Algerian EFL learners did a cloze test on spatial and temporal

prepositions. The results suggested that when the participants supplied English prepositions, they transferred not from Standard Arabic but from French and Algerian Arabic.

Mahmoodzadeh (2012) conducted contrastive research on prepositional errors committed by 53 Iranian EFL learners at the intermediate level on account of cross-linguistic influence between their L1 Persian and L2 English. A translation task from Persian to English was undertaken to elicit data. The results demonstrated that errors involving the use of incorrect English prepositions and the addition of unnecessary English prepositions were identified more readily than errors involving the omission of English prepositions.

Chang (2012) examined the problems L1 Mandarin Chinese learners of English had with English spatial prepositions. In the study, the Test of Spatial Relations (TSR) containing 60 multiple-choice test items was administered to 73 Chinese learners of English. The results showed that the subjects experienced difficulty with the following prepositions representing verticality: *above, at, below, in, on, over,* and *under,* mostly when they expressed figurative meanings. Also, semantic relationships for spatial prepositions in English and Mandarin Chinese were compared and contrasted using a corpus. The relationships were found to be quite different. Lastly, the relationships between test items and the semantic relationships were analyzed. The findings indicated that similarities in the relationships aided L2 learning, whereas differences in the relationships tended to pose problems for Mandarin Chinese learners of English.

Humeid (2013) examined errors in compound prepositions[2] produced by 100 Iraqi EFL third-year university students. The results showed that most of the subjects did not recognize or use the prepositions because they did not understand the meaning or usage of such prepositions. The students' errors were assumed to be greatly affected by interlingual transfer, intralingual transfer, context of learning, and communication strategies (Humeid, 2013).

Schneider & Zipp (2013) examined new verb–preposition combinations in four corpora of English varieties: International Corpus of English (ICE) Fiji, ICE India, ICE Great Britain, and ICE New Zealand. They also compared two approaches to the study: a manual approach and a semi-automated approach. The manual approach involved a surface search for prepositions followed by a careful manual filtering process. The semi-automated approach was a corpus-driven approach employing parsed corpora and identifying variation-specific prepositional collocations. The strength of the manual search was its high degree of precision; the weakness, its consumption of time and incomplete recall. The merit of the semi-automated approach was its speed and its being corpus-driven, which could boost recall; the downside was its high error rate, which caused imprecision. The results indicated that both approaches worked and complemented each other.

Karlsson (2014) examined advanced students' L1 and L2 productive knowledge of prepositions in both free combinations and combinations of verbs and particles called multi-word verbs. Fifteen Swedish first-semester university students were asked to provide 100 prepositions accompanying nouns and verbs in given contexts in Swedish (L1) and English (L2), 40 of which were employed in free combinations of noun or verb plus preposition, e.g., *an increase in,* and 60 of which made up multi-word verbs such as *get down to*. Results from an English native speaker served as reference. The findings indicated that, although the Swedish subjects yielded results in their L1 as promising as the English native speaker, they exhibited poor knowledge in L2. Furthermore, the results revealed that, while particles in L2 multi-word combinations seemed to be stored as units alongside the prepositional verbs, this was not applied to prepositions used in free combinations, where knowledge of the definition of the previous noun or verb frequently produced hesitation over what preposition to opt for.

Wong (2014) studied the semantic roles involved in choosing prepositions that often co-occurred with five verbs in Hong Kong English (that is, *enter **into**, discuss **about**, return **back**, stress **on**,* and *list **out**)* within the theoretical framework of cognitive grammar. It was found that the co-occurrence of the prepositions with the verbs in Hong Kong English was not purely random but was, in fact, semantically motivated. This was evidenced by the concordance lines for such verb–preposition constructions in the ICE Hong Kong, which illustrated some semantic links between the verb and the preposition. Furthermore, some aspects of the verb's conceptual meaning were closely related to an "active zone"[3] of the selected preposition. This implied that the five verb–preposition combinations as a unit deeply entrenched in non-native speakers of English represented a semantic schema.

Research has also been conducted on English prepositions produced by L1 Thai learners of L2 English. Khampang (1974) compared difficulties of L1 Thai learners of English in acquiring certain English spatial and temporal prepositions, e.g., *in, on, at, from,* under the investigation of CA and EA. The 169 subjects of the study were divided into four groups according to their nationalities: Thai, Japanese, Spanish, and others. They were asked to carry out a translation task. The results showed no significant difference in total scores among the four groups of learners. This means that all four groups generally encountered problems with English prepositional usage. The results also supported CA as being useful in contrasting the English and Thai prepositional systems and in predicting difficulties

learners would encounter, and EA as for illustrating the difficulties learners face in mastering English prepositional usage.

Pongpairoj (2002) examined three types of errors: syntactic errors, morphological errors, and errors in word usage. Data were collected through paragraphs written by Thai first-year university students of English. It was found that errors in word usage ranked first, at 41.14% of the total. This type of error comprised errors in articles, prepositions, tense, and number. Prepositional errors, making up 28.10% of all errors in word usage, were the second most frequent errors, accounting for 52.46% of errors in word usage. Pongpairoj classified prepositional errors into two categories: errors deriving from a semantic concept in the selection of a preposition and errors stemming from a semantic concept of construction. The first type of error arose from different traditionalized concepts in English and Thai, e.g., *There are birds **in** the sky* vs. /mi: nók *bon* thɔ̌:ŋ-fá:/ 'have bird on sky' (Pongpairoj, 2002: 91). The second type of error came about due to a difference in construction between the two languages. For example, some English constructions did not need a preposition where the Thai constructions required one, e.g. **I phoned **to** my parents once a week.* (Pongpairoj, 2002: 92). Both types of error in prepositions occurred with roughly the same frequency, i.e., 50%.

Humphries & Phoocharoensil (2011) investigated how three English complex prepositions[4], *according to, because of,* and *due to*, were employed in the subjects' writing. The participants were 120 Thai second-year university students. Data were collected via 666 pieces of writing from English writing courses. Additionally, questionnaires and interviews were employed to provide greater insight into student acquisition and usage of the complex prepositions. The results suggested that both cross-linguistic influence and earlier instruction played a crucial role in forming deviant usages of the complex prepositions.

Ruangjaroon (2015) used perceptual assimilation model (PAM)[5] to explain Thai learners' acquisition of English prepositions and ranked acquisition of English prepositions into three groups. Group A, which contained a semantic relation between English and Thai prepositions, such as *in* in English and [nai] in Thai, ranked first, indicating that it was the easiest type of preposition to acquire. Group B, involving a one-to-many semantic relation between English and Thai prepositions, e.g., *on* in English was related to [bon], [naj], or [tʰî:] in Thai, ranked second due to its acquisition involving greater difficulty than the acquisition of Group A. Group C dealt with a one-to-none relation between English and Thai prepositions; for instance, English *for* sometimes has no Thai equivalent, as in *We are famous **for** Thai food.* This group ranked lowest since a

preposition that occurred in one language was not available in the other language. The participants in the study were 20 MA students, seven of whom were assessed at a low English proficiency level and 13 of which at a medium level by the Language and Instructor System (ELLIS). Two tests were administered: a grammatical judgment test and a writing test. The findings were in line with the ranking order posited above, suggesting that Thai learners of English could recognize and use dependent prepositions more precisely than independent ones.

The present study differs from the previous research in that it investigates four categories of English dependent prepositions that are assumed to be problematic for L1 Thai learners of English in an attempt to pinpoint possible causes of the students' problems with such prepositions. Furthermore, the study seeks to find systematicity in the IL of English dependent prepositions among L1 Thai learners of English. Since IL—intermediate stages of a learner language as it proceeds toward the target L2—is claimed to be systematic, it is of interest to see if the claim can be verified in the case of L1 Thai student use of English dependent prepositions. Last but not least, this study seeks to discover how systematicity in the use of English dependent prepositions is similar or different among elementary, intermediate and advanced L1 Thai learners.

Dependent prepositions in English and Thai

Dependent preposition refers to prepositions which typically follow certain verbs (Hall and Foley, 2003). Sometimes English requires dependent prepositions where no preposition follows the verbs of equivalent meaning in Thai. In English, for example, the verb *wait* is commonly followed by the preposition *for,* while in Thai, /rɔ:/ 'wait' usually does not co-occur with any preposition. The reverse scenario can also be found. For instance, English *marry* generally is not followed by a preposition, but Thai, /tὲŋ-ŋa:n/ 'marry' is regularly followed by the preposition /kàp/ 'with'. Additionally, English may demand one preposition after a verb, where Thai requires a different preposition. For example, the verb <u>depend</u> in English takes the preposition <u>on</u>, while Thai, /khɯ̂n-yù:/ 'depend' requires the preposition /kàp/ 'with'. Lastly, some English verbs take the same dependent preposition construction as their Thai equivalents, such as *with* in *agree with,* matching the /kàp/ 'with'in /hên- dûaj kàp/ 'agree with'.

METHOD

This section describes the subjects of the study; present the testing instruments, including the translation test and the cloze test; and outlines the procedures used in administering the tests to the participants.

Subjects

The method of subject sampling was based on the subjects' English proficiency level. The standardized test employed was the Oxford Placement Test 1 (Allan, 2004). The subjects of the present study were 30 Thai learners of English divided into three equal groups based on their English proficiency: elementary, intermediate, and advanced. They were undergraduate students at Chulalongkorn University, comprising 4 males and 26 females. They had a median age of 19.37 years and had been studying English for an average of 14.37 years. Three of them had stayed in an English-speaking country, ranging from three weeks to two months, and one of them had been in the UK for 5.5 years (See Biographical Data of the Participants in Appendix A).

Instruments

Two tests were used in the study: a translation test and a cloze test. The reason for this was that they both aimed at the learners' production of English dependent prepositions. The former was a Thai–English translation test, totaling 18 items, half of which were distractors. As for the eight test items, two items served to elicit each type of dependent preposition. Regarding the latter test, it was in the form of a gap-fill cloze test containing 21 test items, eight of which were test items and nine of which were distractors. The test items in this test represented an equal number of each type of dependent preposition (See the tests in Appendix B).

The two tests employed in the research therefore contained a total of 39 items, 16 of which were test items and 23 of which were distractors. The test items produced a total of 16 scores per participant.

The testing instrument involved four types of relationship between English and Thai dependent prepositions. The first type consisted of the absence of a dependent preposition in English matched with the presence of one in Thai, e.g., *marry* vs. /tɛ̀ŋ-ŋa:n **kàp**/ 'marry **with**'. In the second, a dependent preposition in English corresponded to the absence of one in Thai, e.g. *wait **for*** vs. /rɔ:/ 'wait'. The third type involved dependent prepositions in English and Thai that were not equivalents in English and Thai, e.g., *occur **to*** vs. /kɤ̀:t-khɯ̂n **kàp**/ 'occur **with**'. Finally, some English dependent prepositions have the same construction as their Thai equivalents, such as *differ from* vs. /tɛ:k-tà:ŋ *cà:k*/ 'differ **from**'. The four types of preposition relationships used in the study are displayed in Table 1.

Table 1: Four types of English and Thai dependent preposition relationships used in the study.

| Type 1 | | Type 2 | |
Eng: –prep	Th: +prep	Eng: +prep	Th: –prep
marry	/tɛ̀ŋ-ŋa:n **kàp**/ 'marry **with**'	wait **for**	/rɔ:/ 'wait'
leave	/ɔ̀:k **cà:k**/ 'leave **from**'	apply **for**	/sa:-màk/ 'apply'
match	/khâu **kàp**/ 'match **with**'	focus **on**	/nén/ 'focus'
treat	/pà-ti-bàt *tɔ̀:*/ 'treat **to**'	search **for**	/hǎ:/ 'search'

| Type 3 | | Type 4 | |
Eng: +prep₁	Th: +prep₂	Eng: +prep	Th: +prep
depend **on**	/khɯ̂n-yù: **kàp**/ 'depend **with**'	differ **from**	/tɛ:k-tà:ŋ **cà:k**/ 'differ **from**'
occur **to**	/kɤ̀:t-khɯ̂n **kàp**/ 'occur **with**'	agree **with**	/hên-dûaj **kàp**/ 'agree **with**'
die **of/from**	/ta:j **dûaj**/ 'die **by**'	succeed **in**	/prâ-sob-**kwa:m**-sǎm-rēd naj/ 'succeed **in**'
concentrate **on**	/còt-cɔ̀(-yù:) **kàp**/ 'concentrate **with**'	refer **to**	/ʔa:ŋ **tʰ ɯŋ**/ refer **to**

The verbs selected for the study were considered appropriate for learners of all proficiency levels represented in the study because they commonly appear in the 10th to 12th-grade English language textbooks the students were likely to use: (cf. Broukal, 2009; Santos, 2013; Evans & Dooley, 2013; Bideleux et al., 2013). The other book the verbs were taken from served as an upper-intermediate coursebook (Tilbury et al., 2011) for first-year students at Chulalongkorn University

Bangkok, Thailand, during academic years 2012 to 2015.

Procedures
Before the experiment began, the students were informed of the directions for the two tests. After that, they were given a total of 40 minutes to complete the pair of them, with one taking about 20 minutes. The learners took approximately 30 minutes total on average to complete the tests. Scores were assigned by allocating one mark for each correct answer.

FINDINGS AND DISCUSSION
As mentioned previously, the translation test and the cloze test each contained 16 marks, and there were three learner proficiency groups each comprising 10 participants. The total marks were, therefore, 160 for each learner group.

In terms of proficiency level groups of learners, the elementary group of learners obtained 107 marks, or 66.88%. The intermediate group got 118 marks, or 73.75%, and the advanced group received 145 marks, or 90.63%. The results are summarized in Table 2.

Table 2: Scores and percentages of correct dependent preposition usage among the three learner groups

Learner group	Score	Percentage
Elementary	107/160	66.88%
Intermediate	118/160	73.75%
Advanced	145/160	90.63%

Overall, subjects at higher proficiency levels scored better on each type of dependent preposition relationship. That is, in the fourth type of dependent preposition relationship, i.e., [+prep] in English and [+prep] in Thai, the elementary learners scored 20%, the intermediate learners 21.88%, and the advanced learners 24.38%. In the first type of dependent preposition relationship, i.e., [–prep] in English, but [+prep] in Thai, the elementary learners' scores were at 25%, the intermediate learners' at 26.67%, and the advanced learners' at 31.67%. Each group scored second highest on the second type of dependent preposition relationship [+prep] in English but [–prep] in Thai. That is, the elementary students' scores accounted for 14.17% of the total, the intermediate students' for 18.33%, and the advanced students' for 28.33%. As for the third type of dependent preposition relationship, i.e., [+prep$_1$] in English, but [+prep$_2$] in Thai, the elementary learners' scores stood at 23.33%, and the intermediate learners' at 24.17%. The advanced learners' scores amounted to 28.33%, the same percentage as their score for the second type. These results are shown in Figure 1.
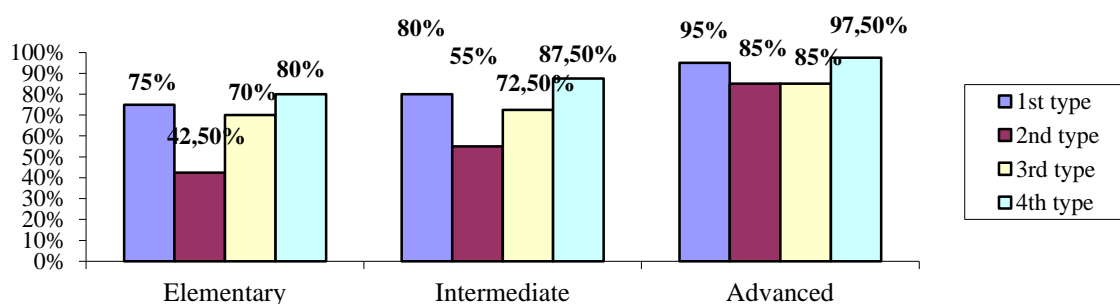

Figure 1: Percentages of correct usage of dependent prepositions among the three learner groups

With regard to the elementary learner group, the learners received 32 marks for the fourth type of dependent preposition relationship, or 80%. This was the type where they scored the highest. This learner group obtained 30 marks for the first type of dependent preposition relationship, equaling 75%. These learners earned 28 marks, or 70%, for the third type. This seems slightly different from the first type. Conversely, they achieved only 17 out of 40, or 42.50%, their lowest score, for the second type. This is a substantial decrease of 37.50% from the percentage of the fourth type. These results are presented in Table 3.

In the intermediate learner group, the learners scored 35, or 87.50% for the fourth type of dependent preposition relationship. This was the type where they achieved their highest marks. Second came the first type of dependent preposition relationship, where the learner group received 32 marks, equaling 80%. These learners obtained 29 marks, or 72.50%, for the third type. This type ranked below both the fourth type and the first type.

Table 3: Scores and percentages for correct usage of dependent prepositions in the elementary learner group

Type	English	Thai	Score	Percentage
1	[–prep]	[+prep]	30/40	75%
2	[+prep]	[–prep]	17/40	42.50%
3	[+prep$_1$]	[+prep$_2$]	28/40	70%
4	[+prep]	[+prep]	32/40	80%

On the other hand, these learners scored 22 out of 40, or 55% for the second type, which dropped by 32.50% from the percentage for the fourth type. It is worth noticing that the results for the intermediate learner group follow the same pattern as those from the elementary learner group. These results are displayed in Table 4.

Table 4: Scores and percentage for correct usage of dependent prepositions in the intermediate learner group

Type	English	Thai	Score	Percentage
1	[–prep]	[+prep]	32/40	80%
2	[+prep]	[–prep]	22/40	55%
3	[+prep$_1$]	[+prep$_2$]	29/40	72.50%
4	[+prep]	[+prep]	35/40	87.50%

The advanced learner group obtained 39 marks for the fourth type of dependent preposition relationship, equaling 97.50%. This is the type where they did best, similarly to learners in the other two groups. Next came the first type of dependent preposition relationship, where this learner group scored 38 out of 40, amounting to 95%. They attained 34 marks each, or 85%, for both the second and the third type. This was a slight fall from their percentage for the fourth type. These results are given in Table 5.

Table 5: Scores and percentages for correct usage of dependent prepositions in the advanced learner group

Type	English	Thai	Score	Percentage
1	[–prep]	[+prep]	38/40	95%
2	[+prep]	[–prep]	34/40	85%
3	[+prep$_1$]	[+prep$_2$]	34/40	85%
4	[+prep]	[+prep]	39/40	97.50%

From the results, it can be observed that L2 systematicity in the use of dependent prepositions tends to occur among the subjects. Firstly, the fourth type of dependent preposition relationship was the type where subjects at all proficiency levels scored the highest. Secondly, the third type of dependent preposition relationship, which ranked immediately below the first type, was the type where the three learner groups' scores were not far removed from each other. Thirdly, the second type of dependent preposition relationship was the type where the learners' scores were farthest below their scores for the first and the third types. It is, however, worth noting that, the advanced learners' score for the second type of dependent preposition relationship was at the same level as it was for in the third type, i.e., 85%.

The results of this study show that the total scores for correct usage of English dependent prepositions increased in accordance with the subjects' proficiency levels and that the scores for dependent preposition usage among all learner groups were quite high. This suggests that English dependent preposition usage is generally not as difficult and problematic as other types of English preposition usage for L1 Thai learners at all proficiency levels.

Nevertheless, the scores for the four types of dependent preposition relationship are not the same for each learner group. They rank as follows: the fourth type is the type where learners at all proficiency levels scored the highest. The first type ranks after the fourth type and is followed by the third type. The second type is the type for which learners obtained the lowest scores. These results appear to reveal non-random use of English dependent prepositions by the learners. However, there is still a puzzle in that the advanced learner group received the same score for the second and the third type of dependent preposition relationship. However, since the number of participants in each group of the participants was quite small, the results could not possibly be generalized.

The ranking order of the four types of dependent prepositions could be mainly attributed to cross-linguistic influence (Kellerman & Smith, 1986; Wong, 2014). For the fourth type ([+prep] in English and [+prep] in Thai), which ranked first, the learners were likely influenced by positive transfer in that they transferred both the construction and meaning of the Thai dependent prepositions into

their English counterparts. That is, they relied on Thai equivalents while producing this type of English dependent preposition. For example, some of the learners positively transferred the Thai dependent preposition /cà:k/ 'from' in /tɛ̀:k-tà:ŋ cà:k/ 'differ *from*' into its English counterpart underlined differ from, as in "English **differs from** Thai." The positive transfer would be facilitated by the similarity in meaning and construction of the dependent prepositions in the two languages. Another instance was agree with. Some of the learners are assumed to have merely transferred the Thai dependent preposition /kap/ 'with' in /hên-dûaj kàp/ 'agree *with*' into the English dependent preposition construction agree with.

As for the first type ([–prep] in English but [+prep] in Thai), the learners tended to negatively transfer the type of Thai dependent preposition into its English counterpart by inserting an English dependent preposition of Thai equivalents in contexts where no preposition was required. For instance, they wrote marry with, equivalent in meaning to /tɛ̀ŋ-ŋa:n kàp/ in Thai, instead of just marry, as in "*He wants to **marry with** her." Another case in point is the learners' L2 production of left from, rather than left, as in "*She **left from** London yesterday." This is likely due to the fact that the Thai /ɔ̀:k cà:k/ 'left from' negatively influenced the English verb left. The learners, thus, unnecessarily added from after left in English.

Concerning the third type ([+prep$_1$] in English but [+prep$_2$] in Thai), for which the learners achieved lower scores than they did for the first type, the learners are assumed to have negatively transferred the use of their Thai dependent prepositions into the use of English counterparts, thereby creating deviant items, such as died by/with instead of died of/from, as in "*Pamela __ is **died by/with__** cancer." This was probably because the Thai preposition /dûaj/ 'by' following the verb /ta:j/ 'die' is equivalent to two likely English prepositions, namely by and with. Another example can be seen in "*An accident **occurs with** him." The learners might have been comparing the verb occur in English to the verb /kɤ̀:t-khɯ̂n kàp/ 'occur with' in Thai, leading them to use with after occur, which deviates from native English speakers' production of the verb.

In the case of the second type of dependent preposition relationship ([+prep] in English but [–prep] in Thai), for which the learners received the lowest scores, learners were possibly affected by negative transfer from their L1 Thai. The learners tended to omit English dependent prepositions where such are required, since their L1 Thai does not demand any preposition following the comparable verb of the same meaning. For instance, some learners omitted the preposition for following the verb wait, as in "*I have been **waiting Ø** the bus for two hours." The reason for this may be that the

learner thought of the verb /rɔ:/ 'wait' in their L1 Thai, which does not precede any preposition. Another instance involves the absence of the preposition on that typically follows the verb focus, as in "*These exercises **focus Ø** different grammar points." Again, this may be the result of negative transfer. That is, learners may have transferred /nén/ 'focus' in their L1 Thai to English focus and then ignored the need for on to follow the verb in English.

Overall, cross-linguistic influence could well account for the ranking order of the four types of dependent preposition relationships explored in the study. It is likely that positive transfer allowed the fourth type to become the type where learners at all proficiency levels scored the highest. In contrast, negative transfer could have caused the three other types of dependent prepositions to rank below the fourth type, which is assumed to have been helped by positive transfer.

In addition to cross-linguistic influence, the ranking order of the four types of dependent preposition relationship can also be attributed to certain cognitive factors (Almor, 1999; Gavin, Pongpairoj & Trenkic, 2015; Trenkic & Pongpairoj, 2013). The learners are assumed to have thought about and compared English dependent prepositions and their Thai counterparts during L2 production of English dependent prepositions. Regarding the fourth type of dependent preposition relationship ([+prep] in English and [+prep] in Thai), the learners scored the highest for this type. It is assumed that this type goes through the fewest cognitive processes on the learners' part, compared with those required for the remaining three types. Put simply, learners would have to put the least processing effort into the retrieval of these English dependent prepositions as they could simply resort to Thai counterparts already existing in their mental representation.

Moreover, the first type of dependent preposition relationship ([–prep] in English but [+prep] in Thai), which ranked next below the fourth type, is assumed to involve more cognitive processing. Since there are no dependent prepositions in Thai, the learners are believed to have dropped the dependent prepositions in Thai while producing those which are equivalents in English. Such deletions may be explained by the learners' long-term exposure to both English and Thai.

The third type of dependent preposition relationship ([prep$_1$] in English but [prep$_2$] in Thai), which ranked below the first type, likely takes much more cognitive processing than the first type. Learners are presumably required to extract from their IL an English dependent preposition which they consider to be correct, other than its Thai equivalent, which is thought not to be the appropriate one. They, therefore, had to go through

the processing steps of deleting the Thai preposition, while trying to employ the English preposition they considered appropriate.

Last but not least, the reason for the second type of dependent preposition relationship ([+prep] in English, but [–prep] in Thai) ranking fourth is that it probably places the greatest cognitive burden on learners. It seems really demanding for learners to mentally proceed to find the correct preposition for an English verb when there is no preposition following the equivalent verb in Thai.

The results of this study show that non-random use of English dependent prepositions was exhibited by the learners in all proficiency groups. Difficulties with English dependent prepositions among the English IL learners were primarily due to cross-linguistic influence, which is one of the processes of IL (Selinker, 1972), as discussed earlier. Furthermore, cognitive factors may also have come into play when the learners were producing English dependent prepositions.

The results seem, therefore, to confirm the hypothesis that L1 Thai learners of English exhibit systematicity of English dependent prepositions in their IL and that the systematicity is primarily influenced by cross-linguistic influences and some cognitive processes. The findings were consistent with previous findings (Mahmoodzadeh, 2012; Humeid, 2013; Khampang, 1974; Ruangjaroon, 2015).

It is hoped that the results of this study will raise awareness of the problems surrounding English dependent preposition use and contribute to the improvement of English teaching and learning in that it will help reduce prepositional errors committed by L1 Thai learners of L2 English.

CONCLUSION

This study has demonstrated systematicity in Thai learners' IL of English dependent preposition use, and cross-linguistic influence and cognitive processing effort are assumed to be responsible for such non-random usage.

A limitation of the study is that the research was conducted with a small number of participants. The results of the study might, therefore, not be sufficiently generalizable.

There are possibilities for conducting further research in this area. Future research could be carried out through an oral production task. Additionally, it would be advisable for further research to be conducted with another group of L2 English speakers whose L1 evinces dependent preposition use distinct from that found in English. Lastly, it is suggested that usage of prepositions after adjectives, e.g., keen on, proud of, and responsible for, be investigated and compared with the usage of prepositions after verbs among L2 English learners.

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Footnotes

[1] "Simple prepositions" are one-word prepositions, e.g., <u>in</u> and <u>at</u> in English or <u>fii</u> 'in'/'at' and <u>alaa</u> 'on' in Arabic.

[2] "Compound prepositions" are prepositions composed of more than one word, especially when a noun or a noun phrase is both followed and preceded by a single preposition, such as <u>on account of</u>.

[3] An "active zone" is defined as part of an entity that is highly involved in a particular relationship (Langacker, 1993).

[4] <u>Complex prepositions</u> (also known as <u>phrasal prepositions</u>) refer to strings of words that function together as one-word prepositions.

[5] Perceptual Assimilation Model (PAM) developed by Best (2001) presents a perceptual assimilation of L2 sounds to an L1 phonemic system in either of the three ways: "as a categorized exemplar of some native phoneme", "as an uncategorized consonant or vowel" which sounds like several L1 phonemes, "as a nonassimilable nonspeech sound" which has nothing in common with any L1 phoneme.

Appendix A

Biographical Data of the Participants

Subject No.	Proficiency level	Gender	Age	OPT scores	Years of English	Time in English-speaking countries
1	Elementary	F	18	53	15	-
2	Elementary	F	18	55	12	-
3	Elementary	F	18	56	14	-
4	Elementary	F	18	57	15	-
5	Elementary	F	19	59	12	-
6	Elementary	F	19	63	14	-
7	Elementary	F	19	64	14	-
8	Elementary	F	19	64	13	-
9	Elementary	F	19	65	10	-
10	Elementary	F	19	66	15	-
11	Intermediate	F	18	68	12	-
12	Intermediate	F	20	69	14	-
13	Intermediate	F	19	69	15	-
14	Intermediate	M	18	71	16	-
15	Intermediate	F	20	71	15	-
16	Intermediate	F	19	71	16	-
17	Intermediate	F	18	72	15	-
18	Intermediate	F	19	75	15	-
19	Intermediate	F	18	75	15	1 month
20	Intermediate	F	19	75	15	-
21	Advanced	F	18	77	12	-
22	Advanced	M	19	78	15	-
23	Advanced	F	20	79	15	-
24	Advanced	F	17	79	12	-
25	Advanced	M	19	80	15	-
26	Advanced	F	19	83	15	3 weeks
27	Advanced	F	19	83	16	-
28	Advanced	F	18	88	15	-
29	Advanced	M	21	90	18	2 months
30	Advanced	F	19	92	17	5.5 years

Appendix B

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Tests

Personal Background Information
</div>

Please answer all of the following questions as they describe you.

1. Gender

☐ Male ☐ Female

2. Age _____

3. How long have you studied English? _____

4. Have you ever stayed in an English-speaking country?

☐ Yes, I have stayed in _____ for _____ .

☐ No.

I. Translation Test

Translate these sentences from Thai into English, using the words provided in parentheses.

1. เขาอยากจะแต่งงานกับหล่อน (want, marry, he)

....

2. หล่อนออกจากกรุงลอนดอนเมื่อวานนี้

(yesterday, leave, London)

....

3. ผมรักดนตรีตั้งแต่เด็ก (I, love, childhood)

....

4. เศรษฐกิจโลกกำลังแย่ลง (become, worse, economy)

....

5. ผมรอรถเมล์มาสองชั่วโมงแล้ว (bus, wait, I)

....

6. เขาสมัครงานตำแหน่งวิศวกร (engineer, he, apply)

....

7. ผู้หญิงคนนี้อุทิศทั้งชีวิตเพื่อช่วยเหลือผู้อื่น (devote, life, help)

....

8. เราไม่อนุญาตให้สูบบุหรี่ในพื้นที่แห่งนี้ (area, allow, this)

....

9. เงินเดือนเริ่มต้นขึ้นอยู่กับประสบการณ์ (salary, depend, experience)

....

10. เกิดอุบัติเหตุขึ้นกับเขา (occur, him, accident)

....

11. คุณเรียนขับรถเมื่อไร (you, learn, when)

....

12. พวกเขากำลังดูโทรทัศน์ (TV, watch, they)

....

13. ภาษาอังกฤษแตกต่างจากภาษาไทย (English, differs, Thai)

....

14. คนขับรถโดยสารประจำทางได้พยายามหลีกเลี่ยงอุบัติเหตุ (accidents, avoid, tried)

....

15. ผมเพิ่งจะค้นพบวิธีแก้ปัญหา (solution, just, discovered)

....

16. ดิฉันเห็นด้วยกับเขาในประเด็นนี้ (agree, issue, I)

....

17. ผมรักดนตรีตั้งแต่เด็ก (I, love, childhood)

....

18. เราไม่อนุญาตให้สูบบุหรี่ในพื้นที่แห่งนี้ (area, allow, this)

....

II. Cloze Test
Fill in the blank with the verb given. Sometimes tense markers or prepositions are needed.
1. This necktie nicely _____ your shirt. (match)
2. Her parents still _____ her like a child. (treat)
3. It is _____. (drizzle)
4. Continuous rain may _____ floods. (cause)
5. These exercises _____ different grammar points. (focus)
6. He is _____ his keys. (search)
7. Two men were _____ after they had stolen a car. (arrest)
8. Planning your wedding should be _____ (excite).
9. Pamela _____ cancer. (die)
10. Judith _____ studying at the weekend. (concentrate)
11. Junk food can be _____ for a variety of reasons. (appeal)
12. The bank _____ cutting interest rates. (resist)
13. 2012 must _____ as the most difficult year for Europe since the 30s. (rank)
14. When there are school plays, my girlfriend always _____ starring roles. (play)
15. Jeff cannot _____ between red and green. (distinguish)
16. Very few people _____ losing weight and keeping it off. (succeed)
17. They _____ some concrete steps in the rear garden at present. (install)
18. There has been some _____ in unemployment. (reduce)
19. Continuous rain may _____ floods. (cause)
20. The hotelier gives a chef the opportunity to be _____. (create)
21. No one _____ yesterday's issue. (refer)