# Variability in Second Language <br> Article Production: A Comparison of L1 Thai and L1 French Learners of L2 English 

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#### Abstract

This thesis explores variability in second language (L2) production of English articles by speakers whose first language (L1) is Thai (-articles), and compares it with proficiency-matched learners whose L1 is French (+articles). The thesis addresses a current debate on whether variability in production of second language functional morphology stems from representational deficits or from processing problems in production.

The investigation of L2 article production was focused on tightly defined pairs of contexts for which different theoretical positions would predict different learner behaviours. Experiments were designed which measured the level of article omissions (a) in adjectivally premodified noun phrases $(A r t+A d j+N)$ vs. non-modified phrases $(A r t+N),(b)$ with first vs. second mention definite referents, and (c) with more vs. less attended (less salient) referents. A further study explored article substitution errors, in particular the alleged overuse of the indefinite article in [+definite; -specific] contexts and the definite article in [-definite; +specific] contexts.

Results suggest that L1 Thai learners of L2 English, but not L1 French learners of L2 English, omit articles more (a) in adjectivally premodified than in non-modified contexts, (b) with second than with first mention definite referents, and (c) with more attended than with less attended referents. It is argued that these results point against the view that variability in production of L2 morphology stems from processing problems in production only (i.e. the view that assumes that L2 syntax must be target-like), and that they support the view that the variability stems from representational problems, with further knock-on effects on processing. In particular, the results are interpreted as consistent with the combined predictions of the Syntactic Misanalysis Hypothesis (Trenkic 2007) and the Information Load Hypothesis (Almor 1999).


The results of the study investigating article substitutions show that L1 Thai learners of L2 English, but not L1 French learners of L2 English, oversupplied the definite article in fill-in-the-gap tasks in [-definite; +specific] contexts, but only when the speaker explicitly claimed personal familiarity with the referent - not when the speaker explicitly denied personal familiarity with the referent. Similarly, they also oversupplied the indefinite article in [+definite] contexts whenever the speaker denied familiarity with the referent, irrespective of whether the context was [+specific] or [-specific]. This suggests that L1 Thai learners of English accept familiarity with identifying attributes of a referent as a possible criterion for the use of the definite article, and non-familiarity as a criterion for the use of the indefinite article. The results are interpreted as arguing against the suggestion that L2 English article choices are UG-regulated (cf. Ionin, Ko and Wexler 2004). The results are shown to be consistent with the predictions of the Syntactic Misanalysis Hypothesis instead.

The results of empirical investigations conducted in this thesis contribute to the debate on causes of variability in production of L2 functional morphology. The observed patterns of L2 English article omissions and substitutions seem more consistent with the view that variable production stems from non-target-like syntax.

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## Author's Declaration

This thesis has not been previously accepted in substance of any other degree and is not being concurrently submitted in candidature for any degree other than Doctor of Philosophy of the University of York. This thesis is the result of my own research, except where explicit acknowledgement is made to other sources.

I hereby give consent for my thesis, if accepted, to be made available for photocopying and for inter-library loan, and for the title and summary to be made available to outside organisations.


The following parts of the research in this thesis have previously been presented and / or published:

- An early version of Chapter 4 was presented at the First Lancaster University Postgraduate Conference in Linguistics and Language Teaching (15 July 2006) and published as 'Asymmetric patterns of English article omissions in L2A', in Papers from the Lancaster University Postgraduate Conference in Linguistics and Language Teaching, vol. 1: Papers from LAEL PG 2006, 2007 (Pongpairoj 2007b).
- Some elements of Chapter 4 appeared in an earlier revision as 'L2 English article production by L1 Thai speakers: Influences of the prosodic structures?' in Thoughts 8, 2007 (Pongpairoj 2007a).
- An early version of Chapter 7 was presented at the Georgetown University Round Table 2007 (GURT 2007), titled 'Little Words’ (9 March 2007) and at the Fifth University of Cambridge Postgraduate Conference in Language Research (CamLing 2007) (21 March 2007) and published as 'Are L2 English article choices UG-regulated?' in Proceedings for the Fifth Cambridge Postgraduate Conference in Linguistics (CamLing 2007 Proceedings), 2007 (Pongpairoj 2007c).
- Some elements of chapters 4,5 and 6 were integrated for a poster presentation (with Danijela Trenkic) on 'L2 article omissions: Rethinking the causes' at the 17th European Second Language Association Conference (EuroSLA 17), titled 'Interfaces in Second Language Acquisition Research' (University of Newcastle, 14 September 2007).


## Chapter 1

## Variability in Second Language Production of Functional Morphology

### 1.1 Introduction

Adolescent and adult second language (L2) learners often find the grammar of the language they are learning difficult. Most teachers would confirm that even their most proficient learners sometimes omit certain grammatical markers, or supply them in inappropriate contexts. In the literature on second language acquisition, this phenomenon is known as variability in second language production of functional morphology.

Functional morphemes carry grammatical meanings, and can be bound or free. Bound morphemes are inflectional morphemes, such as -ed in English added to a verb to mark the past tense (e.g. played), or $-s$ added to a noun to mark plurality (e.g. girls). Determiners in English (e.g. the articles the /a) and complementisers in Thai (e.g. thî: 'which' and wâ: 'that') are examples of free functional morphemes (e.g. the English article the in the phrase the girl; the Thai complementizer wâ: in the sentence khǎo phû:t wâ: ... 'He said that...').

Variable L2 production is not only commonly observed in the classroom but is also well-documented in empirical research studies. It is observed with a variety of elicitation tasks, both spoken and written (cf.

Goodluck 1991; Ellis 1994; Herschensohn 2001; Lardiere 2000; Prévost and White 2000; Sorace 1999; R. Hawkins 2000, 2001; Franceschina 2001b; White 2003b; Ionin and Wexler 2002; Jiang 2004; among others). It is observed in cross-sectional studies (cf. Hawkins and Chan 1997; Trenkic 2000; Liszka 2002; Hawkins and Liszka 2003; White et al. 2004; among others), as well as in longitudinal studies with advanced L2 learners who have had long immersion in the target-language environments (cf. Lardiere 1998a, 1998b; Franceschina 2001a; White 2003a; among others).

The question is, why does this happen? Why do post-childhood learners encounter persistent difficulties in producing some aspects of L2 functional morphology? Several explanations have been proposed, and some of them will be discussed in Section 1.2 below.

The most extensively studied L2 has so far been English. One aspect of English which is known to cause considerable problems to L2 learners from some language backgrounds is the system of 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; Snape 2006; among others). This problem has certainly been documented with first language (L1) Thai learners of L2 English (cf. Lekawatana et al. 1968; Oller and Redding 1971; Ubol 1988; Srioutai 2001; Pongpairoj 2002, 2004; among others). As Lekawatana et al. (1968: 96) note, "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". The aim of this thesis is thus to explore the causes of variable article production among Thaispeaking learners of L2 English. ${ }^{1}$

As the thesis is concerned with L2 acquisition of functional morphology (i.e. English articles), it is worth observing at this point that there have been different views put forward on the technical definition of 'acquired'.

The literature of morpheme studies in L2 acquisition assumes a common order in which grammatical morphemes in the L2 are acquired (cf.,

[^0]for example, Bailey, Madden and Krashen 1974; Dulay and Burt 1974; Krashen 1981, 1982). Acquisition of morphemes is based on accurate suppliances of morphemes in obligatory contexts $(80-90 \%)$. The other view on 'acquisition' is the emergence criterion (cf. for example, Meisel, Clahsen and Pienemann 1981; Pienemann 1984; 1998; Pienemann, Johnston and Brendley1988). A morpheme is considered "acquired" when it first appears in an interlanguage in a systematic (i.e. not random use) and productive (i.e. regular use) manner.

So, as far as L2 acquisition is concerned, the morpheme studies emphasize the accuracy levels or mastery of a linguistic form whereas the emergence criteria focuses on the fist use of a linguistic form (the beginning of an L2 acquisition).

Each view appears to be logical in its own right. However, this study tends to support the criterion that a morpheme is "acquired" when it is appropriately supplied in obligatory contexts (i.e. the morpheme studies). Suppliances of morphemes are natural and automated, without the L2 learners' resorting to metalinguistic knowledge, i.e. conscious hypotheses constructed from learning (cf. Krashen 1982). So, accurate use or mastery of a linguistic form seems to signal that a particular form has been acquired.

The organisation of the thesis is as follows. In the rest of this chapter, two conflicting explanations about variability in advanced L2 learners' production of functional material are introduced. In relation to each account, questionable points are explored, leading to a reason why this study needs to investigate the issue of L 2 variability further.

Chapter 2 presents the account of definiteness adopted in the study. Differences between languages with and without articles are pointed out. With a link from that, some studies of variable production of L2 English articles, i.e. article omissions and substitutions are looked into. It is shown why variable production of L2 English articles by L1 Thai speakers needs to be investigated in this study and what gaps need to be filled in.

Chapter 3 examines definiteness in the languages this thesis focuses on: English, the L2 language in the study, as well as Thai and French, the L1s of the non-native learners of English in the study. So, cross-linguistic similarities and / or differences in the signalling of 'definiteness' among the
three languages are provided. It is shown later in the study that these similarities and / or differences significantly influence L2 English article production.

The following four chapters report on a range of empirical studies that set out to examine variable production of L2 English articles by L1 Thai speakers. Each of these chapters formulates the rationale for the experiments by giving the background to the study. The hypotheses of each study are formulated and testable predictions are made. A description of each test is provided in terms of the objective and nature of the task, materials, procedures, coding / analysis of the data, participant groups and selection of the participants (i.e. characteristics of the proficiency test used in the study and criteria for categorising the participants into different English proficiency levels). Data are then presented and results are analysed. Finally, there is discussion of the empirical findings and implications are assessed based on the theoretical assumptions underpinning the issue of variable production of L2 English articles.

The empirical study in each chapter is as follows:
Chapter 4 reports on L2 English article omissions in adjectivally premodified (Art + Adj +N ) and non-modified (Art +N ) contexts.

Chapter 5 explores L2 English article omissions in first and second mention definite NP contexts.

Chapter 6 looks for a common explanation for L2 English article omissions in non-premodified and adjectivally premodified contexts on the one hand and first and second mention definite contexts on the other.

Chapter 7 is concerned with L2 English article substitutions.
Finally, chapter 8 concludes the study by discussing implications from the results of L2 English article production by L1 Thai speakers. The chapter indicates how the findings and interpretations of the results could contribute to what we know about the L2 acquisition of English articles and to the debate on L 2 variable production of functional morphemes.

### 1.2 Two explanations for L2 learners' variable production of functional morphology

Within the framework of generative grammar, two broad perspectives on L2 learners' variable production of functional elements can be identified. The first view assumes that L2 learners whose functional feature in the L2 is nonexistent in the learners' L1s have target-like syntactic representations, but that they have problems in accessing the representations (mapping representations to surface forms) in production. The general arguments in support of this view are described in 1.2.1. The view is further discussed by introducing 3 illustrative empirical studies (1.2.1.1).

The second view attributes variability to non-target-like syntactic representations. The ideas of this view are presented in 1.2.2 and there is further discussion in the context of 3 empirical studies that bear directly on this view (1.2.2.1). There is of course more research that can be used to support either position than those presented. However, the studies selected have been chosen as representative examples which show how proponents of each account interpret their findings and explain the L2 variable phenomena found.
1.2.3 examines how each position seems to challenge the opposite view. Strong arguments as well as potential problems of each account are also looked into. This links to my specification of why the L2 variable issue needs to be investigated further.

### 1.2.1 Variability explained in terms of processing problems in production

As presented in 1.1, variability in production of L2 functional morphology is well-documented. Perhaps the most intuitively appealing explanation is to say that non-target-like performance (i.e. variability) is a consequence of a non-target-like underlying knowledge. However, as Lardiere (1998a, b, 2000) pointed out, inappropriate L2 behaviours do not by necessity mean that L2 learners' grammar is impaired. It is logically possible that they are consequences of the learners' processing problems, despite their fully
specified syntax. These observations by Lardiere led many researchers to propose a processing problem explanation which assumes target-like syntactic representations (cf. Epstein et al. 1996; Grondin and White 1996; Haznedar 2001; Haznedar and Schwartz 1997; Herschensohn 2001; Herschensohn and Stevenson 2003; Ionin and Wexler 2002; Lardiere 1998a, b, 2000; Lardiere and Schwartz 1997; Prévost and White 1999, 2000; Sorace 2000; White 2003a; White et al. 2004; among others). This position views L2 acquisition as constrained by Universal Grammar (UG) (cf. Chomsky 1986). According to the theory of UG, "humans are innately (i.e. genetically) endowed with universal language-specific knowledge" (Larsen-Freeman and Long 1991: 228). Language acquisition is assumed to be based on such universal innate knowledge. The position therefore assumes that non-existence of an L2 feature in the learners' L1s will have no negative impact on L 2 acquisition. A problem in supplying L2 morphology is considered as "a surface problem rooted not so much in L2 learners' representations of abstract features, but rather in a specific difficulty with the morphological instantiations of these features" (cf. Sorace 2000: 98). A hypothesis favouring target-like syntactic representations is the Missing Surface Inflection Hypothesis (MSIH). ${ }^{2}$

Another proposal assuming target-like L2 syntactic representations but processing problems in production is the Prosodic Transfer Hypothesis (PTH) (cf. Goad, White and Steele 2003; Goad and White 2004, 2005, 2006). L2 learners' syntax is assumed to be target-like but processing problems are interpreted as being due to non-target-like representations at the phonological level. The PTH predicts that if prosodic structures representing L2 functional morphology are not available in the L1, variable production in the L2 will occur.

[^1]
### 1.2.1.1 Illustrative studies supporting processing problems in production

Most empirical studies on the causes of variability deal with verbal morphology. In this section, I will introduce the following three studies as representative of the view described above: Lardiere (1998a, b, 2000), White (2003a), and Prévost and White $(1999,2000)$.

Lardiere (1998a, b, 2000) analysed production of English inflectional morphology by Patty, an adult speaker of English whose L1s are Mandarin and Hokkien. Patty's grammar is said to be at the end-state level (i.e. at the stage where grammar cannot be developed further). The subject had considerable exposure to English since she had lived in the USA for approximately ten years. Lardiere made three recordings of her interviews with Patty. The first recording was made after Patty's ten-year life in the USA, the second one approximately 9 years after the first recording, and the last one about two months after that. The spontaneous production data showed the subject's inappropriate use of tense and agreement morphology. A summary of the result can be seen in Table 1.1:

| Recording | Past tense marking | Agreement of 3 ${ }^{\text {rd }}$ person <br> singular |
| :---: | :---: | :---: |
| 1 | $24 / 69(34.78 \%)$ | $2 / 42(4.76 \%)$ |
| 2 | $191 / 548(34.85 \%)$ | $0 / 4 \quad(0.00 \%)$ |
| 3 | $46 / 136(33.82 \%)$ | $1 / 22(4.54 \%)$ |

Table 1.1: Patty's markings of past tense and third person singular agreement morphemes (adapted from Lardiere 1998a: 16; 1998b: 366)

Patty's suppliance of inflection for past tense on lexical main verbs was consistently low, approximately $34 \%$. Also, her production of third person agreement inflectional morphology on lexical main verbs ranged from $0 \%$ to only $4.76 \%$ in the three spontaneous productions. However, Lardiere reports that Patty showed perfect production of nominative case assignments (i.e. subject pronouns), $100 \%$, in all contexts. In addition, her thematic verb placement with respect to negation not and clause-internal adverbs (e.g.
hardly and always) was mostly correct (i.e. not raising thematic verbs over not and adverbs). That is, there was no error in the position of thematic verbs in negative contexts, and only $0.82 \%$ of errors in verb placement in adverbial contexts were made. As nominative case assignment is by inflection, Lardiere claims that Patty's appropriate pronominal case markings imply her knowledge of grammatical inflection. In the case of verb-raising, verb inflection in English has a weak feature and so it does not raise past not and clause-internal adverbs (e.g. Yesterday, Susan did not swim but * Yesterday, Susan swam not; She always swims but *She swims always). So, according to Lardiere, Patty's correct verb placement is taken to suggest her underlying knowledge that verb raising is associated with inflection in English. Thus, despite low markings of the past tense form on main verbs and third person singular agreement morphology, such appropriate nominative case assignment and correct verb placement in Patty's production led Lardiere to conclude that Patty has an underlying syntactic representation appropriate to tense and agreement in English. If Patty did not have the appropriate syntactic representation of inflection in English, she would not have shown sensitivity to associated functional categories such as producing correct forms of the nominative case as well as placing verbs in correct positions with respect to not and internal-clause adverbs (see also Lardiere 2003).
"So why did Patty do so badly on the production task?" Lardiere postulates that Patty's non-native performance is due to a mismatch between abstract syntactic features and realisation of the related surface morphemes.

Another longitudinal study of a steady-state non-native speaker supporting the fully specified syntax view is reported by White (2003a). White reports L2 verbal and nominal morphological production from SD, an L1 Turkish / L2 English speaker. To examine if the subject's English grammar was in the so-called end state, four interviews were made in two months (considered as Time 1) and the fifth interview (considered as Time 2) was conducted eighteen months after that. The subject had emigrated to Canada ten years earlier. This was the start of her exposure to an Englishspeaking environment.

On verbal morphological production ${ }^{3}$, as well as related function words, White found that SD's third person singular agreement inflections ( $-s$ ) and past tense morphemes on lexical verbs (-ed) were supplied approximately $80 \%$ of the times in each case.

Despite some inappropriate use of verbal morphology, White reports evidence suggesting SD's knowledge of the category Inflection. Firstly, omissions of nominative case were extremely rare: approximately $99 \%$ presence of the nominative case. White reports that even when verbs were not inflected for tense and agreement, pronominal subjects were correctly marked in accurate contexts as nominative. Such appropriate production and placement of the nominative case implies that $S D$ had representational knowledge of verbal inflection. The next evidence is that incidence of verbal placement was mostly correct: (1) Inversions of subjects and auxiliaries in yes-no questions and wh-questions; (2) Placement of main verbs in negative sentences (i.e. not preceding negation). Furthermore, SD's results from a grammaticality judgment test on verb raising in questions and negatives were perfect. White assumes that the results indicate SD's knowledge that finite verbs in English have the weak value and so verb raising does not occur in these two constructions.

Despite some variable instances in SD's production of tense and agreement, appropriate production of associated properties (e.g. nominative case and correct verb placement) is assumed to suggest that tense and agreement in English were not underspecified in her syntactic representations. It is argued that, if it were not the case, SD would not have shown correct morphological realizations of these related syntactic categories. White assumes that SD's variable production of tense and agreement occurred due to problems of mapping underlying representations to associated surface forms.

Prévost and White (1999, 2000) investigated and analysed data on verbal inflection related to finite and non-finite morphology from naturalistic oral production by four adult learners, two native speakers of Moroccan Arabic whose L2 is French and two Spanish and Portuguese speakers of L2

[^2]German. Each pair was first exposed to the L2 after they arrived in France and Germany, respectively. The first recordings for French learners were made after their first year in France and the recording intervals were three years after that. For L1 German speakers, the first recording was in the third month after their arrival and the second one was almost two years after that.

Prévost and White reason that, if [ $\pm$ finite] features are fully specified in the L2 learners' interlanguage, finite verbs will be highly restricted to [ + finite] contexts but non-finite verb forms might be overused in finite contexts. This is because it is assumed that, in L2 learners' production, finite forms are truly [+finite]. However, non-finite forms are at times genuinely non-finite and in certain cases, they act as substitutes for finite forms. Variable position of non-finite forms is therefore anticipated (cf. Prévost and White 2000: 111). Also, as finite verbs in French and German have strong features, they are expected to occur in the raised position: before negation (i.e. before pas in French and nicht in German), auxiliaries, prepositions or a modal verb. Another prediction is that faulty agreement on finite verbs will not occur.

The results Prévost and White report are in line with the predictions. The L2 learners overused non-finite verb forms in [+finite] contexts, but not typically vice versa. Percentages of non-finiteness and finiteness overuse contrasted to a large extent, as shown in Table 1.2:

|  |  | Obligatory finite <br> contexts |  | Obligatory non-finite <br> contexts |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | + finite | -finite | - finite | + finite |
| L2 French | Abdelmalek | 767 | $243(24.1 \%)$ | 278 | $23(7.6 \%)$ |
|  | Zahra | 755 | $224(22.9 \%)$ | 156 | $2(1.3 \%)$ |
|  | Ana | 389 | $45(10.4 \%)$ | 76 | $7(8.4 \%)$ |
|  | Zita | 434 | $85(16.4 \%)$ | 98 | $6(5.8 \%)$ |

Table 1.2: Overuse of non-finiteness and overuse of finiteness (based on
Table 3 in Prévost and White 1999: 581)

Mostly, the subjects supplied inflected verb forms in finite contexts. However, non-finite verbs were used to substitute finite forms to a high degree, but not usually the other way round. The substitutions in this study were therefore "unidirectional" (cf. White 2003: 196). It was speculated that the subjects used the underspecified feature of a lexical item with respect to finiteness, i.e. the non-finite verb form, as a default form substituting the more fully specified form, i.e. the finite verb form. Prévost and White (2000: 129) assume that this behaviour was caused by access to the finite verb form being blocked "due to processing reasons or to communication pressures". Predictions on finite verbal placement, according to Prévost and White, were also confirmed. Another finding was that the use of verb agreement was overall accurate, approximately $95 \%$ for French and $88 \%$ for German L2 learners.

According to Prévost and White, if the learners did not possess underlying knowledge of finiteness represented in their grammars, there should have been unsystematic use of finite and nonfinite verb forms. That is, variable placement of both finite and nonfinite verbs forms independently from the finiteness feature would have occurred. Also, finite verbs would have been not only incorrectly placed but also inappropriately inflected. The results are then claimed to be consistent with the explanation assuming appropriate syntax. The learners' interlanguage grammars are said to contain representations of finiteness but the learners had problems relating the underlying finiteness feature to the correct surface morphemes.

In sum, all of the three studies argue that L2 learners' variable production of functional morphemes is attributed to the processing problem. Although the learners show inappropriate use of functional morphology, their syntactic representations are intact rather than impaired.

### 1.2.2 Variability explained in terms of non-target-like syntactic representations

The alternative view postulates that non-target-like syntactic representations cause L2 learners not to be able to produce correct morphological forms in the

L2. Within this proposal, there exist two strands. One strand attributes this to 'global' impairments and the other argues for 'local' impairments.

The position arguing for global impairments assumes crucial differences between first language acquisition (L1A) and L2 acquisition. Accessibility to UG is posited to exist only in L1A (i.e. UG is fully available in first language acquisition) whereas UG is assumed not to be operative in L2 acquisition (cf. Clahsen and Muysken 1986; Clahsen 1988; Bley-Vroman 1989). Proponents of the local impairment view also argue for differences between L1 and L2 grammars. However, access to UG is postulated to be partially available in L2 acquisition by means of L1. This claim is then relevant to L2 learners' native language in that any features or functional categories not instantiated or selected in the L1 will not be available or acquired by L2 learners (cf. Smith and Tsimpli 1995). In a similar vein, R. Hawkins (cf. 2001: 267) argues that, during the course of L2 development, " $[P]$ arameters associated with functional categories which are set differently in the L2 from the L1 may be unresettable for older L2 learners...." This impairment or underspecification of feature values prevents correct production of surface forms in the L2 (cf. Tsimpli and Roussou 1991; Smith and Tsimpli 1995; Eubank 1993 / 1994; Eubank et al. 1997; Hawkins and Chan 1997; Beck 1997; 1998; Eubank and Grace 1998; Tsimpli and Stavrakaki 1999; R. Hawkins 2000, 2003; Franceschina 2001a, b, 2002; Liszka 2002; Hawkins and Liszka 2003; Hawkins and Franceschina 2004; among others). This hypothesis is usually referred to as the Failed Functional Features Hypothesis (FFFH). ${ }^{4}$

[^3]
### 1.2.2.1 Illustrative studies supporting a non-target-like L2 syntax view

In this section, I will look at three representative research works assuming the deficit syntax position as the explanation for variable production of functional morphology. The studies I will look at will be Hawkins and Chan (1997), Hawkins and Liszka (2003) and Franceschina (2001a, b). As before, these will be the studies discussing verbal morphology.

Hawkins and Chan (1997) studied the L1 Chinese speakers' use of English restricted relative clauses (RRCs) (e.g. In the book that I read last week was fantastic, the RRC is that I read last week). Seven groups of subjects were involved in this study: three experimental L1 Chinese / L2 English-speaking groups and three groups of L1 French / L2 English subjects at three proficiency levels, including one control group of native speakers of English.

RRCs in English and Chinese differ in several respects. For example, English RRCs involve movement of wh-words (wh-movement), e.g. the girl [I like who] is here $\rightarrow$ the girl [(who) I like] is here (cf. Hawkins and Chan 1997: 190). The wh-word who is moved to the initial position of the relative clause. Another distinguishing characteristic is that a resumptive pronoun, i.e. a pronoun occurring in the position from which a wh-word is moved, is ungrammatical in English; for example, *The girl who I like her is here. In contrast, there is no wh-movement in Chinese and resumptive pronouns are allowed.

Hawkins and Chan used a grammaticality judgment test to investigate the subjects' sensitivity to the use of wh-words, wh-movement, and judging and correcting ungrammatical resumptive pronouns. The results reported were that, overall, the French subjects outperformed the Chinese subjects in recognising ungrammaticality of the aspects in RRCs tested. The L1 Chinese speakers' mean accuracy scores in accepting grammatical RRCs were $56 \%$, $67 \%$, and $79 \%$ for the elementary, intermediate and advanced levels, respectively, in contrast to $81 \%, 88 \%$, and $92 \%$ for the three French counterparts. With respect to judging resumptive pronouns, the scores reported were as follows:

| Groups | Judgment scores (\%) | Correction scores (\%) |
| :--- | :---: | :---: |
| Chinese elementary | 38 | 27 |
| Chinese intermediate | 55 | 41 |
| Chinese advanced | 90 | 70 |
| French elementary | 81 | 65 |
| French intermediate | 90 | 82 |
| French advanced | 96 | 87 |
| English controls | 98 | 97 |

Table 1.3: Correct judgments (\%) about ungrammatical resumptive pronouns in a range of relative clause NP positions, and accuracy of corrections (\%) (based on Table 5 in Hawkins and Chan 1997: 209)

It is worth noting that the French subjects obtained higher judgment and correction scores concerning ungrammatical English resumptive pronouns than the Chinese subjects in every level.

Hawkins and Chan claim that the native languages, French and Mandarin, were responsible for the different performances between the L2 learner groups of different native language backgrounds. A parametric difference is assumed to exist in these two languages in that the feature [ $\pm \mathrm{wh}$ ] can be found in French, but not in Chinese. Thus, wh-movement is grammatical in the former but not in the latter language. It is therefore assumed that the L1 Chinese speakers would find it problematic to acquire the wh-movement in English RRCs and recognise that resumptive pronouns were ungrammatical. Functional properties not licensed in Chinese, Hawkins and Chan postulate, resulted in the Chinese groups' failure to reset a parameter. They argue that, if the L1 Chinese speakers had the [ $\pm w h$ ] feature specified in their interlanguage, they would have acquired the wh-movement in English RRCs and recognised that resumptive pronouns were ungrammatical in English as the L1 French speakers did. It is argued that, if the learners of both language backgrounds had a target-like representation of RRCs in L2 English, a difference in performance would not be expected.

In another study, Hawkins and Liszka (2003) investigated L1 Chinese speakers' inflections of English verbs for past tense. They compared the
spontaneous production data from advanced English L2 learners from three L1 backgrounds: Chinese, Japanese and German. While the syntactic feature [ $\pm$ past] is instantiated in Japanese and German, it is not in the Chinese language. The data collected were from a test assessing the subjects' morphological knowledge of English simple past tense markings, both regular and irregular verb forms, including spontaneous oral production from a film retelling task and a narration of an experience.

The results of the morphological test showed that the three non-native groups' overall performance on past tense markings, both regular and irregular verb forms, was almost like English natives'. Therefore, it was assumed that the learners would not have difficulties producing English past tense markings in spontaneous production. On the contrary, what was found was that uninflection of the regular past tense verbal morpheme (absence of the past tense morphemes $/-t /$ and $/-d /$ ) and omissions of irregular past verbal morphology in the Chinese group were significantly higher than in the Japanese and the German groups. ${ }^{5}$

Hawkins and Liszka assume that phonological constraints did not play a role here. Firstly, in both Chinese and Japanese, word-final consonant clusters are not allowed. So, if the problem were of a phonological nature, both the Chinese and the Japanese speakers would be expected to face similar problems. Moreover, the Chinese subjects' final $/-t /$ and $/-d /$ deletions in other words with final consonant clusters containing final consonants $-t /-d$ such as most and kind (cf. Hawkins and Liszka 2003: 30) were at a much lower rate than the deletions in regular verbs with past tense forms ( $18 \%$ in contrast to $37 \%)$. It is argued that, if the Chinese speakers had problems producing $/-t /$ and $/-d /$, omission rates of final $/-t /$ and $/-d /$ in simple past tense verb forms and in words with final consonants $-t /-d$ should have been approximately the same. What is also noteworthy is that the performance of the Chinese subjects' production of regular past participle morphemes, which had the

[^4]same morphemes as in the past tense, was all accurate, $100 \%$, in the three groups. If phonology had had an influence, the Chinese subjects should have also deleted the final $/-t /$ and $/-d /$ in past participle forms.

Hawkins and Liszka also argue that this lower suppliance of the inflected past tense morpheme did not result from performance pressures as, if this had been the case, such pressures would have played a role among the three groups, not only in the Chinese group.

The higher omissions of the simple past morphemes in the Chinese group are assumed to lie in the fact that the feature [ $\pm$ past] is not syntactically represented in the category Tense in the lexicon in Chinese. In this case, Hawkins and Liszka (2003: 34) discussed Chierchia's (1998) claim that "[T]he presence of a syntactic property in a grammar associated with a particular semantic operation has the effect of inhibiting the free application of that operation". Takeda's (1999: 103) extension of the idea, known as the 'Generalized Blocking Principle', was also discussed: "If a language has a certain functional category in its lexicon, the free application of the semantic operation that has the same function as that syntactic category is blocked in that language". Thus, the presence of the past tense morphemes in English blocks the free application of the semantic operation which conveys the 'past' meaning. Interpretations of tenses are syntactically restricted, i.e. English finite bare verbs involve only 'non-past' whereas verbs with past tense morphemes must be only interpreted as 'past'. Verbs in Chinese, in contrast, can be freely interpreted as 'present' or 'past' according to the discourse context.

Therefore, it is claimed that there are grounds to suppose that the unselected [土past] features in L1 Chinese made it problematic for the L1 Chinese speakers to acquire them in their L2. In contrast, because the L1 Japanese and the L1 German speakers had these values activated in their L1 representations, the syntactic representations in their interlanguage were not impaired and so the production of the past tense morphemes in English was syntactically motivated. Under the explanation based on fully specified syntax, Hawkins and Liszka argue, the past tense morphological production of the three learner groups should have been similar due to the same knowledge level of the relevant morphology (as indicated in the morphological test).

Franceschina (2001a) also argues for L2 learners' syntactic deficit as the explanation for variable production of functional morphology. ${ }^{6}$ The data on which her study was based came from conversations between an Ll English / L2 Spanish speaker and a native speaker of Spanish. The area of investigation was syntactic gender agreement in Spanish.

Generally, gender features on nouns are postulated to exist in both Spanish and English. However, syntactic gender agreement is evidenced in Spanish but not in English. That is, Spanish has syntactic gender agreement on adjectives and determiners, i.e. the masculine or the feminine form of a head noun determines the gender form of a determiner and an adjective (e.g. una (DET:FEM) falda (skirt) roja (red:FEM) 'a red skirt' and un (DET:MASC) sombrero (hat) rojo (red:MASC) 'a red hat') (cf. Hawkins and Franceschina 2004: 175).

Franceschina reports that the subject had long immersion in Spanishspeaking environments and his Spanish was fluent. However, when gender agreement was compared with number agreement, errors on gender agreement were much higher, as can be seen in Table 1.4:

| Category | Gender errors | Number errors |
| :--- | :---: | :---: |
| Adjective | $41 / 53(77.36)$ | $12 / 53(22.64)$ |
| Article | $65 / 69(94.20)$ | $4 / 69(5.80)$ |
| Demonstrative | $48 / 48(100.00)$ | $0 / 48(0.00$ |
| Pronoun | $85 / 87(97.70)$ | $2 / 87(2.30)$ |
| Total | $239 / 257(93.00)$ | $18 / 257(7.00)$ |

Table 1.4: Gender and number agreement errors (percentages in brackets) (based on Table 5 in Franceschina 2001a: 237)

What is also noteworthy, according to Franceschina, is that the subjects overused the masculine form. Another finding was that sometimes the subject code-switched to use some nouns in English. In such cases, all the Spanish articles used with the English nouns were only the masculine as a default gender. In contrast, for each English noun employed by the Spanish

[^5]interlocutor in code-switched sentences, a Spanish article used with the English noun was assigned a gender value according to the value of its nominal counterpart in Spanish.

Deficit in syntax, Franceschina assumes, plays a major role in the subject's impoverished morphological affixation of gender agreement. Firstly, errors on gender agreement were higher than errors on number agreement because gender agreement is not present in the subject's L1 grammars whereas number agreement is. If gender agreement existed in the learner's grammars, it would be reasonable to assume that the performance on gender and number agreement would have been approximately the same. Secondly, Franceschina argues that the subject's overuse of the masculine form in gender agreement should not stem from the problem of mapping between underlying syntax and surface morphology. It is assumed that the learner employed the masculine form as the default form not because of having difficulties producing the feminine form. This is because, generally, masculine and feminine markers on nouns in Spanish tend to be identical, e.g. cima 'summit' (FEM) vs. clima 'climate' (MASC); noche 'night' (FEM) vs. coche 'car' (MASC) (cf. Franceschina 2001a: 242-3). If the problem had resulted from syntax-morphology mappings, the subject should have had problems producing both gender forms on nouns. In addition, a lack of gender agreement on articles used with code-switched nouns indicates that the subject might treat the English nouns in the data as they would be used in English. As there is no gender agreement on English articles, no gender distinctions were made on the nouns produced. In contrast, the Spanishspeaking interlocutor might treat the English nouns as the Spanish counterparts when code-switching, resulting in her use of gender agreement on Spanish articles according to gender agreement in Spanish. So, it is postulated that variability in the syntactic gender agreement occurred because this grammatical feature is not licensed in the subject's native language. The account of impaired syntax, Franceschina assumes, could more readily provide an explanation while the processing problem position assuming target-like syntax would find it problematic to account for the subject's variable production of L2 Spanish gender agreement.

In Franceschina (2001b), the investigation was on L2 acquisition of Spanish gender agreement on determiners and adjectives by two adult L1 Italian and two adult Ll English advanced speakers. The data came from naturalistic informal conversations. The results showed that the L1 Italian speakers did not have problems acquiring gender agreement marking while the L1 English speakers showed difficulty with such marking. While gender agreement marking exists in Italian, it is absent in English. So, the problem is postulated to result from non-existence of the syntactic feature in the L1, i.e. the non-target-like syntactic representations. If the problems had occurred from mapping between fully specified syntax onto morphology, both the L2 learner groups should have had similar problems. Therefore, it is assumed that the explanation based on processing problems in production cannot account for the differences in the L2 performances by the two L2 groups from the different language backgrounds.

### 1.2.3 Strengths and weaknesses of the two accounts

There seems to be a lack of consensus about what causes L 2 variable production of functional morphology. As discussed in 1.2.1 and 1.2.2, the central claim of the processing problem explanation which assumes target-like syntactic representations is that variability in L2 production results from the learners' processing problems: mapping native-like mental representations onto associated forms or accessing lexicons to produce relevant forms. In contrast, the non-target-like syntax view postulates that any L2 functional features non-existent in the learners' native tongue cannot be acquired. These L2 learners' syntax is posited to be impaired. Absence of functional categories, therefore, results in variable production of surface morphemes.

In this section, I intend to highlight strengths and weaknesses of each position.

The strongest evidence for the position which assumes target-like L2 syntax and attributes variability in production of functional morphology to processing problems is the finding that L2 learners who show variability in production of functional morphology also show appropriate production of associated syntactic categories. Morphological production does not always
have to mirror the learners' syntactic knowledge, and "morphological accuracy [may be] lagging behind syntactic acquisition" (cf. Herschensohn 2001: 297). Another strong argument lies in the evidence that variability is largely systematic or nonrandom. Prévost and White (1999, 2000), for example, assume that, due to target-like syntactic representations, the L2 learners' systematic variability on finiteness was limited only to non-finite forms. If the L2 learners' syntax were impaired, there should have been random placement of both finite and non-finite verb forms (cf. 1.2.1.1). So, the fully specified syntax position seems to challenge the representational deficit proposal to explain why L2 learners produce functional morphology appropriately in many cases and why when they do not produce it appropriately the variability is not random but follows certain regularities.

Proponents of the non-target-like syntax view have made proposals of how this could be done. For example, Trenkic (2007) argues that, while L2 learners may not develop a fully specified syntax, they can still attribute some meanings to grammatical morphemes and develop rules for their use. Such production would not be random but principled, reflecting the meanings and 'rules' which learners operate under.

On the other hand, the strongest evidence for the position which assumes that non-target-like L2 syntax is to blame for variability in production of functional morphology is that learners from different L1 backgrounds show different levels of variability. This account's challenge to the target-like syntax position then concerns L2 learners' different behavioural performances, i.e. different success rates in mastering particular functional elements in an L2 (cf. Franceschina 2002; Trenkic 2007). Put differently, failure in syntax-morphology mapping does not occur across the board. If L2 syntax is intact, L2 learners from whatever L1 backgrounds should experience approximately the same level of mapping difficulties.

There could, however, be a reasonable explanation of the different levels of L2 production by learners from different L1 backgrounds within the view that L2 syntax is target-like and variability is caused by processing problems. L2 learners whose functional features are similar to those in the L1 have a grammar including those features. This means that these learners have the advantage of having long used such properties in their production system.

If the production mechanisms are primed for certain morphological use in their native language and these mechanisms are shared for L1 and L2 production, it is expected that less variability will occur. In contrast, more variability will be predicted on the part of learners whose L1 does not possess L2 categories, even if their L2 grammatical competence includes these features. L2 production could introduce processing or communication pressures, causing difficulties for learners to access functional morphology in real time (cf. Prévost and White 2000: 129). Since the production mechanisms for one learner group are primed for certain morphological production, but not in the other, production pressure should not be equal for learners of the two different L1 backgrounds. There is thus a possibility that variable production by learners whose L1s do not instantiate L2 properties is due to processing reasons, i.e. performance errors and / or pressures, consistent with the fully specified syntax position.

Given the research so far, there is a problem in that the findings from the empirical data can be interpreted in more than one way. In fact, Jiang (2004) claims that when L2 morphological production reaches $80 \%$ accuracy level, each position can account for the production.

In sum, the debate is still on-going. As the problem of L2 variable production of functional material is still unresolved, this controversial issue will be investigated further in this study. The focus of this study will be on the comparison of L1 Thai and L1 French speakers' English article production in very tightly defined contexts, where different theories would predict different learner behaviours.

### 1.3 Conclusion

In this chapter, I have introduced two opposing views within the framework of generative grammar on how variability in L2 production of functional morphology could be accounted for. One view assumes that L2 syntax is fully specified and the variability is caused by processing problems in production. Proponents of the other view argue that variable functional morphological production is the result of the non-target-like syntactic
representations. I have illustrated these positions by discussing some of the most representative studies. These studies, however, are focused on verbal morphology. Given that the focus of this thesis will be on nominal morphology (i.e. articles), in the next chapter, I will introduce the notion of definiteness and review relevant studies on variability in L2 production of English articles.

## Chapter 2

## Variability in Second Language Production of English Articles

### 2.1 Introduction

The main aim of this chapter is to review research on variability in production of L2 English articles. However, as articles are related to definiteness, the notion of definiteness will be looked at as well. Also, as the study investigates English article production by speakers of L1 Thai, a language without articles, the chapter explores a view on the acquisition of L2 English articles by learners from languages not containing articles.

The organisation of this chapter is as follows. 2.2 gives a general linguistic overview of the concept of definiteness, showing how it is approached in this study, i.e. definiteness as a category of meaning (2.2.1), and grammatical definiteness (2.2.2). 2.3 explores a view on L2 acquisition of English articles by L2 learners from languages not containing articles. 2.4 looks at studies on L2 English article development in terms of article omissions (2.4.1) (article omissions in non-premodified and adjectivally premodified NP contexts in 2.4.1.1 and article omissions in first and second mention definite NP contexts in 2.4.1.2), and article substitutions (2.4.2). The studies are reviewed, with the aim of looking at results and analyses,
including potential problems and gaps that need to be addressed. 2.5 reports conclusions.

### 2.2 The notion of definiteness

Before an investigation of studies into L2 English article production, it would be worthwhile to spell out at this point how the notion of definiteness is viewed in this study.

Definiteness has been discussed extensively from different perspectives, such as syntactic, semantic, pragmatic, and philosophical ones (cf. J. Lyons 1977; Chesterman 1991; C. Lyons 1999; among others). Definiteness has been viewed as a universal cognitive concept. However, it is also grammatically marked. This section will therefore discuss both. The discussion draws primarily on C. Lyons' (1999) and J. Hawkins' $(1991,2004)$ accounts.

Definiteness is associated with whether a referent is established in discourse organisation and so it is considered a discourse-related concept. Definiteness has been discussed mostly in relation to languages with articles. One of the most influential accounts is that of J. Hawkins (1991).

According to Hawkins (1991: 414), 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 (cf. also Sperber and Wilson 1986 / 1995). This definition is primarily relevant to languages with definite articles. However, as Trenkic (2002) suggests, this definition could be accommodated to definite referents in general, irrespective of whether they are grammatically marked as definite. In other words, this could be extended to be a definition of definiteness itself, which could apply to referents both in languages with and without a system of articles. We could say that a definite referent is a referent that exists and is unique in a pragmatically delimited set mutually manifest to the speaker and the hearer on-line.

Two basic types of definite referent can be identified: anaphoric and non-anaphoric referents. A definite NP referent in anaphoric use has been
mentioned in the preceding linguistic context while a definite referent in nonanaphoric use is determined by extralinguistic contexts, e.g. immediate situation use, larger situation use, and associative anaphoric use. For example,
(1) Anaphoric use
a. Mary got a doll and a ball for her birthday presents. She's playing with the doll now.
(2) Non-anaphoric use
a. Could you pass me the salt please? [at the table]
b. I'm looking for the conductor. Do you have any idea where he is now? [said after a concert has just finished.]
c. I've just been to the English class. The teacher gave lots of assignments from the first day!

In (1a), the referent the doll is definite because it has been mentioned in the preceding sentence. The doll is the only doll in the discourse context. This definite use is anaphoric. In J. Hawkins' terms, the doll exists and is unique in the pragmatically delimited set of the previous discourse which is mutually manifest to the speaker and the hearer on-line.

Examples (2a), (2b), and (2c) show non-anaphoric use. One could imagine the sentence in (2a) being said at a dining table with a salt shaker on it. Both the speaker and the hearer could see the only salt shaker and so they knew which salt shaker it referred to. This definite use is immediate situation use. The salt exists and is unique in a pragmatically delimited set (the immediate situation) mutually manifest to the speaker and the hearer on-line. In (2b), the NP referent the conductor is definite because there is typically one conductor in an orchestra. Such definite use is larger situation use, relying on general knowledge. The conductor exists and is unique in a pragmatically delimited set (the larger situation) mutually manifest to the speaker and the hearer on-line. In (2c), mention of the English class is linked to the referent the teacher (there is usually one teacher teaching a class at a time). Such an association of an NP referent with a definite NP is associative anaphoric use. The teacher, again, exists and is unique in a pragmatically delimited set (the
associative set) mutually manifest to the speaker and the hearer on-line (cf. detailed discussion of these definite uses in 5.2).

Note that the examples above are from English, a language with a system of articles, and the noun phrases were grammatically marked for definiteness by the definite article. However, I assume that referents in corresponding contexts in a language without articles would also be considered conceptually definite, even though they may appear as bare nominals. In the same contexts, as before, the doll, the salt, the conductor and the teacher would be taken to exist and to be unique in the pragmatically delimited set of discourse, which is mutually manifest to the speaker and the hearer on-line.

A discourse referent is therefore definite if the speaker intends to refer to it, and expects it to be identifiable to the hearer (whether it is grammatically marked or not). However, discourse-related identifiability does not depend on either the speaker's or the hearer's ability to determine THE real-world identity of discourse referents (cf. Trenkic 2008). For example,
(3) Macbeth was written by a famous English playwright.
(4) We are looking for the vandals who broke into the office last night.
(C. Lyons 1999: 10)

In example (3), although the real-world identity of a famous English playwright may be known to both the speaker and the hearer, the definite article cannot be used. In contrast, in example (4), even though neither the speaker nor the hearer might be able to identify the vandals who broke into the office last night on an identity parade, the can be employed. This is because definiteness as a discourse-related identifiability is linked to the referents' EXISTENCE and UNIQUENESS in discourse-determined pragmatically delimited contexts (cf. Hawkins 1991), and does not depend on the ability of the participants in discourse to determine the real-world identity of these referents. Discourse identifiability is therefore not the same as objective identifiability, which is a broader concept (cf. detailed discussion of 'discourse identifiability' and 'objective identifiability' in Chapter 7).

### 2.2.1 Definiteness as a category of meaning

Definiteness is usually viewed as a category of meaning associated with the semantic / pragmatic identifiability of a referent. It is considered "an element of interpretation in all languages" (cf. C. Lyons 1999: 278). Lambrecht (1994: 80) shares a similar idea, noting "[T]he mental ability to identify referents is presumably the same for all speakers in all languages". Semantic / pragmatic definiteness is therefore a universal property and it exists in communication cross-linguistically (see also the discussion in the previous section).

Some languages do not have formal markers of definiteness and speakers of these languages infer definiteness primarily through the context of use. Put differently, in languages without articles, identifiability of a referent is normally inferred through the available context. Besides being inferrable through context, semantic / pragmatic definiteness might also be a component of certain linguistic expressions such as demonstratives, possessives, personal pronouns or proper nouns.

Other languages exploit a grammatical marker (an overt element) or "an identifiability marker" (after Lambrecht 1994: 78) to signal the identifiability of a referent, i.e. the definite article (cf. Millar 2000).

This is why some people talk about grammatical definiteness as opposed to semantic / pragmatic definiteness. In the next section, the focus will be on grammatical definiteness.

### 2.2.2 Grammatical definiteness

Grammatical definiteness is posited to exist in a language when there is a grammatical marker of definiteness. The most detailed account of grammatical definiteness is probably by C. Lyons (1999). C. Lyons' account is introduced here in some detail.

In Lyons' account, definiteness is postulated to be a grammatical category in the sense that it grammaticalises a semantic / pragmatic category
of identifiability (cf. C. Lyons 1999: 282). ${ }^{\prime} \quad$ The presence of a formal marker of definiteness (i.e. the definite article) in a language is taken to signify that the category of definiteness has its grammatical representation in syntax in that language.

In relation to grammatical definiteness, C. Lyons proposes a modified version of the DP hypothesis (i.e. the Determiner Phrase hypothesis) (cf. Abney 1987).

Based on the DP framework, functional categories are treated as heads of noun phrases. The noun phrase (NP) is a phrasal projection of the functional category D (eterminer). So, a determiner, not the lexical head N , is head of a nominal phrase. ${ }^{2}$ Since lexical categories are complements in higher phrases which are projected from functional categories, the NP is a complement of the functional head D (eterminer). ${ }^{3}$ Therefore, within this structural position, determiners occur in the DP (cf. Abney 1987 for details of the proposal).

Concerning definiteness as a grammatical category, Lyons proposes that the functional category D represents a structural expression of $\operatorname{Def}$ (initeness), not $\operatorname{Det}($ erminer). Also, in his account, it is not the meaning of the definite article that makes a nominal phrase definite, but its occurrence in a particular syntactic position (Lyons identifies this position as the specifier of DP) (cf. C. Lyons 1999 for more detail).

The view that D is 'definiteness' and not 'determiner' was advanced due to a claim about weakness in the DP paradigm. Lyons claims that the DP hypothesis cannot account for double determination in certain languages such as Swedish and Norwegian. Double determination is a phenomenon where

[^6]free-form (prenominal) definite articles occur with a noun and, concurrently, affixal definite articles are attached to the same noun (e.g. in Swedish den långa resan 'the long journey' (cf. C. Lyons 1999: 78), the free-form definite article den and the suffix definite article $-n$ co-occur in the same noun phrase). According to the DP analysis, both free-form and bound definite articles are assumed to be D heads and so it is difficult for the DP framework to account for such a phenomenon. ${ }^{4}$ Lyons suggests that what are associated with D and the DP projection are only definite determiners; other determiners are associated with certain lower functional heads in the multiple functional projections (cf. Cinque 1995). While free-form definite articles are generated in a structural position (i.e. DP specifier), affixal articles are heads.

So, the strengths of Lyons' modified proposal that D represents D (efiniteness) are the following. Firstly, the claim that D is definiteness makes the functional head D [efiniteness] neatly correspond to a grammatical category like other functional heads proposed in the literature (the functional head D (eterminer) in the DP framework belongs to a word class). Second, the assumption of specifier free-form and head affixal definite articles can appropriately account for double determination.

Lyons provides evidence that it is not the meaning but the filling of a structural position that makes a nominal phrase definite. There are languages such as English and French, in which the definite article cannot exist when some determiners such as a demonstrative appears in a nominal phrase, as exemplified here:
(5) a. this book
(English)
b. *the this book
(6) a. le livre
the book
b. *le ce livre the this book

[^7]However, such a complementary distribution between a determiner and an article does not occur in certain languages. The two elements can be combined like the case of co-occurrences of definite articles and demonstratives in Spanish and Catalan, as shown below:
(7) a. este país
(Spanish)
this country
b. el país este the country this 'this country'
(8) a. aquella ciutat (Catalan)
b. la ciutat aquella
the city that
'that city'
(C. Lyons 1999: 120)

A demonstrative in Spanish and Catalan can occupy a position, i.e. before a noun and makes the nominal phrase definite such as (7a) and (8a), respectively. In this case, the definite article cannot appear. However, when a demonstrative appears in an adjectival position, i.e. after a noun, the definite articles $e l$ in Spanish and la in Catalan are required to occupy the position before the noun in order to signal definiteness such as (7b) and (8b), respectively. ${ }^{5}$

[^8]So, according to C. Lyons' account, when demonstratives (which are semantically inherently definite and their function is to point out a referent) in languages like Spanish and Catalan are in a position, i.e. before a noun, their meaning is not sufficient to make a nominal phrase definite. It is not their meaning but which structural position they occupy that makes a nominal phrase definite (or not).

It is worth noting that, in these languages, it is not possible for the definite article to have variation in position. It cannot occupy a position after a noun like a demonstrative and appears only in such a "peripheral" position in an NP (i.e. before a noun) (cf. C. Lyons 1999: 285).

Therefore, according to Lyons' account, demonstratives in some languages containing articles can occupy the adjectival position. As for languages without articles, it is assumed that the syntactic category determiner is non-existent in their grammars. Determiner-like elements of the semantic class determiners including demonstratives in these languages are claimed to behave syntactically like nominal modifiers, i.e. grammatical adjectives (cf. C. Lyons 1999; see also evidence in such languages as Czech and Polish in Corver 1992; Japanese in Fukui 1995; Kiswahili in Giusti 1997; Serbian in Trenkic 2004 and Bošković 2005; Thai in 3.3.3).

As far as the indefinite article is concerned, the modified DP hypothesis assumes that it is linked not to the concept of definiteness but to C (ardinality). Because the indefinite article is thought to be derived from the singular numeral one, it is associated with this numeral. This is in line with Chesterman's (1991: 1) assumption that definiteness and indefiniteness "are not merely polar opposites, but qualitatively different concepts". Like numerals, the indefinite article is postulated to occupy a position in the $C$ (ardinality) Projection. Indeed, Lyons calls this article type a cardinality article. The functional projection CardP is assumed to appear lower in the noun phrase structure, and so the indefinite article cannot occupy a structural position in the DP layer. Similar to the definite article which is assumed to

[^9]occur in a particular syntactic position (i.e. the specifier of DP), the indefinite article is assumed to occupy a structural position (i.e. the specifier of CardP). The indefinite article is considered to signal indefiniteness indirectly by the fact that the definite article does not appear (cf. J. Hawkins 1991; see also C. Lyons 1994 for a detailed discussion).

Summarising so far, C. Lyons' account has 2 important consequences for my work: (a) Some languages grammaticalise definiteness in the system of articles, others do not, and (b) Demonstratives can behave syntactically like adjectives even in some languages that grammaticalise definiteness (e.g. Spanish and Catalan), and are necessarily adjectival in languages that do not grammaticalise definiteness (no category determiner in those languages).
C. Lyons' account of how grammatical definiteness is viewed is insightful. However, the most contentious issue of his account seems to be that articles are completely pleonastic, i.e. meaningless. This is because it is well-known that, diachronically, the definite article developed from demonstratives and the indefinite article was derived from the numeral one. Although the meanings of demonstratives and the numeral one are bleached, intuitively, we know that their meanings are still present. One solution to this contentious issue seems to come from J. Hawkins' (2004) framework, which is as follows (note that the discussions will be primarily concerned with the definite and the indefinite articles in English):

Diachronically, definite articles across languages are assumed to have originated from demonstratives (cf. Jespersen 1933; Greenberg 1978; Wald 1983; Givón 1984; Clark and Marshall 1992; Lehmann 1995; Diessel 1999; C. Lyons 1999; Millar 2000; Heine and Kuteva 2002; J. Hawkins 2004; among others). The definite article in English is no exception.

Grammaticalisation is usually linked with weakening in both form and meaning (cf. Lehmann 1995; Heine and Kuteva 2002; Hopper and Traugott 2003). When demonstratives were grammaticalised, phonological reduction occurred. The stress on the demonstratives weakened and the definite article emerged from these demonstratives (cf. J. Hawkins 1978; 2004; Diessel 1999).

Demonstratives usually have deictic meanings. They are therefore related to the identifiability of a referent (cf. J. Lyons 1977; J. Hawkins 1978; C. Lyons 1999). It is claimed that these determiners "appear only in definite
noun phrases through being semantically incompatible with indefiniteness" (cf. C. Lyons 1999: 121).

After the English definite article descended from the demonstratives, the deictic meanings originally carried in demonstratives were gradually abandoned (see also Diessel 1999: 25). It is assumed that the article is employed in the language for grammatical reasons. Its syntactic function is to show that a noun is coming (see also Greenberg 1978). The article disambiguates noun and verb counterparts of the same form (e.g. to run and the run).

The assumption that the definite article is retained in English for the primarily syntactic function of marking a noun means that the may signal the category meaning of identifiability, but it is not its main function. As J. Hawkins (2004: 84) notes "There is no compelling semantic / pragmatic reason why the definite article should emerge out of a demonstrative то EXPRESS MEANINGS [my emphasis] that are perfectly expressible in languages without definite articles". However, the definite meaning in demonstratives from which the was inherited still remains despite bleaching of meaning. So, the definite meaning in the is assumed to be just an incidental by-product of its origin. As J. Hawkins claims, " $[\mathrm{R}]$ ather than causing its grammatical function, the semantic / pragmatic content of the definite article results from its grammatical function" (cf. J. Hawkins 2004: Chapter 4; 1994: 403-6. See also Halliday and Hasan 1976; Giusti 1997, 2002; Tsimpli 2003 for a similar proposal that the definite article is employed for a grammatical function rather than semantic reasons).

Grammaticalisation is also postulated to occur with indefiniteness. The English indefinite article is assumed to develop from the singular numeral one. $A(n)$ is phonologically reduced from one (cf. Givón 1981; Wald 1983; Heine 1997; C. Lyons 1999; Rissamen 1997; Heine and Kuteva 2002; Hopper and Traugott 2003; J. Hawkins 2004; among others). Just like the case of the, through grammaticalisation, $a(n)$ performs a grammatical function of showing that a noun is coming. Although the semantic content of the numeral one was bleached out, the fact that traces of its meaning still exist in $a(n)$ is a natural result of the origin of the article (cf. Heine 1997: Chapter 4).

In sum, a combination of C. Lyons'(1999) and J. Hawkins'(2004) notions of definiteness seems to account for grammatical definiteness. What is relevant for my study from C. Lyons' (1999) account is that, in languages with articles, articles are assumed to fill in structural positions to signal grammatical definiteness. Also, it is postulated that, in articleless languages, the category determiner is non-existent in their grammars and determiner-like elements are adjectival in nature. Due to the contentious issue of articles being pleonastic in C. Lyons' account, J. Hawkins' framework has been revised to resolve it. According to J. Hawkins (2004), the English articles were developed for grammatical reasons. The (in)definite meanings are only incidental consequences of the sources of the articles.

Based on the assumption that there is no grammatical definiteness (i.e. no category determiner) in languages not containing articles, the next section explores a view on L2 acquisition of English articles by learners from such language backgrounds.

### 2.3 A view on the acquisition of English articles by L2 learners from articleless languages

In Chapter 1, two dominant views on the acquisition of functional morphology were identified. One view attributes L2 variable production of functional morphology to the processing problems although L2 learners' syntactic representations are target-like. The other view assumes non-targetlike syntactic representations (cf. 1.2).

In a similar vein, variable production of L2 English articles has been interpreted in different ways. Research supporting fully specified syntax postulates that L2 learners from articleless languages have target-like syntactic representations of definiteness. Variability in production occurs due to processing problems (cf. Goad and White 2004) (cf. 2.4). The other explanation suggests that the syntactic category determiner is non-existent in the grammars of languages without articles, and that it is inaccessible in the L2 (cf. Kuribara 1999; Trenkic 2007). Kuribara and Trenkic put forward the argument that, as determiner-like elements of these languages are posited to
behave syntactically like adjectives, variable production of English articles occurs due to the L2 learners' misanalysing English articles as nominal modifiers, i.e. adjectives.

This thesis will be testing the assumption that English articles might be misanalysed as adjectives by L2 learners from articleless languages.

Before looking into this assumption in more detail, it is worth noting that the idea that L2 learners misanalyse input (syntactically) has been addressed before. For example, Lococo (1982) conducted studies with adult English speakers of L2 Spanish and L2 German. It is reported that, in a sentence where the direct object precedes the verb, the L2 learners misinterpreted the preverbal object as the sentential subject. Similarly, VanPatten (1983) conducts a series of experiment with adult L1 English learners of L2 Spanish at the university level. The results show that the learners tended to misanalyse object pronouns in preverbal position as the subject (e.g. Lo (him) visita (visit) le (the) chica (girl) $=$ the girl visits him (cf. VanPatten 1983: 10) could be misinterpreted as *he visits the girl). VanPatten argues that the input can be erroneously syntactically processed.

Also, in the morpheme order literature (cf., for example, Krashen 1981, 1982), the misanalysis of unanalyzed chunks or prefabricated patterns in L2 acquisition was also put forward. It is assumed that L2 learners misuse patterned segments or chunks of speech without knowledge of the internal structures. For example, Hakuta (1976) reports L2 misuse of the pattern Subj + gonna + V (e.g. *Everybody gonna do it (Hakuta 1976: 325)) by a Japanesespeaking learner. The auxiliary is missing from the structure. Moreover, the learner mistreated the chunk do you as used in interrogation by using it in Wh-embeddings (e.g. *I know how do you write this (Hakuta 1976: 328)).

The assumption of syntactic misanalysis to be looked into in this thesis is different from the above assumptions. It focuses on misrepresentation of English articles as nominal modifiers by L2 learners from articleless languages. The rest of the chapter looks into this assumption in detail. To start with, the two studies based on this assumption are briefly presented.

Kuribara (1999) employed a grammatical judgment test on English NP constructions related to determiners, i.e. determiner omissions ( ${ }^{*}$ Adj +N ; e.g. nice hotel), no strict word order for determiners (*Adj + Det +N ; e.g. happy
their life), and multiple occurrences of determiners (*Det + Det +N ; e.g. the yesterday's programme). ${ }^{6}$ The subjects were 100 L1 Japanese / L2 English classified into 10 groups according to their English proficiency levels. It is reported that the learners' performance on the constructions correlated positively with their proficiency levels. Kuribara's assumption was that if an abstract category determiner is acquired at some point, then there should be a sharp and sudden improvement in the performance of all the constructions. As the improvement was gradual, and the improvement on some constructions was lagging behind the improvement on the others, Kuribara concludes that the category determiner was not acquired. It was suggested that the L1 Japanese speakers misrepresented English determiners as prenominal modifiers.

Trenkic (2007) explored English article omissions in nonpremodified $($ Art +N$)$ and adjectivally premodified (Art + Adj +N ) contexts by L1 Serbian speakers of different English proficiency levels. Results showed significantly higher article omissions in Art + Adj +N than in Art + N sequences in all the learner groups. The asymmetric article omissions were interpreted as evidence for the learners' misanalysing English articles as nominal modifiers. Such mistreatment is assumed to have occurred due to non-existence of the category determiner in Serbian, and determiner-like elements in Serbian being adjectival in nature (cf. details of the study in 2.4.1.1).

Trenkic (2007) assumes a difference in article production by L2
learners from different language backgrounds. L2 learners from languages containing articles are postulated to have the syntactic category determiner in their grammatical representations and so their article production is syntactically triggered. L2 article production is therefore obligatory in certain syntactic contexts, i.e. in contexts where articles are required. It is assumed that such production of articles as functional categories is not only mandatory but also automatic. So, processing demands might not be needed in the production.

[^10]On the other hand, L2 learners from L1s without articles are assumed not to have a category determiner in their grammar. They are argued to misanalyse English articles as syntactic adjectives instead. So, English articles (functional elements) might be misanalysed as prenominal adjectives (lexical words) by L2 learners from these language backgrounds. As a result, articles might be produced as adjectives to express the lexical meaning of (un)identifiability. Therefore, the learners' English article production is considered to be lexically driven. It is postulated that, as articles are misrepresented as adjectives, which are lexical categories, the production is not obligatory and automatic like production of articles as functional categories. So, processing demands tend to be required in the production.

Nevertheless, unlike with real adjectives which are produced only when the meaning they encode is needed to make the reference clear (e.g. 'a blue mug' would be referred to as a blue mug only if there was a mug of a different colour present, but not otherwise), articles need to be present irrespective of whether the 'meaning' they express is essential for reference resolution or not (e.g. in the context of just one mug, Pass me the mug and the ungrammatical *Pass me mug should reliably pick out the same reference). What this means is that L2 production of English articles misrepresented as adjectives would not only be lexically driven but it must also have to be strategic (i.e. when the learners realise that articles are required to be produced in English).

The assumption of English articles misanalysed as adjectives by L2 learners from articleless languages or the Syntactic Misanalysis Hypothesis (cf. Trenkic 2007) leads to predictions of several consequences on L2 English article production by L2 learners from articleless languages.

It is assumed that English article production depends on L2 learners' cognitive resources (i.e. 'attention') (cf. Trenkic 2008: 10) ${ }^{7}$. So, when L2 learners realise the need to produce English articles and their cognitive resources are available, ARTICLE SUPPLIANCES are anticipated. On the other hand, when this is not the case, article omissions are predicted to occur.

[^11]This can be seen from the case of article production in non-premodified and adjectivally premodified contexts (cf. Trenkic 2007). As the learners might place an article and an adjective in a premodified context in different adjectival positions, there is a need to encode more elements of meanings in premodified than in non-premodified structures. It is posited that, all things being equal, the learners' cognitive resources are exceeded sooner in more complex Art + Adj +N contexts (3 elements of meaning) than in simpler Art +N structures (2 elements of meaning) (Processing any three co-indexed concepts is usually more difficult than processing two). The expected consequences are higher L2 English article omissions in the former contexts (cf. Chapter 4 for details of the argument).

The model of syntactic misanalysis also makes specific predictions regarding article substitutions. As discussed in 2.2, a discourse referent is definite when it EXISTS and is UNIQUE in a pragmatic set mutually manifest to the speaker and the hearer on-line (cf. Hawkins 1991). The assumption is that L2 learners from articleless languages misanalyse English articles as nominal modifiers, attributing to them the referential meanings of 'definite, that can be identified' to the and 'indefinite, that cannot be identified' to $a(n)$. The referential meanings of 'identifiability' are related to 'objective identifiability' of referents, a broader concept than 'discourse identifiability' (i.e. definiteness) of referents. The L2 learners might apply various criteria of 'identifiability'. When the criteria of objective identifiability and discourse identifiability of referents converge, article choice may be easy for the learners and they may therefore make an appropriate article choice. On the other hand, when the criteria do not converge, the learners may be less certain which article choice to make. In this case, article fluctuations may occur.

Correct article suppliance and article fluctuations are thus assumed to occur in the following ways:

| English <br> articles | Criteria of discourse <br> identifiability | L2 criteria of <br> objective <br> identifiability | Predicted L2 article <br> production |
| :---: | :---: | :---: | :--- |
| the | + definite | $+\mathrm{X}^{8}$ | correct suppliance <br> of the |
| $a(n)$ | - definite | -X | correct suppliance <br> of $a(n)$ |

Table 2.1: Convergence of L2 criteria of objective identifiability with criteria of discourse identifiability

| English <br> articles | Criteria of discourse <br> identifiability | L2 criteria of <br> objective <br> identifiability | Predicted L2 article <br> production |
| :---: | :---: | :---: | :--- |
| the | + definite | -X | article fluctuation <br> (overuse of $a(n)$ ) |
| $a(n)$ | - definite | +X | article fluctuation <br> (overuse of $t h e)$ |

Table 2.2: Divergence of L2 criteria of objective identifiability from criteria of discourse identifiability

For example, L2 learners' criteria of identifiability of a referent might be 'being previously mentioned' or 'knowing what somebody / something looks like'. In a context where a referent has been previously mentioned and also the speaker in the context knows what the referent looks like, the learners may find it easy to choose the. In another context where a referent has not been previously mentioned and the speaker does not know what the referent looks like, the learners may not find it difficult to make an article choice of $a(n)$. In these two cases, the criteria of objective identifiability ('knowing what somebody / something looks like') and the criteria of discourse identifiability 'being previously mentioned' converge on the same outcome (cf. Table 2.1).

In contrast, in a context where a referent has been previously mentioned but the speaker does not know what the referent looks like, the speaker may be less sure which article to choose. Article fluctuation, i.e. overuse of $a(n)$ may therefore occur. In another context where a referent has not been previously mentioned but the speaker knows what the referent looks

[^12]like, the speaker may also be less certain of making an article choice. The result may be overgeneralisation of the. In these cases, the criteria of objective identifiability and discourse identifiability do not converge and so it may result in article fluctuations (cf. Table 2.2).

It is worth noting that article substitutions arising from L2 learners' criteria are not random. They are anticipated to be principled, reflecting the lexico-semantic content the learners have assigned to the article forms. As it is possible for different criteria of form-meaning connections to be established, the meanings attributed to forms might not be universal (cf. 7.6 for details of the arguments).

The assumption of the Syntactic Misanalysis Hypothesis, as well as the assumption of alternative accounts will be further tested in this thesis. To set the background in which the current work is to be understood, the following section reviews some of the previous research on variability of L2 English article production.

### 2.4 Research on L2 English Article Production

A number of studies on L2 acquisition have dealt with English article production by adult learners. Although there are only three articles in English, i.e. $a(n)$, the and zero articles, results seem to show that L 2 learners have difficulties using them. ${ }^{9}$

This section explores studies into L2 English article production by adult learners. The studies are predominantly concerned with English article omissions and substitutions. Article omissions occur when articles are not produced in obligatory contexts. Article substitutions are cases where the definite form is produced in indefinite contexts, i.e. the substituting $a(n)$ or a

[^13]zero article and / or the indefinite article is inappropriately supplied in obligatory definite contexts, i.e. $a(n)$ replacing the.

In the next sections, research on L2 English article production is examined. Studies into L2 English article omissions are investigated first (2.4.1), followed by research on L2 English article substitutions (2.4.2). What is presented in each section is what was found in the studies, how the findings were accounted for and what the potential problems are with the explanations given. From there, how my study will address those problems is spelled out.

### 2.4.1 Studies on L2 English article omissions

L2 English article omissions by adult L2 learners have been observed in several studies. Most of the previous research on English article omissions looked at the omissions in terms of whether articles are omitted in obligatory contexts (cf., for example, English article omissions by L1 Czech / L2 English speakers in Dušková (1969), L1 Arabian speakers in Kharma (1981), Japanese-speaking learners of English in Yamada and Matsuura (1982), L1 Finnish / L2 English speakers in Sajavaara (1983), L1 Malaysian speakers in Kok (2001); among others). English article omissions are reported to be attested in these studies.

The earlier studies simply look at the overall level of article suppliance in obligatory contexts. More recent studies do not simply look at the overall level of article use, but instead focus on asymmetries in article production in particular contexts. It is assumed that this change has occurred because, when functional elements are accurately produced at a particular level (i.e. $80 \%$ ), variability can be explained in terms of both processing problems in production and non-target-like syntactic representations (cf. Jiang 2004) (cf. 1.2.3).

A close investigation of studies into L2 English article omissions reveals two domains of current research in this area. One is on article omissions in non-premodified and adjectivally premodified NP contexts. A non-premodified NP is an article followed by a noun, i.e. Art +N , whereas an adjectivally premodified NP is an NP structure whereby a prenominal
adjective modifies a noun, i.e. Art $+\operatorname{Adj}+\mathrm{N}$. The other domain is on article omissions in first and second mention definite NP contexts. As discussed in 2.2, a first mention definite NP is an NP referent which is introduced for the first time in the context as the +NP (e.g. Please bring me the book (in the situation where the book is in the room where the speaker and the hearer are and both can see it). A second mention definite or an anaphora definite is a referent which has been introduced in the preceding context by an indefinite $\mathrm{NP}(a(n)+\mathrm{NP})$ and referred back to by a definite $\mathrm{NP}($ the +NP$)$ (e.g. I've just bought a book and a notebook. The book is over there).
2.4.1.1 looks into research on L2 English article omissions in nonpremodified and adjectivally premodified structures and 2.4.1.2 explores studies into L2 English article omissions in first and second mention definite contexts. These studies are reviewed, linking with why the present study extends the investigation into article omissions on both issues.

### 2.4.1.1 Studies on L2 English article omissions in non-premodified and adjectivally premodified NP contexts

Studies that bear directly on L2 English article omissions in Art + N and Art + Adj +N sequences are Goad and White (2004) and Trenkic (2007).

Goad and White (2004) took a closer look at the nominal morphological production from the oral data by SD, the subject in White (2003a). ${ }^{10}$ White claims that SD's syntactic representations of definiteness are target-like. So, before exploring Goad and White (2004), it is necessary to discuss White's (2003a) findings and her interpretations of the results.

As discussed in 1.2.1.1, White conducted a longitudinal study of SD, an end-state adult L1 Turkish speaker, via interviews. The subject had been living in Canada for approximately ten years and so had been highly exposed to an English-speaking environment.

Although Turkish is a language without the definite article, SD's syntactic L2 representations of definiteness are argued to be target-like. For example, although article omissions sometimes occurred, when articles were

[^14]produced, substitution of definite for indefinite articles or vice versa never occurred. White claims that if definiteness is not part of SD's grammar, random substitutions of articles should have occurred. Further evidence suggesting that SD could distinguish between definiteness and indefiniteness was that her use of the indefinite article in the existential construction (e.g. there is $a(n) \ldots$ ), which is concerned with definiteness effects, was highly appropriate. ${ }^{11}$ Moreover, the result of the grammaticality judgment test on presence and absence of articles showed the subject's knowledge of definite and indefinite article use.

White concludes from SD's English article use that the subject's syntactic representations of the feature definiteness are intact. The fact that English articles are not always correctly produced does not indicate absence of definiteness properties in the subject's grammar. If SD did not have fully specified syntax, she would not be expected to perform as well as she did.

Goad and White (2004) investigated the production data from White (2003a). Based on the Prosodic Transfer Hypothesis (PTH), Goad, White and Steele (2003) and Goad and White (2004) propose that different prosodic structures in the native and target languages are responsible for variability in L2 morphological production. L2 learners' syntax is postulated to be targetlike. The problem however is concerned with different phonological representations (see also Goad and White 2005, 2006).

At this point I feel that there is a need to briefly introduce the fundamental assumptions of the PTH as a background for looking at the analysis in Goad and White (2004).

The PTH is within the framework of prosodic phonology, which assumes a phonologically hierarchical structure in languages. Goad, White and Steele (2003: 247) postulate that prosodic constituent organisation is in the following prosodic structure hierarchy (cf. Nespor and Vogel 1986; Selkirk 1996):

[^15](9)

Prosodic hierarchy (partial):


Constituents are organised into a hierarchy. Each constituent is arranged into the higher one: segments into syllables; syllables into feet (the domain where stress is assigned); feet into prosodic words and prosodic words into phonological phrases. Selkirk (1996: 190) claims that prosodic structure is assumed to respect the strict layering. However, it is not always the case that there is a domination of a prosodic constituent by the immediately higher one.

The account assumes that functional elements in languages can be prosodified differently. Functional material (fnc), according to Selkirk (1996: 188), could appear in the prosodic structure as an independent prosodic word (PWd) (10a) or as a morphosyntactic word that is not a PWd, called 'a prosodic clitic', referring to an internal clitic, an affixal clitic and a free clitic, i.e. (10b), (10c) and (10d), respectively:
a. independent PWd
b. internal clitic
c. affixal clitic
d. free clitic


An internal clitic respects the layering in the hierarchy and is organised inside the PWd. Affixal and free clitics do not respect the arrangement of
constituents in the hierarchy. While an affixal clitic is adjoined to the PWd, a free clitic links directly to the PPh.

Functional and lexical elements may therefore be organised in the same linear position and the same syntactic structure in two languages. However, the prosodic organisations of the material might be different.

The PTH predicts non-native-like production of functional elements as follows. The first prediction is an extreme case whereby deletion of functional material is $100 \%$. This is expected to occur when prosodic structures in the L2 are non-existent in the learners' native language. The second case is that if different prosodic structures in the L1 can be used to accommodate the structures required in the L2, variable production is anticipated to occur. Goad and White claim that SD's deletion of the English article could be accounted for by the PTH.

One of the results of SD's production is more article deletion in Art + Adj +N than in Art +N contexts. It is assumed that SD uses a non-targetlike prosodic structure in L1 Turkish to accommodate the L2 English Art +N structure, but such use of a non-target-like structure in Turkish to accommodate the English Art + Adj +N context is not possible. The next part is concerned with a different prosodic structure in Turkish which cannot represent English articles.

In its strong form (i.e. in the case of emphasis or contrast), the English indefinite article is stressed and is in its full vowel: [ej]. When it precedes a noun in such a noun phrase as $a \operatorname{dog}$, the syllable is stressless and is in its reduced vowel [ə]. Similarly, the strong form of the English definite article is [ðı:] and is unstressed with the reduced vowel [ðə] or [ [ $\chi_{I}$ ] in its weak form (cf. Selkirk 1984: 335; C. Lyons 1999: 64).

Selkirk proposes that English function words preceding lexical words are represented by free clitics. She gives the following examples (1996: 198):
(11)


English determiners appear to the left edge and prosodification of the articles $a /$ the is assumed to be a free clitic linked to the PPh :


In investigating the prosodic structure of determiner phrases in Turkish, Goad and White (2004: 3) argue that the unstressed bir, which is assumed to be an indefinite article or sometimes considered a quasi indefinite article (cf. C. Lyons 1999: 95), occurs outside the lower PWD. Bir is proposed to be an affixal clitic involving adjunction to the PWd (cf. Goad and White (2004) on details of the arguments).

Goad and White (2004: 9) show that prosodifications of determiner phrases with bir and $a /$ the in Turkish and English, respectively, are organised in different ways:
(13)
a. Turkish: indefinite article
Affixal clitic (prefix):
b. English articles:
Free clitic:



Bir in Turkish is an affixal clitic adjoined to the PWd, i.e. it must be adjacent to the syntactic head (i.e. no other elements can be inserted between bir and the noun). The quasi indefinite article is not allowed to prefix onto the adjective in Turkish. However, $a /$ the in English are free clitics linked to the PPh as the article can be separated from the head (e.g. by an adjective).

The subject, SD, is reported to produce $77 \%$ of definite articles and $70 \%$ of indefinite articles in Art +N contexts. Although the free clitic representations are not licensed in Turkish, the fact that SD produced English articles shows that she might use some prosodic structures available in Turkish to represent them. One possible option is postulated to be adjunction to PWd:
(14) English article production in Art + N structure by L1 Turkish speaker


In contrast, SD's suppliance of English articles in Art + Adj +N was only $67 \%$ for the definite article and $49 \%$ for the indefinite article. It was argued that the lower article suppliance in adjectivally premodified contexts was because the adjective can be placed between the article and the noun in English, but not in Turkish. Compare the well-formedness in (15a) and the illformedness in (15b):
(15) a. iyi bir adám
good a man
'a good man'

## b. *bir iyi adám

(Goad and White 2004: 132)

The quasi indefinite article bir, which is unstressed, cannot prefix on the adjective and cannot be separated from the noun. It is prosodically dependent on the head noun by being prefixed onto adám. ${ }^{12}$

So, if SD uses the phonological structure in order to produce English articles, it can easily accommodate the Art +N construction, but does not allow an adjective to be inserted between the article and the noun.

Goad and White therefore argue that, despite target-like syntax, SD's variable English article production, especially in Art $+\mathrm{Adj}+\mathrm{N}$ contexts, can be accounted for by differences between prosodic structures in the L1 and the L 2 .

Although the PTH might seem consistent with SD's English article omissions, especially in adjectivally premodified NPs, there appeared some internal problems with the PTH account on Goad and White's own data. First, it is reported that SD's overall article suppliance was $67 \%$. SD produced approximately $74.5 \%$ of the and $61.5 \%$ of $a(n)$. So, suppliance rates of the two article types were very different. Given a prosodic structure to represent English articles, it is not clear why SD's suppliance of the definite article was more accurate than for the indefinite article. Goad and White (cf. 2004: 14) themselves mentioned that the production rates of both $a(n)$ and the should have been about the same and they could not account for such a discrepancy

[^16]in the data. Second, inconsistent article suppliance rates were also evidenced in Art + Adj +N contexts. The data showed that $a(n)$ was supplied much less frequently, only $49 \%$, in contrast to $67 \%$ of the. With unavailability of a prosodic structure in Turkish to represent English articles in this structure, suppliance of the indefinite and the definite articles in these contexts should have been approximately the same. Moreover, as discussed above, although prosodic structure of adjunction in Turkish could be used to accommodate English articles in Art +N , it cannot represent Art + Adj +N . Goad and White assume that this non-existence of prosody in the L1 caused SD to omit more English articles in premodified contexts. The question that arises is, if there are no prosodic representations available for adjectivally premodified structures, why were articles produced at all in such contexts? Put differently, why did not article deletions occur across the board in these NP environments?

I shall return to these issues in my study in Chapter 4.
Trenkic (2007) also investigated L2 English article omission in nonpremodified and adjectivally premodified NP contexts. As discussed in 2.3, Trenkic worked with 4 groups of L1 Serbian speakers at different proficiency levels. The L2 learners were tested on two tasks: a Map Task and a shortstory written translation task (from Serbian into English). ${ }^{13}$

The results of the Map Task showed significantly higher rates of article omissions in Art + Adj +N contexts than in Art +N contexts.

As for the translation task, article omissions in non-premodified and adjectivally premodified NP structures for both definite and indefinite contexts were as follows:

[^17]| Article <br> omission | Omission of the |  | Omission of $a$ |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Art + N | Art + Adj +N | Art + N | Art + Adj + N |
| Group A | $23.0 \%$ | $54.5 \%$ | $31.7 \%$ | $49.6 \%$ |
| Group B | $14.3 \%$ | $42.5 \%$ | $16.7 \%$ | $43.3 \%$ |
| Group C | $0.9 \%$ | $15.0 \%$ | $0.0 \%$ | $3.8 \%$ |
| Group D | $0.3 \%$ | $6.0 \%$ | $1.1 \%$ | $1.5 \%$ |

Table 2.3: The L1 Serbian speakers' English article omissions in the Art + N and Art + Adj +N contexts from the written translation task (adapted from Figures 3 and 4 in Trenkic 2007)

It is reported that the learners of all levels had a marked tendency to drop articles, both definite and indefinite, more in Art + Adj +N contexts. Although the two higher-level groups' (groups C and D ) performance in supplying articles was far better than the lower two (groups A and B), the same asymmetric pattern still persisted. So, adjectivally premodified contexts seemed to have a negative impact on article production across proficiency levels.

The fact that L1 Serbian / L2 English speakers omitted more articles in Art + Adj +N than in Art +N contexts in a written translation cannot be accounted for by the PTH. The PTH can only make predictions related to oral production.

Could the PTH account for the higher rate of article omissions in Art + Adj + N in the Map Task (oral production) in Trenkic (2007)? Trenkic argues not, because the prosodic structure required for the target-like representation of English articles exists in Serbian.

In order to investigate if prosodic representations caused these L1 Serbian-speaking learners' more article omissions in Art + Adj +N than in Art +N structures, Trenkic showed prosodic structures for Determiner-like element +N in Serbian (based on Figure 14 from Trenkic 2007):
a.

b.


Following Zec (2005), Trenkic shows that when determiner-like elements in Serbian such as jedna 'one' are disyllabic, they are prosodified as an independent prosodic word (16a). However, when they are monosyllabic such as ta 'that', they are directly associated with the PPh (16b). Therefore, the prosodic organisation, a free clitic at the left edge, which is used to represent English articles, also exists in Serbian. For this reason, it is postulated that the same prosodic representations in English and Serbian cannot cause the L1 Serbian speakers' variability in English article production.

Summing up so far, prosody cannot be the cause of article omissions by L1 Serbian / L2 English speakers. An identical prosodic structure as needed to represent English articles exists in L1 Serbian.

Trenkic (2007) clearly shows that the Prosodic Transfer Hypothesis cannot account for the data on more article omissions in adjectivally premodified than in non-premodified contexts by her L1 Serbian speakers. She assumes that article production by the L1 Serbian / L2 English speakers and SD could be accounted for by a more general explanation, i.e. the Syntactic Misanalysis Hypothesis (SMH).

According to the SMH, L2 learners from different language backgrounds produce articles differently. It is assumed that L2 learners from languages with articles have the syntactic category determiner in their syntactic representations. So their article production is obligatory in certain syntactic contexts because the production is based on syntax.

In contrast, L2 learners from languages without articles do not have the category determiner in their grammatical representations. It is postulated that these learners are not able to acquire this syntactic category. However, determiner-like elements in such languages are posited to be adjectival. So,

English articles might be mistreated and produced as adjectives. Because the lexical meaning of (un)identifiability is expressed through a semantic class of determiners, L2 English article production is assumed to be lexically-based. However, articles must be supplied no matter whether their 'meaning' is necessary to make the reference clear (unlike real adjectives, which are produced only when the meanings they express are necessary for reference resolution). So, besides being lexically driven, English article production by L2 learners from languages without articles is also strategically determined. L2 learners will produce articles when they realise this requirement in English.

An alternative explanation (from the fully specified syntax view) might be that more article omissions in premodified contexts occurred due to more difficulties in syntax-morphology mapping. If this was the case, the prediction would be that L2 speakers of English from any L1 background might show this asymmetry. As far as I am aware, there are no studies that have directly examined this asymmetry with L2 speakers of English whose L1s contain articles, but a study by Grandfelt (2000) with L1 Swedish / L2 French speakers might be indicative.

Grandfelt (2000) compared the acquisition of functional elements in the DP in French by three Swedish-French bilingual children and four L1 adult Swedish-speaking learners from natural production data. He found that, in the first recordings, the children seemed to omit articles at high rates. When it came to Art + Adj + N contexts, there was a stage where the young learners supplied either an article or an adjective in an almost complementary distribution. His explanation was based on Clahsen et al. (1994). The assumption is that, in early grammars, there is only one syntactic position which could host either an adjective or a determiner. This complementary distribution is taken to indicate that the child learner had not yet acquired the functional category Determiner, i.e. no DP in a noun phrase structure, and the article form was assumed to be a prenominal adjective. However, not long after this stage, article omission rates markedly decreased and article drops in Art + Adj +N contexts were also considerably lower. It was posited that a syntactic position for a determiner had been acquired and so article production was syntactically driven.

In contrast, the adult L1 Swedish / L2 French bilingual speakers did not seem to encounter difficulties in producing determiners in French. These learners' determiner omissions were at low rates. A lower rate of article omission was in fact evidenced in Art $+\mathrm{Adj}+\mathrm{N}$ structures (indeed, only one instance of article omission in such contexts is reported). Grandfelt (2000) claims that the adjectivally modified contexts did not seem to exert a negative influence on the Swedish speakers' article production because a similar DP syntactic structure was transferred from Swedish into French. Evidence from Grandfelt's study is therefore assumed to suggest that the fully specified syntax account cannot explain why more complex Art + Adj +N structures do not exert more article omissions than simpler Art +N contexts in the case of L2 learners whose L1s have determiners.

The data from Grandfelt is suggestive, but limited (e.g. a small number of participants and no L2 control / comparison groups from articleless language backgrounds). So far, no study has tested the claim on L2 English article production by speakers from L1s with articles. Goad and White (2004) and Trenkic (2007) worked with L2 learners from languages without articles, i.e. Turkish in the former and Serbian in the latter case. ${ }^{14}$ The current study will extend this with another L2 learner population from an articleless language, i.e. Thai and compare this L2 learner group's article production with an L2 population from a language containing articles, i.e. French (as far as I am aware, this is the first study of how L1 speakers of French treat L2 English articles ${ }^{15}$ ). The study will explore if cross-linguistic differences will have any influences on how L2 learners produce L2 data (cf. Sharwood Smith 1994). To my knowledge, no study has actually explored whether asymmetry in article omissions in these two NP sequences is attested with learners from

[^18]different language backgrounds, i.e. with and without the article system (cf. hypotheses and testable predictions on L2 article omissions in nonpremodified and adjectivally premodified NP contexts in Chapter 4).

### 2.4.1.2 Studies on L2 English article omissions in first and second mention definite NP contexts

Studies on L2 English article omissions have also looked into article omissions in first and second mention definite contexts (cf. Robertson 2000; Trenkic 2000, 2002; Žegarac 2004; Sharma 2005).

Robertson (2000) looked at variable production of English articles by L1 Chinese speakers on a referential communication task. One finding was that the definite article tended to be omitted more in second (or what he called 'echo contexts') than in first mention contexts. Robertson (2000) explains this asymmetry by assuming that the learners employ a 'pragmatic recoverability' principle. What Robertson understands by this term is that the learners are less careful to mark a nominal phrase for definiteness, if the definiteness status of the referent can be easily recovered from the context. Robertson assumes that the definiteness status of the referent can be retrieved through both the linguistic (anaphoric) and non-linguistic (non-anaphoric) contexts. In the case of echo contexts, where a phrase initially introduced by one speaker is repeated by the other speaker, the definiteness status of the referent is already established and can therefore be considered redundant. This is how Robertson explains the increased rate of article omissions in this context.

Among other findings on English article production by L1 Serbian / L2 English speakers of four different proficiency levels, Trenkic (2000, 2002) reports definite article omissions on a written translation task. The two less proficient groups had a tendency to omit the in second mention more than in first mention contexts. Since Serbian does not obligatorily mark definiteness, the Serbian speakers were assumed to infer the definite status of a referent from the context. The learners' pragmatic strategy, according to Trenkic (2002: 14), was that the would not be used if the meaning that the definite
article is assumed to express could be easily retrieved from the context, and vice versa.

Žegarac (2004) explored the data from Trenkic (2002) as well as the data from the written production by speakers of Croatian, a language not containing articles. He also assumes that transfer from L1 and the above pragmatic considerations played a crucial role in production of the by L2 learners from articleless languages. The learners in his study were assumed to omit the definite article on the ground of saliency of the NP referent in the linguistic context. Žegarac explains this asymmetry by assuming that the definite article is omitted based on "linear closeness", i.e. when there exists coreferentiality between an NP referent and a nominal phrase in the preceding sentence (cf. Žegarac 2004: 208).

Sharma (2005) studied Indian English article use by L1 Indo-Aryan speakers through interviews. The article system in L1 Indo-Aryan is that the specific indefinite article exists while there is no definite article. It was found that language transfer of the overt article form played a role in Indian English. However, in the case of the definite article, it is reported that there were no complete omissions of the in these learners' L2 English. Concerning article production in first and second mention definite contexts, article omission rates were higher in second than in first mentioned NPs (cf. Sharma 2005: 556-7). It was postulated that the definite article tended to be omitted in more redundant contexts.

In sum, what the previous literature seems to suggest about the cause of more definite article omissions in second than in first mention contexts is 'redundancy.' There is a tendency for L2 learners to omit the in contexts with more redundancy in definiteness, and employ the article in opposite contexts. The present study aims at further exploring the issue of L2 learners' asymmetric patterns of English article omissions in first and second mention definite contexts. It will be examined if the reason behind such asymmetries lies in redundancy. Studies in this area have looked at the asymmetric pattern in first and second mention definite contexts by L2 learners from articleless
languages (Chinese, Serbian, and Indo-Aryan ${ }^{16}$ ). This study will explore English article omissions in the two contexts by another L2 group from an articleless language, Thai, and compare them with omissions by L1 French speakers, whose L1 possesses articles.

### 2.4.2 Studies on L2 English article substitutions

This section looks at studies on L2 English article substitutions. A review of earlier work on L2 English article substitutions is included to show a sense of continuity in research in this particular domain. The questions that will appear in recent work will be highlighted and picked up in this study.

One study that has had a profound and lasting influence on studying L2 English article production is that of Huebner (1983). Based on Bickerton's work (1981), Huebner (1983: 287) developed a system of classifying NPs by assigning a semantic function to each NP in terms of two distinctive binary features: [ $\pm$ information assumed known to the hearer] or $[ \pm \mathrm{HK}]$ and [ $\pm$ specific referent] or $[ \pm S R]$. These two binary features yield four combinations and each semantic NP context determines article use in standard English in the following ways:
[-SR] [+HK] (generics): the, $a(n)$ (singular); $\varnothing$ (plural) [+SR][+HK] (referential definites, i.e. unique referents and previously mentions): the
[+SR][-HK] (referential indefinites - first mentions): $a(n)$ (singular); $\varnothing$ (plural or non-count nouns)
[-SR] [-HK] (non-referentials): $a(n)$ (singular); $\varnothing$ (plural or non-count nouns)

Huebner conducted a longitudinal study of English article production by a native speaker of Laotian. It is reported that, at early stages of development, the learner had a marked tendency to use the definite article in all of the four

[^19]NP environments. However, in later stages, the tended to be restricted to [-SR; $+\mathrm{HK}]$ and $[+\mathrm{SR} ;+\mathrm{HK}]$ contexts. The results were taken to indicate that the L2 learner associated the definite article with the feature [ +HK ].

Many studies adopted Huebner's system of identifying the relationship between the semantic NP types and article use to investigate L2 English article production (cf. Parrish 1987; Thomas 1989; Chaudron and Parker 1990; Master 1990; Young 1996; Butler 2002; among others). These studies attempted to identify L2 learners' article substitutions but it appeared that the results were inconsistent. For example, like Huebner (1983), Chaudron and Parker (1990) and Young (1990) observed overgeneralisation of the among their low proficiency L1 Japanese and L1 Czech and Slovak speakers, respectively. Also, corresponding with Huebner (1983), Master (1990) claims that her L2 participants of different L1s attributed the definite article to [+HK] contexts. In contrast, some studies reached opposite conclusions, claiming that the learners associated the with [+SR]. Parrish (1987), for instance, found in a longitudinal study that her L1 Japanese speaker never employed the in non-referential indefinite [-SR;-HK] contexts and rarely employed this article for generic [-SR; +HK$]$ contexts. This was assumed to indicate that the [+SR] feature appeared to play a more dominant role in determining the definite article use than [+HK]. Similarly, Thomas (1989) found that her L2 participants of different L1s overused the more in [+SR] than in [-SR] contexts. Thomas took this as evidence for the learners relating the with [+SR]. ${ }^{17}$ Also, Butler (2002) reports that the L1 Japanese speakers in her study primarily had problems correctly detecting the [HK] feature. In line with Thomas (1989), she assumes that the learners seemed to attribute the definite article to [+SR].

These studies attempted to provide systematic accounts for L2 English article substitutions governed by the semantic features discussed. However, there seemed to be no consensus regarding interpretations of the findings. Nevertheless, although the findings from the earlier works seemed apparently

[^20]inconclusive, they are important for my research as some points have been picked up and built on in later research on article substitutions.

While previous research addressed the semantic functions in article choice based on combinations of the two binary features: $[ \pm \mathrm{HK}]$ and $[ \pm \mathrm{SR}]$, recent work has tended to develop in a different way. The findings on L2 English article substitutions in three recent studies, i.e. Trenkic $(2002,2008)$ and Ionin, Ko and Wexler (2004) will be discussed, as related points will be addressed in my study.

Trenkic (2002) examined English article use by four proficiency-level groups of L1 Serbian adult speakers from a written translation task. What she found was that the L2 learners used the in indefinite contexts more when the referent was a concrete countable object (e.g. letter) than when it was an abstract countable concept (e.g. disaster) or a mass or a plural referent (e.g. sand or dogs, respectively). The findings were assumed to suggest that the NP qualities of concreteness and countability cause NP referents to be 'identifiable' and imaginable, and in that sense 'definite'. So, the L2 learners seemed to relate the with "discrete" referents, i.e. entities that are precise in form, and in that sense 'identifiable' (cf. Trenkic 2002: 11). It is postulated that the L1 Serbian-speaking learners established systematic non-native-like form-meaning connections. The results were contradictory to L2 learners associating articles with the semantic NP types $[ \pm \mathrm{HK}]$ and $[ \pm \mathrm{SR}]$, as claimed in the previous literature (e.g. Huebner 1983 and Master 1990). Trenkic's findings lead to the interesting insight that, given other possible semantic distinctions, the issue of L2 learner's connection between article forms and meanings needs to be given careful consideration.

Ionin, Ko and Wexler (2004) explored English article substitutions by L1 speakers of Korean and Russian, languages without articles. They (2004: 12) proposed the Article Choice Parameter (ACP) for languages that have two articles. 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, articles are distinguished on the basis of 'definiteness' in English (the Definiteness Setting), and 'specificity' (the Specificity Setting) in Samoan. It is claimed that article systems encoding
definiteness cut across the specificity distinction and article systems encoding specificity cut across the definiteness distinction. For example, the specific article in Samoan can be understood as [+def] and [-def] whereas the definite article in English can be understood as [ + spec] and [-spec]. For instance, $a(n)$ in English can be understood as [+spec] in (18a) and as $[-s p e c]$ in (18b):
(18) a. Peter intends to marry a merchant banker - even though he doesn't get on at all with her.
b. Peter intends to marry a merchant banker - though he hasn't met one yet.
(C. Lyons 1999: 167)

Similarly, the in English is also argued to be possible to read as [+spec] as in (19a) or [-spec] as in (19b):
(19) a. We can't start the seminar, because the student who's giving the presentation is absent - typical of Bill, he's so unreliable.
b. 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.
(C. Lyons 1999: 172)

Ionin, Ko and Wexler combined the assumption that UG is available to L2 learners with the ACP and formulated the Fluctuation Hypothesis (FH). According to the FH, the 'definiteness' and 'specificity' article settings are fully accessible to L2 learners from languages without articles. As the L2 learners are still not certain which article setting is appropriate, fluctuation between the two parameter settings will occur until enough input causes the semantic parameter to be established to the correct setting for the language.

According to Ionin, Ko and Wexler's predictions, two patterns of article choice for L2 learners from articleless languages are expected to occur:

- If 'definiteness' and 'specificity' are of the same value of an NP referent, i.e. [+def; +spec] and [-def; -spec], correct article choice is expected, i.e. correct use of the for [+def; +spec] and appropriate use of $a(n)$ for [-def; spec].
- However, if the two semantic features are of different values of an NP referent, i.e. [+def; -spec] and [-def; +spec], overuse of article is anticipated, i.e. overuse of $a(n)$ for [ +def ; - spec] and overuse of the for [-def; + spec]. This is because either the or $a(n)$ could be triggered.

Ionin, Ko and Wexler used a forced-choice elicitation task (choosing an article based on the preceding context in each dialogue) to test the predictions with the L2 learners. It is reported that results of group performance confirm the predictions that overuse of the would be found in [def; +spec] contexts and overgeneralization of $a(n)$ would be evidenced in [+def; - spec] contexts. The data were taken to suggest that the L2 learners from articleless languages fluctuated between the 'definiteness' article setting and the 'specificity' article setting when they chose an article. So, the results were interpreted as evidence for L2 English article choices being UGregulated. According to Ionin, Ko and Wexler, the findings supported the ACP and the FH.

However, Trenkic (2008) pointed out that there might be some methodological problems in Ionin, Ko and Wexler's (2004) test materials. The problems concern the way the concept of 'specificity' is operationalised in the materials.

According to Ionin, Ko and Wexler, an NP is defined as specific when the speaker has a particular referent in mind and intends to refer to it. Besides, the speaker also considers that this particular referent has some noteworthy property. Consider the following example,
(20) Peter intends to marry a/this merchant banker-even though he doesn't get on at all with her .
(C. Lyons 1999, quoted in Ionin, Ko and Wexler 2004: 7)

The NP referent $a /$ this merchant banker is classified as specific because the speaker has a particular merchant banker in mind and she intends to refer to
this merchant banker with the noteworthy property that Peter does not get on at all with her.

Consider the way 'specificity' was operationalised in Ionin, Ko and Wexler's materials:
(21) Gary: I hear that you just started college. How do you like it?

Melissa: It's great! My classes are very interesting.
Gary: That's wonderful. And do you have fun outside of class?
Melissa: Yes. In fact, today I'm having dinner with (a, the, --) girl from my class - her name is Angela, and she is really nice!
(Ionin, Ko and Wexler 2004: 22)

In this context, the NP referent girl from my class is specific. The L2 learners are reported to overuse the in such a context. Ionin, Ko and Wexler claim that such an article fluctuation occurred because of the feature [+spec]. Note however that 'specificity' was operationalised as the speaker explicitly claims familiarity with the person being talked about and her noteworthy properties (i.e. the person's name is Angela and she is really nice).

Consider another example,
(22) At a university

Professor Clark: I am looking for Professor Anne Peterson.
Secretary: I'm afraid she is busy. She has office hours right now.
Professor Clark: What is she doing?
Secretary: She is meeting with (a, the, --) student, but I don't know who it is.
(Ionin, Ko and Wexler 2004: 22)

According to Ionin, Ko and Wexler, the referent student is non-specific. The results showed that the L2 learners tended to use $a(n)$ in this context. They were assumed to associate the article choice with [-spec]. Nevertheless, it is worth observing that 'non-specificity' was operationalised as the speaker explicitly denies knowledge of the person being talked about and there were no noteworthy properties of this person.

So, the contexts in the materials were only the contexts where (a) 'specificity' was conflated with the speaker explicitly stating knowledge of the referent being talked about, and (b) 'non-specificity' was conflated with the speaker explicitly denying knowledge of the referent being talked about. The two features in each context, i.e. 'specificity' and 'explicitly stated knowledge' (ESK), which were unrelated to each other were conflated and of the same value (i.e. [+spec; + ESK] like in (21) and [-spec; -ESK] like in (22)).

However, Trenkic (2008) pointed out that it is possible to have a context where 'specificity' and 'explicitly stated knowledge' are of different values, i.e. [+spec; -ESK]:
(23) Office gossip

Gina: and what about the others?
Mary: Well, Dave is single, Paul is happily married, and
Peter....he is engaged to a / this merchant banker, but none of us knows who she is or what she is like.
(Trenkic 2008: 4)

The referent a merchant banker is indefinite and the speaker denies personal knowledge of this person. Nevertheless, when an indefinite NP can be employed with the introductory this, that NP has a specific reading (cf. Prince 1981; Foder and Sag 1982: 360; Wald 1983; Lambrecht 1994). In this context, the speaker has a particular referent in mind but denies personal knowledge of her (cf. Trenkic 2008).

This type of context was not included in Ionin, Ko and Wexler (2004). Therefore, the problems in Ionin, Ko and Wexler's materials could be that, because of the conflations of 'specificity' with 'explicitly stated knowledge', and 'non-specificity' with 'explicitly denied knowledge', it is also possible to assume that L2 article choice was influenced by [ $\pm$ ESK] (cf. 7.2 for a detailed discussion about the problems of the materials in Ionin, Ko and Wexler 2004).

Trenkic (2008) conducted a semi-replicated study of Ionin, Ko and Wexler (2004) with L1 Chinese speakers. She added contexts of [ + spec; ESK], where the two values were not conflated to test the FH. The results were that the L2 learners' article choice tended to be influenced by 'explicitly
stated / denied knowledge', not by 'specificity'. The findings from Trenkic (2008) are therefore reported to be contradictory to the ACP and the FH, as assumed by Ionin, Ko and Wexler (2004) (cf. detailed discussion of Trenkic 2008 in 7.2).

The point I pick up in my work is therefore to investigate if L2 learners' article semantics is constrained by UG in accordance with Ionin, Ko and Wexler's (2004) claim. In my study, I aim to investigate whether L1 Thai speakers will behave according to the predictions made by Ionin, Ko and Wexler (2004) or Trenkic (2008). The L2 speakers in Ionin, Ko and Wexler (2004) and Trenkic (2008) are from languages without articles, i.e. Russian and Korean in the former and Chinese in the latter study. By semi-replicating Ionin, Ko and Wexler's forced-choice elicitation task (see details of the materials in 7.4.2), I will examine English article choice by another L2 group from an articleless language, i.e. Thai. I will also compare L1 Thai speakers' article substitutions with those by native speakers from another background, i.e. French - a language containing an article system.

### 2.5 Conclusion

In this chapter, I have discussed the notion of definiteness adopted in the study (cf. C. Lyons 1999; J. Hawkins 1991, 2004). It is assumed that some languages grammaticalise definiteness in the article system whereas others do not (i.e. without the category determiner).

I have also discussed a view on the acquisition of L2 English articles by learners from articleless languages. It is postulated that, as determiner-like elements in these languages are adjectival in nature, L 2 variable production of English articles occurs because L2 learners mistreat English articles as adjectives (cf. Kuribara 1999; Trenkic 2007). The assumption that L2 English articles are misanalysed as adjectives or the Syntactic Misanalysis (cf. Trenkic 2007) predicts consequences on English article production by L2 learners from languages without articles, i.e. article suppliances, article omissions and article substitutions.

I have illustrated research on variable production of L2 English articles in terms of article omissions in non-premodified and adjectivally premodified contexts, article omissions in first and second mention definite contexts, and article substitutions. It has been shown why this thesis is working on variability in English article production in these areas.

The study is looking at L2 English article production by speakers from languages without articles, i.e. Thai and speakers from languages with articles, i.e. French. It will be examined if there are any influences of cross-linguistic differences on L2 English article production (cf. Sharwood Smith 1994). The next chapter, therefore, gives the background of definiteness in the three languages (i.e. L1 Thai, L1 French, and L2 English). This background will be used when the L2 production data from the study are analysed and discussed.

## Chapter 3

## Definiteness in English, French and Thai

### 3.1 Introduction

This chapter discusses how definiteness is marked in English, French, and Thai.
The organisation of this chapter is as follows. 3.2 presents definiteness in English, the L2 in this study. In parallel with 3.2, 3.3 discusses definiteness in French, an L1 in the study. 3.4 shows that there exist similarities and differences between the article systems and variation in article use in English and French. 3.5 focuses on definiteness in Thai, the other L1 in the study. In this section, Thai nominals are firstly introduced (3.5.1). Since an articleless language is assumed not to have the category determiner in its grammar (cf. C. Lyons 1999), how definiteness is inferred in Thai is examined. Given that (in)definiteness is not limited to nominals with articles, means of expressing semantic / pragmatic (in)definiteness in Thai is looked into (3.5.2): demonstratives (3.5.2.1) and the numeral neùn one (3.5.2.2). It is examined if sentential word order in Thai can infer definiteness in nominal phrases (3.5.3). A possible nominal phrase structure in Thai is also discussed (3.5.4). 3.6 brings about the conclusion of the chapter.

### 3.2 Definiteness in English

Definiteness is typically expressed in English through the system of articles. There are three articles in English: the indefinite article $a(n)$, the definite article the and the zero article (i.e. any case where an article is not required on a noun) (cf. Footnote 9 of Chapter 2). The notion of definiteness has been discussed in 2.2 and so this section will concentrate on the English article system. It should be emphasized that, as the study relates to L2 acquisition of English articles, the primary focus will be on full nominal phrases (as opposed to pronouns and proper nouns) and how (in)definiteness is marked in English. An investigation of definiteness in pronouns and proper nouns in English is therefore excluded from the discussion (cf. C. Lyons 1999 for detailed discussions of the relevant issues).

Rules for English article use are briefly described below. Note that the discussion does not include specific rules of article use, and article use in expressions (for specific rules of English article use, see, for example, Biber et al. 1999; Carter and McCarthy 2006).

- The indefinite article $a(n)$ is used before a singular count noun. It occurs with an NP referent which is a member of a class. For example,
(24) a. A table is in the middle of the room.
b. He became an actor.
- The definite article the is used before a count noun, a non-count noun, and a plural noun representing a particular referent or particular referents, as exemplified:
(25) a. His car struck a tree; you can still see the mark on the tree.
b. Look at the sand over there. It looks golden and fine.
c. The people I talked to just now are local representatives.
- The zero article is used with non-count or plural indefinite nouns, as shown:
(26) a. I had bread for breakfast today.
b. He saw children playing in the park.

A nominal phrase receives a generic interpretation when it is employed to refer to a whole class, which includes all entities. A generic nominal in English can occur with all types of articles. For instance,
(27) a. A bird has wings. (indefinite singular generic)
b. The bird has wings. (definite singular generic)
c. Birds have wings. (plural generic)
d. Water is vital to life. (mass generic) ${ }^{1}$

English articles are classified as a type of determiner. Evidence can be seen from the fact that a singular count noun in the language cannot occur bare or "cannot by itself constitute an NP" (cf. Huddleston and Pullum 2002: 355).

Consider the following examples:
(28) a. Honesty is the best policy.
b. Dogs are loyal to their owners.
c. *I got book as birthday present.
d. She is talking about a window and a door. *Window is broken but door is not.

[^21]The NP referents in (28a) and (28b) are an uncount noun and a plural noun, respectively. As discussed, plural and non-count indefinite nouns in English can occur without determiners (cf. (27c) and (27d), respectively). In (28c), the referents book and birthday present are indefinite singular count nouns and in (28d), the referents window and door are definite singular count nouns. An indefinite and a definite singular count noun in the structure of English nominal phrases are required to occur with articles (even if there is no article, a determiner such as a possessive or a demonstrative must occur with a singular count noun, e.g. my book; this birthday present). The fact that they cannot occur bare is taken to indicate that English articles behave syntactically as determiners. As discussed in 2.2, English articles (or determiners) are obligatory and are employed for the purpose of nominal projection. The signalling of the definiteness status follows from the semantic origin of the articles but only as an incidental by-product (cf. J. Hawkins 2004).

This leaves the question of how a subset of English nominal phrases which can occur without determiners (i.e. uncount nouns and plural nouns) are projecting. This is a question that cannot be answered fully here. However, one could use J. Hawkins' (2004) argument to provide a plausible explanation. He argues that after the definite and the indefinite articles emerged from grammaticalisation (cf. J. Hawkins 2004: Chapter 4; J. Hawkins 1994: 403-6; see 2.2), they were not obligatorily exploited in across-the-board syntactic contexts. They were restricted to certain syntactic contexts, i.e. contexts with singular count nominals, but not to contexts with uncount nouns and plural nouns.

### 3.3 Definiteness in French

French is also a language that has a system of articles. A general overview of the system shows that it has both similarities and differences in relation to the system in English. The most important point, however, will be that French articles, like English articles, are syntactically determiners.

A general overview of the article system in French needs to be given first. It should be pointed out that, for present purposes, specific rules and exceptions in the article system as well as expressions with / without articles lie outside the
scope of the study (for descriptions of the specific rules and exceptions, see, for example, Judge and Healey 1985: 27-36; Byrne and Churchill 1989: 20-32; Jubb and Rouxeville 1998: 81-3. For expressions with / without articles see, for example, Batchelor and Offord 1993: 158-9).

Nominals in French can occur with three types of articles, which express both number and gender on them:

|  | Masculine Singular | Feminine Singular | Masc /Fem Plural |
| :--- | :---: | :---: | :---: |
| Definite article | le | a $^{2}$ | les |
| Indefinite article | un | une | des |
| Partitive article | du | de la | des |

Like English, articles in French precede nouns. For example,
(29) un chien
a dog
'a dog'

However, unlike English, adjectives in French generally follow nouns, as shown:
(30) un chien noir
a dog black
'a black dog'

There are however some adjectives that can precede nouns. ${ }^{4}$ For example,

[^22](31) la belle femme the beautiful woman 'the beautiful woman'

Both nouns and adjectives in French are inflected for number:
(32) a. la maison blanche the house white 'the white house'
b. les maisons blanches the houses-PL white-PL 'the white houses'

An overview of the use of the three article types is given below:

- The definite article

Two uses of the definite articles in French are:

- definite use, corresponding to the in English. For instance,
(33) le prix de la voiture
the price of the car
'the price of the car'
- generic use, without any equivalent in English. Generics typically take the definite form. The definite article is usually employed with a noun to denote all the members of a category. For example,
(34) Aimez-vous le vin?
like you the wine
'Do you like wine?'

Judge and Healey (1985: 26) give the following examples to contrast definite and generic interpretations:
(35) a. Les livres représente les progrès de l'humanité. the books represent the progress of the mankind 'Books represent the progress of mankind'
b. Les livres sont sur la table. the books BE on the table 'The books are on the table.'

Based on the provided contexts, by referring to the totality of books, les livres in (35a) has a generic reading. However, the same noun phrase in (35b) imposes a non-generic, i.e. definite reading.

- The indefinite article

The indefinite articles un / une are employed for indefinite reference, equivalent to $a(n)$ in English. Des is for plural indefinite use and there is thus no equivalence in English. However, des may sometimes correspond to some or any in English. For example,
(36) a. J'ai des livres.

I have some books
'I have some books.'
b. As-tu des livres?

Have you any books
'Do you have any books?'

Note that in negative contexts the plural indefinite article des is omitted after the preposition de 'of', as exemplified:
(37) Je n'ai pas de livres.

I NEG-have NEG of books
'I haven't got any books'

## - The partitive article

The partitive articles $d u$, de la and des are composed of the preposition de 'of' and a definite article form, i.e. $d e+l e=d u$ and $d e+l e s=d e s$. This type of
article is used for an indefinite quantity of something, i.e. expressing the meaning of 'a part of the entity' of a noun. So, while the indefinite articles are exploited with singular indefinites, the partitive articles are used with mass and plural indefinites. There is no partitive article in English and so nouns with partitive articles in French are equivalent to bare nominals in English. However, like the indefinite plural article, in some cases, the partitive article corresponds to some / any in English, as shown:
(38) J'ai du café.

I have some coffee
'I have some coffee.'
(39) As-tu des crayons?

Have you any pencils
'Do you have any pencils?'

The partitive $d u$ in (38) occurs with the mass noun café in an affirmative sentence and des in (39) is employed with the plural noun crayons in a question.

Similar to (37), in negative contexts, the partitive article is omitted after the preposition $d e$. For example,
(40) Je ne veux pas de pain.

I NEG want NEG of bread
'I don't want (any) bread.'

As in English, a singular count noun in French cannot stand without an article. There must always be an article co-occurring with a noun and, in this way, projecting it. If there is no article, another determiner must occur with a noun, e.g. ce jardin 'this / that garden'; ton amie 'your friend'. The fact that a bare singular count noun in French is ungrammatical is assumed to suggest that an article in French is a type of determiner employed for the grammatical function of nominal projection.

### 3.4 Similarities and differences in article use between English and French

From an overview of the article systems in French and English, it is worth observing that the two languages vary not only in form but also in range of use. ${ }^{5}$ Different areas of semantic / pragmatic identifiability are covered by articles in the two languages. Coverage of the similarities and different uses of French and English articles can be seen below, where the symbol ' $x$ ' represents divergence in the article uses (adapted from Judge and Harley 1985: 49):

| Non-generic and Definite |  |
| :---: | :---: |
| a. the tiger $=$ le tigre / la tigresse | c. the ink = l'encre |
| b. the tigers $=$ les tigres |  |
| Non-generic and Indefinite |  |
| Count nouns | Mass nouns |
| d. a tiger $=$ un tigre $/$ une tigresse | f. some / any ink' = de l'encre $\times$ |
| e. some / any tigers $=$ des tigres $\times$ |  |
| Generic |  |
| Count nouns | Mass nouns/Abstract nouns |
| g. characteristic of a whole class: the tiger $=$ le tigre | i. ink $=$ l'encre $\times$ English $=1$ 'anglais $\times$ |
| h. generic, not specific: $\begin{gathered} \text { a tiger }=\text { le tigre } \times \\ \text { tigers }=\text { les tigres } \times \end{gathered}$ |  |

Table 3.1: Coverage of similarities and differences in usage of French and English articles

[^23]It is worth noting that the two article systems overlap. Similarities and differences between the denotation of nouns in the article systems in French and English are as follows:
Similarities:

- In non-generic definite noun phrases (i.e. singular, plural and mass nouns), English and French articles express definiteness (cf. a, b, and c, respectively).
- Indefinite articles are used to indicate non-generic and indefinite references for count nouns (cf. d).
- For generic use, a definite article can be used with a singular count noun to refer to the characteristic of a whole class (cf. g).

Differences:

- The indefinite article des is used in French to express non-generic and plural indefinite references. English does not have an equivalent article. The noun in English would be a bare plural noun or a noun with some in an affirmative sentence and with any in a question (cf. e).
- Similarly, there is no partitive article in English. A non-generic indefinite bare mass noun with some in an affirmative sentence and any in a question is represented by a noun with a partitive article in French (cf. f).
- For generic use, the English indefinite article corresponds to the definite article in French for a singular noun (cf. h). Also, an English bare plural noun is equivalent to a plural definite article with a plural noun in French (cf. h). This means that French does not allow bare nominals with common nouns while English does. A generic mass or abstract bare noun in English corresponds to a noun with a definite article in French (cf. i). Notice that bare plural / mass nouns and all English articles can denote the generic usage whereas the French definite articles are used productively in this sense. A wider range of the definite article use is therefore evidenced in French than in English (see also J. Hawkins 2004: 85).

So what is different between English and French is the use of the article systems with generic nominal phrases. There exists a range of generic forms in

English (cf. 3.2 and Table 3.1). As plural and mass generics in English occur bare, not all generic nominals in the language are syntactically definite in form. This is different from French as all generic references in French always co-occur with a definite article. ${ }^{6}$

The fact that the definite articles in English and French vary in such use might result from the process of grammaticalisation of definiteness (cf. 2.2). It is assumed that the definite article developed from demonstratives. Through a diachronic progression, the function of the definite article is at the beginning assumed to overlap with those of demonstratives. Then its use starts to expand to other referential contexts. Some languages spread the definite article use to the generic function. It appears that the definite articles in French and English expand the use of the definite articles in different ways and so vary in the range of application (cf. Givón 1984; Greenberg 1978; C. Lyons 1999). In French, every generic nominal is syntactically definite. However, while semantic / pragmatic identifiability is grammaticalised in English, mass and plural generics in the language are syntactically non-definite. They behave semantically and pragmatically as definites. As C. Lyons (1999: 198) notes "Generics are thus semantically definite, though not necessarily grammatically definite". ${ }^{7}$

It is worth noting that generic use of the and non-generic indefinite mass nouns will not be used in the experiments in this study. So, the difference between English and French in such use will not be of concern in the study.

In sum, definiteness is not marked in the same way in English and French. L1 French speakers of English might therefore have some problems with contexts where the article systems in the two languages are different. However, what is crucial to the study is that definiteness is marked in both languages. It is

[^24]${ }^{7}$ Cf. Lambrecht (1994) and C. Lyons (1999) for the claims that generics are construed as semantically / pragmatically definite.
speculated that L1 French speakers' overall use of the English articles will be different from English article production by L1 Thai learners of English. L1 French speakers' production mechanisms are primed for article use in their native language. As both French and English contain articles, the article production mechanisms are assumed to be shared for article production in both languages. On the other hand, Thai is an articleless language. L1 Thai / L2 English speakers are not primed to use articles in their native tongue. It is therefore anticipated that L1 French speakers will experience fewer problems in producing L2 English articles than L1 Thai speakers due to the existence of articles in L1 French, but not in L1 Thai.

### 3.5 Definiteness in Thai

This section examines definiteness in Thai. Thai does not have a system of articles. However, definiteness in Thai can be inferred via other means. The central question is how the (in)definite status of full nominal phrases is semantically / pragmatically inferred in Thai.

As the study deals with L1 Thai speakers' variable production of L2 English articles, a component of full nominal phrases, the main focus is on the nature of (in)definiteness in Thai full nominal phrases. ${ }^{8}$ The investigation will be limited to linguistic categories in Thai nominals that are sometimes claimed to express definiteness, i.e. demonstratives and the numeral neùn one. ${ }^{9}$ Moreover, We will investigate whether (in)definiteness in nominals as sentential constituents is inferred from word order of constituents in sentences in Thai.

[^25]This section is divided as follows. 3.5.1 introduces Thai nominals. 3.5.2 looks into linguistic markers of (in)definiteness in Thai: demonstratives in 3.5.2.1 and the numeral neùn one in 3.5.2.2. In 3.5.3, we will examine if (in)definiteness in nominals can be inferred from sentential word order in Thai. Finally, 3.5.4 discusses what a possible nominal phrase structure is like in Thai.

### 3.5.1 Thai nominals

Thai does not make use of inflection and is therefore classified as an isolating language (i.e. with impoverished morphology) or a non-inflecting language. There are five tones in the language and so it is also considered a tone language. Since Thai makes use of classifiers, the language is sometimes referred to as a classifier language. The basic word order of the language is SVO (subject, verb and object). Nouns in Thai are usually classified as animate and inanimate (cf. Chaiyaratana 1961: 120), or, in some of the literature, concrete and abstract (Panthumetha 1982: 4). ${ }^{10}$ There have been extensive discussions of Thai nominals in the literature (cf. Chaiyaratana 1961; Noss 1964; Lekawatana et al. 1969; Jotikasthira 1972; Warotamasikkhadit 1972; Dhanvarjor 1973; Anakasiri 1981; Stein 1981; Panthumetha 1982; Savetamalya 1989; Deepadung 1989; Ooppakitsillapasan 1996; Naksakul 1998; Pankhuenkhat 1998; Panupong 2000; Singhapreecha 2000; Singnoi 2000; Visonyanggoon 2000; Smyth 2002; Anchaleenukul 2003; Thonglor 2004; Iwasaki and Ingkaphirom 2005; among others).

There are no articles in Thai. The language has linguistic elements assumed to express (in)definiteness (i.e. demonstratives for definiteness and the numeral neùn one for indefiniteness). However, most nominals in Thai are usually bare nominals. In rational communication, inferring identifiability of a nominal referent is usually through relevant contexts. A bare nominal may thus be interpreted as definite or indefinite. Also, there is no morphology encoding number distinction, i.e. singular or plural, in the language. So, a bare nominal can also be ambiguous between singular and plural, depending on discourse

[^26]contexts. Thai bare nominals can therefore have a wide range of interpretations (i.e. definite or indefinite and singular or plural), as exemplified:
(41) a. chăn séu nǎgsǔ̌: thî: rá:n naı mahǎwítthayalaı I buy book at store in university 'I bought a book at a / the store in university.' the book some books the books

| b. khǎo lá: he wash | $\begin{aligned} & \text { gæ̋w lǽw pai du: thi:wi: } \\ & \text { glass then go watch tv } \end{aligned}$ |
| :---: | :---: |
| 'He washed | a glass and then went to watch TV.' |
|  | the glass |
|  | some glasses |
|  | the glasses |

Whatever an English counterpart of the bare nominals nǎysěu ('book') and g $\hat{æ} w$ ('glass') is is a matter of context. The mental representation triggered in the relevant contexts would depend on whether the nominals refer to an identifiable or unidentifiable book or glass. Whether bare nominals are singular or plural is also context-dependent. Put differently, (in)definiteness and singularity / plurality in Thai are implied through contexts and so semantics and pragmatics are involved in conveying these features of bare nominals as well.

When a numeral or a quantifier is used, it is always placed to the right of a nominal and is employed as a means of expressing singular and plural distinction. When this is the case, a nominal is usually combined with a classifier which is placed after it, as shown: ${ }^{11}$

[^27](42) a. bâ:n sǎ:m lǎy
house three CL
'(the) three houses'
b. nǎysǔu: hâ: lêm
book five CL
'(the) five books'

However, for the numeral nòun one, the other permissible position is after a classifier. For example,
(43)
a. $\mathrm{N}+$ nə̀un +CL dınsǒ: nə̀uy tây pencil one CL
b. $\mathrm{N}+\mathrm{CL}+$ nə̀un ${ }^{12}$
dinsǒ: tân nàun
pencil CL one
'a/ one pencil ${ }^{13}$

[^28]${ }^{13}$ Smyth (2002: 34) claims "When it [nə̀un one] occurs before the classifier, it functions as the numeral one, and when it occurs after the classifier, it can be treated as the indefinite article $a \ldots$. . He gives the following examples:
(i) a. lû:k nàun khon child CL one 'one child'
b lû:k khon nə̀uy child one CL 'a child'

Krommameunnarathippraphanphong (1963), Singhapreecha (2000), and Iwasaki and Ingkaphirom (2005) share a similar idea. However, in Simpson's (2004: 16) example: lû:k nə̀un khon, both one and $a$ are possible translations of nəun (unfortunately, there is no example of nàun used in the other construction). This issue merits further investigation. However, the relevant point to be focused on here is that nə̀uy is suggested to be interpreted as the indefinite $a(n)$.

Cross-linguistically, it is postulated that classifiers can occur in more than one position in a noun phrase. Thai is no exception. Classifiers in Thai can also have multiple occurrences, i.e. after a nominal and after a quantifier (cf. Singhapreecha 2000). Consider the following example:
(44) bận lǎy yaj sǎ:m lǎy house CL big two CL '(the) two big houses'

Finally, the linear sequence of constituents in a Thai nominal phrase is:
(45) $\mathrm{N}+\mathrm{Adj}+\mathrm{Num}+\mathrm{Cl}+\mathrm{Dem}$

For example,
(46) nǎnsǔu: nǎ: sǒn lêm ní:
book thick two CL this
'these two thick books'

It is worth observing that the directions of the constituents in Thai and English nominal phrases are opposite. If the classifier is abstracted away from the word order above, a Thai nominal phrase is a linear-sequentially reversal of an English nominal phrase. The linear structure of nominal phrases in Thai is therefore a mirror to English (cf. Singhapreecha 2002: 22).

The fact that an adjective appears to the right of the noun in Thai (opposite to the order in English) should not have an impact on the hypothesis that English articles could be analysed as adjectives, i.e. the Syntactic Misanalysis Hypothesis (cf. 2.3). It is assumed that L1 Thai speakers have been highly exposed to the ordering of Adj +N in English. Regular input of a premodified adjective before a noun in L2 English should therefore make the learners sensitive to such ordering.

Having introduced the basic features of Thai nominals, I will explore linguistic markers that are assumed to express definiteness.

### 3.5.2 Linguistic markers of (in)definiteness in Thai

In this section, demonstratives and the numeral neùg 'one' in Thai will be examined as they have similar meanings to the and $a(n)$, respectively. In Thai nominals, it has been argued that demonstratives entail definiteness (cf. Singhapreecha 2000; Visonyanggoon 2000) while the numeral neùg 'one' signifies indefiniteness (cf. Smyth 2002). It will be shown that they are not obligatory nominal markings for the [ $\pm$ definite] status in Thai syntax.

Thai demonstratives and the numeral neùg 'one' will be discussed in comparison with the use of the English definite the and the indefinite article $a(n)$, respectively.

### 3.5.2.1 Demonstratives

As articles are non-existent in Thai, demonstratives are usually claimed to syntactically encode definiteness in the language (cf. Singhapreecha 2000; Visonyanggoon 2000). It is argued in this study that this is not the case.

In this section, the Thai demonstrative system is firstly introduced. In the remainder of the section, the syntactic and semantic behaviours of the Thai demonstratives are explored. It will be shown that, although demonstratives bear the component of meaning of definiteness, they are not syntactic markers of definiteness.

- The system of demonstratives in Thai

Cross-linguistically, definiteness (i.e. referent identifiability) is part of the meaning of demonstratives (cf. J. Lyons 1977; Clark and Marshall 1981). Demonstratives are employed with the function of pointing or gesturing at something. "Direct physical copresence" (the situation where the speaker and the hearer look at the object simultaneously) is established from the use of demonstratives (cf. Clark and Marshall 1981: 42; see also Fillmore 1982). In a similar vein, J. Hawkins (1978: 154) claims that there is a "matching constraint" with demonstratives as the hearer is to do a matching between the linguistic referent and the object. Accessibility of the referent is immediate through the deictic feature in either spatial or temporal contexts (e.g. The referent is visible in
the situation in That boy is walking home and the referent is known from the discourse in I remember that day clearly) (see also Singnoi 2000: 167).

In the literature on Thai demonstratives, it appears that there is no full agreement as to how many demonstratives there are.

One argument is that Thai demonstratives have three degrees of deictic distance (cf. Lekawatana et al. 1969; Warotamasikkhadit 1972; Panthumetha 1982; Ooppakitsillapasan 1996; Pankhuenkhat 1998; Smyth 2002; Thonglor 2004; Iwasaki and Ingkaphirom 2005).

Smyth (2002: 35) and Lekawatana et al. (1969: 99) give the following meanings of Thai demonstratives:
(47) ní: 'this / these'
nán 'that / those, ${ }^{14}$
nó:n 'yonder' (in Lekawatana et al.); 'that / those over there' (in Smyth)

Panthumetha (1982) and Ooppakitsillapasan (1996) give three distinctions about distance, i.e. ní: is used with an entity nearby, nán is for a farther entity and nó:n for a much farther entity.

Similarly, Ingkaphirom and Iwasaki (2005: 9) associate proximity with the speaker:
(48) ni: 'close to the speaker'
nán 'away from the speaker'
no':n 'farther away from the speaker'

Noss (1964: 103) also proposes that the system recognises a three-way proximity contrast. However, he also associates the contrast with both the deictic features and distinctions of distance from the speaker and / or the listener:

[^29](49) ni: 'this, these; closer to me'
nán 'that, those; closer to you'
nó:n 'yon; distant from us'

In terms of deictic contrast, therefore, the demonstratives seem to be distinguished into proximal, medial and distal.

As for the other line of argument, Phanuphong (1977: 71), Stein (1981: 15), Singnoi (2000: 162) and Anchaleenukul (2004: 131) assume a four-way distinction. The demonstrative nún is considered as another demonstrative. Stein (1981) gave the meanings of the four demonstratives as follows:
(50) ní: 'this, these'
nán 'that, those closer to you'
nó:n 'yon, distant'
nú:n'n 'way far' ${ }^{16}$

So, there seems to be no consensus about the demonstrative system in Thai. However, whether Thai has a three-way or four-way deictic distinctions contrast in the demonstrative system is a matter of debate. What is important to the study is that Thai has demonstratives, which carry the meaning of definiteness.

- Syntactic and semantic behaviours of demonstratives in Thai It has been claimed that, since Thai has no definite article, demonstratives can be used to convey definiteness. Thai demonstratives as translation equivalents of the English definite article can be found (cf. Singhapreecha 2000).

[^30]In this section, I argue that demonstratives in Thai are not syntactic markers of definiteness and therefore are not the counterpart of the English the. The syntactic and semantic behaviours of Thai demonstratives are explored below.

The evidence that Thai demonstratives are semantic equivalents of the definite article in English can be found in texts for teaching translation from English into Thai, i.e. the is translated as ní: this, nán that, làwní: these or làwnán those. For example,
(51) a. 'The fact that the government has delayed the project has increased the expense.'
'The project' is translated as khronga:n ní: (project this) 'this project' (Thepakkarapong 1997: 26). ${ }^{17}$
b. 'However, the youths say she was singled out simply because they wanted to add a woman to their list of innocent victims.'
'The youths' is translated as warrûn làwní: (youth these) 'these youths' (Pinmanee 2003: 71).

Translated texts from English into Thai also show this phenomenon. For example,
(52) ' ...they were concerned, having a wizard in the family was a matter of deepest shame' (Rowling 1998: 9).
'The family' was translated as khrôpkhrua nán (family that) 'that family' (Sumalee 2000: 14).

So, as there are no articles in Thai, are Thai demonstratives counterparts of the definite article in English?

In order to investigate the semantic behaviours of Thai demonstratives, two corpora: the English text - Harry Potter and the Chamber of Secrets and a

[^31]translated version in Thai hærî phóttô: kàp hôy hæ̀y khwamláp were employed. With the Paraconc program, the first 1,000 English definite articles from the book were extracted and examined to see how each definite article was translated into Thai. Note, however, that the definite articles in such fixed expressions as at the moment, the rest of and on the other hand were excluded from the analysis. And so the 1,000 English definite articles in the analysis are all the definite articles that are not in fixed expressions.

The results are shown in Table 3.2 below:

| Thai demonstratives |  |
| :---: | :---: |
| absolute frequencies | $\%$ |
| 36 | 3.6 |

Table 3.2: Translated equivalents of the English definite articles as demonstratives in Thai

The result of the frequency analysis is that, out of the 1,000 thes, only 36 or 3.6 \% were translated as demonstratives in Thai (i.e. ní: $1.8 \%$, nán $1.7 \%$, làuní: $0.1 \%$ and làunán $0 \%$ ). Mostly, the equivalent translations were bare nominals ( $95.5 \%$ ). The rest of the thes were translated as possessives $(0.9 \%)$. The data does not show an extensive use of demonstratives in translation from English into Thai. The result is therefore taken to suggest that, although translation equivalents between Thai demonstratives and the English definite article are observed to some degree, in terms of semantics, Thai demonstratives do not seem to be employed extensively to substitute or "cover part of the domain of the English articles" (cf. Trenkic 2000: 75) (see also Trenkic 2000, 2004 for similar results on Serbian demonstratives).

The empirical data suggest that exploiting Thai demonstratives to signify definiteness is not a strategy to replace the in English. The evidence lends support to the assumption that demonstratives and the definite article are different and that the former rarely substitutes the latter (cf. J. Hawkins 1978; Chesterman 1999).

I now turn to the syntactic behaviour of Thai demonstratives.
Following C. Lyons (1999), in languages not containing articles, demonstratives are postulated to behave as adjectives. Put differently, in such
languages, determiners might not exist and determiner-like elements could be treated as adjectives. In what follows I explore how well this assumption applies to Thai.

Analyses of Thai grammar in the literature usually categorise demonstratives under the same word class as adjectives (cf. Phanuphong 1977; Phanthumetha 1982; Ooppakitsillapasan 1996; Pankheunkhat 1998; Singnoi 2000; Anchaleenukul 2004; Thonglor 2004). The fact that demonstratives are grouped under the same word type as adjectives is assumed to indicate that demonstratives behave like adjectives in modifying nouns (Teeranoot Chauksuvanit, p.c.).

The evidence suggesting the adjective-like nature of Thai demonstratives is the following:

Firstly, like an adjective, a demonstrative is not obligatory. For example,
(53) a. bâ:n
' $a /$ the house' or '(the) houses'
b. bâ:n (lăy) nój
house (CL) little
'a / the little house' or '(the) little houses'
c. bâ:n (lǎy) ní:
house (CL) this
'this house'

As discussed in 3.5.1, a nominal in Thai can stand alone. It can be interpreted as either definite or indefinite, singular or plural. The use of an adjective or a demonstrative is optional. They can appear after a nominal if their meanings need to be expressed (cf. Fukui (1995: 104-5) for a similar analysis of Japanese nominals). This is different from an article, which is obligatorily employed in certain syntactic contexts (e.g. before the count singular noun in English).

Secondly, a demonstrative in Thai can have a multiple occurrence with another determiner in the same way as adjectives do. In other words, determiner-
like elements in the language can be piled up like adjectives, as shown in (54) and (55) below:
(54) a. nǎysǔu: kàw di: mâ:k book old good very
'An / the old book / (the) old books is / are very good.'
b. nǎgsǔu: kàw nǎ: di: mâ:k
book old thick good very
'A / the thick old book(s) / (the) thick old books are very good.'
(55) a. nǎnsǔu: nán di: mâ:k
book that good very
'That book is very good.'
b. nǎysǔu: khy̌y thə làunán di: mâ:k
book POSS you those good very
'Those books of yours are very good.'

In contrast, consider examples from English:
(56) a. the book
b. *the that book

A true determiner, like the English definite article, is assumed to have a grammatical function of projecting a nominal. Once the article occurs with a noun, another determiner cannot co-occur with it. The fact that a demonstrative and a determiner-like element in Thai can be stacked up after a noun is taken to indicate that a Thai demonstrative syntactically behaves like an adjective and therefore is not a true determiner like an English article (cf. 2.2). ${ }^{18}$

[^32]Thirdly, a demonstrative in Thai and another determiner-like element can be permuted. So, a Thai demonstrative has a relative freedom of position. This behaviour is the same as adjectives. Compare the property of permutability of adjectives and determiner-like elements in (57) and (58) below:
(57) a. mǎ: lék dam chalàt dog small black clever
b. mǎ: dam lék chalàt
dog black small clever
'A / the small black $\operatorname{dog}(\mathrm{s}) /$ (the) small black dogs is / are clever.'
(58) a. mǎ: làuní: khð̌n chǎn chalàt
dog these POSS I clever
b. mǎ: khð̌y chǎn làuní: chalàt
dog POSS I these clever
'These dogs of mine are clever.'

Again, relative freedom of position suggests that demonstratives are adjectival in nature.

Summing up the discussion so far, the evidence shown is indicative of the syntactically adjectival nature of a Thai demonstrative: a demonstrative is optional, a demonstrative and another determiner-like element can be piled up after a noun, and a demonstrative has a relative freedom of position.

[^33]
### 3.5.2.2 The numeral nə̀uy 'one'

This section investigates if the numeral nə̀uy 'one' in Thai can be treated like an indefinite article in English.

Semantically, it has been claimed that neùn signifies the indefinite property as the category of meaning on a nominal and is a translation equivalent of the English $a(n)$ (cf. Smyth 2002). Translation equivalents of nə̀un and $a(n)$ can also be found in translated materials. For example,
(59) a. 'A foreign garment manufacturer is looking for an accountant.'
'An accountant' was translated as nákbanchi khon nə̀uy (account CL one) 'an accountant' (Thepakkarapong1997: 75). ${ }^{19}$
b. 'Patience is a virtue.'
'A virtue' was translated as khunnatham yà:y nə̀un (virtue type one)
'a type of virtue' (Pinmanee 2003: 89).

Similar to the case of demonstratives, it needs to be examined whether nə̀un is used extensively to convey indefinite meanings like the English indefinite article. The parallel corpora of the English Harry Potter and the Chamber of Secrets and a translated Thai version hærî phóttô: kàp hôy hæ̀n khwamláp were explored via the Paraconc program. The first $1,000 a(n) \mathrm{s}$ in the English text were extracted to find the absolute frequency of the translation equivalents in the form of nə̀un. The indefinite articles in fixed expressions such as as a matter of fact, a load of and $a$ number of were excluded. Results are as follows:

[^34]| The numeral nə̀un |  |
| :---: | :---: |
| absolute frequencies | $\%$ |
| 58 | 5.8 |

Table 3.3: Translated equivalents of the English definite articles as the numeral nə̀ug in Thai

The absolute frequency of nə̀un's is only 58 or $5.8 \%$ of nə̀un's were translated from the 1,000 indefinite articles. Most of the translation equivalents, i.e. $93.1 \%$, were bare nominals. The remaining examples of $a(n)$ were translated as certain lexical words in Thai with the meaning of one, i.e. diəw (9) and sàk (6), i.e.1.1\%. The result therefore suggests that the numeral nə̀u is not used extensively to entail the indefinite meaning of $a(n)$.

In addition to the semantic evidence, there are certain syntactic indications that the numeral nə̀un has adjectival properties. Studies of Thai syntax usually analyse the numeral nàun as having the same function as adjectives in modifying nouns (cf. Noss 1964; Panthumetha 1982; Ooppakitsillapasan 1996; Pankhuenkhat 1998), thereby suggesting its adjectivelike characteristics.

Further evidence suggesting adjectival status of nə̀un can be seen as follows:

Firstly, the numeral nə̀ug is not obligatorily employed.
(60) khàj (fon) nə̀un
egg (CL) one
'an egg'

A nominal can appear alone without any accompanying linguistic element. An optional adjective can be placed after it and so can nə̀uy.

Secondly, nòun can be piled up with a determiner-like element:
(61) muàk khð̆y thə baj nàun hat POSS you CL one 'a hat of yours'

The numeral nə̀un and the possessive khy̌y the 'POSS you' can co-occur after the noun muàk 'hat'. Such a multiple occurrence suggests that nə̀un is a not a real determiner and therefore cannot take a determiner slot.

Finally, nə̀un has a variation in position, as shown:
(62) muàk baj nə̀un kȟ̌y thə
hat CL one POSS you
'a hat of mine'

The numeral nə̀ug has a relative freedom of position. It can be placed after the possessive (with a classifier) like in (61) or before the possessive as in the above example.

So, the syntactic evidence that the numeral nə̀un is not obligatorily employed, co-occurs with another determiner-like element, and is flexible in position indicates that nə̀un corresponds to grammatical adjectives.

Summarising, it appears that there are certain elements in Thai that can mark (in)definiteness optionally. However, they occur with very limited numbers of nouns (from the data: $3.6 \%$ for demonstratives and $5.8 \%$ for the numeral nə̀uy 'one'). (In)definiteness in Thai is mostly inferrable from contexts. Semantic evidence suggests that demonstratives are not employed extensively to cover the definite meaning of the and the numeral nòuy is not used widely to cover the indefinite meaning of $a(n)$. Furthermore, both elements seem to behave syntactically like adjectives. Therefore, it is concluded that Thai demonstratives and the numeral nə̀un are not counterparts of the definite article and the indefinite article in English, respectively.

Such evidence in Thai lends support to C. Lyons'(1999) argument that, the category determiner does not exist in languages without articles. Also,
determiner-like elements in these languages are postulated to be adjectival in nature. These points will be relevant to my study.

### 3.5.3 Word order: discourse marking of definiteness in Thai?

What the previous section has shown is that most of the nominals in Thai appear bare - unmarked for definiteness, i.e. $95.5 \%$ (cf. 3.5.2.1) and indefiniteness, i.e. 93.1 \% (cf. 3.5.2.2). There is thus a tendency for (in)definiteness to be mostly inferred from discourse contexts.

It has been assumed that definite interpretations in languages without articles can be made from word order in sentential contexts (cf. Li and Thompson 1981). So, we will explore if this is the case in Thai.

Nominals in languages can be interpreted as either 'definite' or 'indefinite'. As discussed earlier (cf. Footnote 11 of Chapter 2), it is postulated that particular sentential positions require nominals with either value. These restrictions are referred to as "(in)definiteness effects" (cf. C. Lyons 1999: 227).

The notion of information structure was developed by the Prague School of Linguistics (cf. Vachek 1966; Daneš1974). The idea about fronting and nonfronting of sentential constituents seems to be related to 'given' and 'new' information. 'Given' information is assumed to precede 'new' information. ${ }^{20}$ The Prague School maintains that, in a sentence utterance, the 'theme' ('topic') is the left-most sentential constituent and usually precedes the 'rheme' ('comment') (cf. Vachek 1966; Halliday 1967; Chafe 1974; Boch 1982; Allan 1986; C. Lyons 1999). ${ }^{21}$ Also, cross-linguistic evidence seems to suggest that there is a correlation between a 'topic' and a 'subject' and that a 'comment' and a

[^35]'predicate' coincide (cf. Hockett 1958; Hornby 1971; Li and Thompson 1976; Dik 1978; Lambrecht 1994; C. Lyons 1999). As Chafe (1976: 44) notes " $[\mathrm{K}]$ nowledge directly attached to the subject may be the most immediately accessible". It is then suggested that a 'subject' typically precedes a 'predicate'. These ideas concerning information structuring indicate that 'definite' constituents are usually placed before 'indefinite' constituents and so information structuring can be observed as:

| Fronting | Non-Fronting |
| :---: | :---: |
| Given information <br> (definite) | New information <br> (indefinite) |
| theme |  |
| topic |  |
| subject |  |$\quad$| rheme |
| :---: |
| comment |
| predicate |

Table 3.4: Information structuring of sentential constituents

Nevertheless, such unidirectional informational structuring of sentential constituents might not be absolute. Although 'definite' constituents are claimed to precede 'indefinite' constituents, it is not always the case that a pre-verbal constituent is constrained to be 'definite'. Chafe (1976: 48), for example, assumes that although the 'subject' tends to be 'given', it is not necessary that there is a correlation between the 'subject' and 'givenness', and 'non-subject' and 'newness'. Consider the following examples from C. Lyons (1999: 228-9):
(63) a. The burglar climbed in through the window Jane had forgotten to close.
b. A man I work with has won the pools.

Despite giving new information, the italicised definite nominal phrase in (63a) is not a subject while, in (63b), the subject is indefinite.

In Thai, word order does not constrain the position of (in)definite status of constituents. I show some evidence from the language:

First of all, semantic / pragmatic markers of (in)definiteness in the language can take both the subject and the object positions. Consider the following examples:
(64) a. nǎy rûay ní: sanùk mâk movie CL this entertaining very 'This movie is very entertaining.'
b. chăn chôp nǎy rûay ní:

I like movie CL this
'I like this movie.'
c. nǎy rû̂ay nə̀un sǎmâ:t hâj khwa:mbanthry dâj movie CL one can give entertainment ABILITY
'A movie could give entertainment / could be entertaining.'
d. chăn jà:k du: nǎy rûaŋ nə̀un

I want see movie CL one
'I want to see a movie.'

A nominal with a demonstrative (ni:) or the numeral (nə̀uy) can appear in the sentence-initial position ((64a) and (64b)) or the sentence-final position ((64c) and (64d)) These phenomena are taken to suggest that the initial position does not necessarily correspond to 'given' information, i.e. 'definiteness' and, similarly, the final position does not always carry 'new' information, i.e. 'indefiniteness.'

Next, a bare nominal in a subject position or a non-subject position can be interpreted as semantically / pragmatically definite or indefinite depending on the given contexts, as shown:
(65) a. dèk wâınám gan yù:
child swim together PROGRESSIVE
'The children are swimming together.'
b. dèk thî: wâınám pen dârráp child COMPLEMENTIZER swim ABILITY receive
ànújâ:t hâı wâınám thî:nî: dâı khràp
permission get swim here ABILITY FINAL PARTICLE
'Children who can swim are allowed to swim here.'
c. khǎo pha: dèk paı wâınám
he take child go swim
'He took the children to swim.'
d. phǒm pen khru: sǒ:n dèk wâmám I BE teacher teach child swim 'I am a teacher teaching children to swim.'

The referential status of the nominal dèk ('children') can be definite ((65a) and (65c)) or indefinite ((65b) and (65d)) in subject and object positions.

In addition, although Thai is an SVO language (cf. 3.5.1), a subject can be placed in the non-initial position, i.e. post-verbally. Consider the following examples (cf. Thonglor 2004: 368):
(66) a. ma: lǽw sì lûk chăn (poetic)
come already Final Particle child I
'My child has already come.'
b. ta:j lǽw rěu mǎ: khy̌y thə (colloquial)
die already Question Particle dog of you
'Did your dog die already?'

A subject can be placed in the final position for a poetic purpose as in (66a), and in colloquial speech as in (66b). Such evidence indicates that a subject does not always precede a predicate and so a subject with a definite nominal phrase does not need to be in the sentence-initial position. Therefore, it appears that positions of 'definiteness' and 'indefiniteness' relative to constituents in sentences are not absolute in Thai.

In sum, although there is a strong tendency for 'definite' ('given') information to precede 'indefinite' ('new') information, all the evidence shown appears to indicate that sentential positions in Thai do not seem to coincide with '(in)definiteness' ${ }^{22}$ Evidence in Thai suggests that there are no restrictions of definiteness / indefiniteness via word order: semantic markers of (in)definiteness can occur in subject and object positions, bare nominals in subject and object positions can have definite and indefinite interpretations, and definite subjects can appear in the non-initial position. Put differently, word order cannot be considered as related to the definiteness status of sentential nominals in Thai and there is a strong tendency for interpretations of nominals in the language to depend crucially on the given contexts.

So far, I have shown that most nominals in Thai are bare nominals and (in)definiteness tends to be inferrable from context. Moreover, as determinerlike elements in Thai appear to possess adjectival characteristics, the syntactic category determiner is posited to be non-existent in the language. In addition, the (in)definiteness status is not determined by sentential constituents in Thai.

### 3.5.4 The syntactic representation of nominal phrases in Thai

So, what is the syntactic representation of nominal phrases in the Thai language? Various theoretical positions have led to different conclusions about this issue. There appear two lines of arguments.

One argument is assumed to support the DP hypothesis (cf. Abney 1987) (cf. 2.2). Studies based on this framework postulate that a D [eterminer]P is projected on top of an NP in the Thai language (cf. Singhapreecha 2000; Visonyanggoon 2000; Simpson 2004). ${ }^{23}$ So, this position suggests that the syntactic category determiner exists in the grammar of the language.

The other argument is based on the modified version of the DP

[^36]hypothesis (cf. C. Lyons 1999). It is assumed that the motivations for D (efiniteness) P and C (ardinality) P are non-existent in languages without articles. As C. Lyons (1999: 300) notes "The usual indication that a language does have a DP projection is that it has a definite article". Determiner-like elements in these languages are posited to behave syntactically like adjectives (cf. C. Lyons 1999; Trenkic 2007). This framework therefore indicates that there exists no category determiner in Thai (cf. 2.2).

Numerous functional projections are proposed in the literature to appear lower in the structure between DP and NP such as Agr(eement)P (cf. Abney 1987; Kornfilt 1991), Gen(der)P (cf. Picallo 1991; Ritter 1991) and NumP (cf. Ritter 1991) (cf. C. Lyons 1999 and Grandfelt 2000 on details of different functional heads proposed in the literature). Different languages display different functional heads depending on the existence of particular functional categories as intermediate projections. These functional categories are language specific and they are postulated in a language only if they exist. A functional head proposed in the literature is KP ( K for the morphological concept of (abstract) case) (cf. Travis and Lamontagne 1992; Giusti 1995). KP is posited to be a projection above DP. As case appears in every nominal expression in every language, it is proposed to be a universal highest functional projection that heads the nominal phrase. This view is consistent with C. Lyons's (1999) position. The DP is neither a universal nor the highest functional projection of the nominal phrase. It is manifested in a language only when the relevant functional category is available. Lyons (1999:301) assumes that what is common among all nominal expressions is that they are projected by a functional head. And as case is a universal functional category existing in every nominal expression, all nominal phrases, whether they are definite or indefinite, are headed by the maximal projection KP (case phrase).

However, J. Hawkins (2004: Chapter 4) assumes that a nominal phrase structure is according to the traditional analysis of the nominal phrase structure. A noun phrase is simply a noun phrase. A nominal is a head and an article is a noun modifier.

Therefore, there is still no consensus on assumptions as to a possible structural representation of a Thai nominal phrase. Nevertherless, I leave this issue open for future debate. What is crucial and relevant for the present study is
that, according to a line of argument, in articleless languages, there is no category determiner in their grammars and determiner-like elements are assumed to behave grammatically as adjectives.

### 3.6 Conclusion

In this chapter, I have explored definiteness in English, French and Thai. It is postulated that, while articles in English and French behave as determiners, the determiner-like elements in Thai possess adjectival nature.

It has been shown that, although English grammaticalises semantic / pragmatic identifiability, certain types of nominal phrases in the language such as generics appear to be syntactically non-definite. Also, although definiteness in French is grammaticalised like English, there are some differences in article use between French and English.

Syntactic and semantic evidence in Thai has been presented to indicate that the determiner-like elements in the language, i.e. demonstratives and the numeral nə̀uy 'one' are adjectival in their characteristics. It has also been argued that word order in Thai cannot be employed to signal (in)definiteness. The (in)definiteness status of nominals in Thai is usually semantically / pragmatically inferred from contexts.

These points are to be borne in mind when the data on L2 English article production by speakers of L1 Thai and L1 French from the study are analysed and discussed.

The study on L2 English article production will begin with L2 English article omissions in non-premodified and adjectivally premodified NP contexts, in Chapter 4.

## Chapter 4

## L2 English Article Omissions in Nonpremodified and Adjectivally Premodified Contexts

### 4.1 Introduction

The aim of the investigation in this thesis is to work on variability in L2 production of English articles. The notion of definiteness adopted in the study has been introduced and studies on variable production of L2 English articles have been reviewed. Definiteness in the three languages involved in the study, i.e. English, French and Thai, has also been explored.

This chapter focuses on one area of variability in L2 English article production, i.e. article omissions in non-premodified (Art +N ) and adjectivally premodified (Art + Adj +N ) contexts. It investigates English article omissions in the two NP sequences by L2 learners of L1 Thai and L1 French.

The chapter is organised as follows. 4.2 sets the background for the study on L2 English article omissions in the two NP contexts. 4.3 examines if the same prosodic structure in which Art +N are combined in English exists in the L1s in this study, i.e. French (4.3.1) and Thai (4.3.2) in order to see if prosodic structures in the L1s might play a role in English article omissions by L1 French and L1Thai speakers. 4.4 outlines the hypotheses. 4.5, 4.6 and
4.7 present the cross-sectional experiments used in this study: the guided spontaneous production task, the controlled picture elicitation task, and the coin-on-picture elicitation task, respectively. Under each experiment, the L2 participant groups are introduced. The materials, the procedure of executing the task and the coding / analysis of the data are also discussed. Relevant predictions are outlined, followed by results and discussion. 4.8 offers a general discussion and explores implications. 4.9 draws conclusions from the study.

### 4.2 Background of the study on L2 English article omissions in non-premodified and adjectivally premodified NP contexts

As L2 English article omission in non-premodified and adjectivally premodified NP contexts has been introduced in 2.4.1.1, this section briefly outlines the background of this issue.

The present research draws on two recent studies: Goad and White (2004) and Trenkic (2007).

Goad and White (2004) investigated the oral production of nominal morphology by SD, an L1 speaker of Turkish, a language without the definite article. According to White (2003a), SD's production data are assumed to suggest that her syntactic representation of definiteness is intact.

Among other findings, SD is reported to omit more articles in adjectivally premodified sequences than in non-premodified contexts. Goad and White (2004) showed that a prosodic structure in Turkish could be accommodated to represent English Art +N contexts. However, there is not any prosodic structure available in Turkish that can be employed to prosodify Art + Adj +N sequences in English. Goad and White therefore postulate that asymmetries of English article omissions in the two NP structures in SD's production result from different prosodic structures between English and Turkish. This is in accordance with the Prosodic Transfer Hypothesis (cf. Goad, White and Steele (2003) and Goad and White (2004)) (cf. 2.4.1.1), which states that if prosodic structures representing L2 functional morphology do not exist in the native language, variability in L2 production will occur.

Nevertheless, based on SD's variable production data of English articles, certain internal problems with the PTH have been observed and discussed (cf. 2.4.1.1).

Trenkic (2007) also explored L2 English article omissions in nonpremodified and adjectivally premodified environments. The participants were L1 speakers of Serbian, a language not containing articles. The learners were of different English proficiency levels. In both production types, the L2 learners of whatever level are reported to omit more articles in Art $+\mathrm{Adj}+\mathrm{N}$ than in Art +N structures. Trenkic showed that the prosodic representation necessary to represent articles in English exists in Serbian. This evidence is taken to indicate that prosodic transfer cannot be the cause of variable production of English articles by the L1 Serbian / L2 English speakers.

It is shown that the Syntactic Misanalysis Hypothesis could account for the data on English article production by the L1 Serbian speakers (cf. Trenkic 2007). The SMH is based on the assumption that, because the functional category determiner is available in the syntactic representations of speakers from languages with articles, English article production by these speakers is determined by syntax. English article production is therefore obligatory in certain syntactic contexts (i.e. in grammatical contexts where articles are required to be produced such as in a context of a definite singular count noun (e.g. the house over there) (cf. 3.2 on definiteness in English)). In contrast, it is posited that, as the functional category determiner is absent in the grammars of articleless languages and determiner-like elements in these languages have adjectival status, speakers from these languages misanalyse and employ English articles as adjectives. The lexical meaning of (un)identifiability is expressed through determiner-like elements and so English article production by these L2 learners is lexically based.

It is worth noting that there are some differences in production of English articles and (real) adjectives. Articles have to be produced irrespective of whether their 'meaning' is required to make the reference clear. In contrast, adjectives will be produced only in cases where their meanings are needed for reference resolution. To L2 learners from articleless languages, articles might not be necessary as the (in)definite status of NP referents is usually inferrable from contexts. However, English articles will be produced
when these L2 learners realise that articles are required to be produced in English. So, English article production by L2 learners from articleless languages is also strategic.

When producing English articles, the learners are assumed to rely on their cognitive resources to mark the identifiability of discourse referents. There are more elements of meanings in Art + Adj +N than in Art +N contexts ( 3 elements of meaning in the former contexts and 2 in the latter contexts). So, it is assumed that fewer cognitive resources will be left to cope with the cognitive demands of the task in adjectivally premodified than in non-premodified structures. When the cognitive resources are exceeded by such demands, article omissions are likely to occur. The results are higher article omissions in Art $+\mathrm{Adj}+\mathrm{N}$ than in Art +N contexts.

So, there are two different accounts of why English articles are omitted more in adjectivally premodified than in non-premodified environments (the Prosodic Transfer hypothesis and the Syntactic Misanalysis Hypothesis). The SMH seems to be broader as it could explain article omissions in the two studies (i.e. Goad and White 2004; Trenkic 2007). However, an alternative explanation is also possible: L2 learners' syntax may be target-like but processing difficulties account for L2 variability (the Missing Surface Inflection Hypothesis). If so, one would expect variability in L2 English article production in Art +N and Art + Adj +N contexts both in the production of L2 learners from L1s without articles and those from L1s with articles. So far, no one has done a study to test this assumption. Grandfelt (2000) has come the closest with his study of Swedish and French bilinguals (Grandfelt's study indicates that adult L2 learners from L1s with articles do not show asymmetry of article omissions in the two contexts). However, in Grandfelt's study, the sample is small, there is no control / comparison group (no L2 participants from L1s without articles), and the L2 in the study (i.e. French) is different from that in Goad and White (2004) and Trenkic (2007) (i.e. English)).

The current study thus explores which framework can account for L2 variable production in the two NP structures. Previous research focused on English article production only by L2 learners from L1s without articles. The current study aims at examining article production by the L2 population
from another articleless language, i.e. Thai, and comparing these learners' article production with production by L2 learners from a language with articles, i.e. French.

### 4.3 Prosodic organisations of functional material in French and Thai

Before presenting the studies, this section examines whether French and Thai have a prosodic representation that would be equal to the one English uses to prosodically represent articles. If such a representation is found to be lacking, then this could be considered as a potential cause for variable production of L2 English articles (if attested).

English articles appear to the left edge and they are free clitics (cf. Selkirk 1996). The prosodic structure of free clitics of English articles has been shown in (12) in 2.4.1.1 and is referred to again here as (67):

> English articles:
> Free clitic:


It will therefore be investigated if such a prosodic representation exists in French and Thai. Prosodic structures in French are first looked into in 4.3.1, followed by prosodic representations in Thai in 4.3.2.

### 4.3.1 Prosodic organisation of functional material in French

Before an exploration of whether a prosodic hierarchy of free clitics exists in French, some relevant background of stress in French needs to be looked at.

A French word in isolation usually receives a stress and the last syllable of a word usually carries a stress. Notice the stress on the last syllable of the following words:
(68) a. two-syllable word with stress on the second syllable
personne
per'son
'person'
b. four-syllable word with stress on the fourth syllable
personnellement
personel'mã(t)
'personally'
c. six-syllable word with stress on the sixth syllable
personnification
personifik-asj'õ
'personification'

In connected speech, there is a strong tendency for stress in French to be fixed. Pauses are usually made at the end of phrases or sentences, i.e. the final syllable of the last word in a phrase or a sentence receives a main stress. This kind of stress is grammatical stress because it marks the end of a phrase or a sentence. For example, a stress appears in the phrase-final position in each example below:
(69) a. un chien
œ ${ }^{\prime} \mathrm{Sj} \tilde{\varepsilon}$
'a dog'
b. un chien noir
œ $\int j \tilde{\varepsilon} \quad$ 'nwar
‘a black dog'

French is therefore described as a syllable-time language because stress is usually fixed in the last syllable of a phrase or a sentence (cf. Lodge1997; Picard 1987). ${ }^{1}$

[^37]As in English, articles in French appear before nouns. Usually a French article (a functional element) preceding a noun (lexical material) receives no stress. As a syllable-time language, in a phrase constituting an article and a noun, a stress is usually placed on the syllable of the noun (if there is one syllable) or the last syllable of the noun (if there is more than one syllable), not on the article.

In French, an element, i.e. an adjective can be inserted between an article and a noun (As discussed in Footnote 4 of Chapter 3, generally, adjectives in French follow nouns. However, there is a group of adjectives that can precede nouns) (cf. 3.3). Example (31) of a noun phrase with a prenominal adjective in French is referred to again as (70):
(70) la belle femme the beautiful woman
'the beautiful woman'

In English, an adjective can also be placed between an article and a noun. As the article and the noun can be separated by an adjective in both English and French, it could be assumed that, like English articles, French articles are prosodified as free clitics linked to the PPh (cf. 2.4.1.1):
a. English:

b. French:


What this means is that if an asymmetry is found in L1 French / L2 English speakers' production between Art $+\mathrm{Adj}+\mathrm{N}$ and Art +N contexts, it would not be possible to attribute it to a prosodic transfer.

### 4.3.2 Prosodic organisation of functional material in Thai

In this section, certain phonological aspects of stressed and unstressed syllables in Thai need to be addressed first before an investigation of whether the prosodic structure of free clitics in the English Art +N is existent in Thai. ${ }^{2}$ All the examples on Thai phonological properties are taken from Naksakul (1998).

### 4.3.2.1 Stressed and unstressed syllables in Thai

It is accepted among linguists that, although Thai is not a stress-dominant language, stress exists in the language (cf. Peyasantiwong 1986; Pankhuenkhat 1998). Stressed and unstressed syllables appear in the following environments (cf. Naksakul 1998: 120-21, 158-60):

- Stressed syllables

Stressed syllables in Thai are usually evidenced in the following environments. First, a monosyllabic word which can appear independently and can be pronounced on its own is usually stressed. Second, a monosyllabic word in a sentence tends to carry stress (cf. Naksakul 1998: 159; Pankhuenkhat 1998: 133). Third, the last syllable of a word or a phrase except a final particle is always a stressed syllable. A stressed syllable in Thai consists of at least an initial consonant sound, a vowel sound and a tone, for example,
(72) a. má 'a / the horse(s)'
b. khraj 'who'
c. sùk 'ripe'

- Unstressed syllables

[^38]There are two types of unstressed syllables: common unstressed syllables and destressed syllables.

- Common unstressed syllables

A common unstressed syllable always appears in a position where stress is not needed in a word (see also Hass 1956: 26; Kruatrachue 1960: 105; Noss 1964: 28-31; Anchaleenukul 2004: 21). Characteristics of this syllable type are the following: (a) the initial consonant is a single consonant (C). If there is an initial consonant cluster, the second consonant must be $/ \mathrm{r} /$ only, i.e. $\mathrm{C} / \mathrm{r} /$, (b) the vowel is a short vowel and there is usually no final consonant, and (c) the tone is typically the mid tone.

Some examples of common unstressed syllables in Thai are the first syllables in the following words:
(73) a. ka-'thí '(the) coconut milk'
b. ma-na:w ' $a$ / the lime(s) ${ }^{3}$
c. tha-le: 'the sea'
d. kra-'bû:y 'a/the tile(s)'

However, in words that originated from Pali and Sanskrit, if the vowel sound in an unstressed syllable is $/ \mathrm{l} /$ or $/ \mathrm{v} /$, the tones will be low or high. For example,
(74) a. si-'la: '(the) stone'
b thú-'doy 'an / the austerity practice(s)'

- Destressed syllables

Destressing of a syllable may occur due to positions or due to a particular characteristic of a syllable. Each type of destressed syllables are presented below:

[^39]- Destressing due to positions

A destressed syllable appears in a position where a syllable needs to be unstressed, usually before a stressed syllable. Naksakul (1998: 131) claims that when a stressed syllable is destressed, some changes might also occur with that syllable (See also Pankhuenkhat 1998: 134). The changes include:

- a phonological reduction of vowels, i.e. a long vowel sound becoming a short vowel sound (see also Peyasantiwong 1986; Pankhuenkhat 1998: 136; Iwasaki and Ingkaphirom 2005: 6): ${ }^{4}$
(75) a. me:y-'mum $\rightarrow$ mey-'mum 'a / the spider(s)'
b. ro:n-'thá:w $\rightarrow$ roy-'thá:w '(the) shoes'
- a phonological reduction of vowels, i.e. a dipthong sound becoming a single vowel sound:
(76) a. mûa-'wa:n $\rightarrow$ mâ-'wa:n 'yesterday'
b. 'jûn lǔ̌a-'kr:n $\rightarrow$ 'jûn lá-'kr:n 'very troublesome' (Notice also the tone change.)
- an alternative tonal pronunciation: a contour tone becoming a level tone: ${ }^{5}$
a. nǎy-'sǔ̌: $\rightarrow$ náy-'sư̌: 'a/the book(s)'
b. khěm-'khàt $\rightarrow$ khém-'khàt ' $a /$ the belt( $s$ )'
- a loss of the final consonant sound:

[^40](78) a. thú?-'rian $\rightarrow$ thú -'rian ' $a /$ the durian(s)'
b. kam-lan $\rightarrow$ ka-lay 'in the process of'

- a loss of a syllable or a syllable element (see also Pankhuenkhat 1998: 139):
(79) a. ro:y-'rian $\rightarrow$ y-'rian 'a/the school(s)'
b. jà:n-'ní: $\rightarrow$ y-'yi: 'like this' (notice also the consonant change from $/ \mathrm{n} /$ to $/ \mathrm{y} /$ in the second syllable.)

Naksakul (1998: 121) notes, however, that a speaker might pronounce these destressed syllables as stressed syllables even though s/he does not want to make any emphasis.

- Destressing due to a particular characteristic of a syllable

Function words such as a conjunction and a preposition preceding a stressed syllable are usually destressed (see also Noss 1964: 45; Hass 1956: 26), as exemplified:
(80) a. $\quad 1 \varepsilon$ ع $\} \rightarrow 1 \varepsilon$ 'and' (notice also the loss of the final consonant sound and the tone change.) such as in
'phô: le 'mê:
father and mother
'father and mother'
b. kàp $\rightarrow$ ka with (notice also the loss of the final consonant sound) such as in
'khâ:w ka 'khàj
rice with egg
'rice with egg'
c. thî: $\rightarrow$ thî (notice also the change from the long to short vowel.) such as in
'jù: thîi 'bâ:n
be at home
'S/he is at home.'

It is worth observing from the above conditions that an unstressed syllable, whether it is a common unstressed syllable or a destressed syllable, usually appears before a stressed syllable in a disyllabic Thai word. Such a consecutive occurrence of the two sound types is also normally found in phrasal and sentential word orders (cf. Nakasul 1998:138). For example,
(81) nám-'man ca 'mòt kô-'tôy hâj 'dèk paj 'súf:
oil $\quad$ FUT run out then must give maid go buy
'The oil is running out, so you must have the maid go and buy some.'

Based on the background of stressed and unstressed syllables in Thai, we will examine if the prosodic structure is equivalent to the one used in English for prosodically representing articles in Thai.

### 4.3.2.2 The prosodic structure of free clitics in Thai

Determiner-like elements in Thai are marked differently from articles in English by appearing to the right edge (cf. 3.5.1):
(82) a. khon nuy
man one
'a/one man'
b. bâ:n ní:
house this
'the / this house'

However, prepositions in Thai appear to the left edge like articles (and prepositions) in English. Selkirk (1996) argues that, generally, a function word before a lexical element is in its weak form. As discussed in 4.3.2.1, when prepositions in Thai are placed before lexical words, they are normally destressed. For example, the preposition thî: ('at') in its strong form is stressed and has a long vowel. However, when it precedes a nominal (which is usually stressed), not only is it destressed but also the long vowel [i:] is reduced to the short vowel [i] (cf. (80c)).

Selkirk proposes that English function words preceding lexical words are represented by free clitics. Her examples from (11) are referred to again here for convenience as (83):
(83)


It is noteworthy that an English preposition appears to the left edge and prosodification of prepositions is assumed to be free clitics linked to the PPh .

For example,

English preposition: Free clitic:


Both prepositions and articles in English are therefore prosodified as free clitics, as shown:
a. English:
b. English:


A preposition in Thai appears in the same environment as a preposition in English by appearing to the left edge and receiving no stress when it precedes a noun. It is therefore argued that Thai prepositions have prosodic representations like English prepositions, as shown:
a. English:

b. Thai:


As English prepositions have the prosodic structures of free clitics like English articles, I would like to suggest that, in Thai, monosyllable prepositions are prosodified as free clitics just like English articles, as shown:
a. English:
b. Thai:


(Pongpairoj 2007a: 104)

The functional elements Art +N in English and (monosyllable) Prep +N in Thai are arranged in the prosodic hierarchy in the same fashion. It is therefore assumed that free clitic representation at the left edge is permitted in both languages. Although functional elements are of different types, what is significant is the way the languages prosodify functional elements in the same way (the same case as a one-syllable determiner-like element preceding a noun in Serbian prosodifying in the same way as an article before a noun in English (cf. Trenkic 2007) (cf. 2.4.1.1)).

Summing up, it is postulated that the prosodic structure in which Art + N are combined in English exists in French and Thai. There is therefore no compelling evidence suggesting that prosodic transfer might be responsible for variable production of English articles by L1 French and L1 Thai speakers (if attested).

As both French and English seem to have a prosodic structure equivalent to the one used in English to prosodically represent articles, the asymmetries in article production between Art +N and Art + Adj +N contexts (if attested) will not be accounted for by the Prosodic Transfer Hypothesis. The PTH will therefore not be tested in this study. The thesis will only test the Syntactic Misanalysis Hypothesis and the Missing Surface Inflection Hypothesis.

### 4.4 Hypotheses

The study set out to test two contrasting hypotheses on L2 English article omissions:

H1 (the Syntactic Misanalysis Hypothesis): In article production of L2 English speakers from languages without articles, article omissions are the result of syntactic misanalysis. The functional category determiner is nonexistent in the grammars of these languages and determiner-like elements in the languages behave as adjectives. So, L2 learners from these language backgrounds misanalyse and use English articles as nominal modifiers.
H2 (the Missing Surface Inflection Hypothesis): Article omissions are primarily caused not by non-target-like grammars but by problems in accessing target-like grammars in production (i.e. mapping between syntax and morphology).

Detailed predictions based on these hypotheses are reported individually for each experiment.

### 4.5 Experiment 1: the guided spontaneous production task

The guided spontaneous production task was conducted to explore English article omissions in Art +N and Art $+\mathrm{Adj}+\mathrm{N}$ sequences in both spoken and written production by L2 learners of both L1s with and without articles. Because participants in this task were required to spontaneously describe a set of pictures into a coherent story based on contexts in the materials that guide them to the production, the task was called 'the guided spontaneous production task'.

### 4.5.1 Method

### 4.5.1.1 Participants

There were three L2 participant groups in this experiment: one intermediate L1 Thai group, one advanced L1 Thai group and one advanced French group
(10 participants each). The article production data from the participant groups were compared.

A native Thai control group was also included. The L1 data from the Thai participants were used to examine if there was any impact from the Thai linguistic markers of (in)definiteness (i.e. demonstratives and the numeral nàuy 'one' (cf. 3.5.2)) on English article production by L1 Thai speakers. Ten native speakers from the Thai participants were therefore randomly chosen. They were asked to produce spoken and written baseline data (task performance in the L1 in this case). ${ }^{6}$ The test in L1 Thai was conducted after the experiment had been conducted in L2 English to ensure that validity of the experiment would not be affected.

Interesting points found from the data were that most Thai nominals occurred in the form of bare nominals in the L1 Thai speakers' production. There were only two instances of the English 'Art +N ' structure where the Thai demonstrative for this was used when the NPs were mentioned for the second time. It was also observed that there were also no phonological aspects such as stress or word order to signify definiteness involved in the production (cf. Pongpairoj 2007b: 112) (cf. 3.5 on definiteness in Thai).

Data collection for the guided spontaneous production task was made with Thai-speaking and French-speaking students of the University of York in the United Kingdom. The participants included undergraduate and postgraduate students.

At the time of the experiment, the mean age of the L2 participant groups was $29 ; 2$ for the intermediate L1 Thai group, 26;1 for the advanced L1 Thai group, 24;3 for the L1 French group. The L1 Thai and the L1 French participants had studied English for at least 14 years and 10 years, respectively. Most participants had lived in an English-speaking country for not more than 2 years. There was only one who had lived in an Englishspeaking country for more than that, i.e. an intermediate L1 Thai speaker: 3

[^41]years and 5 months. However, there were no outliers to bias statistics in the production data (cf. Field 2004)

Table 4.1 summarises biographical details of each participant group (see Appendix A on biographical details of the participants):

| Participant <br> groups | Age |  |  |  | Instructed English |  |  |  | Natural exposure <br> to English |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
|  | range | mean | SD | range | mean | SD | range | mean | SD |  |
| Int Thai | $23 ; 8-$ | $29 ; 2$ | 4.833 | $15-$ | 21 | 5.055 | $.8-$ | $1 ; 6$ | .922 |  |
| $(n=10)$ | $40 ; 2$ |  |  | 32 |  |  | 3.5 |  |  |  |
| Adv Thai | $23 ; 1-$ | $26 ; 1$ | 4.599 | $14-$ | $19 ; 6$ | 4.353 | $.8-$ | $1 ; 5$ | .713 |  |
| $(n=10)$ | $37 ; 5$ |  |  | 27 |  |  | 2.4 |  |  |  |
| Adv Fr | $20 ; 9-$ | $24 ; 3$ | 2.650 | $10-$ | $13 ; 1$ | 2.685 | $.6-2$ | $1 ; 1$ | .788 |  |
| $(n=10)$ | $28 ; 3$ |  |  | 18 |  |  |  |  |  |  |

Table 4.1: Biographical details of the L2 participant groups in the guided spontaneous production task

The L2 English students' English proficiency levels were determined by the Oxford Placement Test (Allen 2004). Having looked at the Oxford Placement Test format and test items, I considered that the test was a practical and efficient way to group the participants into levels according to their English proficiency.

At this point, the nature of the Oxford Placement Test is briefly discussed to show how the test was administered to the participants. The Oxford Placement Test is composed of two sections: general proficiency tests of listening and grammar. Each section contains 100 multiple-choice items.

The first section involves the grammar test, which incorporates knowledge of English syntactic properties. Participants have to decide on the correct answer, as exemplified (taken from example (a) of the grammar test materials (cf. Allen 2004)),
(88) In warm climates people like / likes / are liking sitting outside in the sun.

The second section is the listening test, covering items from authentic situations which have given rise to mishearings. Participants listen to the tape, in which the items are spoken by a range of English native speakers at normal speaking speed. Each item is said once. Participants have to make a correct choice based on what they hear. For example (taken from example (c) of the listening test materials (cf. Allen 2004)),
(89) They've recently developed a new kind of vine / wine around here.

In this item, the choice could be between vine and wine. The word vine is on the tape and so this word should be ticked.

The listening test takes approximately 10 minutes to complete. As for the grammar test, participants are given a maximum of 50 minutes to complete the test. In the experiment, most participants finished the grammar test within 30-40 minutes.

The aggregate Oxford Placement Test scores from the two sections were used to reflect different English proficiency levels. For the purpose of this study, participants with the intermediate and the advanced English proficiency levels were recruited. Based on the Oxford Placement Test scores, scores in the range between 135-149 are considered the upper intermediate level and scores in the range between 150-169 are established as the advanced level. ${ }^{7}$ The participants whose scores were outside these two ranges were disqualified from the tasks in the experiment. All the participants were paid for having participated in the experiment (Those whose scores were not within the required ranges were also paid for having taken the test) (cf. Table 4.1 on details of the Oxford Placement Test score of each participant group and Appendix B on scores from the listening and the grammar test, including the combined score and the English proficiency level of each participant).

[^42]Table 4.2 summarises Oxford Placement Test scores of the L2 participant groups:

| Participant groups | Oxford Placement Test scores |  |  |
| :--- | :--- | :--- | :--- |
|  | range | mean | SD |
| Int Thai | $137-146$ | 141 | 2.867 |
| $(n=10)$ |  | $(70.5 \%)$ |  |
| Adv Thai | $157-169$ | 164.2 <br> $(n=10)$ |  |
| $(82.1 \%)$ | 3.736 |  |  |
| Adv Fr | $161-168$ | 165 | 2.309 |
| $(n=10)$ |  | $(82.5 \%)$ |  |

Table 4.2: Oxford Placement Test scores of the L2 participant groups in the guided spontaneous production task

Note that, on average, the advanced French group performed better on the Oxford Placement Test ( $M=165.00, S E=.730$ ), than the advanced Thai group $(M=164.20, S E=1.181)$. This difference, however, was NOT SIGNIFICANT $t(18)=-.58, p>.05$.

### 4.5.1.2 Materials

Two comparable sets of hand-drawn cartoon sequences were designed for article production in a discourse. One is for oral production and the other is for written production.

- 'The toy shop story' (oral production)


Figure 4.1: Picture 1 of 'the toy shop story'


Figure 4.3: Picture 3 of 'the toy shop story'


Figure 4.2: Picture 2 of 'the toy shop story'


Figure 4.4: Picture 4 of 'the toy shop story'

- 'The supermarket story' (written production)


Figure 4.5: Picture 1 of 'the supermarket story'


Figure 4.7: Picture 3 of 'the supermarket story'


Figure 4.6: Picture 2 of 'the supermarket story'


Figure 4.8: Picture 4 of 'the supermarket story'

The two cartoon serial events were composed of four pictures each. Each cartoon story was designed with characters, things and places in them to encourage production of nominal phrases. All the pictures were in colour and provided contexts to elicit data specifically to address the predictions of article production in Art +N and $\mathrm{Art}+\mathrm{Adj}+\mathrm{N}$ contexts.

In order to make the participants produce adjectivally premodified NPs, different colours, sizes and / or characteristics for certain referents of the
same type were used. The participants were expected to refer to these referents by using prenominal adjectives to differentiate them. For example, in the toy shop story, there were two books of different colours / sizes. The participants were expected to refer to them by using prenominal adjectives denoting colours / sizes, i.e. $a /$ the big / yellow book. ${ }^{8}$ In the supermarket story, there were two girls of different height. It was anticipated that the participants would refer to them by employing adjectives denoting heights, i.e. $a /$ the shorter girl and $a /$ the taller girl. Put differently, these referents had particular attributes for eliciting nominal production of Art + Adj +N structures.

Non-premodified NPs to be compared with adjectivally premodified NPs were also expected to be elicited from certain referents. Referents of different categories to elicit NPs of the Art +N structure were used such as $a /$ the boy and $a /$ the girl in the toy shop story or $a /$ the pineapple and $a /$ the pear in the supermarket story.

As the participants described the events based on the cartoon strips, the production was expected to be fairly naturalistic. Since the participants concentrated on describing the pictures and the task elicited spoken / written output at natural speed, no attention was expected to be drawn to article production. An event description task is assumed to be demanding enough to prevent L2 learners from considering article use rules (cf. Warden 1981: 98).

### 4.5.1.3 Procedure

The testing was done on an individual basis. The researcher made an appointment with the participants to meet at a specific time in a class room environment.

For the oral descriptions, the participants were instructed to describe the pictures in each story by giving spontaneous production at their natural speed. They were asked to make their descriptions as specific as possible. They were also asked to describe the pictures from the beginning until the end

[^43]continuously. Certain objectives were behind these instructions. First, through specific descriptions, it was hoped that there would be a greater tendency for adjectivally premodified NPs to be produced. Second, the pressure of natural speed processing and continuous description should discourage the L2 learners from accessing their metalinguistic knowledge, i.e. conscious hypotheses constructed from learning (cf. Krashen 1982). Rather, it should lead them to rely on their linguistic intuitions.

Because the length of each participant's description would not be the same and every L2 learner was asked to complete the descriptions, there was no time limit for either the spoken or the written production. Although the tasks were untimed, the participants were expected to be under the pressure of natural-time processing constraints and they would have little time to activate their metalinguistic knowledge (cf. Ellis 2003: 137).

As far as the written descriptions were concerned, the participants were also instructed to do the same things. They were also asked not to make any revisions and to hand in the paper right away when they finished the descriptions.

The order of testing was counter-balanced. In each learner group, half of the participants were asked to do the spoken task first; the other half did the written description first. The spoken and the written production tasks were counter-balanced across the participants so that better performance in one task could not have been attributed to learning. Each participant was allowed to have a ten-minute break after the first task had been done.

The researcher asked for permission from the participants to record the oral production.

Most participants finished the oral descriptions within 2-3 minutes and took approximately 10 minutes to complete the writing task.

All the participants were paid for participating in this experiment.

### 4.5.1.4 Predictions

Based on the hypotheses in 4.4 , the predictions for the guided spontaneous production were as follows:

If the Syntactic Misanalysis Hypothesis is correct and L2 learners from articleless L1 backgrounds analyse L2 English articles as adjectives, then the following predictions could be made:
(a) L1 Thai / L2 English speakers would omit more articles in Art + Adj +N than in Art +N contexts.
(b) Both the intermediate and the advanced L1 Thai / L2 English groups would show this pattern.
(c) The L1 French / L2 English group would NOT show the asymmetry in article production between Art + Adj +N and Art + N contexts.
(d) As oral production is supposed to make more on-line demands on cognitive resources (i.e. participants have less chance to stop and plan their utterances), the overall levels of article omissions may be higher in the spoken than in the written task. The pattern of asymmetry, however, should be the same in the two tests.

If the assumption of the Missing Surface Inflection Hypothesis is correct and the variability in production of L2 functional morphology is primarily caused NOT by non-target-like grammars but by accessing targetlike grammars in production, then the following predictions could be made:
(a) L1 Thai / L2 English groups would omit more articles in Art + Adj +N than in Art +N contexts because the former context is more complex and so this will affect the ease of mapping between morphology and syntax.
(b) The L1 French / L2 English group should be affected by the same processing constraints and show the same pattern: more omissions in Art + Adj +N than in Art +N contexts. Their overall rate of omissions, however, may be lower due to the transfer of processing from the L1.
(c) As oral production is believed to make more on-line demands on cognitive resources (i.e. participants have less chance to stop and plan their utterances), the overall levels of article omissions may be higher in the spoken than in the written task in both the Thai and French groups

### 4.5.1.5 Coding / Analysis

The data set from the spoken task was first transcribed. Then the data from both the spoken and the written production were examined.

Each noun phrase was underlined. Certain noun phrases with articles were excluded from the analysis:

- NPs with quantifiers, i.e. functional elements before nouns to denote quantity, e.g. $\underline{a}$ number of, $\underline{a}$ few, a little, $\underline{a}$ lot of, $\underline{a}$ great deal of $(12$ tokens from the spoken production and 15 from the written production)
- NPs in fixed expressions or the so-called 'set phrases', e.g. in the morning, in the middle of, on the street and make $\underline{a}$ decision ( 13 tokens from the spoken production and 18 from the written production)
- NPs with specific rules of article use, e.g. the in the superlative form, and the with an ordinal number ( 4 tokens from the spoken production and 3 from the written production)
- unique NPs, e.g. the sun (3 tokens from the spoken production and none from the written production)

Each NP was classified according to the following:

- modification, i.e. non-premodified and adjectivally premodified
- number
- countability
- concreteness

The NP variables of number and concreteness were used for further analysis of article omissions between the indefinite and the definite articles in nonpremodified and adjectivally premodified contexts.

Two native speakers were asked to read each participant's oral and written production data and acted as raters. Native English raters were important as their judgment on article production in speaking and writing was used as a criterion for acceptable article use in English (cf. White 1989: 60). At the time of the experiment, both native speakers were PhD students at the University of York. Their respective age was $28 ; 6$ and $32 ; 2$ The native speakers were therefore of similar ages and educational background. They were asked to identify any errors made on article production on only the
underlined NPs. The two native speakers were paid for being raters for this experiment.

In cases where both the indefinite and the definite articles could be felicitously employed according to the native raters, both article choices were considered as equally correct. Depending on the speaker's perception, the definite article could also be exploited in cases where NP referents were first introduced, e.g. the boy and the girl are in front of the toy shop. This kind of definite use might be influenced by a common stylistic device of story-telling (cf. Emslie and Stevenson 1981: 326).

The total number of NP tokens produced was added up based on all nominal contexts where the use of articles was obligatory.

The participants' article omission rates in each NP context (Art +N or Art $+\mathrm{Adj}+\mathrm{N}$ ) were calculated relative to the total number of obligatory contexts for each NP context type produced. The results of article omissions in definite and indefinite NP contexts were first combined. Comparisons of article omissions in definite and indefinite NPs were then also explored.

The statistical method employed was a dependent $t$-test (or a pairedsamples $t$-test) to investigate article omissions in the two NP contexts.

Illustrative examples of article omissions in Art + N and Art + Adj + N , coding and scoring of the errors are given in Table 4.5 below:

| Illustrative examples of L2 data on English article omissions | number of omissions in Art + N <br> contexts | number of omissions in Art + Adj + N contexts |
| :---: | :---: | :---: |
| 1. * Girl is playing with dog in the park and a boy is reading orange book. ${ }^{9}$ | $\begin{gathered} \hline 2 \text { errors } \\ \text { *(girl; dog) } \end{gathered}$ | $\begin{gathered} 1 \text { error } \\ * \text { (orange } \\ \text { book) } \end{gathered}$ |
| 2. * The cashier is at the till. She is wearing blue blouse and green skirt. | - | 2 errors *(blue blouse; green skirt) |
| 3. * There are big pineapple, big pear, red apple, green apple on shelf and blue trolley is beside them. | $\begin{gathered} 1 \text { error } \\ \text { * (shelf) } \end{gathered}$ | $\quad 4$ errors *(big pineapple; big pear, red apple; green apple; blue trolley) |

Table 4.3: Illustrative examples of errors on L2 English article omissions in the guided spontaneous production task, coding and scoring of the errors

### 4.5.2 Results and discussion

The initial results from the guided spontaneous production task were from the combined analysis of definite and indefinite NP contexts except for NPs with quantifiers, NPs in fixed expressions, NPs with specific rules of article use, and unique NPs (cf. 4.5.1.5).

[^44]
### 4.5.2.1 Results from the spoken production

The results on English article omissions from the spoken production of the guided spontaneous production task are compared across contexts and across groups in Table 4.6 and the distribution of article omissions is represented in Figure 4.9:

| Spoken production | Art + N |  | Art + Adj + N |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\%$ | ratio | $\%$ | ratio |
| Int Thai $(n=10)$ | 6.25 | $15 / 240$ | 16.48 | $15 / 91$ |
| Adv Thai $(n=10)$ | 3.06 | $7 / 229$ | 7.98 | $13 / 163$ |
| Adv French $(n=10)$ | 0.47 | $1 / 214$ | 2.33 | $3 / 129$ |

Table 4.4: Article omission rates in non-premodified and adjectivally premodified contexts in the spoken production of the guided spontaneous production task ( $n=10$ per group)


Figure 4.9: Article omission rates in non-premodified and adjectivally premodified contexts in the spoken production of the guided spontaneous production task ( $n=10$ per group)

In the spoken production, the omission rates were higher in adjectivally premodified than in non-premodified contexts in the two Thai groups and the French group. The intermediate Thai group omitted articles considerably more in Art + Adj +N contexts than in Art +N structures, i.e. $6.25 \%$ and $16.48 \%$, respectively. The same patterning of article omissions was evidenced in the advanced Thai group, although at lower rates, i.e. 3.06\%
in non-premodified and $7.98 \%$ in premodified sequences. Article omissions in both NP structures were also different in the advanced French group: $0.47 \%$ in the non-premodified and $2.33 \%$ in the premodified contexts.

To examine individual learners' article omissions in each NP context in the spoken production, individual learner proportions of article omissions out of obligatory contexts for each NP context were calculated into percentages, as shown in Table 4.7:

| Spoken production | Art + N |  | Art + Adj + N |  |
| :--- | :---: | :---: | :---: | :---: |
|  | \% (mean) | SD | \% (mean) | SD |
| Int Thai $(n=10)$ | 6.03 | 3.828 | 16.14 | 4.648 |
| Adv Thai $(n=10)$ | 2.75 | 2.520 | 8.76 | 4.196 |
| Adv French $(n=10)$ | 0.35 | 1.091 | 1.58 | 3.371 |

Table 4.5: Percentages of article omissions in non-premodified and adjectival premodified contexts in the Thai and the French groups in the spoken production in the guided spontaneous production task ( $n=10$ per group)

Article production was predicted by the Syntactic Misanalysis Hypothesis to be negatively influenced by prenominal adjectives in the two Thai groups, but not in the French group. As for the Missing Surface Inflection Hypothesis, the predictions were that asymmetric patterns of article omissions in the two NP contexts would be evidenced in both the Thai groups and the French group. Adjectival modification and its impact on article production was therefore examined.

To determine the significance of the contribution of non-prenominal and adjectivally prenominal modifications to article omissions by individual learners in the spoken production, a dependent $t$-test (or a paired-samples $t$ test) was performed on article omissions in the two different context types (the $t$-test was carried out on the percentage data from Table 4.5 above).

Results were as follows:

- On average, the intermediate Thai group omitted more English articles in adjectivally premodified contexts $(M=16.14, S E=1.47)$ than in non-premodified contexts $(M=6.03, S E=1.21, t(9)=-6.61, p<.001, r=.91)$.
- The advanced Thai group omitted more English articles in adjectivally premodified contexts $(M=8.76, S E=1.33)$ than in nonpremodified contexts ( $M=2.75, S E=.80, t(9)=-8.24, p<.001, r=.94)$.
- The advanced French group omitted more English articles in adjectivally premodified contexts ( $M=.35, S E=.35$ ) than in non-premodified contexts ( $M=1.58, S E=1.07$ ). This difference, however, was not significant $t(9)=-1.49, p>.05 .{ }^{10}$

Therefore, considering the results from a $t$-test on individual learner proportions of article omissions in each NP context, English article omissions in Art +N and Art + Adj +N were significant in both Thai groups, but not in the advanced French group. ${ }^{11}$

### 4.5.2.2 Results from the written production

Table 4.8 and Figure 4.10 illustrate and sum up the proportions of English article omissions in Art +N and Art + Adj +N environments from the written production:

[^45]| Written production | Art + N |  | Art + Adj + N |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\%$ | ratio | $\%$ | ratio |
| Inter Thai $(n=10)$ | 9.15 | $15 / 164$ | 16.19 | $34 / 210$ |
| Adv Thai $(n=10)$ | 4.84 | $9 / 186$ | 12.13 | $33 / 272$ |
| Adv French $(n=10)$ | 0.58 | $1 / 173$ | 1.71 | $5 / 292$ |

Table 4.6: Article omission rates in non-premodified and adjectivally premodified contexts in the written production in the guided spontaneous production task ( $n=10$ per group)


Figure 4.10: Article omission rates in non-premodified and adjectivally premodified contexts in the written production in the guided spontaneous production task ( $n=10$ per group)

The data from the written task seemed to follow the same pattern as the results from the spoken production. The two Thai groups omitted more articles in Art + Adj +N sequences than in Art +N structures, i.e. $16.19 \%$ and $9.15 \%$ in the intermediate group, and $12.13 \%$ and $4.84 \%$ in the advanced group. In the French group, article omission rates were $0.58 \%$ and $1.71 \%$ in non-premodified and adjectivally premodified structures, respectively.

Again, in order to look into article omissions in each NP structure in the written production by individual learners, proportions of article omissions out of obligatory contexts by individual learners in each NP context were calculated into percentages, as presented in Table 4.9:

| Written production | Art + N |  | Art + Adj + N |  |
| :--- | :---: | :---: | :---: | :---: |
|  | \% (mean) | SD | \% (mean) | SD |
| Int Thai $(n=10)$ | 9.01 | 5.907 | 17.30 | 5.209 |
| Adv Thai $(n=10)$ | 4.95 | 3.440 | 12.12 | 2.906 |
| Adv French $(n=10)$ | 0.56 | 1.758 | 1.60 | 1.735 |

Table 4.7: Percentages of article omissions in non-premodified and adjectivally premodified contexts in the Thai and the French groups in the written production in the guided spontaneous production task ( $n=10$ per group)

To determine the significance of the contribution of non-prenominal and adjectivally prenominal modifications to individual learners' article omissions in the written production, a dependent $t$-test (or a paired-samples $t$-test) was performed on article omissions in the two different context types (the t-test was carried out on the percentage data from Table 4.7 above).

Results were as follows:

- On average, the intermediate Thai group omitted more English articles in adjectivally premodified contexts $(M=17.30, S E=1.65)$ than in non-premodified contexts ( $M=9.01, S E=1.87, t(9)=-9.06, p<.001, r=.95$ ).
- The advanced Thai group omitted more English articles in adjectivally premodified contexts $(M=12.12, S E=.92)$ than in nonpremodified contexts ( $M=4.95, S E=1.09, t(9)=-7.17, p<.001, r=.92$ ).
- The advanced French group omitted more English articles in adjectivally premodified contexts ( $M=1.60, S E=.55$ ) than in non-premodified contexts ( $M=.56, S E=.56$ ). This difference however was not significant $t(9)$ $=-1.04, p>.05$.

Crucial for the hypotheses was the fact that both Thai groups omitted articles significantly more in Art $+\operatorname{Adj}+\mathrm{N}$ than in Art +N sequences, whereas no such statistical difference was found in the production of the L1 French group. ${ }^{12}$

[^46]Contrary to the prediction, there were no more errors in the spoken than in the written production.

Summarising so far, the results from the guided spontaneous production task showed that English article omissions by native speakers of Thai were higher in adjectivally premodified than in non-premodified NP contexts. Such a phenomenon occurred in both speaking and writing. Although the omission rates in the two contexts were lower in the advanced Thai group, asymmetries still remained. There were no statistically significant differences in article omissions in the two NP contexts in the French group. Indeed, the L2 French participants rarely omitted articles. However, it is worth observing that there was only one L2 French group in this experiment. I will come back to this point in due course.

So, different behaviours of article production in the two NP structures were found in L2 groups from different L1 backgrounds. Speakers of L1 Thai (-article background) of both proficiency levels had a tendency to omit more articles in Art $+\mathrm{Adj}+\mathrm{N}$ than Art +N structures. However, there was no difference in article production in the two contexts by the L2 English learners of L1 French (+article background). The predictions of the Syntactic Misanalysis Hypothesis on L2 English article omissions in non-premodified and adjectivally premodified contexts seem to be borne out by the statistical results from the guided spontaneous production task. The findings contradicted the predictions of the Missing Surface Inflection Hypothesis since different behaviours of article production in the two NP environments were exhibited by L2 learners from languages with and without articles.

What is worth observing is that, contrary to the prediction (that more article omissions should be found in spoken than in written production), there were no more omissions in spoken than in written production. The levels of article omissions are comparable in the two tasks - in fact slightly higher in the written task. This is different from what previous research on variability in functional morphology found (e.g. Patty's low markings of past tense and

[^47]third person singular agreement morphemes in the spontaneous oral production in Lardiere 1998a, b, 2000 (cf. 1.2.1.1)). It is not clear why. However, the patterns of article omissions were identical in the two tasks, which is consistent with the prediction.

The results discussed so far were combined omissions of both the definite and the indefinite articles. In the next section, the results are split into the omissions of the indefinite article and the omissions of the definite articles. The NPs produced from each context were therefore split into indefinite and definite NPs. In order to prevent any bias on the data, the variables concreteness, countability and singularity were kept constant in both definite and indefinite NPs in the two contexts. So, only concrete countable singular NP tokens were included in the data. Results on omissions of the definite and the indefinite articles in the two NP structures are presented in Tables 4.10, 4.11 and 4.12 for the intermediate Thai group, the advanced Thai group and the advanced French group, respectively:

- Spoken production

Intermediate Thai group

|  | Art + N |  | Art + Adj + N |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\%$ | ratio | $\%$ | ratio |
| definite | 4.92 | $9 / 183$ | 13.95 | $6 / 43$ |
| indefinite | 10.87 | $5 / 46$ | 30.00 | $9 / 30$ |

Table 4.8: Omission of the and $a(n)$ in non-premodified and adjectivally premodified contexts (concrete, countable, singular NPs) in the spoken production by the intermediate Thai group in the guided spontaneous production task ( $n=10$ per group)

Advanced Thai group

|  | Art + N |  | Art + Adj + N |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\%$ | ratio | $\%$ | ratio |
| definite | 2.34 | $3 / 128$ | 8.54 | $7 / 82$ |
| indefinite | 1.09 | $1 / 92$ | 8.00 | $6 / 75$ |

Table 4.9: Omission of the and $a(n)$ in non-premodified and adjectivally premodified contexts (concrete, countable, singular NPs) in the spoken production by the advanced Thai group in the guided spontaneous production task ( $n=10$ per group)

Advanced French group

|  | Art + N |  | Art + Adj + N |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\%$ | ratio | $\%$ | ratio |
| definite | 0.89 | $1 / 112$ | 1.59 | $1 / 63$ |
| indefinite | 0.00 | $0 / 95$ | 1.85 | $1 / 54$ |

Table 4.10: Omission of the and $a(n)$ in non-premodified and adjectivally premodified contexts (concrete, countable, singular NPs) in the spoken production by the advanced French group in the guided spontaneous production task ( $n=10$ per group)

Article omissions of both $a(n)$ and the in the spoken production were in the same directions in all the L2 groups. That is, both the indefinite and the definite article omission rates occurred more often in Art $+\mathrm{Adj}+\mathrm{N}$ than in Art +N contexts. Although the omission rates of both articles in the two NP structures were comparatively lower in the more proficient Thai group than in the weaker Thai group, the same trend of omissions could be observed. Article omissions were considerably lower in the French group (in fact, articles were rarely omitted in this L2 group and the omission rates were relatively stable in both NP contexts). However, the directions of the omissions were the same.

Figures 4.11 and 4.12 give the overall trend of the and $a(n)$ omissions, respectively, in both context types in the spoken production:


Figure 4.11: Omissions of the in non-premodified and adjectivally premodified contexts in the spoken production across groups in the guided spontaneous production task ( $n=10$ per group)


Figure 4.12: Omissions of $a(n)$ in non-premodified and adjectivally premodified contexts in the spoken production across groups in the guided spontaneous production task ( $n=10$ per group)

- Written production

The results on omissions of the and $a(n)$ in Art +N and Art $+\mathrm{Adj}+\mathrm{N}$ environments for the three L2 groups are presented in Tables 4.13, 4.14 and 4.15:

Intermediate Thai group

|  | Art + N |  | Art + Adj + N |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\%$ | ratio | $\%$ | ratio |
| definite | 6.06 | $4 / 66$ | 16.50 | $17 / 103$ |
| indefinite | 10.00 | $9 / 90$ | 21.25 | $17 / 80$ |

Table 4.11: Omission of the and $a(n)$ in non-premodified and adjectivally premodified contexts (concrete, countable, singular NPs) in the written production by the intermediate Thai group in the guided spontaneous production task ( $n=10$ per group)

Advanced Thai group

|  | Art + N |  | Art + Adj + N |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\%$ | ratio | $\%$ | ratio |
| definite | 4.86 | $7 / 144$ | 12.41 | $17 / 137$ |
| indefinite | 5.00 | $2 / 40$ | 12.31 | $16 / 130$ |

Table 4.12: Omission of the and $a(n)$ in non-premodified and adjectivally premodified contexts (concrete countable, singular NPs) in the written production by the advanced Thai group in the guided spontaneous production task ( $n=10$ per group)

Advanced French group

|  | Art + N |  | Art + Adj + N |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\%$ | ratio | $\%$ | ratio |
| definite | 0.00 | $0 / 113$ | 0.70 | $1 / 143$ |
| indefinite | 1.85 | $1 / 54$ | 2.16 | $3 / 139$ |

Table 4.13: Omission of the and $a(n)$ in non-premodified and adjectivally premodified contexts (concrete, countable, singular NPs) in the written production by the advanced French group in the guided spontaneous production task ( $n=10$ per group)

Article omissions of both $a(n)$ and the in the two NP contexts in the written task followed the same pattern as in the spoken production. The weaker Thai group omitted both articles at higher rates in Art + Adj +N
sequences than in Art +N contexts. Article drops occurred somewhat less frequently in the advanced Thai group but what was apparent was that the omissions were unidirectional in the two NP structures. Again, although omissions of both articles in the advanced French group were extremely low, the same pattern of omissions was observed.

Figures 4.13 and 4.14 represent omissions of definite and indefinite articles in non-premodified and adjectivally premodified contexts in the written production across groups:


Figure 4.13: Omissions of the in non-premodified and adjectivally premodified contexts in the written production across groups in the guided spontaneous production task ( $n=10$ per group)


Figure 4.14: Omissions of $a(n)$ in non-premodified and adjectivally premodified contexts in the written production across groups in the guided spontaneous production task ( $n=10$ per group)

In sum, the results from the combined analysis of the definite and the indefinite article omissions in the guided spontaneous production task were replicated when each article type was treated individually in all the L2 groups. Asymmetries of article omissions in the two NP contexts were evident in both Thai groups, but not the French group. Therefore, the predictions of the Syntactic Misanalysis Hypothesis seem to be borne out. The results contradicted the predictions of the Missing Inflection Hypothesis as L2 learners from the two different language backgrounds behaved differently in terms of article production in the two contexts.

Although the results seemed to confirm the predictions of the Syntactic Misanalysis Hypothesis, it was decided that another experiment would be conducted. This was for the following reasons. Firstly, the fact that the L1 French / L2 English group made so few omissions overall may hide potential asymmetries that L1 French speakers may have exhibited if the overall level of omissions was higher. After all, the trend, even though statistically non-significant, was the same in the L1 French group as in the L1 Thai groups (i.e. more omissions in Art + Adj + N than in Art + N contexts). For this reason, it was decided to conduct another experiment in which two L1 French / L2 English groups would be included, one at an intermediate English level and the other at an advanced level. If there were still no statistical differences in article omissions in the two structures in BOTH French groups but differences were shown only in the Thai groups (i.e. different behaviours of article omissions between L2 learners from languages with and without articles), the predictions of the Syntactic Misanalysis Hypothesis about L2 article omissions would be further corroborated. In contrast, if the intermediate French group exhibited statistically higher article omissions in premodified contexts, the predictions of Missing Surface Inflection Hypothesis would be borne out (the same pattern of article omissions was evidenced in L2 groups of both language backgrounds). Secondly, since L2 production from the first experiment was relatively spontaneous, the number of NPs produced by each L2 learner was not the same. It would be interesting to see how frequent L2 article omissions were in an environment where comparable numbers of NPs were produced by each individual learner. Therefore, in the additional experiment, L2 learners' production would be
controlled so that the same number of required NPs would be produced (cf. 4.6.2).

Results from the second experiment would supplement the findings on L2 English article omissions in non-premodified and premodified contexts from experiment 1.

### 4.6 Experiment 2: the controlled picture elicitation task

The controlled picture elicitation task aimed at investigating English article production in Art +N and Art + Adj +N contexts in oral production by two pairs of L2 learner groups from different L1 backgrounds. As the pictures employed in the test have controlled contexts to elicit required data on L2 English article production, the task was called 'the controlled picture elicitation task'.

### 4.6.1 Method

### 4.6.1.1 Participants

There were four L2 participant groups in this study: two L1 Thai groups and two L1 French groups. The number of the participants was 20 per group. In addition, one native English control group participated in the experiment so that their data would be used for comparison with the data from the L 2 groups. There were 10 participants in this group.

Data collections were made with Thai-speaking and Frenchspeaking L2 learners of English, all residing in Thailand. Among the participants, some were secondary-level school students (equivalent to Alevels, sixth form college in Britain); others were first-year university students. The high-school students were studying in international schools and the undergraduate students were studying in international programs of universities in and outside Bangkok, Thailand. ${ }^{13}$ The researcher made

[^48]appointments with the participants to meet at specific times outside classes. The experiment was administered in a class-room environment in schools and universities. The reason why L1 speakers of Thai and French from the academic institutions / programs where English was the medium of communication were recruited was that the participants of both language backgrounds would be in a comparable environment, i.e. speaking English mostly at school or at the university and speaking their native tongue at home. There is no university or university program in Thailand whose medium of instruction is solely French. So, if the Thai participants were from Thai schools and from university programs with Thai as the medium of communication but the French participants were from French schools and from university programs whose medium of communication is English, the French participants from universities would not be in similar environments of language use. As for the native English control group, the participants were undergraduate students at the University of York. Data collection with native English speakers was done at a reserved meeting room at the university.

At the time of the experiment, the intermediate Thai participants' mean age was $18 ; 1$ and the advanced Thai group's mean age were $18 ; 6$. The intermediate and the advanced French groups' mean age was $17 ; 7$ and $18 ; 4$, respectively. All the participants had studied English for at least 10 years. Most participants had not lived in an English-speaking country for more than 3 years. Only two had lived in one more than that: 4 years for one participant (an intermeditate French participant) and 5 years and 4 months for the other (an intermediate Thai participant). The native British participants' mean age was $19 ; 4$.

Table 4.16 summarises biographical details of the L2 participant groups and the native English control group (cf. Appendix C on biographical details of each participant):

| Participant groups | Age |  |  | Instructed English |  |  | Natural exposure to English |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | range | mean | SD | range | mean | SD | range | mean | SD |
| Int Thai ( $n=20$ ) | $\begin{aligned} & 16 ; 9- \\ & 19,5 \end{aligned}$ | 18;1 | . 749 | $\begin{aligned} & \hline 10.2- \\ & 13.5 \end{aligned}$ | 11;8 | 1.137 | 0-5.4 | 1;6 | 1.218 |
| Int Fr $(n=20)$ | $\begin{aligned} & \hline 17 ; 2- \\ & 18 ; 9 \end{aligned}$ | 17;7 | . 504 | $\begin{aligned} & 10.2- \\ & 12.9 \end{aligned}$ | 11;6 | . 748 | 0-4 | 1;3 | 1.040 |
| Adv Thai $(n=20)$ | $\begin{aligned} & 17 ; 8- \\ & 19 ; 6 \end{aligned}$ | 18;6 | . 592 | $\begin{array}{\|l\|} \hline 10.5- \\ 13.4 \end{array}$ | 11;5 | . 835 | 0-2.6 | 1;4 | . 893 |
| Adv Fr ( $n=20$ ) | $\begin{aligned} & 17 ; 3- \\ & 19 ; 3 \end{aligned}$ | 18;4 | . 597 | $\begin{aligned} & 10.3- \\ & 12.3 \end{aligned}$ | 11;5 | . 595 | 0-2.6 | 1 | . 769 |
| NS <br> controls $(n=10)$ | $\begin{aligned} & 18 ; 1- \\ & 20 ; 5 \end{aligned}$ | 19;4 | . 803 | (NS) | (NS) | (NS) | (NS) | (NS) | (NS) |

Table 4.14: Biographical details of the L2 participant groups and the native English control group in the controlled picture elicitation task

Like the participants in the previous experiment, the non-native subjects' levels of English proficiency were determined by the Oxford Placement Test (Allen 2004). The native English participants were also asked to do the test so that their expected high English proficiency would be confirmed.

Table 4.17 summarises details of the Oxford Placement Test score of the L2 participant groups and the native English control group in the controlled picture elicitation task (cf. Appendix D on scores from the listening and the grammar test, including combined score and the proficiency level details of the Oxford Placement Test score of each participant):

| Participant groups | Oxford Placement Test scores |  |  |
| :--- | :---: | :--- | :---: |
|  | range | mean | SD |
| Int Thai <br> $(n=20)$ | $135-145$ | 139.85 | 3.183 |
| Int Fr <br> $(n=20)$ | $136-147$ | 140.30 <br> $(70.93 \%)$ | 3.028 |
| Adv Thai <br> $(n=20)$ | $157-167$ | 162.35 <br> $(81.18 \%)$ | 2.996 |
| Adv Fr <br> $(n=20)$ | $158-168$ | 163.55 <br> $(81.78 \%)$ | 2.704 |
| NS <br> controls <br> $(n=10)$ | $194-200$ | 197 | 2.357 |

Table 4.15: Oxford Placement Test scores of the L2 participant groups in the guided spontaneous production task

Note that, on average, the intermediate French group performed better on the Oxford Placement Test ( $M=140.30, S E=.411$ ), than the intermediate Thai group $(M=139.85, S E=.499)$. This difference was non-significant $t(38)$ $=-.70, p>.05$.

The advanced French group performed better on the Oxford Placement Test ( $M=163.55, S E=1.190$ ), than the advanced Thai group ( $M=162.35$, $S E=1.284)$. This difference was also not significant $t(38)=-.69, p>.05$.

### 4.6.1.2 Materials

The following four sets of hand-drawn cartoon sequences were designed to elicit non-premodified and adjectivally premodified NP structures. Each cartoon is presented along with its description and the NP referents expected to be produced:

- 'The party story'
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0

Figure 4.16: Picture 2 of 'the party story'


Figure 4.15: Picture 1 of 'the party story'

| Story | Description | Expected Art +N <br> referents in the direct <br> object position |
| :---: | :--- | :--- |
| 'The <br> party <br> story' | Picture 1: At a party, a boy and <br> a girl are looking at a balloon <br> and an ice-cream. | Picture 2: The boy is holding <br> the balloon while the girl is <br> eating the ice-cream. |
|  | the balloon; the ice- <br> cream |  |

Table 4.16: Description and the expected Art +N referents to be produced in 'the party story' in the controlled picture elicitation task

- 'The cat and the dog story'


Figure 4.17: Picture 1 of 'the cat and the dog story'


Figure 4.18: Picture 2 of 'the cat and the dog story'

| Story | Description <br> 'The cat <br> and the dog <br> story'Picture 1: A cat and a dog <br> are looking at a fish and a <br> bone. | Expected Art + N <br> referents in the direct <br> object position |
| :---: | :--- | :--- |
|  | Picture 2: The cat is eating <br> the fish and the dog is <br> eating the bone. | the fish; the bone |

Table 4.17: Description and the expected Art +N referents to be produced in 'the cat and the dog story' in the controlled picture elicitation task

- 'The toy shop story'


Figure 4.19: Picture 1 of 'the toy shop story'


Figure 4.20: Picture 2 of 'the toy shop story'

| Story | Description | Expected Art + N <br> referents in the direct <br> object position |
| :---: | :--- | :--- |
| 'The toy <br> story' | Picture 1: A boy and a girl are <br> looking at things in a shop. There <br> are a big ball, a small ball, a big <br> doll and a small doll. | Picture 2: Inside the shop, the <br> boy is holding the big ball while <br> the girl is holding the small bear. |
| the big ball; the small <br> doll |  |  |
|  |  |  |

Table 4.18: Description and the expected Art +N referents to be produced in 'the toy shop story' in the controlled picture elicitation task

- 'The supermarket story'


Figure 21: Picture 1 of 'the supermarket story'


Figure 22: Picture 2 of 'the supermarket story'

| Story | Description <br> supermarket <br> story' | Picture 1: In a supermarket, a <br> man is choosing between a red <br> and a green apple and a woman <br> is choosing between a red rose |
| :--- | :--- | :--- |
| and a yellow rose. | Expected Art + <br> Adj +N referents <br> in the direct <br> object position |  |
|  | Picture 2: Outside the <br> supermarket, the man is eating <br> the green apple and the woman is <br> smelling the red rose. | the green apple; <br> the red rose |

Table 4.19: Description and the expected Art + Adj +N referents to be produced in 'the supermarket story' in the controlled picture elicitation task

The cartoons in this task were designed to elicit a comparable number of non-premodified and adjectivally premodified noun phrases (four NPs in each category). Each cartoon sequence was composed of two pictures. The target context was in the second picture of each cartoon event. The pictures in this task were much simpler than the pictures in the guided spontaneous production task. They had fewer details. There were only
characters, places and things required to be mentioned. The participants were expected to produce only one or a few sentences to describe each picture. ${ }^{14}$

It is worth observing that similar but not exactly the same plots from the guided spontaneous production task were employed in 'the toy shop story' and 'the supermarket story'. Since the L2 participants in this task differed from the participants in the first task, similar plots for the two cartoon events were of no consequence.

In order to ensure that the controlled NP referents expected to be produced were fully compatible, the variables concreteness, countability and singularity were kept constant in both Art +N and Art + Adj +N conditions. In addition, the referents of interest for the experiment were likely to appear as the direct object of a sentence.

Also, all the controlled NPs had to be used with the definite article as they were mentioned before in picture one of each cartoon event. The contexts were therefore created so that the same NP type (definite) would be produced.

For example, in 'the party story', the sentence for picture one might be 'A boy and a girl saw an ice-cream and a balloon.' The sentence for picture two might be 'The boy is holding the balloon and the girl is eating the ice-cream.'

In 'the cat and the dog story', the sentence for picture one might be 'A dog is looking at a bone and a cat is looking at a fish.' The sentence for picture two might be 'The dog is taking the bone and the cat is eating the fish.'

In 'the toy shop story', the sentences produced for the first picture might be 'A girl and a boy are standing in front of a toy shop. They are looking at a big ball and a small ball and a big doll and a small doll in the shelf.' Then, in the second picture, the production might be 'They are now in the shop. The boy is holding the big ball and the girl is holding the small doll.'

[^49]In 'the supermarket story', the sentences produced for the first picture might be 'A man and a woman are in a supermarket. A red apple and a green apple are in a basket and a red rose and a yellow rose are in a vase.' The sentence produced for the second picture might be 'They are now outside the supermarket. The man is eating the green apple and the woman is smelling the red rose.'

It is worth noting that different participants might use different wordings. For example, in the first picture of 'the supermarket story', the sentences produced might be:

- 'A man and a woman are in a supermarket. There are a red rose and a yellow rose in a vase and a red apple and a green apple in a basket.' Or
- 'A / The man is choosing apples, one red and one green. A / The woman is picking out roses. One rose is red; the other is yellow.'

So, different wordings for the descriptions of the pictures could then occur. The results might be that some NP tokens in the first pictures of 'the toy shop story' and 'the supermarket story' might be of adjectivally premodified structure such as a big ball, a small ball, a red rose and a yellow rose; others might not.

In a context where a referent was introduced or mentioned for the first time, both the indefinite article and the definite article were deemed felicitous according to native speakers (cf. Emslie and Stevenson 1981: 326) (cf. 4.5.1.5). So, $a(n)$ or the might be used depending on the learners' perception.

Nevertheless, different wordings and / or articles produced in the first picture of each story were not a matter of concern. What was really controlled was in picture two of each story. In the second picture of each story, each character was doing something to a different item. So, it was unavoidable for the participants to mention each character and to describe each character's action, including the item associated with the action. The NPs expected to be produced from picture two of each story above were the expected data: four NPs of the Art +N structure and four NPs of the Art + Adj +N sequence. The four non-premodified NPs were the balloon, the ice-
cream, the bone, and the fish. The four adjectivally premodified NPs were the big ball, the small doll, the green apple and the red rose. ${ }^{15}$

So, from the design of the task, the participants were not in charge of the information flow. Rather, the researcher was in control of the contexts and the participants produced data within the context frames. The elicitation task was designed so as to "create a likely use (or abuse) of certain linguistic forms" (cf. Yule 1997: 31). The objective of the task was that articles would be produced or omitted in obligatory and controlled NP contexts. Therefore, the expected NPs to be produced should not be varied, but relatively fixed. It was expected that such use of a controlled data-elicitation technique would reduce the number of uncontrolled variables (cf. Larsen-Freeman and Long 1991).

Finally, one might ask whether there was a need for distractors in the task. In the controlled picture elicitation task, the participants could describe each picture in whatever way they wanted to. Also, events in each picture were different from each other. Therefore, it was expected that the chance of the participants being aware that their article use was being tested was unlikely. Therefore, there were no distractors in the task.

### 4.6.1.3 Procedure

The testing was done on an individual basis. The researcher made an appointment with the participants to meet at specific time in a class room environment.

The participants were instructed to describe each picture orally by being as specific as possible. They were also asked to complete the task as quickly as they could and were told that they would be timed.

[^50]By being asked to make the descriptions as specific as possible, it was anticipated that the participants would produce the expected adjectivally premodified NP referents.

It was expected that time constraints imposed in the task could reduce the chance of the L2 learners' metalinguistic knowledge being activated while accessibility to such knowledge was easier in an untimed task (cf. Bialystok 1979; Krashen 1982; Han and Ellis 1998; Ellis 2003, 2005). So, the more time L2 learners have in L2 production, the more chance they have to focus on form and rules in the production, and vice versa. Since the L2 learners were expected to be under pressure to communicate information while at the same time accomplishing the task by taking as little time as possible, their attention was anticipated to concentrate more on the meanings than on the forms of utterances. ${ }^{16}$

Because the participants described the cartoons according to the contexts (although in the controlled settings), the task could be considered natural enough to elicit English articles.

The researcher received permission from the participants to make tape recordings of the data production.

All the participants were paid for participating in this experiment.

### 4.6.1.4 Predictions

Based on the hypothesis in 4.4, the predictions for the controlled picture elicitation task on article omissions in non-premodified and adjectivally premodified contexts were as follows:

[^51]If the Syntactic Misanalysis Hypothesis is correct and L2 learners from articleless L1 backgrounds analyse L2 English articles as adjectives, then the following predictions could be made:
(a) L1 Thai / L2 English speakers would omit more articles in Art + Adj +N than in Art +N contexts.
(b) Both the intermediate and the advanced L1 Thai / L2 English groups would show this pattern.
(c) L1 French speakers would not omit articles more in Art + Adj + N than Art + N contexts.
(d) Prediction (c) should apply for both the intermediate and the advanced L1 French / L2 English groups.

If the assumption of the Missing Surface Inflection Hypothesis is correct and the variability in production of L2 functional morphology is primarily caused NOT by non-target-like grammars but by accessing targetlike grammars in production, then the following predictions could be made:
(a) L1 Thai / L2 English would omit more articles in Art + Adj + N than in Art +N contexts because the former context is more complex and so this will affect the ease of mapping between morphology and syntax.
(b) The L1 French / L2 English groups should be affected by the same processing constraint and show the same pattern: more omissions in Art + Adj +N than in Art +N contexts. Their overall rate of omissions, however, may be lower due to the transfer of processing from the L1.

### 4.6.1.5 Coding / Analysis

The four NP tokens from Art +N and Art $+\mathrm{Adj}+\mathrm{N}$ contexts from the controlled sentences were transcribed. The number of article omissions in each context produced by each participant was accumulated. Then the number of article omissions in each NP context type produced by all the participants from each L2 group was totalled. The statistical method employed was a dependent $t$-test (or a paired-samples t -test) to investigate article omissions in the two NP environments.

Illustrative examples of errors on article omissions, coding and scoring of the errors in the controlled picture elicitation task are shown in Table 4.22 below:

| Illustrative examples of L2 data on English article omissions | number of omissions in $\text { Art }+\mathrm{N}$ <br> contexts | number of omissions in Art + Adj +N contexts |
| :---: | :---: | :---: |
| 1. * The boy is holding big ball and the girl is holding small doll. | - | 2 errors *(big ball; small doll) |
| 2. * Dog eats bone; cat eats fish. ${ }^{17}$ | 2 errors <br> *(bone; <br> fish) |  |
| 3. * The man is eating green apple. As for the woman, she is smelling red rose. | - | 2 errors <br> *(green apple; red rose) |
| 4. * The boy is holding the balloon and the girl is eating ice-cream. | $\begin{aligned} & \hline 1 \text { error } \\ & * \text { (ice- } \\ & \text { cream) } \end{aligned}$ | - |

Table 4.20: Illustrative examples of errors on L2 English article omissions in Art +N and Art + Adj +N contexts, coding and scoring of the errors in the controlled picture elicitation task

### 4.6.2 Results and discussion

The results on English article omissions in the two different contexts from the controlled elicitation task are shown in Table 4.23 and the distribution of article omissions across groups is illustrated in Figure 23. The data were based on English article production of 4 non-premodified and 4 adjectivally premodified NPs.

[^52]| Participant <br> groups | Art + N <br> (direct object position) |  |  |  | Art + Adj + N <br> (direct object position) |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | proportions | $\%$ | mean | SD | proportions | $\%$ | mean | SD |
| Int Thai <br> $(n=20)$ | $7 / 80$ | 8.75 | .35 | .489 | $39 / 80$ | 48.75 | 1.95 | .826 |
| Adv Thai <br> $(n=20)$ | $2 / 80$ | 2.50 | .10 | .308 | $12 / 80$ | 15.00 | .60 | .754 |
| Int French <br> $(n=20)$ | $0 / 80$ | 0.00 | .00 | .000 | $3 / 80$ | 3.75 | .15 | .366 |
| Adv French <br> $(n=20)$ | $0 / 80$ | 0.00 | .00 | .000 | $1 / 80$ | 1.25 | .05 | .224 |
| NS controls <br> $(n=10)$ | $0 / 40$ | 0.00 | .00 | .000 | $0 / 40$ | 0.00 | .00 | .000 |

Table 4.21: Percentages of article omissions in non-premodified and adjectival premodified contexts in the Thai and the French groups in the controlled picture elicitation task


Figure 4.23: Article omissions in non-premodified and adjectival premodified contexts in the controlled picture elicitation task

To determine the significance of the prenominal adjectival modifications to article production in the guided spontaneous production task,
a dependent $t$-test (or a paired-samples $t$-test) was performed on the definite article omissions in the two different context types.

Results from the Thai groups were as follows:

- On average, the intermediate Thai group omitted more English articles in adjectivally premodified contexts ( $M=1.95, S E=.19$ ) than in nonpremodified contexts $(M=.35, S E=.11, t(19)=-10.51, p<.001, r=.85)$.
- The advanced Thai group omitted more English articles in adjectivally premodified contexts ( $M=.60, S E=.17$ ) than in non-premodified contexts ( $M=.10, S E=.07, t(19)=-3.68, p<.01, r=.65$ ).

Results from the French groups were the following:

- On average, the intermediate French group omitted more English articles in adjectivally premodified contexts ( $M=.15, S E=.08$ ) than in nonpremodified contexts ( $M=.00, S E=.00$ ). This difference however was not significant $t(19)=-1.83, p>.05$.
- The advanced French group omitted more English articles in adjectivally premodified contexts ( $M=.05, S E=.05$ ) than in non-premodified contexts ( $M=.00, S E=.00$ ). This difference was not significant $t(19)=-1.00$, $p>.05$.

Therefore, the pattern of L2 English article omissions found in experiment 1 was replicated in experiment 2 . The adjectivally premodified NP contexts appeared to exert negative influences on English article production by L1 Thai speakers. Although the more proficient Thai group made fewer article omissions in both contexts than the weaker Thai group, asymmetries were still found.

In contrast, such a pattern of omission was not evidenced among the L1 French speakers. The purpose of including the intermediate French group in this experiment was to see if this L2 group would show asymmetric article omissions or not. The results showed that, although the weaker French group made a higher rate of article omissions in premodified sequences than the advanced French group, the differences between article drops in the two NP structures were not significant.

The native English participants did not omit articles in either NP context.

It is worth observing that, although the differences in article omissions between Art +N and Art + Adj +N contexts among the L1 French speakers in the two tests were not actually statistically significant, there were few instances of omissions and differences in article omissions between the two NP conditions. Neither of these would be observed among the native English subjects (cf. 4.5.2 and 4.6.2). It is speculated that, although an L2 functional feature exists in the L 1 , it does not mean that L 2 learners will always be able to produce the feature $100 \%$ correctly. Few mistakes might be made, depending on the learners' English proficiency level. In this case, although French possesses the category determiner like in English and this functional category might be transferred from L1 French into L2 English, the L1 French speakers made few article omissions in the production. What is crucial from the results in the two tests is that the differences in article omissions between the two structures did not reach significant levels.

To sum up, the results from the controlled picture elicitation task corroborated the findings from the guided spontaneous production task. The trend of improvement in article use was preserved in parallel with the English proficiency of the L2 learners from each language background. However, both Thai groups omitted articles significantly more in Art + Adj +N contexts than in Art +N sequences. No such difference was attested in the two French groups and the English native speaker group. The data from both experiments then confirmed the predictions of the Syntactic Misanalysis Hypothesis. The findings contradicted the predictions of the Missing Surface Inflection Hypothesis as the L2 learner groups of different L1 backgrounds did not exhibit the same pattern of English article production, i.e. omitting more articles in premodified than in non-premodified contexts.

There could, however, be a reasonable explanation of the different levels of L2 production by learners from different L1 backgrounds within the view that L2 syntax is target-like and variability is caused by processing problems. L2 learners whose functional features are similar to those in the L1 have a grammar including those features. This means that these learners have the advantage of having long used such properties in their production system. If the production mechanisms are primed for certain morphological use in their native language and these mechanisms are shared for L1 and L2
production, it is expected that less variability will occur. In contrast, more variability will be predicted on the part of learners whose L1 does not possess L2 categories, even if their L2 grammatical competence includes these features. L2 production could introduce processing or communication pressures, causing difficulties for learners to access functional morphology in real time (cf. Prévost and White 2000: 129). Since the production mechanisms for one learner group are primed for certain morphological production, but not in the other, production pressure should not be equal for learners of the two different L1 backgrounds. There is thus a possibility that variable production by learners whose L1s do not instantiate L2 properties is due to processing reasons, i.e. performance errors and / or pressures, consistent with the fully specified syntax position.

Although this chapter is predominantly concerned with L2 English article omissions in Art +N and Art $+\mathrm{Adj}+\mathrm{N}$, a question arises about what article production would be like in an NP with a postmodifier (postmod), i.e. postmodified contexts (Art $+\mathrm{N}+$ postmod). The third experiment was therefore designed as a supplement for comparisons of L2 article omissions in the three NP structures.

### 4.7 Experiment 3: the Coin-on-picture Elicitation Task

Experiments 1 and 2 have corroborated findings from previous studies that L2 learners from L1 backgrounds without articles omit English articles more in Art + Adj +N than in Art +N contexts. They have further shown that the same asymmetry is not present in the production of L2 learners from L1 backgrounds with articles.

In the final experiment in this series, the aim was to explore whether nominal postmodification (e.g. $\mathrm{N}+$ a prepositional phrase / a participle phrase / a relative clause) has the same effect on L 2 article production as nominal premodification.

This question was not previously investigated and the study reported here was purely exploratory. Postmodified NPs are certainly more complex
than simpler Art +N contexts without modification, and therefore a higher level of article omissions might be expected. However, with respect to article production, postmodified NPs are critically different from adjectivally premodified NPs, and more similar to simple Art +N sequences in that the article and the noun are in adjacent positions. For this reason, article omissions may not be as high as with adjectivally premodified nominals.

To explore L2 article production in these three NP contexts, a new referential communicative task was used. This involved participants giving instructions to their partner how to arrange coins on a series of pictures and was therefore called 'the coin-on-picture elicitation task'.

The coin-on-picture elicitation task is a referential communicative task where information is partially shared between two participants. It was employed to elicit non-premodified (Art +N ), premodified (Art + Adj +N ) and postmodified NPs (Art + N + postmod) with the definite article.

### 4.7.1 Method

### 4.7.1.1 Participants

The same participant groups who took part in the controlled picture elicitation task were asked to perform this task (cf. 4.6.1.1). So, the results were from one intermediate Thai group, one advanced Thai group, one intermediate French group, one advanced French group, and one native English control group. The number of the L2 participants was 20 per group and the number of the native English control group was 10. Data collection was done in Thailand.

### 4.7.1.2. Materials

To elicit the NP types needed, twelve sets of hand-drawn cartoon pictures were devised. The pictures with their referents were as follows (all the pictures were randomized in the actual material):

## 8

Figure 4.24: Picture 1 in the coin-on-picture elicitation task


Figure 4.26: Picture 3 in the coin-on-picture elicitation task


Figure 4.25: Picture 2 in the coin-on-picture elicitation task


Figure 4.27: Picture 4 in the coin-on-picture elicitation task

| Picture | NP Referents |
| :---: | :--- |
| 1 | one bottle and one glass |
| 2 | one elephant and two rabbits |
| 3 | one circle and one triangle |
| 4 | one pineapple and three pears |

Table 4.22: Pictures in the coin-on-picture elicitation task to elicit nonpremodified NPs

It is worth observing that there were at least two items in each picture.
To elicit a non-premodified NP, a picture had two items which were of different categories, i.e. a bottle and a glass in picture 1 , and a circle and a triangle in picture 3. Also, there was a picture that had an item which was of a different category from the others, i.e. an elephant and two rabbits in picture 2 , and a pineapple and three pears in picture 4.


Figure 4.28: Picture 5 in the coin-on-picture elicitation task


Figure 4.30: Picture 7 in the coin-on-picture elicitation task


Figure4.29: Picture 6 in the coin-on-picture elicitation task


Figure 4.31: Picture 8 in the coin-on-picture elicitation task

| Picture | NP Referents |
| :---: | :--- |
| 5 | four squares: one is bigger than the other three (the other three are <br> of an equal size) |
| 6 | nine apples: one is red and the other eight are green. |
| 7 | two girls: one is slimmer / smaller than the other. |
| 8 | two candles: one is shorter than the other. |

Table 4.23: Pictures in the coin-on-picture elicitation task to elicit adjectivally premodified NPs

To elicit premodified NPs, all the items in a picture were of the same type. However, one item had a different characteristic from the other(s). The pictures used to elicit Art $+\operatorname{Adj}+\mathrm{N}$ structures were picture 5, i.e. a big square and three small squares, picture 6 , i.e. a red apple and eight green apples, picture 7 , i.e. a big girl and a small girl, and picture 8 , i.e. a tall candle and a short candle.


Figure 4.32: Picture 9 in the coin-on-picture elicitation task


Figure 4.34: Picture 11 in the coin-on-picture elicitation task


Figure 4.33: Picture 10 in the coin-on-picture elicitation task


Figure 4.35: Picture 12 in the coin-on-picture elicitation task

| Picture | NP Referents |
| :---: | :--- |
| 9 | two desks: one with a pen on it and the other without anything on <br> it. |
| 10 | four birds and a tree: one is on the tree and the other three are under <br> the tree. |
| 11 | two houses: one has yellow curtains and the other has blue <br> curtains. |
| 12 | four cats: one is holding a balloon and the other three are not <br> holding anything. |

Table 4.24: Pictures in the coin-on-picture elicitation task to elicit postmodified NBs

To elicit postmodified NBs, all the items in a picture were of the same type. The pictures employed to elicit Art $+\mathrm{N}+$ post were picture 9, i.e. a desk with a pen and a desk without a pen, picture 10 , i.e. a bird on a tree and three birds under a tree, picture 11 , ie. a house with yellow curtains and a house with
blue curtains, and picture picture 12 , i.e. a cat with a balloon and a cat without a balloon.

Also, twelve coins of different values and / or currencies were employed: eight British coins (1-pence, 2-pence, 5-pence, 10-pence, 20-pence coins and 1 -pound and 2-pound coins) and four Euro coins (10-cent and 50cent coins and 1 -euro and 2 -euro coins).

This referential communication task was designed to be done in pairs. A participant did the task with the researcher's confederate by sitting at the opposite ends of a table. The participant was informed that $\mathrm{s} / \mathrm{he}$ would play a game. Each person in the game had the same set of pictures ( 12 pictures) on three A4 pieces of paper (i.e. four pictures each). The confederate was also provided with the twelve coins which she needed to arrange on the pictures. Only the participant had instructions where the coins should be placed (on each picture, the researcher had already marked an item on which a participant's coin needed to be placed). In the middle of the table, a board was placed in the vertical direction, with a height level that allowed each participant and the confederate to see each other, but not the paper on the other side. The participant had to instruct the confederate how to arrange coins on the pictures so that they ended up with the same arrangement.

The expected NP contexts would be produced by a participant when $\mathrm{s} / \mathrm{he}$ gave instructions to the confederate; for example,

- In the picture with a bottle and a glass, the instruction might be 'Put the one- pence coin on the bottle' (non-premodified NP)
- In the picture with a small square and a big square, the instruction might be 'Put the one-Euro coin on the big square' (premodified NP: Art + Adj +N )
- In the picture with a bird on the tree and three birds on the ground, the instruction might be 'Put the fifty-pence coin on the bird on the tree' (postmodified NP: Art + N + prepositional phrase).

In order to ensure compatibility of the NPs in the three structures, the variables concreteness and countability were kept constant. So, all the referents expected to be produced were concrete and countable. Also, they were anticipated to be definite and to be in the position of the object of preposition.

Examples of sentences that are considered appropriate are shown in Table 4.27:

| Non-premodified contexts (Art +N) |  |  |
| :--- | :--- | :---: |
| picture 1 | Put / Place the...coin on the bottle. |  |
| picture 2 | Put / Place the...coin on the elephant. |  |
| picture 3 | Put / Place the...coin on the triangle. |  |
| picture 4 | Put / Place the...coin on the pineapple. |  |
| Premodified contexts (Art +Adj +N) |  |  |
| picture 5 | Put / Place the...coin on the big(ger) square. |  |
| picture 6 | Put / Place the...coin on the red apple. |  |
| picture 7 | Put / Place the...coin on the big(ger) girl. |  |
| picture 8 | Put / Place the...coin on the tall(er) candle. |  |
| Post-modified contexts (Art +Adj +N) |  |  |
| Picture 9: | Put / Place the...coin on the desk with a pen or <br> which / that has a pen (on it). |  |
| Picture 10: | Put / Place the...coin on the bird (which / that is) <br> on the tree. |  |
| Picture 11: | Put / Place the...coin on the house with yellow <br> curtains or which / that has yellow curtains. |  |
| Picture 12: | Put / Place the...coin on the cat with a balloon or <br> which / that is holding a balloon. |  |

Table 4.25: Examples of appropriate sentences to be produced from the coin-on-picture elicitation task

Because the nature of the task was like a game, the L2 participants should not be aware that they were being tested on English article use.

### 4.7.1.3 Procedure

The coin-on-picture elicitation task was administered on an individual basis. The researcher's confederate made appointments with the participants to meet at specific times in a class room environment.

As in the controlled picture elicitation task, the participants were instructed to complete the task as quickly as possible and they were told that they would be timed. As discussed in 4.5.1.3, there was good reason to believe that a timed task would reduce the chance of L2 learners drawing on their metalinguistic knowledge. Also, since this task was a referential communication task requiring an exchange of information in order to complete the task, the participants would not focus mainly on the language form.

Again, the researcher received permission from the participants to make tape recordings of the data production and all the participants were paid for participating in this experiment.

On average, the participants completed the task in approximately 1 minute.

### 4.7.1.4 Predictions

As this was an exploratory study, two possible outcomes were considered:
(a) As Art $+\mathrm{N}+$ postmod is more complex than Art +N , a higher rate of omissions was expected.
(b) The adjacency of the article to the head noun might make Art +N + postmod easier than Art + Adj +N . So, there might be a tendency for adjectivally premodified complex NPs to trigger more article drops than postmodified NPs.

### 4.7.1.5 Coding / Analysis

The analysis was based on four tokens per NP context. Each participant giving instructions was expected to produce twelve NP tokens, three contexts each. The transcriptions were on how articles in the four NP tokens from each NP category, i.e. non-premodified, adjectivally premodified and postmodified NP referents were produced. Then the number of article omissions in each NP context by each participant was added up. The total number of article omissions in each category in each participant group was then accumulated for statistical analysis.

Illustrative examples of errors on article omissions in the three NP contexts, coding and analysis of the errors are shown in Table 4.28:

| Illustrative examples of L2 data on <br> English article omissions | Types of errors on article <br> omissions |
| :--- | :--- |
| $1 .{ }^{*}$ Put the one-pound coin on bottle. | 1 error: Art + N |
| $2 . ~ *$ Put the fifty-pence coin on tall candle. | 1 error: Art + Adj + N |
| 3. *Place the one-Euro coin on house with <br> yellow curtains | 1 error:Art + N + Postmod |

Table 4.26: Illustrative examples of errors on L2 English article omissions in the coin-on-picture elicitation task, coding and analysis of errors

The statistical method a repeated measure analysis of variance (ANOVA) was used to determine the significance of the contribution of the three different NP contexts to English article omissions.

### 4.7.2 Results and Discussion

Table 4.29 summarises article omission results across groups from the coin-on-picture elicitation task and the distribution of article omissions across groups is represented in Figure 4.36. The data were based on the results on L2 article production on 4 non-modified, 4 adjectivally premodified, and 4 postmodified NPs, multiplied by the number of participants from each group:

| Participant groups | Art + N |  |  | Art + Adj + N |  |  | Art + N + Postmod |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | propor- <br> tions <br> (\%) | mean | SD | propor- <br> tions (\%) | mean | SD | propor- <br> tions <br> (\%) | mean | SD |
| Int Thai $(n=20)$ | $\begin{aligned} & \hline 5 / 80 \\ & (6.25) \end{aligned}$ | . 25 | . 444 | $\begin{gathered} \hline 8 / 80 \\ (10) \end{gathered}$ | . 40 | . 503 | $\begin{gathered} \hline 6 / 80 \\ (7.25) \end{gathered}$ | . 30 | . 470 |
| Adv Thai $(n=20)$ | $\begin{gathered} 1 / 80 \\ (1.25) \end{gathered}$ | . 05 | . 224 | $\begin{gathered} 1 / 80 \\ (1.25) \end{gathered}$ | . 05 | . 224 | $\begin{gathered} \hline 1 / 80 \\ (1.25) \end{gathered}$ | . 05 | . 224 |
| $\begin{aligned} & \text { Int Fr } \\ & (n=20) \end{aligned}$ | $\begin{gathered} \hline 0 / 80 \\ (0) \end{gathered}$ | . 00 | . 000 | $\begin{gathered} \hline 0 / 80 \\ (0) \end{gathered}$ | . 00 | . 000 | $\begin{gathered} \hline 0 / 80 \\ (0) \end{gathered}$ | . 00 | . 000 |
| Adv <br> French $(n=20)$ | $\begin{gathered} \hline 0 / 80 \\ (0) \end{gathered}$ | . 00 | . 000 | $\begin{gathered} \hline 0 / 80 \\ (0) \end{gathered}$ | . 00 | . 000 | $\begin{gathered} \hline 0 / 80 \\ (0) \end{gathered}$ | . 00 | . 000 |
| NS controls $(n=10)$ | $\begin{gathered} \hline 0 / 80 \\ (0) \end{gathered}$ | . 00 | . 000 | $\begin{gathered} \hline 0 / 40 \\ (0) \end{gathered}$ | . 00 | . 000 | $\begin{gathered} \hline 0 / 40 \\ (0) \end{gathered}$ | . 00 | . 000 |

Table 4.27: Percentages of article omissions in non-premodified, adjectivally premodified and postmodified contexts in the coin-on-picture elicitation task


Figure 4.36: Article omissions in non-premodified, adjectival premodified and postmodified contexts in the coin-on-picture elicitation task

The results showed overall very low levels of article omissions across groups on this task. Even the intermediate Thai group omitted articles much less on this task than in any of the previous experiments, $10 \%$, in Art +N
contexts, $7.5 \%$ in Art $+\mathrm{N}+$ Post sequences and $6.25 \%$ in Art + Adj +N structures. In the higher proficiency Thai group, article omissions rates were identical in all the NP contexts and they were very low, only $1.25 \%$. As for the two French groups, no article omissions were made at all in any NP sequences. Neither did the native English control group make any article omissions in any contexts, as in the previous experiments.

To determine the significance of the contribution of the different NP contexts to English article omissions, a repeated measure analysis of variance (ANOVA) was performed on article omissions in the Art + N, the Art + Adj + N , and the Art $+\mathrm{N}+$ postmod contexts in definite environments. Compared with article omissions in the non-premodified contexts, both the adjectivally premodified and the postmodified NP sequences had non-significant effects on article omissions.

Results from the Thai L2 groups were as follow:
Mauchly's test indicated that the assumption of sphericity was not violated in both the intermediate and the advanced Thai groups.

- In the intermediate Thai group, the results indicated that article omissions were not significantly affected by NP contexts, $\mathrm{F}(2,38)=.38$, p> . 05 .
- The results from the advanced Thai group resembled those from the intermediate group. Article omissions were non-significantly affected by NP contexts, $\mathrm{F}(2,38)=1.00, \mathrm{p}>.05$.

As there were no article omissions in any contexts at all in both the French groups, no statistical analysis could be carried out to compare article omissions between non-modified and modified contexts (premodified and postmodified).

All the results in this experiment were statistically non-significant. This experiment did not replicate the findings from experiments 1 and 2 . We can conclude that the coin-on-picture elicitation task was not sensitive enough to reveal differences in L2 English article production between Art +N , Art + Adj +N and Art $+\mathrm{N}+$ Postmod contexts.

It is not extremely clear why the task was not sensitive enough. We could speculate that the task was not particularly demanding in the sense that it required production of the same pattern (Put the X on the Y ) over and over
again. If the task was sufficiently demanding, then it might not leave sufficient cognitive resources for (strategic) article production in more complex NP contexts. In other words, given low cognitive demands of the task, the L1 Thai speakers might easily resort to their metalinguistic knowledge and they might be familiar with the language pattern required to be produced. Article production might therefore be straightforward. Even though the production was timed, the participants might still have found it not too complicated to produce English articles and might have been able to exert control over article production in all the three NP contexts.

The experiment, therefore, did not answer the question that it was designed to explore. This question remains to be investigated by future research.

### 4.8 General discussion and implications

The results of experiments 1 and 2 showed asymmetric patterns of English article omissions in Art +N and Art + Adj +N by L2 learners from languages without articles, but not by L2 learners from languages containing articles. The findings on article omissions by L2 learners from articleless languages seemed to be in line with the results from recent research (cf. Goad and White 2004; Trenkic 2007).

The predictions of the Syntactic Misanalysis Hypothesis about L2 English article omissions were borne out by the patterning of omissions that emerged from both the guided spontaneous production task (experiment 1) and the controlled picture elicitation task (experiment 2). Significant differences between article omissions in the two constructions were found in both the less proficient and the more proficient Thai groups. In sum, adjectivally premodified NP contexts posed more problems than nonpremodified structures for the L1 Thai speakers. Even though the rate of article omissions decreased with increased language proficiency, the pattern of more omissions in Art + Adj +N contexts and fewer omissions in Art +N contexts remained.

There were no statistical differences in article omissions in the two NP environments in the advanced French group in the first experiment and in the two French groups of different proficiency levels in the second experiment. Although the weaker French group was less accurate in English article production than the more advanced group (in experiment 2), no statistical difference in article omissions in the two contexts was found.

According to the Syntactic Misanalysis Hypothesis (Trenkic 2007), it is posited that the category determiner is not available in the grammars of languages without articles. So, it is not acquired by L2 learners from these language backgrounds. However, determiner-like elements in these languages are adjectival in behaviour. L2 learners therefore mistreat and use English articles as adjectives. The lexical meaning of (un)identifiability is expressed through a semantic class of determiners. The learners' English article production is therefore lexically based.

Nevertheless, real adjectives are produced only when their meanings are required for reference resolution whereas articles have to be produced no matter whether the 'meaning' they encode is needed to make the reference clear. So production of English articles (misrepresented as adjectives) by L2 learners from articleless languages is also strategically determined.

These learners' article production would depend on a strategic decision (i.e. when the learners realise that articles are required to be produced in English) to explicitly mark the (un)identifiability status of discourse referents, and such strategic production would be constrained by available cognitive resources.

In adjectivally premodified structures, there were greater demands occurring concurrently (production of both a misanalysed article and an adjective). So, the adjectivally premodified context might be more resourcedemanding (i.e. more elements of meanings to be encoded) and overtax the L2 learners' cognitive resources (i.e. fewer cognitive resources are left to respond to the demands of the task). It is therefore possible that the learners might face problems of processing limitations in English article production. The more complex the task, the higher the likelihood that the resources would be exceeded and the article dropped in production. When the learners' cognitive resources could not cope well with the demands of this costly task,
an article would not be produced. All other things being equal, therefore, a higher article omission rate is expected in more complex Art $+\mathrm{Adj}+\mathrm{N}$ sequences than in simpler Art +N contexts.

In contrast, L2 learners from languages with an article system are assumed to possess the category determiner in their grammars. They could therefore transfer this syntactic category from their L1s into L2 English article production. Such article production is then postulated to be triggered by syntax, and hence obligatory in certain syntactic contexts. As a result, irrespective of whether the NP contexts were simpler or more complex, they did not seem to affect these L2 learners' English article production negatively.

Taken together, the results from experiments 1 and 2 lend support to the Syntactic Misanalysis Hypothesis. As Trenkic (2007: 322) notes, English article production by L2 learners from languages not containing articles are different from native English speakers with respect to 'representation' and 'processes' underpinning the production. A lack of syntactic determiners (i.e. representation) could lead to syntactic mistreatment where articles are assumed to be misanalysed and then produced as adjectives (i.e. processes). The more complex structure of Art + Adj +N might therefore exert negative influence on the L1 Thai speakers' English article production (note that asymmetries of English article omissions in the two NP structures by L1 IndoAryan speakers were also attested in Sharma (2005); however, Sharma assumes that more article omissions in adjectivally premodified contexts are caused by redundancy - I will come back to this point in Chapter 6).

However, the L1 French speakers were postulated to transfer the category determiner from their L1 into L2 English article production. The article production was therefore assumed to be syntactically motivated. So, no matter what the contexts were, non-premodified or adjectivally premodified, they did not seem to negatively affect article production by the French groups of either proficiency level. Similar results can be found in Grandfelt (2000). It is reported that the L1 Swedish speakers did not have problems producing French articles in adjectivally premodified contexts. Due to the category determiner in Swedish, these L2 learners were assumed to
transfer this category into their French article production (cf. 2.4.1.1 and 4.2). ${ }^{18}$

The predictions of the Missing Surface Inflection Hypothesis were therefore contradicted. The MSIH could not explain why the L2 learner groups of different L1 backgrounds exhibited behavioural differences in article omissions in Art +N and Art + Adj +N sequences. Despite lower article omission rates in the French groups than the Thai groups, if the L2 learners' syntactic representation had been intact and the problems had really been concerned with syntax-morphology mapping problems, the L2 learners from whatever L1 backgrounds and proficiency levels should have ALL made more article omissions in more complex than in simpler NP contexts. The L1 backgrounds should not have influenced this aspect of L2 English article production.

[^53]As for the Prosodic Transfer Hypothesis, it is concluded that it is not able to explain the asymmetric pattern of article omissions. The PTH assumes that different prosodic representations in the L1s are responsible for variable production in the L2. However, it has been shown that the prosodic structure of free clitics in English articles (and prepositions) exists in Thai prepositions (cf. 4.3.2.2). So, it seems that the PTH cannot be used to account for English article omissions by the L1 Thai / L2 English speakers. Moreover, the asymmetric pattern of article omissions were found in both spoken and written production by L1 Thai / L2 English speakers.

It is worth noting that articles, not adjectives, tended to be frequently omitted when the L2 learners' cognitive resources were exceeded. This might be because, in communication, the meaning of an adjective is usually contextually more informative and more relevant than that of an article, so an adjective is usually paid more attention to in production (compare with Sperber and Wilson's 1986 / 1995 'optimal relevance'). In rational communication, the meanings of (un)identifiability of referents can usually be inferred from given contexts. As Heine (1997: 79) observes "Articles have been described as being largely or entirely superfluous". To the L2 learners from articleless languages, there seems to be no essential need for them to express the meanings of these 'lexical units' (from article mistreatment). ${ }^{19}$ However, although the (un)identifiability status of NP referents can usually be contextually inferrable, the L2 learners are assumed to realise the requirements of producing articles in English. Therefore, since the meaning of an adjective rests more on the relative communicative value than that of an 'article', encoding a (real) adjective is typically a priority. The lexical meaning of an article will be encoded only when sufficient cognitive resources are left (cf. Trenkic 2007).

[^54]
### 4.9 Conclusions

The findings from the study on L2 English article omissions in nonpremodified and adjectivally premodified contexts seemed to be in line with the predictions of the Syntactic Misanalysis Hypothesis. It appears that the Syntactic Misanalysis Hypothesis can account for more article omissions in adjectivally premodified than in non-premodified NP contexts by L2 learners from articleless languages.

The explanation which assumes target-like syntactic representations, i.e. the Missing Surface Inflection Hypothesis was falisified. It has also been shown that the Prosodic Transfer Hypothesis cannot be used to account for English article omissions by L1 Thai speakers.

In the next chapter, L2 English article omissions in another pair of NP contexts, i.e. first and second mention definite contexts are to be explored. It will be examined if asymmetries of L2 English article omissions by L2 learners from articleless languages also occur in those NP contexts, as in nonpremodified and adjectivally premodified NP contexts.

## Chapter 5

## L2 English Article Omissions in First and Second Mention Definite Contexts

### 5.1 Introduction

In the previous chapter, we focused on English article omissions in nonpremodified and adjectivally premodified contexts. In this chapter, the focus is on another asymmetry reported in previous literature, i.e. a tendency of some L2 learners to omit articles more with referents mentioned for the second time than those introduced for the first time.

The chapter addresses L2 learners' English article omissions with first and second mention definites by L1 speakers of Thai and French.

The chapter is organised as follows. 5.2 presents the background of the research on article omissions in the two NP contexts. 5.3 and 5.4 detail two experiments: the controlled picture elicitation task and the written translation task, respectively. The experiments were conducted to examine if the results on asymmetries of English article omissions in first and second mention definite contexts would be in line with the results from previous research. Under each task, the participant groups are introduced. The materials, the procedure and the coding / analysis of the data are also presented. Results obtained from each experiment are shown, followed by discussion. 5.5 raises some issues about studies and results on L2 English
article omissions in first and second mention of definite contexts. 5.6 offers conclusions of the study.

### 5.2 Background of the study on first and second mention definite contexts

This section discusses first and second mention definite NPs (after a brief discussion in 2.2). It also looks at studies on L2 English article omissions relevant to the two NP contexts so as to show why L2 English article omissions in this area are explored in this study.

First and second mention definites are types of definite descriptions. An entity satisfying a definite description is unambiguously referred to in a pragmatically delimited set or a 'P-set'. Definite referents exist and are unique in pragmatic sets in the universe of discourse mutually manifest to the speaker and the hearer on-line (cf. Hawkins 1991; see 2.2).

A second mention definite or an anaphora definite is a referent which has been explicitly introduced in the preceding linguistic context, usually but not exclusively by an indefinite description $(a(n)+N P)^{1}$, and referred back to by the definite description (the +NP ) (examples of other cases include first mention definite NPs followed by second, third, etc definite NPs). Definite descriptions in anaphoric use therefore refer to their NP antecedents in the discourse (or "reference backward" according to Halliday \& Hasan 1976: 7; "retrospective gounding" after Givón 2005: 126). These definite referents are relevant to the existence and uniqueness in the previous discourse set for the speaker and the hearer (cf. J. Hawkins 1991), as shown: ${ }^{2}$
(90) Ted bought $a$ book and a journal the other day. He found the book very entertaining.

[^55]It can be said that the book in (90) exists and is unique in a pragmatically delimited set in the universe of discourse mutually manifest to the speaker and the hearer on-line. The anaphoric definite NP the book could be tracked to the same NP introduced in the previous discourse set with an indefinite description. The relation between each pair of NPs is that they "corefer" (Poesio \& Vieira 1998: 186) or "cospecify" (Sidner 1979). So, the referent the book exists in the pragmatic set between the interlocutors and, because it is the only book mentioned, it is unique in this pragmatic set. Anaphoric uses are second or subsequent-mention definites. ${ }^{3}$

A first mention definite is a referent which is introduced for the first time in the context as 'the +NP '. The definite status of the referent is determined by extra-linguistic factors. There are different grounds for employing first mention definites. P-sets in first mention definites include immediate situation use, larger situation use, and associative anaphoric use (cf. the classifications in J. Hawkins 1978, 1991). These first mention definite uses with their examples are as follows:
(91) a. Give me the pen, please (the addressee is holding a pen).
b. The goalkeeper played brilliantly in yesterday's game.
c. I've read this book. The content is mostly concerned with politics.

Again, the three definite referents, i.e. the pen, the goalkeeper and the content in (91a), (91b) and (91c), respectively exist and are unique in pragmatically delimited sets mutually manifest to the speaker and the hearer on-line.

In the immediate situation use in (91a), the NP referent the pen is physically present in the situation to the conversational participants (or "physical co-presence" according to Clark and Marshall 1981: 38). ${ }^{4}$ It is

[^56][^57]therefore visible to the interlocutors in the scenario of the utterance. Since the referent the pen refers to the only pen in the hand of the addressee in the discourse context, it is unique in the pragmatic set between the speaker and the hearer.

In (91b), the larger or non-immediate situation use depends on encyclopaedic or general knowledge. The definite use is based on shared general community / cultural knowledge (or "generic community membership knowledge" after Clark and Marshall 1981:35) that a football team typically has only one goalkeeper (see similar accounts of community knowledge in Clark and Marshall 1981; Erkü and Gundel 1987). The existence of the unique referent in a particular situation is therefore known or "globally accessible" (cf. Givón 2005: 102) between the interlocutors (knowledge of the actual individual(s) is not necessary).

Associative anaphoric use in (91c) is concerned with an association between a part (a trigger) and its components (the associates) (see also Chafe 1972; Clark 1975; Loebner 1985). ${ }^{5}$ There is an associative link between the book and the content in that mention of the former, i.e. a trigger, permits reference to the latter, i.e. an associate. ${ }^{6}$ The mention of a house also strongly activates such components as the door and the windows. By the same token, reference to a class conjures up reference to the professor, the students, the textbooks, the term paper, etc as set members. So, a component or an associate is unique in a pragmatic set between the interlocutors as it is

[^58]associatively linked with its part or trigger. This kind of definite descriptions is also referred to as "frame-based" (Givón 2005: 102)."

Summing up the discussion so far, the definite referents in each type of definite description above exist and are unique relative to certain delimited pragmatic sets in the universe of discourse mutually manifest to the speaker and hearer on-line. Second mention definites are subsequently mentioned as the referents have been introduced in the preceding linguistic contexts. In contrast, first mention definites are introduced for the first time as they are determined at least partly by extra-linguistic contexts.

The fact that anaphoric definite use depends on previously introduced NP referents and not on extra-linguistic factors makes this kind of definite different from the other definites, i.e. non-anaphoric use. ${ }^{8}$ Evidence suggesting that anaphoric and non-anaphoric referents are treated differently can be seen in definite encodings in certain languages. In Hidatsa and Ewe, for instance, a definite article is used only anaphorically. In Lakhota, there are two different definite articles: one is an anaphoric article and the other is a non-anaphoric article ("extralinguistic definite uses") (cf. C. Lyons 1999: 159-60).

Some researcher considers anaphoric use to be a prototypical case and non-anaphoric use as a marginal or non-paradigm case. Heim's (1988) "file card semantics" is a representative of this approach. Heim assumes that the process of understanding first-mention definites is more complicated than second-mention definites. Referents in the discourse are compatible with cards in a file. Understanding a previously mentioned referent is similar to updating an old card because the referent is familiar. However, if a referent is

[^59][^60]not mentioned before in the discourse, there is no old card to be updated. In this case, there has to be "an adjustment of the file that is triggered by a violation of a felicity condition and consists of adding to the file enough information TO REMEDY THE INFELICITY [my emphasis]" (cf. Heim 1988: 371).

Nevertheless, opposing views have been put forward. Some studies have shown that definite NPs in first-mention occurrences are commonly employed. Investigating English article use in natural speech events by native English speakers, Pica (1983) reports one finding that the in first-mention definite descriptions is widespread in natural discourse. Similarly, Clark and Wilkes-Gibbs (1986) explored NP uses in introductions in English dialogues by L1 English adult speakers and found that the most common choice was a nominal with a definite article. In a similar vein, Anderson et al. (1991) report that young native English speakers in their study tended to employ the more than $a(n)$ in introducing new referents in statements. Also, first-mention definite NPs could be considered more basic as they are found to be more widely used than subsequent-mention definites (cf. Fraurud 1990; Poesio and Vieira 1996; Biber 1999).

Irrespective of whether the primacy of definite use is on first-mention or second-mention occurrences, one could imagine that, for L2 learners, the use of articles with second mention definites might be more obvious. This is because direct anaphora use is determined by linguistic contexts (matching the definite referent with the previously mentioned referent in the text) and not by extra-linguistic inferences. What is more, textbooks on English grammar for L2 learners usually start the explanation of the definite article marking with direct anaphora definites (see, for example, Sidney et al. 1972; Kesorncam and Satorn 1973; Leech and Svartvik 1975; Swan and Walter 1977). The use of the definite article to mark subsequent mention definite referents is therefore assumed to be a paradigm case of the definite article among L2 learners (cf. Trenkic 2000: 238).

In both first and second mention definite NP contexts, nominal phrases are linguistically realised as definite descriptions. The question this study addresses is how the order of mention of the definite referent affects the production of the English definite article among L2 learners. It investigates

L2 English article omissions in subsequent mention definites, i.e. anaphoric NPs and in first mention definites, non-anaphoric NPs. ${ }^{9}$

As far as asymmetries of definite article omissions in first and second mention definite contexts are concerned, they have been attested in previous studies. As these studies have been looked at in 2.4.1.2, they will be only briefly reintroduced below.

Robertson (2000) reports that the Chinese-speaking learners of English in his study had a tendency to omit the definite article more in second (or what he called 'echo contexts') than in first mention definite contexts (in echo contexts, a phrase initially introduced by one speaker is repeated by the other speaker and so the definiteness status of the referent is already established. Echo contexts were considered the most redundant contexts in Robertson's study). It was assumed that the L2 learners omitted the owing to pragmatic redundancy, i.e. when definiteness could be recovered from the context. Similarly, Trenkic $(2000,2002)$ found asymmetries of article omissions in first and second mention definites with the L1 Serbian / L2 English speakers groups. It was postulated that the learners would drop the definite article when its meaning was retrievable from the context. Investigating the L1 Serbian speakers' data from Trenkic (2002) and the L1 Croatian speakers' data from his study, Žegarac (2004) reports that the learners omitted the due to pragmatic strategies, i.e. saliency of NP referents in context (coreferentiality between an NP referent and a prior NP). Similarly, Sharma (2005) found that her Indian English speakers (i.e. L1 Indo-Aryan) tended to omit more definite articles in subsequent than in first mention NPs. The learners were assumed to drop the due to redundancy of the definite meaning in context.

In sum, there has been an assumption that the definite article use with second mention definite referents is a default case for L2 learners because the use seems to be straightforward. Nevertheless, results from the previous research show that L2 learners had a tendency to face more difficulties in

[^61]producing the definite article in second mention than in first mention definite referents, which is surprising.

It is posited that the definite article tends to be omitted if it is pragmatically redundant in a discourse context. Contexts with an obvious value of [ + def] are assumed to guarantee accessibility of the meaning of identifiability (cf. Kempson 1988). It is therefore assumed that L2 learners from articleless languages omit the definite article more in contexts where the definite meaning is perceived to be salient (cf. Jarvis 2002). In contrast, if it is necessary to have the definite article for communication in the discourse, there is a lower tendency for the to be omitted (cf. Littlewood 1981).

So, what the previous literature seems to suggest about the cause of more definite article omissions in second than in first mention contexts is 'redundancy.' In particular contexts, referents might be more easily identifiable and so reduce the perceived need for articles. In other words, articles are more redundant in contexts where the referents are already understood. L2 learners are therefore more likely to omit the in contexts with more pragmatically redundancy in definiteness, and exploit the article in the opposite contexts.

It is worth noting that, in all the previous studies, the asymmetry in English article omissions between first and second mention definite contexts emerged from a broader set of data. None of these studies explored this asymmetry in a systematic and experimentally controlled way.

The present study was designed in order to address these issues directly. It examined whether asymmetries of article omissions in the two definite contexts would be attested, as in the previous studies. The L2 learners from the previous research on English article production in first and mention definites were from languages not possessing articles (i.e. Serbian, Croatian and Chinese), or from a language without the definite article (i.e. IndoAryan). ${ }^{10}$ Grannis (1971: 275) notes that the use of the is often problematic for L2 learners of English, especially if such an overt encoding does not exist in the native language. This study explored English article omissions in the

[^62]two contexts by another L2 group from an articleless language, Thai, and compared them with omissions by L1 French speakers, whose L1 possesses articles. To my knowledge, no study has investigated the definite article production in the two definite NP contexts by L2 learners from both language backgrounds.

Based on the given background, the experiments are presented in the 5.3 and 5.4.

### 5.3 Experiment 1: the controlled picture elicitation task

The controlled picture elicitation task was designed to examine L2 English article uses in first and second mention definite descriptions. As the contexts in the pictures used in the experiment were controlled to elicit the required data on English article production, the task was called 'the controlled picture elicitation task'.

### 5.3.1 Method

### 5.3.1.1 Participants

The participant groups were the same groups that participated in the second and the third experiments (on article omissions in Art +N and Art + Adj +N contexts), i.e. one intermediate L1 Thai group, one advanced L1 Thai group, two L1 French counterparts and one native English control group. All of the L2 participants resided in Thailand and the native English participants were in the United Kingdom at the time of the experiment. (see 4.6.1.1 on details of the participants, Appendix C on biographical details of the participants and Appendix D on the Oxford Placement Test scores of the participants).

### 5.3.1.2 Materials

Pictures were the main instrument in the controlled picture elicitation task. Four sets of hand-drawn cartoon pictures were designed to elicit article
production. Two cartoon sets were employed for eliciting the definite article in first-mention definite contexts and the other two were for second-mention definite article production.

The following two cartoons were used for eliciting first mention definites:


Figure 5.1: The kitchen picture


Figure 5.2: The bicycle picture

Four definite NP referents in two situations were expected to be produced in first-mention definite descriptions:

| Situations | Expected first-mention definite NPs |
| :---: | :--- |
| a kitchen in a mess | the refrigerator (or the fridge); the sink |
| a battered bicycle | the handlebar; the tyres |

Table 5.1: Situations and the expected NPs in first-mention definite descriptions in the controlled picture elicitation task

The objects being referred to were concrete and countable. All of them were anticipated to be in subject positions. Examples of the sentences to be produced were:

- The fridge is open and the sink is full of water.
- The handlebar is broken and the tyres are flat. ${ }^{11}$

Two pairs of cartoon sequences were made up to elicit subsequent mention definite NPs: ${ }^{12}$

[^63]

Figure 5.3: Picture 1 of 'the cat and the dog story'


Figure 5.5: Picture 1 of 'the party story'

Figure 5.4: Picture 2 of 'the cat and the dog story


Figure 5.6: Picture 2 of 'the party story'

The descriptions of the two cartoon sequences and the expected NPs in second-mention definite descriptions are the following:

| Stories | Descriptions | Expected second <br> mention NP <br> referents in the <br> subject position |
| :--- | :--- | :--- |
| 'The <br> party <br> story' | Picture 1: At a party, a boy and a girl are <br> looking at a balloon and an ice-cream. | Picture 2: The boy is holding the balloon <br> while the girl is eating the ice-cream. |
| 'The cat <br> and the <br> dog | Picture 1: A cat and a dog are looking at a <br> fish and a bone. | Picture 2: The cat is eating the fish and the <br> dog is eating the bone. |
| story' the cat; the dog |  |  |

Table 5.2: Descriptions of the cartoon sequences and the expected NPs in second-mention definite NPs in the controlled picture elicitation task

The referents of interest for the present experiment were the agents (i.e. boy, girl, cat and dog) as they were most likely to appear as subject of a sentence. This was important in order to ensure compatibility between first mention and second mention referents. Also, the variables concreteness and countability were kept constant in both definite conditions.

It is worth noting that the targeted NP referents in the second picture of each story were different for production of Art +N and Art + Adj +N structures and first and second mention definite NP contexts. In 'the cat and the dog story', while the NPs the fish and the bone were the targeted NP referents for non-premodified NPs in the direct object position, the cat and the dog were the targeted NP referents for second mention definite NPs in the subject position. In 'the party story', the NPs the ice-cream and the balloon were targeted NP referents for non-premodified NPs in the direct object position whereas the boy and the girl were the targeted NP referents for second mention definite NPs in the subject position (cf. 4.6.1.2).

Due to the anaphoric connections between two NPs, the characters and things expected to be produced as definites appeared in the first and the second pictures of each cartoon sequence. It was expected that the anaphoric definite article would be produced based on a prior co-occurrence of a referential noun. So, the purpose of using the first picture in each pair of the cartoon sequence was to make the participants produce particular NPs and second mention definites in the target context, i.e. the second mention definite context in the second picture. Therefore, the controlled picture elicitation task was designed in such a way that the L2 learners would be required to mention the expected NP referents within the controlled context frames. Note that each picture was simple and contained only necessary details on characters and things to be mentioned. It was expected that this controlled dataelicitation technique would facilitate production of the expected NPs in the two definite contexts. ${ }^{13}$ As the message was presented via the pictures, the information was provided for the participants to be verbally produced. The L2 learners did not have to generate the content themselves (cf. Warder 1981).

[^64]The cartoon pictures were made up to elicit an equal number of first and second mention definite noun phrases, i.e. four NP referents in each category.

The single cartoon pictures to elicit first mentions and the pairs of cartoon sequences to elicit second mentions were arranged in a mixed order (together with the other cartoons relevant for a different study).

There were no distractors in the task. Because the situations in the cartoons were different and the participants had to describe these different situations, there was a minimal chance that they would be aware that they were being tested on English definite article use.

### 5.3.1.3 Procedure

The controlled picture elicitation task was done on an individual basis. The researcher made an appointment with the participants to meet at a specific time in a class room environment.

The participants were instructed to describe what was happening in each picture. They were also asked to complete the task as quickly as they could and were told that they would be timed (as in experiments 2 (4.6) and 3 (4.7) in Chapter 4). It was anticipated that, because the L2 learners had to communicate meanings in the least amount of time they could, the speeded descriptions would lead to unplanned language use, i.e. more concentration on meanings than the form of utterances. In this way, it was expected that there would be minimal chance of the learners' metalinguistic knowledge being engaged (cf. 4.6.1.3 on details of the influence of a time constraint on metalinguistic knowledge consulted).

As the participants had to concentrate on communicating meanings in the descriptions and tried to complete the task as quickly as possible, there was less chance that they would be aware that the goal of the task was to produce the definite article in first and second mention definite references. Natural and unmonitored English article production was then expected to occur.

The researcher received permission from the participants to make tape recordings of the data production. All the participants were paid for participating in this experiment.

### 5.3.1.4 Coding / Analysis

The eight NP tokens (four anaphoric and four non-anaphoric uses) were transcribed. The number of article omissions in each definite description use by each participant was totalled. Then, the number of article omissions in each NP context by the participants from each L2 group was accumulated. The statistical method employed was a dependent $t$-test (or a paired-samples $t$ test) to examine the definite article omissions in the two definite NP contexts.

Illustrative examples of L2 English article omissions in first and second mention definite contexts, coding and analysis of errors are shown in Table 5.3:

| Illustrative examples of L2 <br> data on English article omissions | number of <br> omissions in 1st <br> mention definite <br> contexts | number of <br> omissions in 2nd <br> mention definite <br> contexts |
| :--- | :---: | :---: |
| 1. *The fridge is opening and sink <br> is full of water. | 1 error <br> (sink) | - |
| 2. *Handlebar is broken and the <br> tyres are flat. | 1 error <br> (handlebar) |  |
| 3. *Dog eats bone; cat eats fish. | - | 2 errors <br> (cat; dog) |
| 4. *The boy is holding the balloon <br> and girl is eating ice-cream. | - | error <br> (girl) |

Table 5.3: Illustrative examples of L2 English article omissions in first and second mention definite contexts in the controlled picture elicitation task, coding and analysis of errors

### 5.3.2 Results

The results on English definite article omissions in first and subsequent mention definite contexts are presented in Table 5.4. The data are based on L2 English article production of 4 first mentions and 4 second mentions in object positions, multiplied by the number of L2 learners from each group. The distribution of article omissions across groups is represented in Figure 5.7:

| Partici- <br> pant <br> groups | first mention definites |  |  |  |  | second mentions definites |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | proportions | $\%$ | mean | SD | proportions | $\%$ | mean | SD |  |
| Int Thai <br> $(n=20)$ | $4 / 80$ | 5.00 | .20 | .410 | $8 / 80$ | 10.00 | .40 | .598 |  |
| Adv Thai <br> $(n=20)$ | $2 / 80$ | 2.50 | .10 | .308 | $5 / 80$ | 6.25 | .25 | .550 |  |
| Int <br> French <br> $(n=20)$ | $0 / 80$ | 0.00 | .00 | .000 | $0 / 80$ | 0.00 | .00 | .000 |  |
| Adv <br> French <br> $(n=20)$ | $0 / 80$ | 0.00 | .00 | .000 | $0 / 80$ | 0.00 | .00 | .000 |  |
| NS <br> controls <br> $(n=10)$ | $0 / 80$ | 0.00 | .00 | .000 | $0 / 80$ | 0.00 | .00 | .000 |  |

Table 5.4: Article omissions in first and second mention definite contexts in the participant groups in the controlled picture elicitation task


Figure 5.7: Article omissions in first and second mention definite contexts in the participant groups in the controlled picture elicitation task

To determine the significance of the contribution of first mention and second mention definite descriptions to article production, a dependent $t$-test (or a paired-samples t-test) was performed on the article omissions in the two different context types.

- Results from the Thai L2 groups
- On average, the intermediate Thai group omitted more English articles in second mention definite contexts $(M=.40, S E=.13)$ than in first mention definite contexts $(M=.20, S E=.09)$. The difference was non-significant $t(19)$ $=-1.71, p>.05$.
- The advanced Thai group omitted more English articles in second mention definite contexts ( $M=.25, S E=.12$ ) than in first mention definite contexts $(M=.10, S E=.07)$. The difference was non-significant $t(19)=-1.37$, $p>.05$.

In the Thai groups, article omissions were higher in subsequent mention definite contexts than in first mention definite contexts. The overall performance was more accurate in the more proficient Thai group. However, the differences in the omission rates between the two NP contexts in both groups were not significant, $p>.05$.

The French groups did not make omissions at all in either NP context. Also, as expected, there were no omissions made in the native control groups.

### 5.3.3 Discussion of the results from the controlled picture elicitation task

The results on English article omissions in first and second mention definite contexts did not replicate the findings from the previous research (cf. Robertson 2000; Trenkic 2000, 2002; Žegarac 2004; Sharma 2005). There were no significantly higher rates of article omissions in second mention than in first mention definite NP contexts in the L1 Thai groups.

What was striking was that the article omission rates in second mention definite contexts were fairly low, even in the intermediate Thai group (i.e. $6.25 \%$ in the intermediate Thai group and $10 \%$ in the advanced Thai group). Also, the L1 French groups of both proficiency levels made no article omissions at all. These results suggest that perhaps the task was too easy.

However, a result of no difference could also be a consequence of the way first mention definites were elicited. In most previous research where asymmetry in oral production between first and second mention definites was found, article production was not accompanied by pictures (i.e. essay writing in Žegarac (2004) and short story written translation in Trenkic (2000, 2002)). In this experiment, referents for both first and second mention uses were pictorially represented, and both the participants and the researcher could see them. In other words, the existence and the uniqueness of referents in a pragmatically delimited set was equally salient in both cases, which may have resulted in a similar level of omissions. In fact, Robertson (2000) also found that L2 English article omissions occurred at the highest rates in the immediate situation use, where, he claimed, linguistic markings of definites on the referents were considered the most redundant. Pictorial representation of objects may be seen as the 'immediate situation of use'.

Summarising so far, the controlled picture elicitation task might not be sensitive enough to detect differences in article production between first and second mention definites. Another experiment was therefore done to examine if the results would replicate the asymmetrical pattern of article omissions in the two definite NP contexts found in the previous research. Written translation was employed to address the problem identified in the picture task.

### 5.4 Experiment 2: Written translation task

A written translation task was conducted in order to address the problem identified in the design of the controlled picture elicitation task. As discussed in 5.3.2, pictures were assumed to make the referents equally salient in both first and second mention use. Saliency might then cause redundancy of linguistic markings of the referents, which might negatively affect article production in first mention definite referents. So, there were no pictures employed in this task.

The experiment was designed for L1 Thai learners of English only. It was not a good idea to test article production by L1 French speakers on a written translation. Since there are articles in French, it could be argued that, in the French texts to be translated, the French definite article appearing with first and second mention definite NPs might prime L1 French speakers to employ the English definite article with these definite NPs in the translated texts (even though their English article production might be based on other factors). To prevent this problem, only L1 Thai speakers did the task.

As discussed in 2.4.1.2 and 5.2, the previous research conducted studies on English article omissions in first and second mention definite contexts with only L2 learners from languages without articles. Since the current study aimed at exploring if the results on article omissions in the two definite contexts would replicate the findings from the previous research, this task examined article omissions by at least L2 learners whose L1s also lack articles, i.e. L1 Thai speakers (I will come back to the issue of L2 English article omissions in the two definite NP contexts by L1 French speakers at a later point).

A written translation task was considered an appropriate task because of two factors. Firstly, there were no pictures involved to cause saliency of the referents. In this way, it was posited that L2 article production would not be influenced by the situated language use in the task. If the results from the translation task showed that the L1 Thai groups' article omissions in first and second mention definite NP contexts were also nonsignificant, it could be inferred that the results from the controlled picture elicitation task might not be negatively affected by the task and the findings
were not in line with the findings from the previous studies. In contrast, if the results from the translation task showed an asymmetric pattern of article omissions in the two definite contexts, they would suggest that task effects caused the non-significant difference between article omissions in the two definite contexts in the controlled picture elicitation task. The results would then replicate the previous findings. Secondly, the task could be designed to elicit the types and tokens of nominal phrases needed for investigation (see 5.4.1.2).

### 5.4.1 Method

### 5.4.1.1 Participants

Participants in this experiment were one intermediate L1 Thai group and one advanced L1 Thai group. The researcher made an appointment with the participants to meet at a specific time in a class room environment.

Data collections were made with L1 Thai / L2 English speakers in Bangkok, Thailand. The L1 Thai participants were secondary-level school students (equivalent to A-levels, sixth form college in Britain) and first-year university students.

Note that a potential problem surrounding translation as an elicitation device was that beginner and early intermediate translators might adopt a literal translation strategy and produce atypical L2 English performance. The participants in this test were secondary-level school students and first-year university students. They could underperform in translation, i.e. lack of experience in translation practice might make the problem of transliteration worse.

At the time of the experiment, the intermediate Thai participants' mean age was $17 ; 7$ and the advanced Thai group's mean age was $18 ; 3$. The participants had learned English for at least 9 years. There were no L1 Thai participants who had lived in English-speaking countries for more than 1 year.

Table 5.5 summarises biographical details of the two Thai participant groups (cf. Appendix E on bioghraphical details of the participants):

| Participant groups | Age |  |  | Instructed English |  |  | Natural exposure to English |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | range | mean | SD | range | mean | SD | range | mean | SD |
| Int Thai ( $n=20$ ) | $\begin{aligned} & 16 ; 8- \\ & 19.1 \end{aligned}$ | 17;7 | . 861 | $\begin{aligned} & 9 ; 9- \\ & 14 ; 1 \end{aligned}$ | 11;5 | 1.292 | $\begin{aligned} & .00- \\ & 1.00 \end{aligned}$ | 0;2 | . 307 |
| Adv Thai $(n=20)$ | $\begin{aligned} & 17 ; 2- \\ & 19 ; 5 \end{aligned}$ | 18;3 | . 752 | $\begin{aligned} & 10 ; 2- \\ & 14 ; 4 \end{aligned}$ | 12 | 1.089 | $\begin{aligned} & .00- \\ & 1.00 \end{aligned}$ | 0;2 | . 365 |

Table 5.5: Biographical details of the L2 participant groups in the written translation task

The L2 participants' English proficiency was determined by the Oxford Placement Test (Allen 2004). Table 5.6 shows the Oxford Placement Test scores of the two L2 participant groups (cf. Appendix F on the Oxford Placement Test score of each participant):

| Participant groups | Oxford Placement Test scores |  |  |
| :--- | :---: | :--- | :---: |
|  | range | mean | SD |
| Int Thai | $135-148$ | $(70.25 \%)$ | 3.720 |
| $(n=20)$ |  | 140.50 |  |
| Adv Thai | $152-165$ | $(79.68 \%)$ | 3.951 |
| $(n=20)$ |  | 159.35 |  |

Table 5.6: Oxford Placement Test scores of the L2 participant groups in the written translation task

### 5.4.1.2 Materials

Twelve sets of texts in Thai were composed for written translation into English. The purpose of the texts was to elicit data on first and second mention definite NP referents. Each set was relatively short, composed of two to three sentences.

Examples of appropriate translations for the twelve texts follow. For convenience in looking at the texts, items with first mention definite NPs and those with second mention definite NPs were separated. All the items were
randomised in the actual material (see the written translation materials in Appendix G). The NP referents to be investigated were shown in italics.

- Items with first mention definite NP referents:

1. Every day when I come back from work, I go straight into the kitchen. I open the fridge, and pour myself a glass of cold water.
2. Tom borrowed my computer last week and returned it to me yesterday. I was very angry because I found that he had broken the screen.
3. Linda walked hurriedly into our classroom. She wiped the blackboard, and then walked out again.
4. I went to a classical concert last night. It was very good and everyone admired the conductor.
5. Tom is decorating his bathroom. He has just painted the ceiling and is waiting for it to dry.
6. Manchester United is my favourite football team. I really like the goalkeeper because I think he's very capable.
7. I went to a friend's wedding on Sunday. I thought I would be late, but I knew I wasn't when I saw the groom waiting outside the church.
8. My father's house is very old and needs lots of repair. Next summer, we shall repair the roof, as it has been leaking for months now.

- Items with second mention definite NP referents:

9. Mary has recently bought a car and a bicycle. She will drive the car during the week and will ride the bicycle at weekends.
10. Emma is deciding whether to wear a shirt or a T-shirt. I think she will decide to wear the T-shirt because it is very hot today, and she will put the shirt back in her wardrobe.
11. Susan rushed into the living room and saw a new doll and a biscuit on the table. She was very hungry so she ate the biscuit, and took the doll to play with it in her bedroom.
12. Yesterday morning I left a bone and a fish in front of my house. First a cat came and ate the fish, and then a dog came and took away the bone.

In order to make sure that the participants would translate each sentence in full, some vocabulary was given in the glossary in the materials. The NPs referents required to be produced from the twelve texts were
considered as a set of data. It is worth observing that the referents in certain texts were the same as the referents in some pictures in the controlled picture translation task (cf. 4.6 and 5.3) (i.e. the fridge in item 1 and in the picture 'the kitchen', the doll in item 11 and in the picture 'the toy shop story', and the fish and the bone in item 12 and in the cartoons 'the cat and the dog story'. Note also that the content in item 12 was also similar to "the cat and the dog story'). As the L1 Thai speakers in this task were different from the L1 Thai learners of L2 English who did the controlled picture elicitation task, the similarities had no consequence.

The texts were written to elicit articles in controlled contexts: first and second mention definite contexts. Again, the variables concreteness, countability and singularity were kept constant in both conditions to ensure that the referents were fully compatible. This means that all the NPs in first and second mention definite contexts were concrete, countable and singular. They were also likely to appear in the direct object position. There were eight contexts for first mention definite NP production and eight contexts for second mention definite article NP production.

Distractors were not employed. As there were different aspects of English to be used in the translated texts (e.g. tenses, articles, verbs, adjectives, adverbs, prepositions, conjunctions, etc), it was expected that it would be difficult for the learners to know what language aspect was being focused on. So, it was hoped that the learners' attention would not be devoted to English article production.

### 5.4.1.3 Procedure

The translation was done on an individual basis. The researcher made an appointment with the participants to meet at a specific time in a class room environment. The participants were instructed to translate the Thai texts into English.

It is well-known that the objectives of translation are to assess both form of the language produced and meanings communicated. L2 learners doing translation are usually well aware of this and resort to metalinguistic knowledge. It is assumed that they have control over their L2 production
since they could revise and / or correct what they have translated. So, to lessen the chance of the L2 learners in this translation task from employing metalinguistic knowledge and having too much control over their production, two approaches were adopted. First, the L2 participants were told to do the task as quickly as possible and that they would be timed. Second, the L2 learners were also asked not to revise and / or correct what they had just translated. The purpose of quick translation under time constraints was to discourage the L1 learners from accessing their metalinguistic knowledge (cf. Bialystok 1979; Krashen 1982; Han and Ellis 1998; Ellis 2003, 2005). So, it was expected that, since the learners had to translate the texts as quickly as they could, they would be under pressure to convey the information. There would thus be a tendency for them to focus more on meanings rather than to concentrate on form.

Most participants took approximately $4-5$ minutes to finish the translation. All the participants were paid for participating in this experiment.

### 5.4.1.4 Coding / Analysis

The data set from the translation task was then read and checked. The focus was on article production on the expected definite NP referents.

The participants' article omission rates in each definite NP context were accumulated. Comparisons of article omissions in each definite context across groups were then examined. The statistical method employed was a dependent $t$-test (or a paired-samples t-test) to examine the definite article omissions in the two definite NP contexts.

Illustrative examples of the omissions in first and second mention definite NPs are demonstrated in Table 5.7 (other grammatical errors will not be identified):

| Illustrative examples of L2 data on <br> English article omission | number of <br> omissions in <br> 1st mention <br> definite NPs | number of <br> omissions in <br> 1 st mention <br> definite NPs |
| :--- | :--- | :--- |
| $* \ldots$. I was very angry because I found he <br> broke screen. | $1^{*}$ screen | - |
| *....He just painted ceiling and is waiting it <br> dry. | $1^{*}$ ceiling | - |
| *...She drives car in the weekend and <br> rides bike in the weekend. |  | $2^{*}$ car; bike |

Table 5.7: Illustrative examples of errors on L2 English article omissions in first and second mention definite NPs in the translation task

### 5.4.2 Results

The results on English definite article omissions in first and subsequent mention definite contexts from the translation task are presented in Table 5.8. The data are based on L2 English article production of 8 first mentions and 8 second mentions in object positions, multiplied by the number of L2 learners from each group. The distribution of the article omissions is represented in Figure 5.8:

| Partici- <br> pant <br> groups | first mentions <br> (direct object position) |  |  |  |  | second mentions <br> (direct object position) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $46 / 160$ | 28.75 | 2.30 | 1.081 | $87 / 160$ | 54.38 | 4.35 | 1.040 |  |  |
| Adv <br> Thai <br> $(n=20)$ | $26 / 160$ | 16.25 | 1.30 | .865 | $49 / 160$ | 30.63 | 2.45 | .826 |  |  |

Table 5.8: Article omissions in first and second mention definite NPs in direct object positions in the two Thai groups in the written translation task


Figure 5.8: Article omissions in first and second mention definite contexts in the written translation task

To determine the significance of the contribution of first and second mention definite NP descriptions to article production, a dependent $t$-test (or a paired-samples $t$-test) was performed on article omissions in the two different context types.

On average, the intermediate Thai group omitted more English articles in second mention definite contexts $(M=4.35, S E=.23)$ than in first mention definite contexts $(M=2.30, S E=.24)$. The difference was significant $t(19)=$ $-17.96, p<.001, r=.97$.

The advanced Thai group omitted more English articles in second mention definite contexts $(M=2.45, S E=.19)$ than in first mention definite contexts $(M=1.30, S E=.19)$. The difference was significant $t(19)=-14.04$, $p<.001, r=.96$.

So, the results from the written translation task show that, in both Thai groups of different proficiency levels, article omissions were higher in subsequent mention definite contexts than in first mention definite contexts. Although the overall performance was more accurate in the more advanced Thai group, the differences in the omission rates between the two definite NP contexts in both groups were significant, $p<001$.

It is worth observing that the assumption about the task effects from the pictures seemed to be valid (cf. 5.3.3). When there were no pictures involved in the task, articles were omitted significantly more in second mention than in first mention definite NPs in the L1 Thai groups. So, it is concluded that non-significant article omissions in the two definite contexts in
the controlled picture elicitation task resulted from the use of pictures in the elicitation.

### 5.4.3 Discussion of the results from the written translation task

Significantly higher rates of article omissions occurred with second than with first mention definite referents in the Thai groups in the written translation task. The findings were in line with the results in the previous research in that L2 learners from languages without articles had a tendency to exhibit asymmetries of article omissions in the two definite NP contexts.

As discussed in 2.4.1.2 and 5.2, what the previous studies seemed to suggest was that 'redundancy' might be the cause of the asymmetrical pattern of article omissions in first and subsequent mention definite contexts. Contexts where definiteness is more informationally redundant and more easily accessible (i.e. subsequent mentions) trigger more definite article drops than contexts with less redundancy and less retrievability of definiteness (i.e. first mentions) (cf. Robertson 2000; Trenkic 2000, 2002; Žegarac 2004; Sharma 2005).

The results from this experiment suggest that the asymmetry reported in the previous research is real and that the picture test was not an adequate instrument for detecting this asymmetry.

However, it is worth noting that, although the results from the written translation task seemed to replicate the findings from the previous research, the experiment was conducted with only L2 learners whose L1s lack articles, i.e. Thai, due to the nature of the task (cf. 5.4).

Having considered the previous studies and the results from the conducted experiments on L2 English article omissions in first and subsequent mention definite NP contexts (i.e. the controlled picture elicitation task and the written translation task), the current research raised some issues concerning asymmetries of English article omissions in the two definite contexts, which are discussed in the next section.

### 5.5 Issues about L2 English article omissions in first and second mention definite NP contexts

As mentioned at the beginning of this chapter, in the previous research where the asymmetry of article production with first and second mention definite referents was observed, this asymmetry emerged as part of the data. These studies did not explore the asymmetry in a planned and controlled way.

The present experiment makes an important contribution to the field in that this (experiment 2: the written translation task) shows that the asymmetry of English article production with first and second mention referents can be demonstrated in a more system-like and controlled way. In experiment 2, both the intermediate and the advanced L1 Thai learners of English omitted significantly more articles with second than with first mention definite referents.

However, experiment 2 shares one weakness with the previous studies, and this is that it was limited to L2 learners from an L1 without articles. The question therefore remains whether this asymmetry is typical only of L2 learners from L1 backgrounds without articles and whether it is a more universal feature of L2 English article production that applies to L2 learners from L1 backgrounds with articles.

Answering this question would shed more light on the debate about whether variability in production of functional morphology stems from non-target-like syntactic representations or processing problems in production.

A new experiment that would avoid the pitfall of both experiment 1 (the controlled picture elicitation task) and experiment 2 (the written translation test) reported in this chapter was designed. It was designed both with the aim to test the two competing accounts on the cause of variability in production of functional morphology and to explore whether the asymmetric patterns of article omissions with first and second mention definites could have a similar cause to the asymmetry of article omissions in Art + N and Art + Adj + N contexts.

### 5.6 Conclusions

The experiments described in this chapter explored L2 English article omissions in first and second mention definite contexts in a systematic and controlled way. Nevertheless, due to some limitations in the studies, it was decided to conduct another experiment. The new experiment had two objectives: to investigate which explanation for variable production of L2 functional morphology would be consistent with the findings, and to examine if there was a common explanation for asymmetries of English article omissions in the two pairs of NP contexts (non-premodified and adjectivally premodified contexts, and first and second mention definite contexts). This new experiment will be introduced and the results discussed in Chapter 6.

## Chapter 6

## A Common Explanation for L2 English Article Omissions

### 6.1 Introduction

This chapter continues to explore the issue of English article omissions in L2 production. In Chapter 4, the focus was on article omissions in adjectivally premodified contexts (Art $+\operatorname{Adj}+\mathrm{N}$ ) and non-premodified contexts (Art +N ). A series of experiments was reported, all corroborating previous findings that L2 learners from L1 backgrounds without articles omit articles more in Art + Adj +N sequences than in Art +N contexts. The experiments also showed that no such asymmetry is found in L2 article production by L2 learners from L1 backgrounds with articles. The results were interpreted as being in line with the Syntactic Misanalysis Hypothesis, where L2 English articles are analysed and produced like syntactic adjectives.

In Chapter 5, we turned our attention to article omissions with first and second mention definite referents. Experiment 2 (the written translation test) confirmed in a more controlled and systematic way the finding from previous research that L2 learners from L1 backgrounds without articles omit the definite article more with second than with first mention definite referents.

In this chapter, the following two questions remain to be answered:
(1) Is this asymmetry of higher article omissions with second than with first mention referents restricted to L2 learners from L1 backgrounds
without articles? Or is it more universal, and could it be found in L2 production of L2 learners from L1 backgrounds with articles?
(2) Could there be a common explanation for asymmetry of L2 English article omissions with first and second mention definites and the asymmetry of L2 English article omissions in Art + Adj +N and Art +N contexts?

The chapter is organised as follows. 6.2 outlines the findings on English article omissions in the two pairs of NP contexts in the current study. 6.3 introduces an experiment aiming at testing the predictions on a common explanation for L2 English article omissions. Under the experiment, the participants are introduced. The material, procedures, and coding / analysis are presented, and the predictions are made. 6.4 reports the results. 6.5 discusses the results and implications. 6.6 concludes the chapter.

### 6.2 Findings on L2 English article omissions in the current study

So far, the study has carried out experiments on L2 English article omissions in the two pairs of NP contexts, i.e. non-premodified and adjectivally premodified structures, as well as first and second mention definite contexts.

In Chapter 4, the findings on L2 English article omissions in Art +N and Art + Adj +N in the present research study were discussed. Consistent with the results from the previous studies (cf. Goad and White 2004; Trenkic 2007), the results from the guided spontaneous production task (oral and written production) and the controlled picture elicitation task (oral production) showed that L2 learners from articleless languages, i.e. L1 Thai speakers, omitted articles more in Art $+\mathrm{Adj}+\mathrm{N}$ than in Art +N contexts. It is also reported that L2 learners whose L1 contains articles, i.e. L1 French speakers did not omit articles more in adjectivally premodified than in non-premodified NP contexts. As it has been shown that the prosodic structures of English articles (and prepositions) exist in Thai prepositions, the Prosodic Transfer Hypothesis could not be used to explain asymmetry of L2 English article omissions by L1 Thai speakers. The Missing Surface Inflection Hypothesis
did not seem to be able to account for the different behaviours of article production by L2 learners from different language backgrounds, so the predictions were falsified. The predictions of the Syntactic Misanalysis Hypothesis were confirmed. The results were consistent with the assumption that the L1 Thai speakers misrepresented and produced English articles as adjectives, the production of which has to be systematically controlled. When the learners' cognitive resources are exceeded by the cognitive demands of the task, articles are omitted. All other things being equal, the limited cognitive resources are exceeded sooner in Art + Adj +N contexts (more complex) than in Art +N (simpler) and hence more article omissions occur.

In Chapter 5, the focus was on article omissions with first and with second mention definite referents. Experiment 2 (the written translation test) replicated findings from previous research in that L2 learners from L1 backgrounds without articles (L1 Thai learners of L2 English) omitted more articles with second mentions than with first mention definite referents. Previous research explains this asymmetry in the following way: If definiteness could be easily recovered from the contexts, L2 learners have a tendency to drop articles. Because NP referents in second mentions have already been mentioned in prior texts, the learners might consider that the definite meaning in these definite descriptions is retrievable from the contexts. There is therefore a tendency for articles to be omitted. So, according to previous studies, what is assumed to cause higher rates of article omissions in subsequent than in first mention definite NPs is redundancy of the definite meaning of second mention NP referents.

There are therefore two different explanations for L2 English article omissions by L2 learners from languages not containing articles. On the one hand, the explanation of asymmetries of article omissions in non-premodified and adjectivally premodified contexts invokes L2 learners' available cognitive resources. On the other hand, asymmetrical patterns of article omissions in first and second mention definite contexts are accounted for by redundancy of definiteness in second mention definite contexts.

Each of the explanations appears to be feasible and coherent in its own right. However, it is worth noting that both L2 phenomena are concerned with English article omissions and asymmetries of English article omissions
occur in each context pair (Art + Adj $+\mathrm{N}>$ Art +N ; second mention definites $>$ first mention definties). So, a question that arises is whether there could be a common explanation for asymmetries of English articles in the two pairs of contexts.

A potential explanation for English article omissions in both pairs of contexts has been offered by Sharma (2005), who assumes that redundancy causes asymmetries of English articles both in first and second mention definite contexts and in non-premodified and adjectivally premodified contexts. As already discussed, because referents in second mentions have already been mentioned in the discourse, the definite article is considered more redundant than with definite referents mentioned for the first time. This is suggested as the reason why the definite article tends to be omitted at higher rates with second mention definites (cf. 2.4.1.2, 5.2). Similarly, Sharma (2005:557) assumes that a premodifying adjective has "the function of specifying the referent from within a possible range", causing the article with a premodified referent to be more redundant than with a non-premodified referent and is therefore omitted more.

So, one might argue that redundancy of articles on NP referents may be more or less, depending on the context. For example, with a colour locating the referent, the article might be more redundant on an adjectivally premodified NP. Also, in a second mention definite NP, the article could be more redundant as the referent is already understood (more salient). Referents may therefore be easily identifiable, in some contexts, for some learners, and so reduce the perceived need for articles.

Sharma's account may be on the right track. However, it is also vague. This is due to the following reasons. Firstly, what exactly does it mean for the expression of definiteness to be redundant? In principle, the definiteness status of a referent can nearly always be inferred through the context of use, so the meaning of definiteness is always informationally redundant. As Heine (1997: 79) observes "Articles have been described as being largely or entirely superfluous" (cf. 4.8). If the identifiability status of an NP referents is usually context-inferrable and articles seem to be redundant, how learners decide where to draw a line, i.e. how 'redundant' does the marking of definiteness need to be for an article to be dropped? Secondly, why would one and the
same learner in what may look like an identical context sometimes supply an article and at other times omit it? For example, in contexts where NP referents are premodified by colour adjectives, an individual learner may omit the article on some NPs, but not in others. Similarly, a learner might supply the article on some second mention definite NPs, but omit the article on other NPs of the same contexts.

Instead of pursuing the notion of redundancy, an attempt will be made here to explain article omissions as a result of limited cognitive resources and strategic suppliance of articles which relies on the cognitive resources. In order to provide a full explanation, the ideas from the Syntactic Misanalysis Hypothesis would need to be supplemented by a theory of reference known as the Information Load Hypothesis (cf. Almor 1999).

The Information Load Hypothesis (ILH) was originally developed to account for the inverse relationship that exists between the saliency of a referent on the one hand and the linguistic form used to encode the referent. In short, the more salient the referent, the less linguistic material is used to encode it. Thus, the more salient referents are encoded by pronouns in English and the less salient referents by a full nominal phrase.

The ILH explains this inverse relationship in the following way. The verbal working memory plays a crucial role in discourse processing (i.e. production processing). ${ }^{1}$ Working memory has a limited capacity used for storing and processing referents in the discourse. During reference resolution, the representation of a new referent and the representation of the pre-existing discourse representation are active at the same time before integration can happen. This stage of processing is demanding and prone to interferences (see Almor 1999 for experimental evidence). Higher activation of referent representation in the speaker's discourse model equals higher processing cost. It is postulated that the level of activation in memory of referent representation is affected by the saliency of the referent. The more active and salient the referent in memory, the more resources it takes and the fewer resources it leaves for linguistic encoding.

[^65]The ILH was designed to account for grammatically legitimate referential choices (e.g. the choice between a pronoun or a full nominal phrase). It has no implications for logically possible combinations that the grammar does not allow. Thus, a native speaker of English would not be expected to refer to a certain object with a pronoun if it is very salient, with a bare noun $(\mathrm{N})$ if it is slightly less salient, and with a full nominal phrase (Art +N ) if it is even less salient.

However, if L2 English articles are analysed as nominal modifiers (as suggested by the SMH) and thus as optional elements of a nominal phrase in an L2 grammar, the ILH would predict that the more salient the referent is, the less likely that it will be encoded by a full nominal phrase (Art +N ) and the more likely that it will be encoded by a bare noun ( N ).

If this is correct, then it could explain the higher level of article omissions with second than with first mention referents. Referents of second mention definite expressions have already been established in the speaker's discourse model. They have a degree of activation in the discourse representation and are thus taking some of the speaker's working memory to be kept active. As Givón (2005: 134) says "By default, a referent is STILL ACTIVE IN WORKING MEMORY if it appeared in the preceding clause [my emphasis]". In contrast, first mention definite referents are not yet established in the discourse model. They are just being introduced. In sum, we can say that second mention referents are already active in the discourse memory and are therefore more salient, whereas first mention definites are not yet active in the discourse memory and are therefore less salient.

Based on the ILH, we would expect, all other things being equal, the more salient, second mention referents to leave less working memory capacity for linguistically encoding the referents, and the less salient, first mention referents to leave more working memory for linguistically encoding the referents. It is assumed that both linguistic encoding and lexical / conceptual (discourse) processing share working memory resources so that processing demands on one can reduce available resources for the other. What this further means is that if an L2 learner has to strategically control the production of articles, the limited cognitive resources would be exceeded
sooner and articles dropped more often with second than with first mention referents.

It was already discussed in Chapter 4 how the limitation of cognitive resources in production may account for more article omissions in Art + Adj +N contexts than in Art +N contexts. That explanation could be rephrased here in terms of the Information Load Hypothesis.

In the experiments reported in Chapter 4, the activation of referents in discourse memory was kept constant, i.e. both referents that needed to be encoded as Art +N and those that needed to be encoded as Art + Adj +N were previously mentioned and pictorially represented. So, it can be assumed that they all make similar demand on working memory to store them and keep them active. What differed was the amount of linguistic encoding needed to express them. More detected linguistic encoding demands more resources. Then, all other things being equal, the limited cognitive resources would be exceeded sooner in the more complex Art + Adj +N contexts than in the simpler Art + N contexts, and as a result, more articles would be omitted.

The explanation outlined above - in particular in relation to article omissions with first and second mention definites - critically depends on the assumption that second mention definite referents were more salient and first mention definite referents less salient. However, that assumption is only tentative, or the saliency of referents was not directly measured or controlled.

To further investigate whether this tentative explanation is on the right track, a new experiment was needed in which the saliency of referents would be directly controlled and manipulated.

The experiment had two main objectives, i.e. first, to investigate in an experimental and controlled way whether the saliency of a referent affects the level of L2 English article omissions, and second, to investigate this question in both L2 learners from L1 background without articles (L1 Thai) AND L2 learners from L1 background with articles (L1 French) in order to address the issues that remained unresolved in the previous experiments.

To address both objectives, a new language-neutral task which directly manipulated the saliency of a referent and participants' attention was used.

### 6.3 Experiment: the FishFilm task

### 6.3.1 Method

### 6.3.1.1 Participants

The participant groups were two L1 Thai speaker groups of different proficiency levels, two L1 French counterpart groups and one native English control group.

The L1 Thai groups were the same participants who took part in the written translation task (cf. 5.4). So, there were 40 L1 Thai participants, 20 in the intermediate group and 20 in the advanced group. The L1 Thai participants were secondary-level school students (equivalent to A-levels, sixth form college in Britain) and first-year university students. At the time of the experiment, the intermediate Thai participants' mean age was $17 ; 7$ and the advanced Thai group's mean age was $18 ; 3$ The participants had learned English for at least 9 years. There were no L1 Thai participants who had lived in English-speaking countries for more than 1 year.

As for the L1 French groups, there were 40 L1 French participants, 20 in the intermediate group and 20 in the advanced group. The L1 French groups were also secondary-school students and first-year university students in Thailand. At the time of the experiment, the intermediate French participants' mean age was $17 ; 7$ and the advanced French group's mean age was $17 ; 6$ The participants had learned English for at least 7 years and 9 months. There were no L1 French participants who had lived in Englishspeaking countries for more than one year

In the native English control group, there were 10 participants. The native English speakers were undergraduate and graduate students at the University of York at the time of the experiment. The native British participants' mean age was $24 ; 8$.

Table 6.1 summarises biographical details of all the participant groups in the FishFilm task (details of the Thai groups from Table 5.5 in Chapter 5 are referred to again here for convenience): (cf. Appendix E on biographical details of each participant):

| Participant groups | Age |  |  | Instructed English |  |  | Natural exposure to English |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | range | mean | SD | range | mean | SD | range | mean | SD |
| Int Thai ( $n=20$ ) | $\begin{aligned} & \hline 16 ; 8- \\ & 19.1 \end{aligned}$ | 17.7 | . 861 | $\begin{aligned} & 9 ; 9- \\ & 14 ; 1 \end{aligned}$ | 11;5 | 1.292 | $\begin{aligned} & .00- \\ & 1.00 \end{aligned}$ | 0;2 | . 307 |
| Int Fr $(n=20)$ | $\begin{aligned} & 16 ; 9- \\ & 18 ; 8 \end{aligned}$ | 17.7 | . 788 | $\begin{aligned} & \hline 7.9- \\ & 11.4 \end{aligned}$ | 9;8 | 1.086 | $\begin{aligned} & .00- \\ & 1.00 \end{aligned}$ | 0;3 | . 305 |
| Adv Thai $(n=20)$ | $\begin{aligned} & 17 ; 2- \\ & 19 ; 5 \end{aligned}$ | 18;3 | . 752 | $\begin{aligned} & 10 ; 2- \\ & 14 ; 4 \end{aligned}$ | 12 | 1.089 | $\begin{aligned} & .00- \\ & 1.00 \end{aligned}$ | 0;2 | . 365 |
| Adv Fr $(n=20)$ | $\begin{array}{l\|} \hline 16 ; 5- \\ 18 ; 9 \end{array}$ | 17;6 | . 740 | $\begin{aligned} & \hline 8.8- \\ & 11.2 \end{aligned}$ | 11;3 | . 874 | $\begin{aligned} & .00- \\ & 1.00 \end{aligned}$ | 0;2 | . 221 |
| NS <br> controls $(n=10)$ | $\begin{aligned} & 19 ; 9- \\ & 30 ; 5 \end{aligned}$ | 24;8 | 4.157 | (NS) | (NS) | (NS) | (NS) | (NS) | ${ }^{-}$ |

Table 6.1: Biographical details of the L2 participant groups in the FishFilm task.

The L2 learners' groups were categorised according to the English proficiency levels (determined by the Oxford Placement Test (cf. Allen 2004)).

Table 6.2 shows The Oxford Placement Test scores of the participant groups (details of the Thai groups from Table 5.6 in Chapter 5 are referred to again here for convenience) (cf. Appendix F on scores from the listening and the grammar test, including the combined score and the English proficiency level of each participant):

| Participant groups | Oxford Placement Test scores |  |  |
| :--- | :--- | :--- | :--- |
|  | range | mean | SD |
| Int Thai <br> $(n=20)$ | $135-148$ | $(70.25 \%)$ | 3.720 |
| Int Fr <br> $(n=20)$ | $136-149$ | $(71.13 \%)$ | 4.229 |
| Adv Thai <br> $(n=20)$ | $152-165$ | $(79.68 \%)$ | 3.951 |
| Adv Fr <br> $(n=20)$ | $155-168$ | $(80.45 \%)$ | 4.564 |
| NS <br> controls <br> $(n=10)$ | $194-200$ | 160.90 |  |

Table 6.2: Oxford Placement Test scores of the L2 participant groups in the FishFilm task

Note that, on average, the intermediate French group performed better on the Oxford Placement Test ( $M=142.25, S E=.946$ ), than the intermediate Thai group ( $M=140.50, S E=.832$ ). This difference was non-significant $t(38)$ $=-1.39, p>.05$.

The advanced French group performed better on the Oxford Placement Test ( $M=160.90, S E=1.021$ ), than the advanced Thai group ( $M=159.35$, $S E=.883$ ). This difference was also not significant $t(38)=-1.15, p>.05$.

### 6.3.1.2 Materials

Tomlin's FishFilm was used in this task (freely available to download at http://logos.uoregon.edu/tomlin/research fishfilm resources.html).

The FishFilm is a short computer-animated film composed of thirtytwo sequences of dynamic events. In each sequence, two fish swim towards each other (one from the left; the other from the right). The two fish are always of different colours. When the two fish approach each other, one fish opens its mouth ('the agent') and swallows the other ('the patient') and then swims away until it disappears from the screen. The direction of where the
agent fish comes from (left or right) is counterbalanced. In each animated sequence, a flashing arrow appears above one of the fish. The arrow is used to manipulate the speaker's attention to a particular referent in real time. It appears 75 milliseconds before the swallowing event. The cuing is counterbalanced, i.e. the agent is targeted in half of the trials and the patient is cued in the other half (the events are randomly ordered). It is expected that, during the brief time span, i.e. the time between the flashing arrow appearing above one fish and the subjects making an utterance, the subjects would not have sufficient time to redirect their attention to the other fish referent (cf. Tomlin 1995:173-4). In sum, the flashing arrow which draws the participant's attention to one of the referents makes this referent the more salient one (see also Tomlin 1997).

Originally, the FishFilm task was designed to examine the mapping of conceptual representations of visual events into language by native English speakers. The results in Tomlin (1995) reveal that participants tend to describe the swallowing event using the active voice (e.g. The white fish eats the red fish) when the agent fish is cued and the passive voice (e.g. The red fish is eaten by the white fish) where the patient fish is cued. This suggests that the flashing arrow does make one of the referents more salient, that it draws participants' attention to that referent, and that the attended referent then normally serves as a point of departure in describing an event.

For the purpose of the present experiment, the most important aspect from previous research is the finding that the material reliably and directly manipulates the saliency of a referent, by manipulating the participants' attention.

For this reason, the FishFilm task was considered appropriate for the present study. First, it was language-neutral and could thus be used with both L1 Thai / L2 English and L1 French / L2 English learners. Second, it directly manipulates the participants' attention, thus making one referent more salient than the other. If referent saliency makes higher demand on its representation in the discourse model, it should leave fewer resources for linguistically encoding this referent, and for those L2 learners for whom an article is an optional element of a nominal phrase, this should lead to more article English article omissions.

### 6.3.1.3 Procedure

The testing was done on an individual basis. The participants were asked to watch the FishFilm. They were told that that they would see a short animated film. On each screen they would see two fish swimming towards each other. One fish would be indicated by a flashing arrow above it. They were told that something would happen very soon and were asked to describe what had happened as soon as they knew what had happened. They were instructed not to start the description before they knew what had happened.

The researcher received permission from the participants to make tape recordings of the data production. All the participants were paid for participating in this experiment.

### 6.3.1.4 Coding / Analysis

There were 32 events in the film, in 16 of which the agent fish was cued and in the other 16 the patient fish was cued. Based on the previous research (cf. Tomlin 1995, 1997), when an agent fish was cued, an active sentence was expected. On the other hand, when a patient fish was cued, a passive sentence was anticipated (cf. Appendix H on the sentence construction, i.e. active or passive expected to be produced in each event and examples of appropriate sentences in the events).

So, the first step was to identify the sentence structure to determine whether the expected sentence structure was produced, and so whether the saliency manipulation worked reliably. If the sentences produced were in the same constructions as the expected sentences (active or passive), it could be inferred that the more salient / more attended referent was assigned syntactic subject. It could then be assumed that the NP referents were produced based on saliency of the referents and the amount of attention paid to them. Sentences whose structures were not according to the expectation (i.e. the active construction instead of the passive construction, and vice versa) were excluded from the data. In these cases, it could not be reliably detected which referent was more salient to the participant (the one that was cued by an arrow or the one that they produced as the syntactic subject).

In each of the sentences produced according to the expected construction, there were two referents, i.e. the agent fish and the patient fish. In the active construction, the agent fish comes before the patient fish (e.g. the blue fish eats the green fish). In the passive construction, the patient fish precedes the agent fish (e.g. the red fish is eaten by the blue fish). Therefore, the four NP types were (a) the agent in the active construction, (b) the patient in the active construction, (c) the patient in the passive construction, and (d) the agent in the passive construction, as shown in Table 6.3:

|  | NP referent | NP referent |
| :--- | :---: | :---: |
| Active construction | agent | patient |
| Passive construction | patient | agent |

Table 6.3: NP referents in active and passive sentences in the FishFilm task

In the active construction, the agent is more salient than the patient but in the passive construction, the patient is more salient than the agent.

Each NP referent was examined as to whether an article was omitted or not. Article omission for each NP referent was then scored. The number of article omissions in each NP position produced by each participant was accumulated. Then, the number of article omissions in each NP context type produced by all the participants from each L2 group was totalled.

As some items were excluded from the analysis (where an active sentence was expected but a passive sentence was produced), the number of active and / or passive constructions produced were not 16 sentences per construction. So, to examine individual learners' article omissions in each of the NP positions, individual learner proportions of article omissions out of obligatory contexts for each NP position (i.e. article omissions out of the appropriate NP positions produced) were calculated into a percentage. For example, if a participant produced 13 active constructions out of the 16 expected active constructions and omitted 5 articles in agent positions, the percentage of article omissions in agent positions in the appropriately produced active constructions would be 5 out of 13 or $38.46 \%$.

The percentage of article omissions by individual learners in each NP position was then put in the SPSS program for further analysis by a repeated measure analysis of variance (ANOVA) (cf. 6.3.1.6).

### 6.3.1.5 Predictions

The present experiment aimed to address the question of whether the saliency of a referent affects the likelihood of English article omissions in L2 production.

Based on the assumption of the Information Load Hypothesis (more salient referents take more resources to represent mentally, leaving fewer resources for their linguistic encoding) and the Syntactic Misanalysis Hypothesis (for L2 learners from L1 backgrounds without articles, L2 articles are nominal modifiers and hence an optional element of a nominal phrase), the following predictions could be made:
(1) L1 Thai / L2 English learners would omit more articles with more salient referents, i.e. with referents that were cued by a flashing arrow. In active sentences, it would be the agent fish and in passive sentences, the patient fish.
(2) L1 French / L2 English learners, who are expected to analyse an English article as a determiner, and thus not as an optional element of a nominal phrase, there will be no difference in the level of article omissions between more and less salient referents.

One might further speculate that, all other things being equal, the agent fish would be more salient than the patient fish (the fish being eaten). This would suggest that more article omissions in the L1 Thai groups would be expected with the cued agent fish than with the cued patient fish. The degrees of saliency might be as follows:
cued agent the most salient
cued patient
non-cued agent
non-cued patient

However, the cueing by an arrow may be powerful enough so as to obliterate any difference between the cued agent and the cued patient. Given that this would be difficult to measure, this prediction is only speculative.

### 6.3.2 Results

The results on English article omissions of NP referents in the active construction in the FishFilm task are shown in Table 6.4 and the distribution of article omissions across groups is illustrated in Figure 6.1:

|  | Active construction |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Participant <br> groups | Agent (cued, more salient) |  |  | Patient (non-cued, less salient) |  |  |  |  |
|  | proportions | $\%$ | mean | SD | proportions | $\%$ | mean | SD |
| Int Thai <br> $(n=20)$ | $121 / 311$ | 38.91 | 39.14 | 11.450 | $22 / 311$ | 7.07 | 7.04 | 7.698 |
| Adv Thai <br> $(n=20)$ | $61 / 320$ | 19.06 | 19.06 | 5.160 | $9 / 320$ | 2.81 | 2.81 | 3.780 |
| Int French <br> $(n=20)$ | $0 / 320$ | 0.00 | .00 | .000 | $0 / 320$ | 0.00 | .00 | .000 |
| Adv <br> French <br> $(n=20)$ | $0 / 320$ | 0.00 | .00 | .000 | $0 / 320$ | 0.00 | .00 | .000 |
| NS <br> controls <br> $(n=10)$ | $0 / 320$ | 0.00 | .00 | .000 | $0 / 320$ | 0.00 | .00 | .000 |

Table 6.4: L2 English Article omissions in agent and patient NP referents in the active construction in the FishFilm task


Figure 6.1: L2 English article omissions in agent and patient NP referents in the active construction in the FishFilm task

The results on English article omissions of NP referents in the passive construction in the FishFilm task are presented in Table 6.5 and the distribution of article omissions across groups is shown in Figure 6.2:

|  | Passive construction |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Participant <br> groups | Patient (cued, more salient) |  |  | Agent (non-cued, less salient) |  |  |  |  |
|  | proportions | $\%$ | mean | SD | proportions | $\%$ | mean | SD |
| Int Thai <br> $(n=20)$ | $100 / 311$ | 32.15 | 32.32 | 11.913 | $35 / 311$ | 11.25 | 11.23 | 6.657 |
| Adv Thai <br> $(n=20)$ | $51 / 320$ | 15.94 | 15.94 | 6.563 | $8 / 320$ | 2.50 | 2.50 | 3.141 |
| Int French <br> $(n=20)$ | $0 / 320$ | 0.00 | .00 | .000 | $0 / 320$ | .00 | .00 | .000 |
| Adv <br> French <br> $(n=20)$ | $0 / 320$ | 0.00 | .00 | .000 | $0 / 320$ | .00 | .00 | .000 |
| NS <br> controls <br> $(n=10)$ | $0 / 320$ | 0.00 | .00 | .000 | $0 / 320$ | .00 | .00 | .000 |

Table 6.5: L2 English article omissions in patient and agent NP referents in the passive construction in the FishFilm task


Figure 6.2: L2 English article omissions in patient and agent NP referents in the passive construction in the FishFilm task

To determine whether the saliency of referents plays a role in English article omissions, two separate repeated measure analyses of variance (ANOVA) were performed on English article omissions, one for active sentences and the other for passive sentences. Saliency of referents in the active construction and saliency of referents in the passive construction position had a highly significant effect on article omissions.

Mauchly's test indicated that the assumption of sphericity was violated in the intermediate Thai group $\left(x^{2}(5)=11.16, \mathrm{p}<.05\right)$; therefore, degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ( $\varepsilon$ $=.78)$. The assumption of sphericity was also violated in the advanced Thai group $\left(x^{2}(5)=22.31 \mathrm{p}<.05\right)$; therefore, degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ( $\varepsilon=.60$ ).

In the intermediate Thai group, the results showed that article omissions were significantly affected by the saliency of referents, F (2.33, $44.29)=115.25, \mathrm{p}<.001$. Contrasts revealed the following:

- In the active construction, article omissions in the agent position (more salient referents) were significantly higher than article omissions in the patient position (less salient referents), $\mathrm{F}(1,19)=$ $380.771, \mathrm{p}<.001, \mathrm{r}=.98$.
- In the passive construction, article omissions in the patient position (more salient referents) were significantly higher than article
omissions in the agent position (less salient referents), $\mathrm{F}(1,19)=$ $71.490, \mathrm{p}<.001, \mathrm{r}=.89$.

In the advanced Thai group, article omissions were also significantly affected by saliency of NP referents, F $(1.80,34.24)=79.94, \mathrm{p}<.001$. Contrasts revealed the following:

- In the active construction, article omissions in the agent position (more salient) were significantly higher than article omissions in the patient position (less salient), $\mathrm{F}(1,19)=291.91, \mathrm{p}<.001, \mathrm{r}=.97$.
- In the passive construction, article omissions in the patient position (more salient) were significantly higher than article omissions in the agent position (less salient), $\mathrm{F}(1,19)=139.964, \mathrm{p}<.001, \mathrm{r}=.94 .{ }^{2}$
Table 6.6 presents descriptive statistics related to the level of article omissions with cued agent referents and with cued patient referents and the distribution of article omissions across groups is shown in Figure 6.3. As explained above, agent referents could be by their nature more salient than patient referents, and this in turn may lead to more article omissions. The trend does indeed seem to be in that direction: there were more article omissions with cued agents than with cued patients in both the intermediate and the advanced L1 Thai groups.

[^66]| Participant <br> groups | Cued agent referents <br> (active construction) |  |  |  | Cued patient referents <br> (passive construction) |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | proportions | $\%$ | mean | SD | proportions | $\%$ | mean | SD |
| Int Thai <br> $(n=20)$ | $121 / 311$ | 38.91 | 39.14 | 11.450 | $100 / 311$ | 32.15 | 32.32 | 11.913 |
| Adv Thai <br> $(n=20)$ | $61 / 320$ | 19.06 | 19.06 | 5.160 | $51 / 320$ | 15.94 | 15.94 | 6.563 |

Table 6.6: L2 English article omissions with NPs referring to cued agents and NPs referring to cued patients in the FishFilm task


Figure 6.3: L2 English article omissions with cued agent referents and cued patient referents in the FishFilm task

The levels of article omissions with non-cued patient referents and non-cued agent referents are shown in Table 6.7 and the distribution of article omissions across groups are shown in Figure 6.4:

| Participant <br> groups | Non-cued patient referent <br> (active construction) |  |  |  | Non-cued agent referent <br> (passive construction) |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | proportions | $\%$ | mean | SD | proportions | $\%$ | mean | SD |
| Int Thai <br> $(n=20)$ | $22 / 311$ | 7.07 | 7.04 | 7.698 | $35 / 311$ | 11.25 | 11.23 | 6.657 |
| Adv Thai <br> $(n=20)$ | $9 / 320$ | 2.81 | 2.81 | 3.780 | $8 / 320$ | 2.50 | 2.50 | 3.141 |

Table 6.7: L2 English article omissions with NPs referring to non-cued patients and NPs referring to non-cued agents in the FishFilm task


Figure 6.4: L2 English article omissions with non-cued patient referents and non-cued agent referents in the FishFilm task

Again, the trend does seem to be in the expected direction, at least for the intermediate Thai group: there were more article omissions with non-cued agents than with non-cued patients.

The native English group, which produced baseline data, assigned all the cued (more salient / more attended) referents to syntactic subjects. That is, when an agent was cued, it was assigned syntactic subject in the active construction. When a patient was cued, it was assigned syntactic subject in the passive construction. These behaviours were along the same line as Tomlin's (1995) results. The results also show that the native English speakers did not omit articles in any NP referents.

The results in both the L1 French groups showed that the L1 French speakers behaved like the native English group, i.e assigning more salient / more attended referents to syntactic subjects and not making any article omissions.

### 6.3.3 Discussion and implications

This section discusses three related issues: (a) the Information Load Hypothesis and L2 English article omissions, (b) the link between L2 English article omissions with first and second mention definites and with cued and non-cued definite referents, and (c) a common explanation for asymmetries of L2 English article omissions in the two pairs of NP contexts.

### 6.3.3.1 The Information Load Hypothesis and L2 English article omissions

The L1 Thai speakers of both groups tended to omit articles more in the agent position (more salient) than in the patient position (less salient) in the active construction. Article omissions also occurred at significantly higher rates in the patient position (more salient) than in the agent position (less salient) in the passive construction. There were no article omissions with any NP referents in the L1 French and the native English groups.

Tomlin's (1995) results from the FishFilm task were replicated with the participants in the present study. The participants tended to assign more salient / more attended referents syntactic subjects in English and the sentential construction followed from the subject assignment (i.e. the active construction when the agent NP referent was cued and the passive construction when the patient NP referent was cued). The native English group and the L1 French groups produced active and passive constructions according to the expectations. Among the L1 Thai speakers, there were very few exceptions of cases where the active construction was produced instead of the passive construction and the other way round. These cases occurred only in the intermediate group, i.e. 10 out of 320 cases ( $3.13 \%$ ) where the active construction was expected to be produced and 11 out of $320(3.44 \%)$ for the
opposite case. So, the manipulation of attention had a clear effect on the learners' assigning referents to syntactic subjects.

The focus of the present experiment was on addressing the question of whether the saliency of a referent affects the likelihood of English article omissions in L2 production.

The results suggest that it does for L2 learners from L1 backgrounds without articles. The L1 Thai / L2 English learners omitted more articles with more salient referents in the task, i.e. the referents that were cued by a flashing arrow and which were assigned to the syntactic subject position.

The saliency of a referent, however, did not affect article production of either the native speakers of English or the advanced L1 French / L2 English learners.

The results thus seem to be consistent with the assumption of the Information Load Hypothesis and the Syntactic Misanalysis Hypothesis.

The ILH predicts that more salient referents take more resources to represent mentally, leaving as a result fewer resources for the linguistic encoding of these referents. The SMH assumes that L2 learners from L1 backgrounds without articles misanalyse English articles as nominal modifiers and thus as an optional element of a nominal phrase. It therefore predicts that L1 Thai learners of English article production would be affected by the saliency of a referent, and that L1 French speakers' English article production would not. These predictions, as already discussed, have been borne out by the results.

### 6.3.3.2 The link between L2 English article omissions with first and second mention definites and with cued and non-cued definite referents

In Chapter 5, L2 English article omissions with first and second mention definites were explored. The task used in experiment 2, however, was only appropriate for the L1 Thai / L2 English groups, but not for the L1 French / L2 English groups because it involved L1 / L2 translation. As there are articles in French, used in a largely similar way to English articles (cf.3.2 and
3.3), an article in the French original would prompt a participant to translate it with an article in English.

As a consequence of this limitation, it was unclear whether the higher rates of article omissions with second mention definites compared to omissions with first mention definites are restricted to L2 learners from L1 backgrounds without articles (L1 Thai / L2 English) or whether it is more universal and could be found among L2 learners from L1 backgrounds with articles (L1 French / L2 English).

If the asymmetry was restricted to L2 learners from L1 backgrounds without articles, it would lend further support to the idea that the L2 learners, unlike L2 learners from L1 backgrounds with articles, analyse English articles as nominal modifiers, produce them strategically and in doing so are restricted by the available cognitive resources.

If the asymmetry was more universal and found to apply to both L2 learners from L1 backgrounds without articles and L2 learners from L1 backgrounds with articles, then it would suggest that a more general processing limitation is responsible for the asymmetry. Such a finding would be more in line with the Missing Surface Inflection Hypothesis.

The present experiment cannot address the problem directly. It could shed some light on it, nonetheless. It has already been argued that the asymmetry in English article omissions between first and second mention definite referents arises as a consequence of the higher / lower salience of a referent. The present experiment did not deal with first and second mention referents, but it manipulated the saliency of a referent in a different way: by focusing the participants' attention on one of the referents by a flashing arrow immediately before production. The results of this experiment suggest that the salience of a referent plays a part in English article production of ONLY L2 learners from L1 backgrounds without articles and NOT with L2 learners from L1 backgrounds with articles.

### 6.3.3.3 A common explanation for asymmetries of English article omissions by L2 learners from articleless languages

Finally, in this section, I will attempt to provide a unified explanation for L2 English article omissions by L2 learners from L1s without articles. I will argue that the assumption of the Syntactic Misanalysis Hypothesis and that of the Information Load Hypothesis account well for the following three patterns of article omissions:
(1) Art + Adj $+N>A r t+N$
(2) Second mention definites $>$ first mention definites
(3) attended referents $>$ non-attended referents

The Syntactic Misanalysis Hypothesis assumes that L2 learners from articleless L1 backgrounds misanalyse English articles as nominal modifiers. So, an English article is an optional element of a nominal phrase. The assumption of the Information Load Hypothesis is that, as more salient referents take more working memory resources to represent mentally, fewer resources are left for the linguistic encoding of referents.

The Syntactic Misanalysis Hypothesis and the Information Load Hypothesis can be used to explain L2 English article omissions by L2 learners from L1s without articles in the following ways.

Firstly, asymmetry of article omissions in non-premodified and adjectivally premodified contexts is discussed. There are two competing sources of demand on working memory in production: linguistic information and conceptual information. The conceptual information or activation of referents in discourse memory in both Art +N and Art + Adj +N contexts was kept constant in the experiments. So, demand on working memory to store and keep both referents active is similar. However, linguistic information or the amount of linguistic encoding needed to encode the referents in both contexts is different. More linguistic encoding is needed in more complex Art + Adj +N than in simpler Art +N contexts. All other things being equal, the limited cognitive resources are exceeded sooner in Art + Adj +N than in Art +N contexts, leading to more article omissions in adjectivally premodified contexts.

The second pattern of article omission is more article omissions with second mention definites than with first mention definites. The linguistic information or the amount of linguistic encoding needed to encode the referents in both NP contexts is the same. However, second mention definites are already active in the discourse memory and are thus more salient, whereas first mention definites are not yet active in the discourse memory and are therefore less salient. So, referents of second mention definites make more demand on working memory to store and keep them active than referents of first mention definites. The heavier (more active, more salient) the conceptual information of referents, the more working memory it takes and the less space it leaves for linguistic encoding. All other things being equal, the limited cognitive resources are exceeded sooner with second mention definites than with first mention definites, leading to more article omissions in second mention definite contexts.

Finally, asymmetry of article omissions is also evidenced with attended referents and non-attended referents. Attention drawn to referents makes the referents more salient whereas no attention drawn to referents makes the referents less salient. The linguistic information or the amount of linguistic encoding needed to encode attended and non-attended referents is the same. However, the attended referents are more active and more salient than the non-attended referents, thus making more demand on working memory. The heavier (more active and salient) the conceptual information, the more working memory it takes and thus the less space it leaves for linguistic encoding. All other things being equal, the limited cognitive resources are exceeded sooner with attended referents than with non-attended referents, leading to more article omissions in attended referents.

### 6.4 Conclusions

This chapter has reported that the assumption of the Information Load Hypothesis and that of the Syntactic Misanalysis Hypothesis can be profitably combined to account for three patterns of article omissions, i.e. higher article omissions in Art + Adj +N than in Art +N contexts, higher
article omissions with second than with first mention definites, and higher article omissions with attended referents than with non-attended referents. Given that there is a unified explanation for these patterns of asymmetries of English article omissions, it should be preferred than three separate explanations.

So far, we have investigated the issue of L2 English article omissions. In the next chapter, we will move on to the other area of L2 variable production of English articles, i.e. article substitutions.

## Chapter 7

## L2 English Article Substitutions

### 7.1 Introduction

In chapters 4, 5, and 6, the focus was on L2 English article omissions. However, omissions are not the only problem that L2 learners have with L2 article production. Very often, L2 learners supply articles inappropriately, using the in indefinite contexts and $a(n)$ in definite contexts. This chapter focuses on article substitution errors and on the experimental testing of some of the recent accounts of why such substitutions occur.

The chapter is organised as follows. 7.2 outlines the background of the study. 7.3 proposes the hypotheses. 7.4 presents the experiment, i.e. the participants, materials, procedures, analysis as well as predictions. 7.5 reports the results and 7.6 discusses these results, including implications. Finally, 7.7 concludes this study.

### 7.2 Background of the study on L2 English article substitutions

Many studies have observed that L2 learners of English sometimes make article substitutions, i.e. supplying $a(n)$ in definite contexts and the in indefinite contexts (cf. Huebner 1983; Parrish 1987; Chaudron and Parker

1990; Thomas 1989; Master 1990; Young 1990; Butler 2002; Trenkic 2000, 2002, among others) (cf. 2.4.2).

Why does this L2 phenomenon happen? One recent study argues that L2 English article substitution is UG-regulated. The study is by Ionin, Ko and Wexler (2004). In a series of publications by Ionin and her collaborates (cf., for example, Ionin and Wexler 2003; Ionin 2003, 2006; Ionin, Ko and Wexler 2004), definiteness is seen as part of UG, and a setting of a semantic parameter.

Based on a survey of the article systems in English and Samoan, Ionin, Ko and Wexler (2004: 12) proposed the Article Choice Parameter (ACP) for languages with two articles. According to the ACP, 'definiteness' and 'specificity' are cross-linguistic article semantic features evidenced in two-article languages. ${ }^{1}$ Accordingly, the ACP can have two possible settings:
(93) The Definiteness Setting: Articles are distinguished on the basis of definiteness.

The Specificity Setting: Articles are distinguished on the basis of specificity.

For example, the definiteness setting is found in English while the specificity setting is evidenced in Samoan. The claim is that article systems encoding [ $\pm$ def] cut across the distinction of [ $\pm$ spec] (cf. Table 7.1), and vice versa (cf. Table 7.2):

|  | +def | -def |
| :--- | :--- | :--- |
| +spec | the | $a(n)$ |
| -spec | the | $a(n)$ |

Table 7.1: [ $\pm$ def] cutting across [ $\pm$ spec] in languages encoding [ $\pm$ def] (example from English)

|  | + def | - def |
| :--- | :---: | :---: |
| + spec | $l e$ | $l e$ |
| - spec | $s e$ | $s e$ |

Table 7.2: [ $\pm$ spec] cutting across [ $\pm$ def] in languages encoding
[ $\pm$ spec] (example from Samoan)

[^67]For example, $a(n)$ in English can be understood as [ + spec] in (94a) and as [spec] in (94b) (examples (18a) and (18b) are repeated as (94a) and (94b), respectively):
(94) a. Peter intends to marry a merchant banker - even though he doesn't get on at all with her.
b. Peter intends to marry a merchant banker - though he hasn't met one yet.
(C. Lyons 1999: 167)

Similarly, it is argued that the in English can be read as [+spec] as in (95a) or [-spec] as in (95b) (examples (19a) and (19b) are repeated as (95a) and (95b), respectively):
(95) a. We can't start the seminar, because the student who's giving the presentation is absent - typical of Bill, he's so unreliable.
b. 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.
(C. Lyons 1999: 172)

Along the same lines, it is reported that in Samoan the + spec article le can be used in both definite and indefinite contexts and so can the -spec article se (see Ionin, Ko and Wexler 2007 for examples).

By combining the assumption that UG is available to L2 learners with the theoretical construct of the ACP, Ionin, Ko and Wexler formulated the Fluctuation Hypothesis (FH) (2004: 15):
(96) a. L2 learners have full access to UG principles and parameter-settings.
b. L2 learners fluctuate between different parameter-settings until the input leads them to set the parameter to the appropriate value.

The two article settings in the ACP are assumed to be fully accessible to L2 learners (irrespective of whether their L1 has articles or not). Sometimes the

L2 learners' article choice goes along the line of the definiteness setting; at times they choose articles based on the specificity setting. Because the L2 learners are still not sure which article setting is appropriate, they will fluctuate between the two parameter settings until sufficient input causes the semantic parameter to be established to the correct setting for the language.

Two patterns of article choice for L2 English speakers of articleless L1s were thus predicted to occur:

|  | + specific | -specific |
| :--- | :--- | :--- |
| +definite (target: $t h e$ ) | correct use of the | overuse of $a(n)$ |
| -definite (target: $a(n)$ ) | overuse of the | correct use of $a(n)$ |

Table 7.3: Predictions article in L2 English use based on semantic properties of definiteness and specificity

In the contexts where the semantic features of definiteness and specificity are of the same value, i.e. both positive or both negative, L2 learners' article choices are predicted to be in the same directions, leading to correct use of the for [+def; +spec] and $a(n)$ for [-def; -spec]. However, if the two values clash, overuse of $a(n)$ should be found in [+def; -spec] and the in [-def; +spec] contexts. Article fluctuations are then expected to occur as either article could be triggered, depending on which setting of the ACP the learner has assumed.

Note that, according to Ionin, Ko and Wexler (2004), an NP is defined as specific when the speaker (a) has a particular referent in mind, and (b) intends to refer to it. However, they also claim that the speaker also "considers this individual to possess some noteworthy property" (Ionin, Ko and Wexler 2004: 5). For example, consider example (20), repeated here as (97):
(97) Peter intends to marry a/this merchant banker-even though he doesn't get on at all with her.

> (C. Lyons 1999, quoted in IKW 2004: 7)

The NP $a /$ this merchant banker is specific because the speaker has a particular merchant banker in mind and he knows the noteworthy property
about this referent in the current discourse context (i.e. Peter does not get on at all with her) (see also Ionin 2006).

Ionin, Ko and Wexler tested their predictions on native speakers of Korean and Russian, languages without articles, by using a forced-choice elicitation task (choosing an article based on the preceding context in each dialogue) and a written production task. Results of group performance in the forced-choice elicitation task were as follows:

|  | + def |  |
| :--- | :---: | :---: |
| -def |  |  |
| + spec | $79 \%$ the $8 \% \quad a(n)$ | $36 \%$ the $54 \% a(n)$ |
| - spec | $57 \%$ the $33 \% a(n)$ | $7 \%$ the $84 \% a(n)$ |

Table 7.4: L1 Russian speaker group's English article use in the forcedchoice elicitation task from Ionin, Ko and Wexler (2004)

|  | + def |  |
| :--- | :--- | :--- |
| -def |  |  |
| + spec | $88 \%$ the $4 \% \quad a(n)$ | $22 \%$ the $77 \% a(n)$ |
| -spec | $80 \%$ the $14 \% a(n)$ | $4 \%$ the $93 \% a(n)$ |

Table 7.5: L1 Korean speaker group's English article use in the forcedchoice elicitation task from Ionin, Ko and Wexler (2004)

The findings appear to support the predictions that the L2 learners would overuse the in [-def; +spec] contexts and $a(n)$ in [+def; -spec] environments. It is argued that such article use indicates that L2 learners are fluctuating between the features definiteness and specificity when choosing an article.

The results of the written production task were also interpreted as evidence for the learners' overgeneralising the in [-def; +spec] more than in [def; -spec] contexts. However, Ionin, Ko and Wexler claimed that not enough [+def; -spec] NP contexts were produced. The results are therefore reported to partially support the predictions.

The results from the two tasks led Ionin, Ko and Wexler to conclude that both semantic values of the ACP are acquirable to L2 learners via direct access to UG. It was assumed that, since the $[+\mathrm{def}]$ and $[+$ spec $]$ features are
not available in Russian and Korean, these features are not transferable from the L1s. As the Russian and Korean speakers could not decide between the two parameter settings, fluctuations between specific and definite semantic settings occurred. So, the results are reported to be in line with their predictions of L2 English article use. ${ }^{2}$

The findings from Ionin, Ko and Wexler (2004) were taken to support the theoretical construct of the ACP and the FH, and it was argued that L2 English article acquisition was UG-regulated. There are, however, certain problems in Ionin, Ko and Wexler's (2004) materials that need to be addressed. These problems concern the way the concept of 'specificity' is operationalised in the test materials.

According to Ionin, Ko and Wexler, an NP is defined as specific when the speaker has an intention to refer to a particular individual with some noteworthy property. From a closer observation of the forced-choice elicitation task materials in Ionin, Ko and Wexler (2004), Trenkic (2008) notes that there might be some problems with their claim, due to how the 'specificity' was operationalised. In their materials, [ $\pm$ specificity] was operationalised through the speaker explicitly stating or denying knowledge of the referent being talked about (i.e. 'explicitly stated / denied knowledge' or $\pm$ ESK). For example, (98) describes how a [-definite; +specific] context was operationalised:
(98) [-definite, + specific]

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 - his name is Sam Brown, and he lives in Cambridge now. (Ionin, Ko and Wexler 2004: 23)

[^68]Ionin, Ko and Wexler report that the L2 learners in their study were likely to overgenerate the in such contexts, and they attributed this tendency to the positive value of specificity. For now, note that the specificity was operationalised as the speaker claiming to know the referent being talked about and his noteworthy properties, i.e. that this person's name is Sam Brown and that he lives in Cambridge now.

Example (99) operationalises a [-definite; -specific] context:
(99) [-definite,-specific]

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 - but he didn't tell me who that is. He didn't leave me any phone number or address.
(Ionin, Ko and Wexler 2004: 23)

Ionin, Ko and Wexler report that the L2 learners tended not to overuse the in such contexts, and attributed this tendency to the negative value of specificity. Note here that the non-specificity was operationalised as the speaker denying the knowledge of the identity of a friend and there were not any properties worthy of note about this person.

So, the contexts from Ionin, Ko and Wexler's materials covered only cases where the two UNRELATED variables of 'specificity' and 'explicitly stated knowledge' (ESK) were conflated and of the same value. The context was either (a) [+spec; +ESK] (i.e. the speaker had a particular referent in mind and also revealed personal knowledge of the referent being talked about) or (b) [-spec; -ESK] (i.e. the speaker did not have a particular referent in mind and denied personal knowledge of the referent being talked about).

However, as Trenkic (2008) observes, it is possible for an indefinite context to be [+spec] and [-ESK]. Consider example (23), referred again here for convenience as (100):
(100) [-definite, + specific] (- explicitly stated knowledge)

Office gossip
Gina: and what about the others?
Mary: Well, Dave is single, Paul is happily married, and
Peter...he is engaged to a/ this merchant banker, but none of us knows who she is or what she is like.
(Trenkic 2008: 4)

The referent a merchant banker is indefinite and the speaker denies personal knowledge of this referent. However, in English, when an indefinite NP can be felicitiously introduced in discourse by the introductory this ${ }^{3}$, that NP is treated as specific (cf. Prince 1981; Foder and Sag 1982: 360; Wald 1983; Lambrecht 1994). ${ }^{4}$ In this indefinite context, the speaker has a particular referent in mind and has an intention to refer to this person but denies personal knowledge of her (cf. Trenkic 2008). Put differently, the speaker conceptualizes of the person despite his lack of knowledge of her attributes. According to Ionin, Ko and Wexler's prediction, this is another context in which L2 learners would fluctuate in their article choices between $a(n)$ and the.

This type of context was not covered by Ionin, Ko and Wexler (2004). In their materials, 'specificity' was always conflated with the noteworthy property of 'explicitly stated knowledge', and vice versa. Such knowledge was concerned with the referent's identifying attributes (name, appearance, characteristics, etc). It is therefore equally explicable that article choice by the L2 learners in Ionin, Ko and Wexler's study was influenced by 'explicitly stated / denied knowledge'.

[^69]Trenkic (2008) conducted a semi-replicated study of Ionin, Ko and Wexler (2004) with L1 Chinese / L2 English speakers. She pointed out the methodological problem in Ionin, Ko and Wexler's material. It was claimed that the contexts in Ionin, Ko and Wexler were the contexts where 'specificity' and 'explicity stated or denied knowledge' were conflated (i.e. [+spec; +ESK] and [-spec; -ESK]). Since there was not any specific context where the speaker denied knowledge of or familiarity with the referent being talked about, Trenkic suggested it is important to use the contexts where the values of [spec] and [ESK] do not match to test the FH. So, the contexts introduced in the materials in Trenkic (2008) were the contexts where 'specificity' and 'explicitly stated knowledge' were separated, i.e. [+spec; ESK].

The results replicated the findings from Ionin, Ko and Wexler (2004) in that the participants fluctuated between the and $a(n)$ in examples like (98), and showed more target-like behaviours in examples like (99). Crucially, in an example like (100), the participants did not fluctuate between the and $a(n)$ but overwhelmingly chose the correct article $a(n)$. This is not what the ACP and the FH would predict. Instead, the findings are in line with the proposal that on this test the participants' choice of an article was influenced at least partly by whether the speaker claimed personal acquaintance with the referent or not.

Trenkic (2008) further argues that this result is consistent with the proposal that L2 learners from L1 backgrounds without articles misanalyse English articles as syntactic adjectives, to which they attribute the referential meanings of 'definite, that can be identified' and 'indefinite, that cannot be identified'. The fluctuation in L2 learners' production comes from various criteria of 'identifiability' that they may apply. For example, a referent could be 'identifiable' if it has already been introduced in the discourse, or if the speaker and / or the hearer are familiar with it, or if it exists and is unique in a pragmatic set mutually manifest to the speaker and the hearer on-line. Sometimes, these various criteria converge on the same outcome, making the article choice easy for the L2 learners. Both (99) and (100) are examples of converging criteria: in both, the referents have not been previously introduced, and the speaker is denying personal familiarity with the referent.

In (98), by contrast, the criteria do not converge: the referent has not been previously introduced, but the speaker is claiming personal familiarity with the referent and is sharing this familiarity with the hearer. In cases like this, L2 learners may be less sure which article to use and may therefore fluctuate between the and $a(n)$.

In sum, Ionin, Ko and Wexler (2004) argue that L2 English article choices are UG-constrained. Trenkic (2008) argues that, at least on the forced-choice elicitation task, the choices are more strategic and influenced by what the speaker claims he knows or does not know about the referent being talked about.

In the current study, this debate is explored further. Trenkic's (2008) study is replicated with another group of L2 learners from an L1 background without articles (L1 Thais) to verify the effect found with L1 Chinese / L2 English speakers, and also with a group of L2 learners from an L1 background with articles (L1 French). The addition of this group serves the purpose of establishing whether the pattern found in Trenkic (2008) is linked to L2 learners from L1 backgrounds without articles, or whether it is more universal and present in L2 learners from L1 backgrounds with articles. The Syntactic Misanalysis Hypothesis predicts that only L2 learners from L1 backgrounds without articles would analyse L2 English articles as adjectives and would show the fluctuation along the lines established in Trenkic (2008). If it is found that the fluctuation is more universal, the predictions of the SMH will be falsified.

### 7.3. Hypotheses

The study set out to test two contrasting hypotheses on L2 English article substitutions:

H1 (the Article choice Parameter and the Fluctuation Hypothesis): Article substitutions are the result of the L2 learners fluctuating between the two settings of the ACP, 'specificity' and 'definiteness'.
H1 (the Syntactic Misanalysis Hypothesis): L2 learners from L1 backgrounds without articles misanalyse English articles as nominal modifiers with
referential meanings 'that can be identified' for the and 'that cannot be identified' for $a(n)$.

### 7.4 Method

### 7.4.1 Participants

There were four participant groups in the study: two L1 Thai groups (intermediate and advanced learners of English) and two L1 French groups (intermediate and advanced learners of English). The participant groups were the same groups who took part in the controlled picture elicitation task in 4.6 and 5.3, including the coin-on-picture elicitation task in 4.7. There were 20 participants per group. The levels of English proficiency were determined by the Oxford Placement Test (Allen 2004). The experiment was conducted in Thailand (cf. details of the participants in 4.6.1, the biographical details of the participants in Appendix C, and the participants' Oxford Placement Test scores in Appendix D).

### 7.4.2 Materials

The materials used in this experiment were the forced-choice elicitation task. The materials were the same as those used in Trenkic (2008), which in turn were closely based on Ionin, Ko and Wexler (2004), with some modification.

In the modified version, the added contexts were those where the two features were teased out, i.e. [ + spec; -ESK]. That is, NP referents are specific but at the same time the speaker denies knowledge or familiarity of this referent. This was done for both [+def] and [-def] contexts. The reason why the new contexts were added was that the contexts in Ionin, Ko and Wexler's materials contained only (a) contexts where 'specificity' and 'explicitly claimed knowledge' were conflated, and (b) contexts where 'non-specificity' and 'explicitly denied knowledge' were conflated. So, it was not clear if L2 learners' article choice was influenced by [ $\pm$ spec] or [ $\pm \mathrm{ESK}$ ] (cf. 7.2).

In order to test whether, in this test, 'specificity' or 'explicitly stated / denied knowledge' influenced the L2 speakers' article choice, definiteness was crossed with 3 combinations of [spec] and [ESK]: 5

| $[$-definite $]$ | $[+$ definite $]$ |
| :---: | :---: |
| $[+$ spec; + ESK $]$ | $[+$ spec; + ESK $]$ |
| $[-$ spec; -ESK $]$ | $[$-spec; -ESK $]$ |
| $[+$ spec; -ESK $]$ | $[+$ spec; -ESK $]$ |

Table 7.6: Indefinite and definite equivalent contexts in the modified force-choice elicitation task material

As in the Ionin, Ko and Wexler (2004) study, the materials were a discrete-item test, consisting of 24 items. Each item contained a short English dialogue. There were four items per context type. All the 24 items were arranged in a random order. The NPs to be investigated were concrete countable singular NP tokens. All of them were in object positions (i.e. direct objects or objects of prepositions). The materials were tested on five native speakers of English (see Appendix I on the items used in the forced-choice elicitation task classified according to the NP contexts).

An example of each context type is represented below (examples (98) and (100) are repeated again here as (101) and (103), respectively):
(101) Context: [-definite], [+spec; +ESK]

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 - his name is Sam Brown, and he lives in Cambridge now.

[^70](102) Context: [-definite], [-spec; -ESK]
situation: The speaker does not have a particular referent in mind and also explicitly denies knowledge of the referent being talked about.

Gertrude: Guess what? My cousin Claudia is in Washington, D.C. this week.

Richard: That's great. What's she doing there?
Gertrude: She is doing some interviews for her newspaper. She is interviewing (a, the, --) politician; I'm afraid I don't know who, exactly. I'll find out when I read her article!
(103) Context: [-definite, + specific], [-ESK]

Office gossip
Gina: and what about the others?
Mary: Well, Dave is single, Paul is happily married, and
Peter...he is engaged to ( a , the, --) merchant banker, but none of us knows who she is or what she is like.
(104) Context: [+definite], [+spec; +ESK]
situation: The speaker has a particular referent in mind and also explicitly claims knowledge of the referent being talked about.

Paul: Do you have time for lunch?
Sheila: No, I'm very busy. I am meeting with (a, the, --) president of our university, Dr. McKinely; it's an important meeting.
(105) Context: [+definite], [-spec; -ESK]
situation: The speaker does not have a particular referent in mind and also explicitly denies knowledge of the referent being talked about.

Rose: Let's go out to dinner with your brother Samuel tonight.
Alex: No, he is busy. He is having dinner with (a, the, --) manager of his office; I don't know who that is, but I'm sure that Samuel can't cancel this dinner.

Context: [+definite], [+spec; -ESK]
situation: The speaker has a particular referent in mind but explicitly denies knowledge of the referent being talked about.
Paul: Will Bob join us for lunch?
Sheila: No, he's very busy. He is meeting with (a, the, --) director of his company. I don't know who it is, but he will decide whether Bob gets his promotion or not. ${ }^{6}$

[^71]
### 7.4.3 Procedure

The experiment was done on an individual basis in a single session in a class room environment. The participants were informed first that they would read 24 short dialogues. Based on the context in each dialogue, the participants were asked to decide whether $a(n)$, the or no article should be used. The participants' attention was therefore fully concentrated on the article forms to be chosen. An example was given to the participants to be read before starting the test. The participants could begin the task after they gave a confirmation answer to the confederate that they understood the task. Time allowance for the test was 25 minutes. After finishing the test, the participants were asked to fill in information about themselves. They were told that all the information about themselves would be treated as confidential and would be used solely for research purposes. Most of the participants finished the task within 15 minutes. The participants were paid for participating in the experiment.

### 7.4.4 Analysis

In each L2 learner group, the learners' uses of $a(n)$ and the, including nonuse of articles in each NP context (i.e. [+spec; +ESK], [-spec; -ESK], [+spec; -ESK] in definite and indefinite contexts) were added up. The statistical method, a repeated measure analysis of variance (ANOVA), was used to determine the significance of the combination of specificity and ESK values to the use of the and $a(n)$.

### 7.4.5 Predictions

Based on the hypotheses in 7.3, testable predictions of L2 article choices were as follows:

Hypothesis 1: the Article Choice Parameter and the Fluctuation Hypothesis If English article substitutions are the result of L2 learners fluctuating
between the two settings of the ACP, definiteness and specificity, then the following patterns of production should occur:

| CONTEXTS | +spec; +ESK | -spec; -ESK | +spec; -ESK |
| :--- | :--- | :--- | :--- |
| -definite (target: $a$ ) | overuse of the | correct use of $a(n)$ | overuse of the |
| +definite(target: $t h e$ ) | correct use of <br> the | overuse of $a(n)$ | correct use of <br> the |

Table 7.7: Predicted English article choices by L2 learners from articlelesss languages if article choice is influenced by the semantic feature 'specificity' in the forced-choice elicitation task

- In indefinite contexts, L2 learners who have not set the ACP are anticipated to overuse the in all [ +spec ] contexts compared to [-spec] contexts. This includes both contexts where the speaker claims personal acquaintance with the referent (+ESK) and those where he denies it (-ESK).
- In definite contexts, L2 learners who have not set the ACP are expected to overuse $\mathrm{a}(\mathrm{n})$ in all $[-\mathrm{spec}]$ contexts compared to $[+$ spec] contexts.

If this pattern is established, we can conclude that 'specificity' and not the [ $\pm \mathrm{ESK}$ ] values plays a role in L2 article choices. The ACP and the FH would be supported.

The Fluctuation Hypothesis would predict only L1 Thai / L2 English learners to show a fluctuation pattern, as the ACP was not set in their L1. For L1 French / L2 English learners, fluctuation would not be expected, as the ACP setting from the L1 French (definiteness) could be transferred to the L2 English.

Hypothesis 2: The Syntactic Misanalysis Hypothesis - L2 learners from L1 backgrounds without articles misanalyse English articles as nominal modifiers with referential meanings 'that can be identified' for the and 'that cannot be identified' for $a(n)$.

Fluctuation between the and $a(n)$ is predicted to occur in contexts where various criteria for referent identifiability do not converge. In the contexts of the forced choice elicitation task, the learners will treat the
information about the speaker's familiarity with the referents (i.e. $\pm \mathrm{ESK}$ ) as one criterion of referent identifiability. The following pattern is predicted:

| CONTEXTS | +spec; +ESK | -spec; -ESK | + spec; -ESK |
| :--- | :--- | :--- | :--- |
| -definite (target: $a$ ) | overuse of the | correct use of $a(n)$ | correct use <br> of $\boldsymbol{a}(\boldsymbol{n})$ |
| +definite(target: the) | correct use of <br> the | overuse of $a(n)$ | overuse of <br> $\boldsymbol{a}(\boldsymbol{n})$ |

Table 7.8: Predicted English article choices by L2 learners from articleless languages if article choice is influenced by 'explicitly stated / denied knowledge' in the forced-choice elicitation task

- In indefinite contexts, L2 learners who analyse L2 articles as nominal modifiers overuse the only when the speaker claims familiarity with the referent. No fluctuation is expected in contexts where a speaker refers to a specific referent but denies personal familiarity with it.
- In definite contexts, L2 learners who analyse L2 articles as nominal modifiers are expected to overuse $a(n)$ more wherever the speaker denies his familiarity with the referent, irrespective of whether the context is [ + spec] or [-spec].

The SMH predicts that only L2 learners from L1 backgrounds without articles (e.g. L1 Thais) would analyse English articles as nominal modifiers and show this pattern. L2 learners from L1 backgrounds with articles (e.g. L1 French) should analyse English articles as determiners and should not show this pattern.

It is expected that L2 learners from articleless L1 backgrounds will show this behaviour at the advanced level as well, even though their overall production may be more accurate.

If the results show this pattern, we can conclude that L2 article choice on this test depend at least in part on 'explicitly stated / denied knowledge' and not 'specificity'.

### 7.5 Results

### 7.5.1 Results from the Thai groups

English article choices by the intermediate and the advanced L1 Thai / L2 English learners are shown in Tables 7.9 and 7.10, respectively:

|  | [+spec; +ESK] | [-spec; -ESK] | [+spec; -ESK] |
| :---: | :---: | :---: | :---: |
| [-definite] (target: $a$ ) | $\begin{aligned} & \text { 28.75\% the } \\ & 68.75 \% \text { a(n) } \\ & 2.5 \% ~ Ø \end{aligned}$ | $\begin{aligned} & 7.5 \% \text { the } \\ & 86.25 \% \text { a(n) } \\ & 6.25 \% \varnothing \end{aligned}$ | $\begin{aligned} & \hline \mathbf{1 0 \%} \text { the } \\ & 82.5 \% \text { a(n) } \\ & 7.5 \% \varnothing \end{aligned}$ |
| [+definite] (target: <br> the) | 83.75\% the <br> 11.25\% a(n) $5 \% \text { Ø }$ | $\begin{aligned} & 51.25 \% \text { the } \\ & \mathbf{3 5 \%} \text { a(n) } \\ & 13.75 \% \text { Ø } \end{aligned}$ | $\begin{aligned} & 55 \% \text { the } \\ & \mathbf{3 8 . 7 5 \%} \text { a(n) } \\ & 6.25 \% ~ \varnothing \end{aligned}$ |

Table 7.9: English article choices by the intermediate L1 Thai group from the forced-choice elicitation task ( $n=20$ )

|  | [+spec; +ESK] | [-spec; -ESK] | [+spec; -ESK] |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| [-definite] (target: $a$ ) | $\mathbf{1 8 . 7 5 \%}$ the | $\mathbf{0 \%}$ the | $\mathbf{2 . 5 \%}$ the |
|  | $80 \% \mathrm{a}(\mathrm{n})$ | $95 \% \mathrm{a}(\mathrm{n})$ | $96.25 \% \mathrm{a}(\mathrm{n})$ |
|  | $1.25 \% \varnothing$ | $5 \% \varnothing$ | $1.25 \% \emptyset$ |
|  |  |  |  |
| [+definite] (target: | $96.25 \%$ the | $68.75 \%$ the | $75 \%$ the |
| the) | $\mathbf{3 . 7 5 \%} \mathbf{a ( n )}$ | $\mathbf{2 2 . 5 \%} \mathbf{a ( n )}$ | $\mathbf{2 2 . 5 \%} \mathbf{a ( n )}$ |
|  | $0 \% \varnothing$ | $8.75 \% \varnothing$ | $2.5 \% \varnothing$ |

Table 7.10: English article choices by the advanced L1 Thai group from the forced-choice elicitation task $(n=20)$

The results seem to support the predictions that L1 Thai speakers' English article choices are affected by whether the speaker claims or denies knowledge of the referent being talked about:

- Indefinite contexts:

The L1 Thai speakers overgeneralised the more in [+spec; +ESK] indefinite contexts than in [-spec; -ESK] indefinite contexts and [+spec; -ESK] indefinite contexts. This showed that the learners' definite article choice might be influenced by 'explicitly stated knowledge' and not 'specificity'.

- Definite contexts:

The L1 Thai learners of L2 English overused $a(n)$ more in [-spec; ESK] definite contexts and [ + spec; -ESK] definite contexts than in [+spec; +ESK] definite contexts. The results suggested that the learners' indefinite article choice might be influenced by 'explicitly denied knowledge' and not 'specificity' as claimed by Ionin, Ko and Wexler (2004).

To determine the significance of the contribution of the combination of specificity and ESK values to the use of the and $a(n)$, a repeated measure analysis of variance (ANOVA) was performed on the overuse of the in indefinite environments, and the overuse of $a(n)$ in definite environments by context type. The combination of specificity and ESK values had a highly significant effect on article (over)use, whether (over)use of the or $a(n)$ was measured.

Mauchly's test indicated that the assumption of sphericity was not violated in indefinite contexts in the intermediate Thai group. However, sphericity was violated in indefinite contexts in the advanced Thai group ( $x^{2}$ $(2)=22.57, p<.001)$; therefore, degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity $(\varepsilon=.58)$. Sphericity was not violated in definite contexts in either L2 learner groups.

The results showed that the overuse of the in indefinite contexts was significantly affected by the combination of specificity and ESK values, F (2, $38)=7.924, \mathrm{p}<.01$, in the intermediate Thai group. Contrasts revealed that overuse of the in [+specific; +ESK] indefinite contexts was significantly higher than in [-specific; -ESK] contexts, $F(1,19)=10.341, \mathrm{p}<.01, \mathrm{r}=.77$,
and also significantly higher than in [+specific; -ESK] contexts, $\mathrm{F}(1,19)=$ $8.301, \mathrm{p}<.05, \mathrm{r}=.74$.

In the advanced Thai group, the overuse of the in indefinite contexts was significantly affected by the combination of specificity and ESK values, $\mathrm{F}(1.17,22.16)=11.779, \mathrm{p}<.01$. Contrasts revealed that overuse of the in [+specific; +ESK] indefinite contexts was significantly higher than in [specific; -ESK] contexts, $\mathrm{F}(1,19)=15.545, \mathrm{p}<.01, \mathrm{r}=.83$ and also significantly higher than in [+specific; -ESK] contexts, $\mathrm{F}(1,19)=9.701$, p $<.01, \mathrm{r}=.76$.

The statistical results therefore indicated that, on this test, the L1 Thai speakers of both groups tended to associate the with 'explicitly stated knowledge' in indefinite contexts. Although the advanced Thai group produced fewer article substitution errors, what is worth noting is that the substitutions were applied in both the intermediate and the advanced Thai groups. The results were contradictory to the claim that overuse of the was influenced by the positive value of 'specificity'. Instead, they show that the learners' article choices of the definite article might be influenced by 'explicitly stated knowledge'.

As for definite contexts, overuse of $a(n)$ was also significantly affected by the combination of specificity and ESK values, $\mathrm{F}(2,38)=20.675$, $\mathrm{p}<.001$ in the intermediate Thai group. Contrasts showed that overuse of $a(n)$ was significantly lower in definite [ + specific; +ESK] contexts than in [specific; -ESK] contexts, $\mathrm{F}(1,19)=47.50, \mathrm{p}<.001, \mathrm{r}=.93$ and also in $[+$ spec; -ESK] contexts, $\mathrm{F}(1,19)=27.092, \mathrm{p}<.001, \mathrm{r}=.89$.

In the advanced Thai group, overuse of $a(n)$ in definite contexts was also significantly affected by the combination of specificity and ESK values, $\mathrm{F}(2,38)=6.151, \mathrm{p}<.01$. Contrasts showed that overuse of $a(n)$ was significantly lower in definite [+specific; +ESK] contexts than in [-specific; ESK] contexts, $\mathrm{F}(1,19)=9.0, \mathrm{p}<.01, \mathrm{r}=.75$ and also in [+spec; -ESK] contexts, $\mathrm{F}(1,19)=15.545, \mathrm{p}<.01, \mathrm{r}=.83$.

Again, although fewer substitution errors were evidenced in the advanced than in the intermediate Thai group, the Thai groups of both levels tended to connect the use of $a(n)$ with 'the speaker's explicitly denied knowledge', and not 'non-specificity' in definite contexts. The data appeared
to substantiate the claim that the learners' article choices of the indefinite article might be influenced by 'explicitly denied knowledge'.

In summary, the results from both Thai groups show that, in the contexts directly taken over from Ionin, Ko and Wexler (2004), the results from Ionin, Ko and Wexler were replicated. However, in the new contexts which teased apart [spec] and [ESK], the predictions of the Fluctuation Hypothesis were falsified.

So, the results falsified the claim that overuse of the is influenced by [ $\pm$ spec]. They supported the prediction that, on this test, L2 English speakers' article choices would be influenced at least in part by [ $\pm \mathrm{ESK}]$. 'Specificity' seemed to play no role in their article choice.

### 7.5.2 Results from the French groups

Results from the intermediate and the advanced French L2 groups are shown in Tables 7.11 and 7.12:

|  | [+spec; +ESK] | [-spec; -ESK] | [+spec; -ESK] |
| :---: | :---: | :---: | :---: |
| [-definite] (target: $a$ ) | $\begin{aligned} & \text { 2.5\% the } \\ & 95 \% \text { a(n) } \\ & 2.5 \% \text { Ø } \end{aligned}$ | $\begin{aligned} & \hline \mathbf{0 \%} \\ & 95 \% \mathrm{a}(\mathrm{n}) \\ & 5 \% \varnothing \end{aligned}$ | $\begin{aligned} & 1.25 \% \text { the } \\ & 97.5 \% \text { a(n) } \\ & 1.25 \% \text { Ø } \end{aligned}$ |
| [+definite] (target: the) | $\begin{aligned} & 92.5 \% \text { the } \\ & 3.75 \% \text { a(n) } \\ & 3.75 \% \varnothing \end{aligned}$ | $\begin{aligned} & 83.75 \% \text { the } \\ & \mathbf{1 1 . 2 5 \%} \text { a(n) } \\ & 5 \% \varnothing \end{aligned}$ | $\begin{aligned} & 90 \% \text { the } \\ & \mathbf{6 . 2 5 \%} \text { a(n) } \\ & 3.75 \% \varnothing \end{aligned}$ |

Table 7.11: English article choices by the intermediate L1 French group in the forced-choice elicitation task ( $n=20$ )

|  | [+spec; +ESK] | [-spec; -ESK] | [+spec; -ESK] |
| :---: | :---: | :---: | :---: |
| [-definite] (target: $a$ ) | $\begin{aligned} & 1.25 \% \text { the } \\ & 97.5 \% \text { a(n) } \\ & 1.25 \% \text { Ø } \end{aligned}$ | $\begin{aligned} & \hline \mathbf{0 \%} \text { the } \\ & 100 \% \text { a(n) } \\ & 0 \% \varnothing \end{aligned}$ | $\begin{aligned} & \hline 0 \% \text { the } \\ & 97.5 \% \mathrm{a}(\mathrm{n}) \\ & 2.5 \% \varnothing \end{aligned}$ |
| [+definite] (target: the) | $\begin{aligned} & \hline 96.25 \% \text { the } \\ & \mathbf{2 . 5 \%} \mathbf{a ( n )} \\ & 1.25 \% \text { Ø } \end{aligned}$ | $\begin{aligned} & 92.5 \% \text { the } \\ & 6.25 \% \text { a(n) } \\ & 1.25 \% \text { Ø } \end{aligned}$ | $\begin{aligned} & 97.5 \% \text { the } \\ & \mathbf{2 . 5 \%} \text { a(n) } \\ & 0 \% \varnothing \end{aligned}$ |

Table 7.12: English article choices by the advanced L1 French group in the forced-choice elicitation task ( $n=20$ )

There were some article substitutions in the French groups. For example, in indefinite contexts, the intermediate group supplied $2.5 \%$ of the in [ + spec; + ESK] contexts. In definite contexts, the intermediate group employed $11.25 \%$ of $a(n)$ in [-spec; -ESK] contexts and $6.25 \%$ of $a(n)$ in [+spec;-ESK] contexts. The advanced group supplied $6.25 \%$ of $a(n)$ in definite [-spec; ESK] contexts.

To determine the significance of the contribution of the combination of specificity and ESK values to the use of the and $a(n)$, a repeated measure analysis of variance (ANOVA) was performed on the overuse of the in indefinite environments, and the overuse of $a(n)$ in definite environments by context type. The combination of specificity and ESK values had a nonsignificant effect on article (over)use, whether (over)use of the or $a(n)$ was measured.

Mauchly's test indicated that the assumption of sphericity was violated in indefinite contexts in the intermediate French group ( $x^{2}(2)=8.38, \mathrm{p}<.05$ ); therefore, degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity $(\varepsilon=.73)$. Sphericity was also violated in the advanced French group ( $x^{2}(2)=6.16, \mathrm{p}<.05$ ); therefore, degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ( $\varepsilon=.78$ ).

In definite contexts, sphericity was violated in the intermediate French group ( $x^{2}(2)=7.52, \mathrm{p}<.05$ ); therefore, degrees of freedom were corrected
using Greenhouse-Geisser estimates of sphericity ( $\varepsilon=.75$ ). Sphericity was not violated in the advanced French group.

In indefinite contexts, the results showed that the overuse of the was not significantly affected by the combination of specificity and ESK values in the intermediate French group, $\mathrm{F}(1.46,27.70)=1.000, \mathrm{p}>.05$, nor was it in the advanced French group, F $(1.55,29.46)=.487, ~ p>.05$.

Overuse of $a(n)$ in definite contexts was also not significantly affected by the combination of specificity and ESK values in neither the intermediate French group, $\mathrm{F}(1.50,28.33)=1.956, \mathrm{p}>.05$ nor in the advanced French group, $\mathrm{F}(2,38)=1.132, \mathrm{p}>.05$.

The results from the two French groups therefore supported the prediction that article choice among the L1 French speakers was neither influenced by any value of 'specificity' nor 'explicitly stated / denied knowledge'.

### 7.6 Discussion and implications

Contrary to Ionin, Ko and Wexler's (2004) claim, the results suggested that, on the forced-choice elicitation task, there was no evidence that 'specificity' plays a part in English article choices by L2 learners from articleless languages. In the L1 Thai-speaking groups, overuse of the was not found to be tied to the positive value of 'specificity' and overgeneralisation of $a(n)$ was not found to be tied to the negative value of 'specificity'. The L2 learners had a tendency to relate English article choice to 'explicitly stated or denied knowledge' (cf. Pongpairoj 2007c).

In indefinite contexts, the L1 Thai learners of L2 English incorrectly associated the with the speaker revealing familiarity with the referent being talked about. Likewise, in definite contexts, the L1 Thai speakers inappropriately attributed $a(n)$ to the speaker not exhibiting personal acquaintance with the referent being talked about, irrespective of whether the context was classified as [ +spec ] or [-spec]. It is therefore assumed that the features [ $\pm$ spec] played no role in L2 English article distinctions among the L1 Thai-speaking groups in this task (cf. Trenkic 2008 on the same patterning of article substitutions among L1 Mandarin / L2 English speakers).

It can therefore be argued that English article choice by the L2 learners in Ionin, Ko and Wexler (2004) might be influenced by conflations of [+spec; +ESK] and [-spec; -ESK] in the forced-choice elicitation materials. When the two features were teased out in Trenkic (2008) and in this study, i.e. [+spec; -ESK], the evidence that L2 learners from articleless languages fluctuated between 'definiteness' and 'specificity' seemed to disappear.

The results therefore supported the prediction that the L1 Thai / L2 English speakers of both the intermediate and the advanced levels were misled by extralinguistic considerations, i.e. 'explicitly stated / denied knowledge'. The results can therefore be said to undermine the validity of the construct of the ACP. Also, the learners' article choices seemed to have resulted from the so-called "non-UG-based strategies" (cf. Trenkic 2008: 11).

However, such a pattern of results, i.e. article choice influenced by [ $\pm$ ESK] did not occur among the L1 French / L2 English learners on this test. Neither did the L2 learners exhibit connections between the article forms and 'specificity'. The L2 learners seemed to employ English articles appropriately.

The outcome seemed to be in line with an alternative account - The Syntactic Misanalysis Hypothesis - assuming that English articles are misanalysed as nominal modifiers by L2 learners whose L1s do not contain articles (cf. Trenkic 2008).

According to the Syntactic Misanalysis Hypothesis, the meanings of articles are not restricted to the UG-based semantic properties of 'definiteness' and 'specificity', as claimed by Ionin, Ko and Wexler (2004).

The question that arises is, if the meanings of English articles are not based on UG, where do article meanings derive from?

It is assumed that the L2 learners attribute the referential meanings of 'definite' (that can be identified) and 'indefinite' (that cannot be identified) to articles. The learners might apply various criteria of 'identifiability' when they make article choices. When the criteria of objective identifiability converge with the criteria of discourse identifiability of referents (i.e. 'definiteness') (i.e. target-like form-meaning connections), correct article choice is anticipated to occur. On the other hand, if the criteria of objective
identifiability diverge from the criteria of discourse identifiability, article fluctuations are expected to occur (cf. 2.3).

One criterion which was salient in the test appeared to be 'explicitly claimed / denied knowledge'. The learners might be influenced at least in part by this criterion, as shown in (107):
(107) a. CONTEXT = the speaker's explicitly stated knowledge of the referent being talked about $=$ the referent is identifiable $=$ definite $\rightarrow$ ARTICLE CHOICE $=$ the
b. CONTEXT = the speaker's explicitly denied knowledge of the referent being talked about $=$ the referent is unidentifiable $=$ indefinite $\rightarrow$ ARTICLE CHOICE $=a(n)$

For example, consider the dialogue in (99), repeated here as as (108):
(108) [-definite], [-specific, -ESK]

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 - but he didn't tell me who that is. He didn't leave me any phone number or address.
(Ionin, Ko and Wexler 2004: 22)

The referent friend does not exist and is not unique in a P-set mutually manifest to the speaker and the hearer on-line (cf. J. Hawkins 1991). The referent is therefore unidentifiable to the hearer. In this context, the speaker explicitly denies knowledge of this referent. The learners' criterion of 'explicitly denied knowledge' might converge with another criterion that he applies, i.e. 'not having been mentioned in the preceding discourse'. This convergence of criteria might make it easy for the learners to choose $a$.

Consider another example from (98), repeated here as (109):
[-indefinite, + specific]

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-his name is Sam Brown, and he lives in Cambridge now. (Ionin, Ko and Wexler 2004: 22)

In this example, the referent friend from college does not exist and is not unique in a P-set mutually manifest to the speaker and the hearer on-line. The referent is therefore unidentifiable to the hearer. Nevertheless, the speaker claims knowledge of this referent by providing some insider information of identifying attributes (name: Sam Brown; current city of residence: Cambridge). So, the learners' criterion of 'explicitly stated knowledge' does not converge with the criterion of 'not having been mentioned in the preceding discourse'. In this case, the learners might be less certain about making an article choice. Therefore, article fluctuation between $a$ and the might occur.

The findings from the study are therefore consistent with the proposal that L2 learners from L1 backgrounds without articles misanalyse and use English articles as nominal modifiers, attributing to them referential and common-sense meanings of 'definite' (that can be identified) and 'indefinite' (that cannot be identified).

### 7.7 Conclusions

This chapter has investigated L2 English article choices. The results from the forced-choice elicitation task showed that the L1 Thai groups' article use seemed to be influenced at least in part by 'explicitly stated / denied knowledge', whereas article use by the L1 French groups was appropriate.

In light of this experimental evidence, the data did not show the L 1 Thai speakers' English article choices with the two article settings of 'specificity' and 'definiteness'. Nor was any fluctuation of articles between the two features found. The findings therefore did not lend support to the
article semantic distinctions according to the Article Choice Parameter and thus the Fluctuation Hypothesis was falsified, suggesting that L2 English article choices are not UG-constrained. The results were in line with the Syntactic Misanalysis Hypothesis.

Having experimentally explored L2 variable production of English articles (i.e. article omissions in Art +N and Art + Adj +N contexts, article omissions in first and second mention definite contexts, and article substitutions), the thesis goes on to make conclusions and discuss implications of the findings from the study in the next chapter.

## Chapter 8

## Conclusions and Implications of the Findings

### 8.1 Introduction

This thesis has addressed the issue of variability of L2 English articles by speakers of L1 Thai, a language without articles, and speakers of L1 French, a language with articles. The focus was on asymmetries of English article omissions in non-premodified and adjectivally premodified contexts, first and second mention definite contexts, and on English article substitutions.

This chapter aims at summarising the results from the range of empirical studies conducted. It will relate the findings to draw conclusions about L2 production of English articles by learners from articleless language backgrounds, compared with learners from languages containing articles. Based on the conclusions, the chapter will discuss how the findings and interpretations of the findings could contribute to the debate on L2 variable production of functional morphemes. The chapter will also summarise limitations of the studies, as well as discuss possible future research.

The chapter is organised as follows. 8.2 starts with summarising the results from the experiments. The findings will then be related in order to draw conclusions about variable production of English article production by L2 learners of English from articleless languages, compared with the
production by L 2 learners from languages with articles. In 8.3 , it will be shown that the conclusions of L2 English article production will lead to implications about L2 variable production of functional morphology. 8.4 summarises limitations of the conducted studies and discusses possible future research.

### 8.2 Conclusions of the findings on L2 English article production

The experiments on L2 production of English articles in the study focused on article omissions in Art +N and Art + Adj +N contexts, article omissions with first and second mention definite referents, article omissions with more and less attended referents, and article substitutions. All the tests dealt with speakers of L1 Thai, a language without articles, at the intermediate and the advanced levels. The L1 Thai speakers' article production was compared with that of speakers of L1 French, a language containing articles, of both proficiency levels.

The study first reported L2 English article omissions in Art +N and Art + Adj +N contexts. The data was elicited on the guided spontaneous task and the controlled picture elicitation task (cf. 4.5 and 4.6 , respectively). The results from both tasks were consistent in that the L1 Thai speakers of both proficiency levels omitted articles more in adjectivally premodified than in non-premodified structures, whereas no such asymmetry occurred in the L1 French speakers' production.

The other area of L2 English omissions the study explored was article production in first and second mention definite contexts. The results from the written translation task (cf. 5.4) confirmed in a more controlled and systematic way the findings from the previous studies (cf. Robertson 2000; Trenkic 2000, 2002; Žegarac 2004; Sharma 2005). Speakers from L1 backgrounds without articles (i.e. L1 Thai / L2 English speakers) tended to omit more articles with second than first mention definite contexts.

The FishFilm task (cf. Tomlin 1995, 2001) was conducted to investigate if there is a common explanation for asymmetries of L2 English article omissions with first and second mention definites and asymmetries of

L2 English article omissions in Art + Adj +N and Art +N contexts. It was reported that L1 Thai speakers omitted more articles with more attended (more salient) referents than with less attended (less salient) referents. In contrast, there was no difference in the level of article omissions between more and less attended (less salient) referents among the L1 French / L2 English speakers.

In addition to the results on article omissions, the study also reported English article substitutions by L1 Thai and L1 French speakers. The findings from the forced-choice elicitation task (cf. 7.4) indicated that, on this test, the L1 Thai speakers' article distinctions were influenced at least in part by 'whether the speaker was explicitly claiming familiarity with the referents being talked about', and not by 'specificity'. The results were taken to suggest that article choices by L2 learners from articleless language backgrounds are not UG-constrained, as claimed by Ionin, Ko and Wexler (2004). In contrast, the L1 French speakers' article choices were mainly appropriate.

The results from all the experiments on L2 English production lent support to the assumption of the Syntactic Misanalysis Hypothesis (cf. Trenkic 2007).

Firstly, the predictions of the Syntactic Misanalysis Hypothesis seemed to be borne out by the results on L2 article omissions in Art + N and Art + Adj +N contexts. L1 French speakers are assumed to transfer the functional category determiner from their L1 into their L2 English, making their production syntactically motivated and so not directly dependent on the difficulty of the task. L1 Thai speakers, on the other hand, are postulated not to have the category determiner in their grammars. However, the lexical meaning of (un)identifiability is expressed through determiner-like elements in the L1, which behave like adjectives. So, the learners could analyse and produce English articles as adjectives. Their article production is therefore assumed to be lexically triggered. These L2 learners' article production would depend on a strategic decision to explicitly mark the identifiability status of discourse referents, and such strategic production would be constrained by the available cognitive resources. The more complex the task, the higher likelihood that the resources would be exceeded and the article dropped in
production. All other things being equal, then, a higher article omission is expected in more complex Art $+\mathrm{Adj}+\mathrm{N}$ sequences than in less complex Art +N structures.

The predictions of the Missing Surface Inflection Hypothesis were contradicted. If the L2 learners' syntactic representations had been intact and variable production of English articles had occurred from problems of accessing target-like grammars in production, the L2 learners from both language backgrounds should have been affected by a processing constraint and shown the same pattern of asymmetry, i.e. higher article omissions in Art + Adj +N than in Art +N structures. This is because the former context is more complex and so this should have affected the ease of mapping between morphology and syntax.

It was discussed in the study how the preponderance of article omissions seemed to vary with the contexts: L2 learners tended to omit articles more in adjectivally premodified contexts than in non-premodified ones, and more with second than first mention definites. However, causes of the omissions were accounted for in different ways. Previous research invoked redundancy of definiteness to explain higher article omissions with second-mention ('recoverable') than with first-mention ('non-recoverable') definites (cf. Robertson 2000; Trenkic 2002; Žegarac 2004), but a syntactic misanalysis of articles as adjectives and the L2 learners' available cognitive resources (cf. Trenkic 2007) for higher omissions in adjectivally premodified than non-premodified contexts.

It was proposed that the assumption of the Syntactic Misanalysis Hypothesis (cf. Trenkic 2007) supplemented by the ideas from the Information Load Hypothesis (cf. Almor 1999) could neatly explain the two patterns of article omissions.

L2 learners from articleless language backgrounds are assumed to misanalyse English articles as nominal modifiers and so they are optional elements of a nominal phrase in their L2 English.

In the experiments on article omissions in non-premodified and adjectivally premodified contexts (cf. 4.5 and 4.6), activation of both Art +N and Art + Adj +N referents in discourse memory is the same. So, demand on working memory to store and keep the referents active is similar. However,
the amount of linguistic encoding of the referents is different. All things being equal, the limited cognitive resources are expected to be exceeded sooner in more complex Art + Adj +N than in simpler Art +N contexts, resulting in more article omissions in adjectivally premodified contexts.

As far as first and second mention definites are concerned, the amount of linguistic encoding needed to encode referents in the two contexts is the same. However, the more salient, second mention definite referents are expected to take more working memory resources to store and keep them active (i.e. to represent mentally), leaving fewer resources for linguistically encoding the referents than the less salient, first mention definites. All things being equal, the limited cognitive resources are expected to be exceeded sooner with second mention definites than with first mention definites, leading to higher article omission in second mention definite contexts.

The results from the FishFilm task showed that asymmetries of article omissions with more attended (more salient) and less attended (less salient) referents were restricted to only L1 Thai speakers. The implications of the findings were that English articles tended to be omitted more with more salient, second mention definites than with less salient, fist mention definites by L2 learners from languages without articles. The results could therefore be accounted for by the Syntactic Misanalysis Hypothesis and the Information Load Hypothesis. The predictions of the Missing Surface Inflection Hypothesis were not borne out as it could not explain the different behavioural production of articles by L2 learners from different language backgrounds in this task.

The results on L2 English article substitutions also corresponded with the Syntactic Misanalysis Hypothesis. L2 learners from L1 backgrounds without articles misanalyse English articles as nominal modifiers and attribute to them referential meanings 'that can be identified' for the and 'that cannot be identified' for $a(n)$. When the learners' criteria of objective identifiability do not converge with the criteria of discourse identifiability, article substitutions were likely to occur.

Summarising, the results on variable production of L2 English articles by L2 learners from articleless languages seemed to be in line with the assumption of the Syntactic Misanalysis Hypothesis. The SMH thus seems to
offer a systematic and encompassing explanation for variable production of L2 English articles in both article omissions and article substitutions in a promising way.

### 8.3 Implications of the findings

The findings on variable production of English articles by L1 Thai / L2 English and L1 French / L2 English speakers in this study reflected some crucial implications on the debate on the cause of variability in production of functional morphology that we discussed in Chapter 1.

The results from the present study could be interpreted as evidence for the explanation in terms of L2 learners' non-target-like syntactic representations (e.g. the Failed Functional Feature Hypothesis) and against the view that variability in production of L2 morphology stems from processing problems in production only despite target-like syntactic representations (e.g. the Missing Surface Inflection Hypothesis).

The current research has shown that, for L2 learners whose L2 functional morphology does not exist in the L1s, variable production of functional morphology might stem from the learners' non-target-like syntactic representation. The cases of L2 variable production of English articles in this study could be attributed to the problem of non-target-like syntactic representations. L2 learners from languages without articles do not have the functional category determiner in their grammars. It is assumed that the non-target-like syntactic representations led the learners to produce English articles inappropriately. It was reported in the study that speakers of L1 Thai (-articles) made variable production of English articles in terms of both article omissions and article substitutions due to unavailability of the category determiner in their L1 grammars. On the other hand, L2 learners whose L1s possess functional morphology in the L2 are expected to have L2 syntax in their grammars. It is therefore expected that they will not have problems in the L2 production. The results of L2 English article production by speakers of L1 French (+articles) confirmed this assumption. As the functional category determiner exists in L1 French, these L2 learners might not experience problems in L2 English article production. Thus, it can be
assumed that the different behaviours of L2 learners from different language backgrounds in the study are reflections of the existence or non-existence of the functional morphology in the L1s.

It is worth noting at this point the relationship between the Syntactic Misanalysis Hypothesis and the Failed Functional Feature Hypothesis. The two hypotheses seem to share one common assumption, i.e. non-existence of a functional morphology in the L1 causes problems of acquisition in the L2. The Failed Functional Feature Hypothesis assumes that non-existence of an L2 functional morphology in the native language causes non-target-like syntactic representation. The functional morphology therefore cannot be acquired by L2 learners. The Syntactic Misanalysis Hypothesis postulates that non-existence of the category determiner in the L1 causes this category not to be accessible in the L2. The results from the studies indicate that variable production of English articles by Thai-speaking learners occurred because the category determiner is not instantiated in L1 Thai.

The evidence from the study therefore contradicted the explanation of variability in terms of processing problems in production. According to this explanation, variable production of functional morphology results from the learners' accessing target-like grammars in production (mapping between syntax and morphology), despite their fully specified syntax. If both L1 Thai and L1 French speakers in the study had target-like syntactic representations of the functional category determiner in English, there should not have been patterns of asymmetries of article omissions in tightly defined pairs of contexts (i.e. non-premodified and adjectivally premodified contexts, contexts with first and second mention definites, and contexts with more and less attended (less salient) referents in the study). The results showed that variability in English article production in these contexts was attested only with L1 Thai / L2 English speakers. As L2 variable production did not occur across-the-board, the explanation of processing problems despite target-like syntactic representations would find it difficult to account for the different behaviours of L2 learners from different language backgrounds in this study.

### 8.4 Limitations of the studies and future research

This section discusses limitations of the studies and future research needed.
To start with limitations of the studies, they appear to be the following:

Firstly, some design issues could have improved the findings on article omissions. For example, the results from the controlled picture elicitation task (5.3) showed that article omissions were generally very low (i.e. article omissions in second mention definite NPs at $6.25 \%$ in the intermediate Thai group and $10 \%$ in the advanced Thai group). It is speculated that second mention definite referents in this task were particularly easily identifiable because they were not only previously mentioned (in picture one of each pair) but also pictorially presented (both the participants and the researcher could see them). So, the few instances where article omissions occurred might be because saliency of some referents was considered greater. Linguistic markings of definites on particular items might therefore be more redundant. This could have differed for individual learners. To address this limitation of the task design, elicitation of articles in first and second mention definite NPs should not be accompanied by pictures (cf. 5.3.3).

Secondly, a qualitative analysis of items might help to eliminate the possibility that all the omissions were on one or two items in the tests. For example, in the controlled picture elicitation task where article omissions in Art +N and Art + Adj +N contexts were examined (cf. 4.6), besides a quantitative analysis, a qualitative analysis could be used to indicate that article omissions were not on only particular referents. Also, a qualitative analysis could be employed to suggest why articles were produced with adjectives many times (e.g. 76/91 by the intermediate Thai group in the spoken production in the guided spontaneous production task (cf. 4.5.2.1)) but just not in some contexts.

Issues pertaining to the study which merit future research are as follows:

The first issue is that, as the results in this study show that Thaispeaking learners have problems in English article production, a question that
arises is whether they would have the same problem in article comprehension. So, it seems that research on L2 English article comprehension is needed.

Another issue is that the thesis focuses on variable production of L2 English articles. Would the same results be obtained with other grammatical categories in L2 English? More research is therefore needed on variability in production of other grammatical categories.

It is hoped that the findings and interpretations of the results in this thesis will contribute to the existing debate on causes of variability in production of functional morphology and to the well-documented issue of variability of English article production Practically, understanding the underlying cause of the L2 English article production problems should shed some light on the causes of variability in L2 production of functional morphology, and could potentially inform research on the teaching and learning of English articles in a more promising way.

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## Appendix A: Biographical details of the participants in the guided spontaneous production task

| Participant number | English proficiency | Native language | Age | Instructed English (year) | Naturalistic exposure to English (year) | Place and age of naturalistic exposure |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | intermediate | Thai | 25;2 | 18 | 1.6 | UK/24 |
| 2 | intermediate | Thai | 33;5 | 26 | 1.5 | UK/ 32 |
| 3 | intermediate | Thai | 27;1 | 20 | 2 | UK/25 |
| 4 | intermediate | Thai | 40;2 | 32 | 10 months | UK/40 |
| 5 | intermediate | Thai | 29;6 | 21 |  | UK/28 |
| 6 | intermediate | Thai | 26;3 | 16 | 2 | $\begin{aligned} & \text { USA }(1 \\ & \text { year)/16; } \\ & \text { UK } \\ & \text { (lyear)/25 } \end{aligned}$ |
| 7 | intermediate | Thai | 27;4 | 18 | 1.6 | UK/26 |
| 8 | intermediate | Thai | 23;8 | 15 | 8 months | UK/23 |
| 9 | intermediate | Thai | 31 | 23 | 10 months | UK/31 |
| 10 | intermediate | Thai | 28;4 | 21 | 3.5 | The <br> Philippines <br> (2 years)/ <br> 10; UK <br> (1;5 year)/ <br> 27 |
| 11 | advanced | Thai | 24;4 | 17 | 1.5 | UK/23 |
| 12 | advanced | Thai | 28;2 | 21 | 1 | UK/27 |
| 13 | advanced | Thai | 26 | 16 | 2 | UK/24 |
| 14 | advanced | Thai | 37;5 | 27 | 8 months | UK/37 |
| 15 | advanced | Thai | 32;6 | 21 | 1.6 | $\begin{aligned} & \hline \text { USA (6 } \\ & \text { months)/17 } \\ & \text { UK (1 } \\ & \text { year)/31 } \\ & \hline \end{aligned}$ |
| 16 | advanced | Thai | 23;1 | 14 | 2 | UK/21 |
| 17 | advanced | Thai | 34 | 26 | 9 months | UK/34 |
| 18 | advanced | Thai | 26;5 | 16 | 1.2 | UK/25 |
| 19 | advanced | Thai | 28;1 | 20 | 1;6 | UK/27 |
| 20 | advanced | Thai | 25;6 | 17 | 2;4 | UK/23 |
| 21 | advanced | French | 22;2 | 10 | 9 months | UK/22 |
| 22 | advanced | French | 24;3 | 13 | 2 | UK/22 |
| 23 | advanced | French | 27;5 | 17 | 9 months | UK/27 |
| 24 | advanced | French | 26;8 | 13 | 1;6 | UK/25 |


| 25 | advanced | French | $28 ; 3$ | 18 | 2 | $\mathrm{UK} / 26$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 26 | advanced | French | $22 ; 4$ | 12 | 6 months | $\mathrm{UK} / 22$ |
| 27 | advanced | French | $20 ; 9$ | 12.9 | 8 months | $\mathrm{UK} / 20$ |
| 28 | advanced | French | $25 ; 5$ | 10 | 1 | $\mathrm{UK} / 24$ |
| 29 | advanced | French | $21 ; 9$ | 11.9 | 1 | $\mathrm{UK} / 20$ |
| 30 | advanced | French | $23 ; 3$ | 13 | 8 months | $\mathrm{USA}(3$ <br> months)/12 <br> UK (5 <br> months) $/ 23$ |

## Appendix B: Oxford Placement Test scores of the participants in the guided spontaneous production task

| Participant <br> number | Language <br> background | Listening <br> $/ 100$ | Grammar <br> $/ 100$ | Total <br> $/ 200$ | English proficiency <br> level |
| :--- | :---: | :--- | :--- | :--- | :---: |
| 1 | Thai | 66 | 71 | 137 | intermediate |
| 2 | Thai | 68 | 73 | 141 | intermediate |
| 3 | Thai | 66 | 72 | 138 | intermediate |
| 4 | Thai | 72 | 68 | 140 | intermediate |
| 5 | Thai | 75 | 69 | 144 | intermediate |
| 6 | Thai | 69 | 70 | 139 | intermediate |
| 7 | Thai | 69 | 75 | 144 | intermediate |
| 8 | Thai | 75 | 71 | 146 | intermediate |
| 9 | Thai | 69 | 71 | 140 | intermediate |
| 10 | Thai | 73 | 68 | 141 | intermediate |
| 11 | Thai | 84 | 81 | 165 | advanced |
| 12 | Thai | 86 | 79 | 165 | advanced |
| 13 | Thai | 83 | 80 | 168 | advanced |
| 14 | Thai | 81 | 78 | 159 | advanced |
| 15 | Thai | 83 | 86 | 163 | advanced |
| 16 | Thai | 80 | 84 | 164 | advanced |
| 17 | Thai | 80 | 77 | 157 | advanced |
| 18 | Thai | 81 | 85 | 166 | advanced |
| 19 | Thai | 86 | 82 | 169 | advanced |
| 20 | Thai | 84 | 82 | 166 | advanced |
| 21 | French | 83 | 78 | 161 | advanced |
| 22 | French | 84 | 82 | 166 | advanced |
| 23 | French | 79 | 83 | 162 | advanced |
| 24 | French | 82 | 86 | 168 | advanced |
| 25 | French | 85 | 80 | 165 | advanced |
| 26 | French | 78 | 85 | 163 | advanced |
| 27 | French | 84 | 83 | 167 | advanced |
| 28 | French | 80 | 86 | 166 | advanced |
| 29 | French | 83 | 82 | 165 | advanced |
| 30 | French | 85 | 82 | 167 | advanced |

Appendix C: Biographical details of the participants in the controlled picture elicitation tasks (for L2 English article production in non-premodified and adjectivally premodified contexts, and in first and second mention definite contexts), the coin-in-picture elicitation task, and the forced-choice elicitation task

| Participant number | English proficiency | Native language | Age | Instructed English (year) | Naturalis <br> Tic exposure to English (year) | Place and age of naturalistic exposure |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | intermediate | Thai | 18;3 | 13.3 | - | - |
| 2 | intermediate | Thai | 18;5 | 12.5 | 1 | Singapore/ $10$ |
| 3 | intermediate | Thai | 17;9 | 10.9 | 3 | UK/13 |
| 4 | intermediate | Thai | 16;11 | 10.11 | 2.6 | UK/11 |
| 5 | intermediate | Thai | 17;2 | 10.2 | 2 | Singapore/ 12 |
| 6 | intermediate | Thai | 17;7 | 10.7 | 1.6 | USA/9 |
| 7 | intermediate | Thai | 18;3 | 10.3 | 1 | Canada/11 |
| 8 | intermediate | Thai | 18;10 | 10.10 | 2 | USA/13 |
| 9 | intermediate | Thai | 19;5 | 13.5 | 3 months | New Zealand/ 15 |
| 10 | intermediate | Thai | 17;9 | 11.9 | 1 | Singapore/ $8$ |
| 11 | intermediate | Thai | 18;9 | 12.9 | 1.6 | USA/9 |
| 12 | intermediate | Thai | 17;11 | 10.11 | - | - |
| 13 | intermediate | Thai | 18;7 | 12.7 | 6 months | USA/14 |
| 14 | intermediate | Thai | 16;9 | 10.9 | 1 | UK/15 |
| 15 | intermediate | Thai | 17;4 | 11.4 | 5.4 | Singapore/ $10$ |
| 16 | intermediate | Thai | 18;7 | 11.7 | 1.6 | UK/12 |
| 17 | intermediate | Thai | 17;10 | 10.10 | 3 months | Australia/l $4$ |
| 18 | intermediate | Thai | 18;11 | 12.11 | 2 | USA/9 |
| 19 | intermediate | Thai | 17;8 | 11.8 | 1 | USA/9 |
| 20 | intermediate | Thai | 18;5 | 13.5 | 2 | Singapore/ $12$ |
| 21 | intermediate | French | 17;8 | 12.8 | 2 | USA/15 |
| 22 | intermediate | French | 18;3 | 12.3 | 1.6 | Canada/8 |
| 23 | intermediate | French | 17;7 | 11.7 | 4 | Canada/9 |
| 24 | intermediate | French | 17;4 | 11.4 | 1 | UK/10 |
| 25 | intermediate | French | 18;5 | 11.5 | 6 months | Canada/13 |


| 26 | intermediate | French | 17;9 | 10.9 | 2 | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27 | intermediate | French | 18;3 | 11.3 | 1.6 | UK/12 |
| 28 | intermediate | French | 18;4 | 11.4 | 1 | - |
| 29 | intermediate | French | 18;6 | 12.6 | 1 | USA/17 |
| 30 | intermediate | French | 17;7 | 11.7 | 1.6 | UK/14 |
| 31 | intermediate | French | 18;3 | 11.3 | 2 | Canada/12 |
| 32 | intermediate | French | 18;1 | 11.1 | - | - |
| 33 | intermediate | French | 17;5 | 10.5 | 3 months | USA/16 |
| 34 | intermediate | French | 17;2 | 10.2 | 1 month | USA/16 |
| 35 | intermediate | French | 17;3 | 10.3 | - | - |
| 36 | intermediate | French | 18;9 | 12.9 | 2 | Australia/ 1 <br> 4 |
| 37 | intermediate | French | 18;2 | 12.2 | 1.6 | UK/13 |
| 38 | intermediate | French | 18;5 | 12.5 | - | - |
| 39 | intermediate | French | 18;3 | 12.3 | $\begin{gathered} 9 \\ \text { months } \end{gathered}$ | Canada/11 |
| 40 | intermediate | French | 17;4 | 11.4 | 2 | USA/10 |
| 41 | advanced | Thai | 18;3 | 11.3 | 2 | Australia/8 |
| 42 | advanced | Thai | 18;6 | 11.6 | 1 | Canada/13 |
| 43 | advanced | Thai | 18;8 | 11.8 | 1 | USA/14 |
| 44 | advanced | Thai | 19;3 | 11.3 | 2.6 | UK/8 |
| 45 | advanced | Thai | 18;6 | 11.6 | 1 month | Singapore/ 13 |
| 46 | advanced | Thai | 18;3 | 12.3 | 2 | USA/14 |
| 47 | advanced | Thai | 18;2 | 12.2 | 1.8 | Canada/9 |
| 48 | advanced | Thai | 18;7 | 11.7 | 1.6 | USA/10 |
| 49 | advanced | Thai | 18;4 | 12.4 | 6 months | USA/15 |
| 50 | advanced | Thai | 19;4 | 13.4 | 3 | New <br> Zealand/9 |
| 51 | advanced | Thai | 17;11 | 10.11 | - | - |
| 52 | advanced | Thai | 19;4 | 11.4 | - | - |
| 53 | advanced | Thai | 18;8 | 10.8 | 2 | Singapore/ $8$ |
| 54 | advanced | Thai | 18;11 | 10.11 | 1 | USA/15 |
| 55 | advanced | Thai | 18;5 | 11.5 | 1.6 | Singapore/ $12$ |
| 56 | advanced | Thai | 17;8 | 10.8 | 1 | Canada/10 |
| 57 | advanced | Thai | 18;5 | 10.5 | 2 | USA/7 |
| 58 | advanced | Thai | 19;6 | 10.6 | - | - |
| 59 | advanced | Thai | 18;3 | 11.3 | 2.6 | USA/10 |
| 60 | advanced | Thai | 17;8 | 10.8 | 2 | New <br> Zealand/ <br> 13 |
| 61 | advanced | French | 18;2 | 11.2 | 2 | UK/9 |
| 62 | advanced | French | 18;5 | 11.5 | - | - |
| 63 | advanced | French | 19;3 | 12.3 | 1 | UK/16 |
| 64 | advanced | French | 17;5 | 10.5 | 1 | UK/12 |
| 65 | advanced | French | 17;8 | 10.8 | 2.6 | Canada/9 |
| 66 | advanced | French | 18;5 | 11.5 | 6 months | USA/16 |


| 67 | advanced | French | 18;4 | 11.4 | 1.5 | USA/11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 68 | advanced | French | 18;6 | 11.6 | 1.6 | Canada/14 |
| 69 | advanced | French | 19;2 | 12.2 | 1 month | UK/9 |
| 70 | advanced | French | 18;3 | 11.3 | 1.2 | USA/12 |
| 71 | advanced | French | 18;5 | 11.5 | - | - |
| 72 | advanced | French | 19;1 | 12.1 | 3 months | USA/15 |
| 73 | advanced | French | 17;4 | 11.4 | 2 | South Africa/ 14 |
| 74 | advanced | French | 18;3 | 12.3 | 1.6 | UK/15 |
| 75 | advanced | French | 18;6 | 11.6 | 2 | USA/12 |
| 76 | advanced | French | 18;5 | 11.5 | - | - |
| 77 | advanced | French | 18;4 | 11.4 | - | - |
| 78 | advanced | French | 18;2 | 11.2 | 1.6 | Canada/12 |
| 79 | advanced | French | 17;3 | 10.3 | 1 | UK/15 |
| 80 | advanced | French | 18;9 | 11.9 | 3 months | UK/17 |
| 81 | professional command expert user | British | 18;6 | - (native English) | - (native English) | - (native English) |
| 82 | professional command expert user | British | 19;3 | - (native English) | - (native English) | - (native English) |
| 83 | professional command expert user | British | 18;1 | - (native English) | - (native English) | - (native English) |
| 84 | functionally bilingual | British | 20.3 | - (native English) | - (native English) | - (native English) |
| 85 | functionally bilingual | British | 19 | - (native <br> English) | - (native <br> English) | - (native <br> English) |
| 86 | professional command expert user | British | 18;6 | - (native <br> English) | - (native <br> English) | - (native <br> English) |
| 87 | professional command expert user | British | 19;10 | - (native <br> English) | - (native <br> English) | - (native <br> English) |
| 88 | functionally bilingual | British | 20;5 | - (native <br> English) | - (native <br> English) | - (native <br> English) |
| 89 | functionally bilingual | British | 20;2 | - (native <br> English) | - (native <br> English) | - (native <br> English) |
| 90 | functionally bilingual | British | 19;4 | - (native <br> English) | - (native <br> English) | - (native <br> English) |

Appendix D: Oxford Placement Test scores of the participants in the controlled picture elicitation tasks (for L2 English article production in non-premodified and adjectivally premodified contexts, and in first and second mention definite contexts), the coin-in-picture elicitation task, and the forced-choice elicitation task

| $\begin{array}{\|l} \hline \text { Partici } \\ \text { pant } \\ \text { numbe } \\ \text { r } \\ \hline \end{array}$ | Language background | Listening /100 | $\begin{aligned} & \text { Grammar } \\ & / 100 \end{aligned}$ | $\begin{aligned} & \text { Total } \\ & / 200 \end{aligned}$ | English proficiency level |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Thai | 72 | 70 | 142 | intermediate |
| 2 | Thai | 65 | 71 | 136 | intermediate |
| 3 | Thai | 72 | 68 | 140 | intermediate |
| 4 | Thai | 67 | 71 | 138 | intermediate |
| 5 | Thai | 66 | 71 | 137 | intermediate |
| 6 | Thai | 70 | 69 | 139 | intermediate |
| 7 | Thai | 68 | 77 | 145 | intermediate |
| 8 | Thai | 68 | 67 | 135 | intermediate |
| 9 | Thai | 66 | 70 | 136 | intermediate |
| 10 | Thai | 68 | 70 | 138 | intermediate |
| 11 | Thai | 65 | 76 | 141 | intermediate |
| 12 | Thai | 70 | 70 | 140 | intermediate |
| 13 | Thai | 69 | 74 | 143 | intermediate |
| 14 | Thai | 73 | 69 | 142 | intermediate |
| 15 | Thai | 71 | 74 | 145 | intermediate |
| 16 | Thai | 75 | 69 | 144 | intermediate |
| 17 | Thai | 73 | 67 | 140 | intermediate |
| 18 | Thai | 65 | 71 | 136 | intermediate |
| 19 | Thai | 64 | 73 | 137 | intermediate |
| 20 | Thai | 71 | 72 | 143 | intermediate |
| 21 | French | 72 | 68 | 140 | intermediate |
| 22 | French | 72 | 71 | 143 | intermediate |
| 23 | French | 69 | 71 | 140 | intermediate |
| 24 | French | 71 | 68 | 139 | intermediate |
| 25 | French | 73 | 64 | 137 | intermediate |
| 26 | French | 66 | 72 | 138 | intermediate |
| 27 | French | 70 | 66 | 136 | intermediate |
| 28 | French | 67 | 71 | 138 | intermediate |
| 29 | French | 75 | 70 | 145 | intermediate |
| 30 | French | 74 | 73 | 147 | intermediate |
| 31 | French | 69 | 70 | 139 | intermediate |
| 32 | French | 71 | 72 | 143 | intermediate |
| 33 | French | 73 | 64 | 137 | intermediate |


| 34 | French | 70 | 74 | 144 | intermediate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 35 | French | 68 | 72 | 140 | intermediate |
| 36 | French | 73 | 67 | 140 | intermediate |
| 37 | French | 73 | 71 | 144 | intermediate |
| 38 | French | 66 | 72 | 138 | intermediate |
| 39 | French | 65 | 75 | 140 | intermediate |
| 40 | French | 71 | 67 | 138 | intermediate |
| 41 | Thai | 72 | 85 | 157 | advanced |
| 42 | Thai | 87 | 80 | 167 | advanced |
| 43 | Thai | 81 | 78 | 159 | advanced |
| 44 | Thai | 78 | 84 | 162 | advanced |
| 45 | Thai | 75 | 88 | 163 | advanced |
| 46 | Thai | 82 | 79 | 161 | advanced |
| 47 | Thai | 81 | 85 | 166 | advanced |
| 48 | Thai | 81 | 78 | 159 | advanced |
| 49 | Thai | 77 | 87 | 164 | advanced |
| 50 | Thai | 83 | 79 | 162 | advanced |
| 51 | Thai | 83 | 82 | 165 | advanced |
| 52 | Thai | 78 | 81 | 159 | advanced |
| 53 | Thai | 80 | 83 | 163 | advanced |
| 54 | Thai | 77 | 81 | 158 | advanced |
| 55 | Thai | 79 | 86 | 165 | advanced |
| 56 | Thai | 85 | 79 | 164 | advanced |
| 57 | Thai | 77 | 82 | 159 | advanced |
| 58 | Thai | 85 | 78 | 163 | advanced |
| 59 | Thai | 79 | 87 | 166 | advanced |
| 60 | Thai | 83 | 82 | 165 | advanced |
| 61 | French | 86 | 82 | 168 | advanced |
| 62 | French | 81 | 80 | 161 | advanced |
| 63 | French | 86 | 78 | 164 | advanced |
| 64 | French | 84 | 79 | 163 | advanced |
| 65 | French | 81 | 86 | 167 | advanced |
| 66 | French | 80 | 83 | 163 | advanced |
| 67 | French | 77 | 81 | 158 | advanced |
| 68 | French | 83 | 83 | 166 | advanced |
| 69 | French | 85 | 80 | 165 | advanced |
| 70 | French | 78 | 86 | 164 | advanced |
| 71 | French | 82 | 83 | 165 | advanced |
| 72 | French | 85 | 78 | 163 | advanced |
| 73 | French | 78 | 88 | 166 | advanced |
| 74 | French | 80 | 85 | 165 | advanced |
| 75 | French | 84 | 78 | 162 | advanced |
| 76 | French | 79 | 80 | 159 | advanced |
| 77 | French | 80 | 86 | 166 | advanced |
| 78 | French | 85 | 80 | 165 | advanced |
| 79 | French | 83 | 78 | 161 | advanced |
| 80 | French | 79 | 81 | 160 | advanced |
| 81 | British | 97 | 98 | 195 | professional |


|  |  |  |  |  | command - <br> expert user |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 82 | British | 98 | 96 | 194 | professional <br> command - <br> expert user |
| 83 | British | 99 | 98 | 197 | professional <br> command - <br> expert user |
| 84 | British | 99 | 100 | 199 | functionally <br> bilingual |
| 85 | British | 100 | 100 | 200 | functionally <br> bilingual |
| 86 | British | 99 | 96 | 195 | professional <br> command - <br> expert user |
| 87 | British | 97 | 97 | 194 | professional <br> command - <br> expert user |
| 88 | British | 100 | 100 | 200 | functionally <br> bilingual |
| 89 | British | 100 | 98 | 198 | functionally <br> bilingual |
| 90 | British | 99 | 99 | 198 | functionally <br> bilingual |

## Appendix E: Biographical details of the L1 Thai participants in the written translation task and the FishFilm task, and the L1 French participants and the native English speakers in the FishFilm task

|  | English proficiency | Native language | Age | Instructed English (year) | Naturalistic exposure to English (year) | Place and age of naturalistic exposure |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | intermediate | Thai | 17;1 | 12.1 | - | - |
| 2 | intermediate | Thai | 16;9 | 9.9 | - |  |
| 3 | intermediate | Thai | 16;11 | 10.11 | - | - |
| 4 | intermediate | Thai | 17 | 12 | - | - |
| 5 | intermediate | Thai | 18;5 | 11.5 | 1 | USA/16 |
| 6 | intermediate | Thai | 17;8 | 10.8 | - | - |
| 7 | intermediate | Thai | 16;8 | 10.8 | - | - |
| 8 | intermediate | Thai | 16;10 | 10.10 | - | - |
| 9 | intermediate | Thai | 19;1 | 14.1 | - | - |
| 10 | intermediate | Thai | 17;9 | 10.9 | 3 months | UK/12 |
| 11 | intermediate | Thai | 16;9 | 10.9 | 1 month | UK/14 |
| 12 | intermediate | Thai | 17;8 | 11.8 | - | - |
| 13 | intermediate | Thai | 18;4 | 13.4 | - | - |
| 14 | intermediate | Thai | 18;5 | 12.5 | - | - |
| 15 | intermediate | Thai | 17;2 | 10.2 | 1 | Singapore/12 |
| 16 | intermediate | Thai | 18;1 | 11.1 | - | - |
| 17 | intermediate | Thai | 17;6 | 10.6 | - | - |
| 18 | intermediate | Thai | 16;10 | 10.10 | 1 month | Newzealand/ 13 |
| 19 | intermediate | Thai | 17;9 | 11.9 | 1 month | USA/15 |
| 20 | intermediate | Thai | 18;2 | 13.2 | - | - |
| 21 | advanced | Thai | 17;8 | 11.8 | - | - |
| 22 | advanced | Thai | 18;5 | 13.5 | 1 | Australia/14 |
| 23 | advanced | Thai | 17;11 | 10.11 | - | - |
| 24 | advanced | Thai | 18;1 | 11.1 | 3 months | UK/13 |
| 25 | advanced | Thai | 19;5 | 13.5 | 1 month | Australia/12 |
| 26 | advanced | Thai | 18;9 | 11.9 | - | - |
| 27 | advanced | Thai | 18;8 | 11.8 | - | - |
| 28 | advanced | Thai | 19;4 | 14.4 | - | - |
| 29 | advanced | Thai | 17;8 | 10.8 | 1 | USA/15 |
| 30 | advanced | Thai | 17;10 | 11.10 | - | - |
| 31 | advanced | Thai | 18;8 | 12.8 | - | - |
| 32 | advanced | Thai | 19;2 | 12.2 | 1 month | Singapore/14 |
| 33 | advanced | Thai | 17;5 | 10.5 | - | - |
| 34 | advanced | Thai | 18 | 13 | 1 | Australia/15 |


| 35 | advanced | Thai | 18;3 | 12.3 | 1 month | Canada/15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36 | advanced | Thai | 17;9 | 11.9 | - | Canad/ |
| 37 | advanced | Thai | 17;2 | 10.2 | - | - |
| 38 | advanced | Thai | 18;4 | 12.4 | $\begin{array}{\|c\|} \hline 3 \\ \text { months } \end{array}$ | UK/16 |
| 39 | advanced | Thai | 19;3 | 12.3 | - | - |
| 40 | advanced | Thai | 17;8 | 11.8 | - | - |
| 41 | intermediate | French | 18;2 | 10.2 | - | - |
| 42 | intermediate | French | 18;5 | 10.5 | - |  |
| 43 | intermediate | French | 17;8 | 9.8 | 1 month | UK/13 |
| 44 | intermediate | French | 17;3 | 9.3 | $\begin{gathered} \hline 3 \\ \text { months } \end{gathered}$ | UK/16 |
| 45 | intermediate | French | 17 | 8 | - | - |
| 46 | intermediate | French | 18;1 | 11.1 | 1 year | USA/16 |
| 47 | intermediate | French | 16;11 | 9.11 | - | - |
| 48 | intermediate | French | 17;3 | 9.3 | - | - |
| 49 | intermediate | French | 16;9 | 7.9 | - | - |
| 50 | intermediate | French | 18;2 | 10;2 | 1 month | UK/15 |
| 51 | intermediate | French | 17;5 | 9;5 | - | - |
| 52 | intermediate | French | 16;11 | 7;11 | 1 month | UK/12 |
| 53 | intermediate | French | 17;8 | 9;8 | $\begin{gathered} 6 \\ \text { months } \end{gathered}$ | UK/16 |
| 54 | intermediate | French | 18;2 | 10.2 | 1 month | Canada/16 |
| 55 | intermediate | French | 16;9 | 8.9 | - | - |
| 56 | intermediate | French | 18;2 | 10.2 | - | - |
| 57 | intermediate | French | 17;8 | 9.8 | 1 year | UK/16 |
| 58 | intermediate | French | 18;4 | 11.4 | $\begin{gathered} 3 \\ \text { months } \end{gathered}$ | UK/16 |
| 59 | intermediate | French | 18;8 | 10.8 | - | - |
| 60 | intermediate | French | 16;9 | 9.8 | - | - |
| 61 | advanced | French | 17;9 | 10.9 | - | - |
| 62 | advanced | French | 16;11 | 8.11 | 3 months | USA/13 |
| 63 | advanced | French | 16;5 | 9.5 | - | - |
| 64 | advanced | French | 18;3 | 10.3 | - | - |
| 65 | advanced | French | 17;7 | 10.7 | 1 months | USA/16 |
| 66 | advanced | French | 18;1 | 11.1 | 3 months | UK/13 |
| 67 | advanced | French | 18 | 11 | - | - |
| 68 | advanced | French | 17;9 | 10.9 | - | - |
| 69 | advanced | French | 17;4 | 10.4 | 6 months | UK/16 |
| 70 | advanced | French | 16;8 | 8.8 | - | - |
| 71 | advanced | French | 17;5 | 9.5 | 1 month | UK/16 |
| 72 | advanced | French | 18;9 | 10.9 | 3 months | UK/12 |
| 73 | advanced | French | 16;6 | 9.6 | - | - |
| 74 | advanced | French | 17;9 | 10.9 | 1 year | USA/15 |
| 75 | advanced | French | 17;5 | 10.5 | - | - |
| 76 | advanced | French | 18;1 | 11.1 | - | - |
| 77 | advanced | French | 16;8 | 9.8 | - | - |
| 78 | advanced | French | 17;4 | 10.4 | 3 months | UK/16 |


| 79 | advanced | French | $18 ; 2$ | 11.2 | 6 months | USA/16 |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| 80 | advanced | French | $17 ; 8$ | 10.8 | - | - |
| 81 | functionally <br> bilingual | British | $23 ; 6$ | - | - | - |
| 82 | professional <br> command - <br> expert user | British | $29 ; 2$ | - | - | - |
| 83 | professional <br> command - <br> expert user | British | $28 ; 4$ | - | - | - |
| 84 | professional <br> command - <br> expert user | British | $22 ; 3$ | - | - | - |
| 85 | functionally <br> bilingual | British | $20 ; 8$ | - | - | - |
| 86 | functionally <br> bilingual | British | $19 ; 9$ | - | - | - |
| 87 | functionally <br> bilingual | British | $30 ; 5$ | - | - | - |
| 88 | professional <br> command - <br> expert user | British | $24 ; 8$ | - | - | - |
| 89 | professional <br> command - <br> expert user | British | $27 ; 8$ | - | - | - |
| 90 | functionally <br> bilingual | British | $19 ; 11$ | - | - | - |

Appendix F: Oxford Placement Test scores of the L1 Thai participants in the written translation task and the FishFilm task, and the L1 French participants and the native English speakers in the FishFilm task

| Participant number | Language background | $\begin{gathered} \hline \text { Listening } \\ 1100 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Grammar } \\ / 100 \end{gathered}$ | $\begin{aligned} & \hline \text { Total } \\ & / 200 \end{aligned}$ | English proficiency level |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Thai | 69 | 69 | 138 | intermediate |
| 2 | Thai | 68 | 74 | 142 | intermediate |
| 3 | Thai | 72 | 74 | 146 | intermediate |
| 4 | Thai | 69 | 66 | 135 | intermediate |
| 5 | Thai | 66 | 70 | 136 | intermediate |
| 6 | Thai | 71 | 70 | 141 | intermediate |
| 7 | Thai | 70 | 73 | 143 | intermediate |
| 8 | Thai | 66 | 69 | 135 | intermediate |
| 9 | Thai | 73 | 75 | 148 | intermediate |
| 10 | Thai | 65 | 73 | 138 | intermediate |
| 11 | Thai | 69 | 71 | 140 | intermediate |
| 12 | Thai | 68 | 71 | 139 | intermediate |
| 13 | Thai | 70 | 74 | 144 | intermediate |
| 14 | Thai | 69 | 73 | 142 | intermediate |
| 15 | Thai | 72 | 73 | 145 | intermediate |
| 16 | Thai | 69 | 70 | 139 | intermediate |
| 17 | Thai | 70 | 68 | 138 | intermediate |
| 18 | Thai | 68 | 68 | 136 | intermediate |
| 19 | Thai | 70 | 73 | 143 | intermediate |
| 20 | Thai | 68 | 74 | 142 | intermediate |
| 21 | Thai | 82 | 83 | 165 | advanced |
| 22 | Thai | 79 | 81 | 160 | advanced |
| 23 | Thai | 75 | 80 | 155 | advanced |
| 24 | Thai | 81 | 82 | 163 | advanced |
| 25 | Thai | 80 | 85 | 165 | advanced |
| 26 | Thai | 78 | 74 | 152 | advanced |
| 27 | Thai | 69 | 69 | 158 | advanced |
| 28 | Thai | 80 | 81 | 161 | advanced |
| 29 | Thai | 78 | 75 | 153 | advanced |
| 30 | Thai | 81 | 83 | 164 | advanced |
| 31 | Thai | 75 | 80 | 155 | advanced |
| 32 | Thai | 79 | 81 | 160 | advanced |
| 33 | Thai | 80 | 82 | 162 | advanced |
| 34 | Thai | 75 | 79 | 154 | advanced |
| 35 | Thai | 80 | 82 | 162 | advanced |
| 36 | Thai | 79 | 80 | 159 | advanced |
| 37 | Thai | 80 | 78 | 158 | advanced |
| 38 | Thai | 80 | 83 | 163 | advanced |


| 39 | Thai | 78 | 82 | 160 | advanced |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 40 | Thai | 79 | 79 | 158 | advanced |
| 41 | French | 73 | 70 | 143 | intermediate |
| 42 | French | 66 | 72 | 138 | intermediate |
| 43 | French | 71 | 74 | 145 | intermediate |
| 44 | French | 75 | 74 | 149 | intermediate |
| 45 | French | 69 | 69 | 138 | intermediate |
| 46 | French | 65 | 71 | 136 | intermediate |
| 47 | French | 69 | 67 | 136 | intermediate |
| 48 | French | 69 | 72 | 141 | intermediate |
| 49 | French | 68 | 72 | 140 | intermediate |
| 50 | French | 73 | 74 | 147 | intermediate |
| 51 | French | 70 | 72 | 142 | intermediate |
| 52 | French | 75 | 73 | 148 | intermediate |
| 53 | French | 73 | 73 | 146 | intermediate |
| 54 | French | 75 | 72 | 147 | intermediate |
| 55 | French | 69 | 70 | 139 | intermediate |
| 56 | French | 70 | 72 | 142 | intermediate |
| 57 | French | 75 | 73 | 148 | intermediate |
| 58 | French | 71 | 68 | 139 | intermediate |
| 59 | French | 68 | 75 | 143 | intermediate |
| 60 | French | 69 | 69 | 138 | intermediate |
| 61 | French | 81 | 79 | 160 | advanced |
| 62 | French | 80 | 83 | 163 | advanced |
| 63 | French | 85 | 83 | 168 | advanced |
| 64 | French | 83 | 82 | 165 | advanced |
| 65 | French | 83 | 85 | 168 | advanced |
| 66 | French | 80 | 79 | 159 | advanced |
| 67 | French | 77 | 82 | 159 | advanced |
| 68 | French | 77 | 83 | 160 | advanced |
| 69 | French | 79 | 76 | 155 | advanced |
| 70 | French | 78 | 80 | 158 | advanced |
| 71 | French | 80 | 82 | 162 | advanced |
| 72 | French | 81 | 75 | 156 | advanced |
| 73 | French | 82 | 86 | 168 | advanced |
| 74 | French | 77 | 78 | 155 | advanced |
| 75 | French | 78 | 78 | 156 | advanced |
| 76 | French | 79 | 82 | 161 | advanced |
| 77 | French | 81 | 75 | 156 | advanced |
| 78 | French | 82 | 86 | 168 | advanced |
| 79 | French | 80 | 78 | 158 | advanced |
| 80 | French | 83 | 80 | 163 | advanced |
| 81 | British | 100 | 98 | 198 | functionally bilingual |
| 82 | British | 98 | 97 | 195 | professional command - expert user |
| 83 | British | 97 | 98 | 195 | professional |


|  |  |  |  |  | command - expert <br> user |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 84 | British | 99 | 98 | 197 | professional <br> command - expert <br> user |
| 85 | British | 99 | 100 | 199 | functionally <br> bilingual |
| 86 | British | 99 | 99 | 198 | functionally <br> bilingual |
| 87 | British | 100 | 100 | 200 | functionally <br> bilingual |
| 88 | British | 97 | 97 | 194 | professional <br> command - expert <br> user |
| 89 | British | 98 | 97 | 195 | professional <br> command - expert <br> user |
| 90 | British | 98 | 100 | 198 | functionally <br> bilingual |

## Appendix G: The written translation task materials

Name $\qquad$ Last name $\qquad$

Instructions: Please translate the following Thai texts into English. Please complete the task as quickly as you can and do not revise what you have translated. You will be timed.

1. ทุกวันเมื่อฉันกลับมาจากทำงาน ฉันจะตรงเข้าไปในครัว เปิดตู้เย็น แล้วเทน้ำเย็นให้ตัวเองหนึ่งแก้ว
2. ทอมยืมคอมพิวเตอร์ฉันไปเมื่ออาทิตย์ก่อนและเอามาคืนเมื่อวานนี้ ฉันโกรธมากเพราะพบว่าเขาทำ หน้าจอแตก
3. เมื่อเร็วๆนี้แมรี่ซื้อรถคันหนึ่งและจักรยานคันหนึ่ง เธอจะขับรถในช่วงสัปดาห์และขี่จักรยานในช่วง สุดสัปดาห์
$\qquad$
$\qquad$
4. ลินดาเดินอย่างเร่งรีบเข้ามาในห้องเรียนของพวกเรา เธอลบกระดานดำแล้วเดินออกไป
5. เอมม่ากำลังตัดสินใจว่าจะใส่เสื้อเชิ้ตหรือเสื้อยืด ฉันคิดว่าเธอจะตัดสินใจใส่เสื้อยืดเพราะวันนี้ร้อน มาก และเธอก็จะใส่เสื้อเชิ้ตกลับเข้าไปในตู้เสื้อผ้าของเธอ
6. ฉันไปคอนเสิร์ตเพลงคลาสสิกเมื่อคืนนี้ คอนเสิร์ตดีมากและทุกคนชื่นชมวาทยากร
$\qquad$
$\qquad$
7. ทอมกำลังตกแต่งห้องน้ำของเขา เขาเพิ่งทาสีเพดานและกำลังรอให้มันแห้ง
$\qquad$
$\qquad$
8. ซูซานวิ่งเข้าไปในห้องรับแขกและเห็นตุ๊กตาตัวหนึ่งและขนมปังกรอบชิ้นหนึ่ง เธอหิวมากจึงทาน ขนมปังกรอบแล้วเอาตุ๊กตาไปเล่นในห้องนอนของเธอ
$\qquad$
$\qquad$
9. แมนเชสเตอร์ยูไนเต็ดเป็นทีมฟุตบอลที่ฉันชอบที่สุด ฉันชอบผู้รักษาประตูมากเพราะฉันคิดว่าเขามี ความสามารถมาก
$\qquad$
$\qquad$
10. ฉันไปงานแต่งงานเพื่อนเมื่อวันอาทิตย์ ฉันคิดว่าจะไปสายแล้วแต่มารู้ว่าไม่เมื่อฉันเห็นเจ้าบ่าว กำลังรออยู่หน้าโบสถ์
$\qquad$
$\qquad$
11. บ้านของพ่อฉันเก่ามากและจำเป็นต้องซ่อมแซมมากมาย หน้าร้อนหน้าเราจะซ่อมหลังคาเพราะมัน รั่วมาหลายเดือนแล้ว
12. เมื่อเช้าวานนี้ ฉันทิ้งกระดูกชิ้นหนึ่งและปลาตัวหนึ่งไว้หน้าบ้านฉัน ตอนแรกแมวตัวหนึ่งมากิน ปลา จากนั้นหมาตัวหนึ่งมาเอากระดูกไป

Glossary:
หน้าจอ: screen
ตู้เสื้อผ้า: wardrobe
วาทยกร: conductor

ขนมปังกรอบ: biscuit
ผู้รักษาประตู: goalkeeper
มีความสามารถ: capable
รั่ว: leak

## Appendix H: The sentence construction expected to be produced in each event in the FishFilm task and examples of appropriate sentences in the events

Event 1: (active construction) The red fish eats the grey fish.
Event 2: (passive construction) The red fish is eaten by the blue fish.
Event 3: (passive construction) The blue fish is eaten by the green fish.
Event 4: (passive construction) The green fish is eaten by the pink fish.
Event 5: (active construction) The pink fish eats the white fish.
Event 6: (passive construction) The pink fish is eaten by the black fish.
Event 7: (active construction) The black fish eats the yellow fish.
Event 8: (passive construction) The black fish is eaten by the red fish.
Event 9: (active construction) The red fish eats the grey fish.
Event 10 (passive construction) The red fish is eaten by the blue fish.
Event 11 (passive construction) The blue fish is eaten by the green fish.
Event 12 (passive construction) The green fish is eaten by the pink fish.
Event 13 (active construction) The pink fish eats the white fish.
Event 14 (active construction) The pink fish eats the black fish.
Event 15 (active construction) The pink fish eats the yellow fish.
Event 16 (passive construction) The pink fish is eaten by the red fish.
Event 17 (passive construction) The red fish is eaten by the grey fish.
Event 18 (passive construction) The grey fish is eaten by the blue fish.
Event 19 (active construction) The blue fish eats the green fish.
Event 20 (passive construction) The blue fish is eaten by the pink fish.
Event 21 (passive construction) The pink fish is eaten by the white fish.
Event 22 (passive construction) The white fish is eaten by the black fish.
Event 23 (active construction) The black fish eats the yellow fish.
Event 24 (active construction) The black fish eats the red fish.
Event 25 (passive construction) The black fish is eaten by the grey fish.
Event 26 (active construction) The grey fish eats the blue fish.
Event 27 (active construction) The grey fish eats the green fish.
Event 28 (active construction) The grey fish eats the pink fish.
Event 29 (passive construction) The grey fish is eaten by the white fish.

Event 30 (active construction) The white fish eats the black fish.
Event 31 (active construction) The white fish eats the yellow fish.
Event 32 (active construction) The white fish eats the red fish.

## Appendix I: Items used in the forced-choice elicitation task (classified according the NP contexts)

Instructions: You will read 24 short dialogues. In each dialogue, you need to decide whether the, $\boldsymbol{a}(\boldsymbol{n})$ or no article should be used.

Example: Sam: John looked very happy today. Do you know why?
Mary: He got (a, the, --) dog for his birthday yesterday.
[-definite] [+spec; +ESK]

1. Reporter 1: Hi! I haven't seen you in weeks. Do you have time for lunch? Reporter 2: Sorry, no. I'm busy with a story about local medicine. Today, I am interviewing (a, the, --) doctor from Bright Star Children's Hospital he is avery famous paediatrician, and he doesn't have much time for interviews. So I should run!
2. Gary: I hear that you just started college. How do you like it?

Melissa: It's great! My classes are very interesting.
Gary: That's wonderful. And do you have fun outside of class?
Melissa: Yes. In fact, today I'm having dinner with (a, the, --)
girl from my class - her name is Angela, and she is really nice!
3. Phone conversation

Christina: Hello, you've reached Christina Jones's office.
Rob: Hi, Christina. This is Rob. Do you have time to talk?
Christina: Not right now. I'm sorry, but I'm busy. I am meeting with (a, the, --) student from my English class; he needs help with his homework, and it's important.
4. 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 - his name is Sam Brown, and he lives in Cambridge now.
[-definite] [-spec; -ESK]
5. At a university

Professor Clark: I am looking for Professor Anne Peterson.
Secretary: I'm afraid she is busy. She has office hours right now.
Professor Clark: What is she doing?
Secretary: She is meeting with (a, the, --) student, but I don't know who it is.
6. Karen: Where's Beth? Is she coming home for dinner?

Anne: No. She is eating dinner with (a, the, --) colleague; she didn't tell me who it is.
7. 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 know, He is staying with (a, the, --) friend, but he didn't tell me who that is. He didn't leave me any phone number or address.
8. Gertrude: Guess what? My cousin Claudia is in Washington, D.C. this week.
Richard: That's great. What's she doing there?
Gertrude: She is doing some interviews for her newspaper. She is interviewing (a, the, --) politician; I'm afraid I don't know who, exactly. I'll find out when I read her article!
[-definite] [+spec; -ESK]
9. Office gossip:

Gina: ... and what about the others?
Mary: Well, Dave is single, Paul is happily married, and Peter... he is engaged to (a, the, --) merchant banker, but none of us knows who she is or what she is like.
10. Julie: What are you and Nick doing tonight?

Theresa: We are going out to see (a, the, --) film. I can't remember what it's called or even what it's about, but Nick seems very excited about it.
11. Joanna: Why are you worried about Liz?

Liz's mother: Because she is seeing (a, the, --) man, but doesn't want to introduce him to us, or tell us anything about him.
12. Steven: What is Anna doing these days?

Emma: She's just published (a, the, --) new book. I haven't seen it and don't know what it is about, but someone told me it's selling well.
[+definite] [+spec; +ESK]
13. Paul: Do you have time for lunch?

Sheila: No, I'm very busy. I am meeting with (a, the, --) president of our university, Dr. McKinely; it's an important meeting.
14. At a bookstore

Andrew: Hi, Nora. Are you doing your Christmas shopping?
Nora: No, not really. I've come to see (a, the, --) owner of this shop, he is an old friend of my father.
15. Reporter 1: Guess what? I finally got an important assignment! Reporter 2: Great! What is it?

Reporter 1: This week, I am interviewing (a, the, --) Member of Parliament for Henley, Boris Johnson. I am very excited!
16. Kathy: My daughter Jeannie loves that new comic strip about Super Mouse.

Elise: Well, she is in luck! Tomorrow, I'm having lunch with (a, the, --) creator of this comic strip - he is an old friend of mine. So I can get his autograph for Jeannie!
[+definite] [-spec; -ESK]
17. Bill: I'm looking for Erik. Is he home?

Rick: Yes, but he's on the phone. It's an important business matter. He is talking to (a, the, --) owner of his company! I don't know who that person is - but I know that this conversation is important to Erik.
18. Phone conversation

Mathilda: Hi, Sam. Is your roommate Lewis there?
Sam: No, he went to San Francisco for this weekend.
Mathilda: I see, I really need to talk to him - how can I reach him in San Francisco?
Sam: I don't know. He is staying with (a, the, --) girlfriend of his best friend - I'm afraid I don't know who she is, and I don't have her phone number.
19. Mike: Guess what? Do you remember my friend Jessie, who is a reporter?

Angela: Yes, what about her?
Mike: She has a really important job right now, with a big newspaper.
Today, she is interviewing ( $a$, the, --) governor of Arizona! I don't remember who that is ... but this is a really important assignment for Jessie!
20. Rose: Let's go out to dinner with your brother Samuel tonight.

Alex: No, he is busy. He is having dinner with (a, the, --) manager of his office; I don't know who that is, but I'm sure that Samuel can't cancel this dinner.
[+definite] [+spec; -ESK]
21. Paul: Will Bob join us for lunch?

Sheila: No, he's very busy. He is meeting with (a, the, --) director of his company. I don't know who it is, but he will decide whether Bob gets his promotion or not.
22. At a bookstore

Andrew: Hi, Nora. Are you doing your Christmas shopping?
Nora: No, not really. I've come to see (a, the, --) owner of this shop. I don't know who he is, but Emma asked me to give him this parcel.
23. Kath: Guess what? My friend Emily has finally got an important assignment!

Garry: Great! What is it?
Kath: This week, she is interviewing (a, the, --) Member of Parliament for York West. I can't remember his name now, but Emily told me that he is a rather controversial character.
24. Telephone conversation:

Jean: Can I speak to Louise, please.
Paul: I'm afraid she's away in London for the weekend.
Jean: How can I get in touch with her there?
Paul: I'm not sure. She is staying with (a, the, --) partner of one of her colleagues from work, but I don't know who she is or where she lives. I only vaguely remember that she studies at the UCL, but I don't think that's of much help to you.

- Information about yourself

1. Name $\qquad$ Last name $\qquad$
2. Nationality $\qquad$
3. Gender: Male $\qquad$ Female $\qquad$
4. Age $\qquad$ (including month(s))
5. Level of study: high-school level $\qquad$ undergraduate level $\qquad$
6. If you are an undergraduate student, what is your program of study?
7. From what age did you start learning English? $\qquad$
8. Did you live in any English-speaking countries before?

Yes $\qquad$ (country $\qquad$ period of stay $\qquad$ year(s) $\qquad$ month(s) No $\qquad$
(Note: Your answers will be used for research purposes only. The information you provided about yourself will be treated as confidential and will not be revealed to a third party.)


[^0]:    ${ }^{1}$ By 'article production' in this study, I refer to both 'article suppliance' and 'article omission'.

[^1]:    ${ }^{2}$ The account is also referred to as 'ignorance of morphology' (Epstein et al. 1996); 'Missing inflections (MIs)'; the Missing Inflection Hypothesis' (Haznedar and Schwartz 1997); 'the computational deficit' (R. Hawkins 2000); the 'morphological approach' (Franceschina 2001a, b); the 'morphological deficit' (Franceschina 2001b); 'the Full Functional Representations position' (Slabakova 2003) and 'Performance Deficit Approach (PDA)' (Jiang 2004).

[^2]:    ${ }^{3}$ Details of SD's nominal production will be discussed in 2.4.1.

[^3]:    ${ }^{4}$ This account of variability is also known as 'the failed formal features hypothesis' (R. Hawkins 2000); the 'Impaired Representations Hypothesis' (Prévost and White 1999, 2000); 'the representationsal deficit' (R. Hawkins 2000); 'the Representationsal Deficit Hypothesis' (RDH) (Leung 2001; Snape 2006); 'the Failed Features Hypothesis (FFH)' (Leung 2001); 'feature impairment' (Ionin and Wexler 2002) and the 'Competence Deficit Approach (CDA)' (Jiang 2004).

[^4]:    ${ }^{5}$ The Ll Chinese speakers, however, performed better on regular past participle and irregular past tense markings than regular past tense forms. It is assumed that this was due to the past participle and the irregular past tense forms being given "independent lexical item status" (cf. Hawkins and Liszka 2003: 37).

[^5]:    ${ }^{6}$ See also Franceschina (2005) for details of the study.

[^6]:    ${ }^{1}$ Compare 'definiteness' with the grammatical categories 'tense', which expresses time distinctions, and 'number', which expresses 'one' and 'more than one' distinctions (cf. C. Lyons 1999: 276-7).
    ${ }^{2}$ Other functional categories have also been proposed in the literature to project different phrases in nominal structure such as Num(ber) and K (for case) (cf. Cinque 1995). I will return to this point in due course.
    ${ }^{3}$ This is unlike the traditional analysis of the X-bar theory and the nominal phrase structure, where a determiner is a noun modifier (cf. Radford 1988 for a comprehensive overview).

[^7]:    ${ }^{4}$ C. Lyons discusses certain attempts to explain double determination in the literature. It has been claimed, however, that these explanations face some difficulties (see C. Lyons 1999: 297 for detailed discussions).

[^8]:    ${ }^{5}$ Similar cases can be found in other languages. However, in these cases, an affixal article is needed. For example, in Rumanian, a demonstrative and a definite article might be in complementary distribution or can be combined, as shown in (ia) and (ib), respectively:
    (i) a. acest / acel (frumos) bǎiat (frumos) this / that (nice) boy (nice)
    (Giusti 1997: 107)
    b. bǎiatul acesta frumos boy-the this nice 'this nice boy'
    (Giusti 1997: 100)
    In (ia), the demonstrative acest or acel appears before a noun. In this case, the nominal phrase is definite and there is no need for the definite article to appear. However, when the

[^9]:    demonstrative occurs after a noun, the affixal definite article $-u l$ (called 'an enclitic article' in Giusti 1997, 2002) must co-occur as in (ib) in order to signal definiteness on the nominal phrase (cf. Giusti 1997 for more detail).

[^10]:    ${ }^{6}$ All the examples are from Kuribara (1999: 14).

[^11]:    7 "Cognitive resources" in this study also refer to "working memory resources" (cf. Almor 1999), to be addressed in Chapter 6.

[^12]:    ${ }^{8} \mathrm{X}$ refers to a factor which indicates the identifiability status of a referent according to L 2 criteria.

[^13]:    ${ }^{9}$ 'The zero article' in this study refers to any case where an article is not required on a noun. Note that, in some studies, classifications of articles in contexts where there is no use of articles are 'the zero article' and 'the null article'. While the former is used with a generic non-count noun (e.g. air) and a plural noun (e.g. houses), the latter occurs with certain singular count nouns (e.g. dinner) and proper nouns (e.g. Chicago) (cf. Master 1987; Chesterman 1991).

[^14]:    ${ }^{10} \mathrm{Cf}$. the subject's verbal morphological production in 1.2.1.1.

[^15]:    ${ }^{11}$ Nominals in languages are usually required to be definite or indefinite. It is assumed that particular sentential positions require nominals to be definite or indefinite. These restrictions are referred to as "(in)definiteness effects" (cf. Lyons 1999: 227).

[^16]:    ${ }^{12}$ However, in the same circumstance, the stressed bir 'one' can be separated from the head noun: bír iyi adám 'one good man' (cf. Goad and White 2004: 132). Goad and White argue that the numeral bir appears in the prosodic structure as an independent PWd.

[^17]:    ${ }^{13}$ A Map Task is a type of a referential communication task whereby information between two participants is partially shared.

[^18]:    ${ }^{14}$ As discussed, Turkish is a language without the definite article and the quasi-indefinite article bir exists in the language.
    ${ }^{15}$ I would like to sincerely thank Roger Hawkins for suggesting this. Note that there was one study on the acquisition of the English article system by francophone students (cf. Kambou 1997). However, the study was concerned with third language acquisition (Ll African languages, L2 French and L3 English). Another study was on the acquisition of English by a child speaker of French (cf. Gerbault 1978). Unfortunately, acquisition of articles was not included in the investigation.

[^19]:    ${ }^{16}$ As mentioned, Indo-Aryan has a specific indefinite article but a definite article does not exist in the language.

[^20]:    ${ }^{17}$ Note, however, that in both Parrish (1987) and Thomas (1989), the authors claim that there were few occurrences of the generic [-SR; +HK] NP type.

[^21]:    ${ }^{1}$ Another form, the definite plural, is not a typical generic form. To render a generic reading, the definite article can be used with only certain noun types such as nouns of nationality (e.g. The Germans like beer) and names of animals and plants referring to groups (not species) (e.g. The dinosaurs are gigantic animals) (see C. Lyons 1999: 181-2 for further discussions of this generic form). It is worth noting that, although the nominal forms in (27) can be employed generically in English, some variations in the use occur among them and the ways generic value is imposed upon them are somehow different. These points are, however, not central to this study because the purpose here is simply to present different forms of generics in English (for detailed discussions of differences in the use of the generic forms, see, for example, Burton-Roberts 1976; Carlson 1977; 1980; Declerek 1986, 1991; C. Lyons 1999; Dayal 2004; for generics in general, see Chierchia 1998).

[^22]:    ${ }^{2}$ The masculine and the feminine singular articles $l e$ and $l a$ are reduced to $l$ ' when they precede a vowel or $h$ mute for singular nouns such as l'homme (masculine) 'the man' and l'ombre (feminine) 'the shadow'. Before an aspirate $h$, le or la is used according to gender such as le hibou 'the owl' and la harpe 'the harp'.
    ${ }^{3}$ The rule in Footnote 2 also applies to the partitive article de la.
    ${ }^{4}$ There is a group of adjectives in French that can precede nouns. Some adjectives can either precede or follow the noun. However, they change their meanings according to the positions. For example, un grand homme 'a great man' but un homme grand 'a big man' (see a list of adjectives in French preceding nouns in, for example, Jubb and Rouxeville 1998: Chapter 15 and Judge and Healey 1985: 274-6).

[^23]:    ${ }^{5}$ French singular articles denote gender whereas the articles in English do not. The gender system in French singular articles lies outside the scope of this study (see, for example, Judge and Healey 1985; Byrne and Churchill 1989; Hawkins et al. 1997; Morton 2002; Jubb and Rouxeville 1998 for discussions of the relevant issue).

[^24]:    ${ }^{6}$ In languages with definiteness marking, different areas of semantic / pragmatic definiteness might be syntactically covered. Cross-linguistic variations in definite markings on nouns may thus be observed. For example, proper names, which are pragmatically definite, are grammatically definite in Greek and Catalan. On the other hand, proper nouns in English and French are not marked with any formal marker of definiteness (cf. C. Lyons 1999: Chapter 9).

[^25]:    ${ }^{8}$ Personal pronouns and proper nouns will thus be excluded from the discussions. See C. Lyons (1999: 134-48) on proposals that grammatical definiteness exists in personal pronouns. Also, for discussions of the system of personal pronouns in Thai, see, for example, Cooke 1968; Lekawatana et al. 1969; Warotamasikkhadit 1972; Stein 1981; Panthumetha 1982; Ooppakitsillapasan 1996; Pankhuenkhat 1998; Panupong 2000; Smyth 2002; Anchaleenukul 2003; Iwasaki and Ingkaphirom 2005.
    ${ }^{9}$ The transcription system used is from Naksakul (1998). The five tones in Thai are mid, low, high, falling and rising.

[^26]:    ${ }^{10}$ Compare with the classification of English nominals, which is usually based on countability and uncountability.

[^27]:    ${ }^{11}$ Reduplication can also be used as a means of conveying plurality. However, there is a limited number of nouns that can be used in this way, for example, phîiphî: 'elder brothers or sisters', no':nno':y'younger brothers or sisters', phəûnphəûṇ 'friends' and dèkdèk 'children'. These nominals can be used as common nouns or for addressing (cf. Noss 1964: 68; Anchaleenukul 2003: 29).

[^28]:    ${ }^{12}$ In colloquial speech, nə̀un in this construction is usually pronounced with the mid tone, i.e. neuy.

[^29]:    ${ }^{14}$ Sometimes, these and those are equivalent to làuní: and làunán in Thai, respectively.

[^30]:    ${ }^{15}$ Iwasaki and Ingkaphirom (2005: 83) treat nú:n as an emphatic distal demonstrative.
    ${ }^{16}$ Each of the four demonstratives also has its counterpart in the falling tone, i.e.ñi:, nân, nô:n and nû:n, usually used in colloquial speech. However, it is unacceptable to place a demonstrative with this tone after a classifier; for example, nǎysěu nán di: mâ:k (book that good very) 'that book is very good' but *nǎysěu lêm nân di: mâ:k (book CL that good very) (cf. Phanuphong 1977: 71; Panthumetha 1982: 35; Iwasaki and Ingkaphirom 2005: 64).

[^31]:    ${ }^{17}$ However, the in the government and the expense are not translated as demonstratives. Bare nominals are used as translation equivalents of the two nominal phrases.

[^32]:    ${ }^{18}$ However, unlike English, an article in some languages can be combined with another determiner, as illustrated from Italian:

[^33]:    (i) a. un mio libro
    a my book
    'a book of mine'
    b. il mio libro
    the my book
    'my book'
    (C. Lyons 1999: 24)
    (cf. C. Lyons 1999: 293-4 for the proposed arguments on the structural position of such nominal phrases).

[^34]:    ${ }^{19}$ However, $a$ in a foreign garment manufacturer is not translated as nə̀un (one). A bare nominal phrase is employed as a translation equivalent of this nominal phrase.

[^35]:    ${ }^{20}$ In many languages, the given-new oppositions are determined by the sentential prosody. For example, in English, 'new' information carries main stress while a 'given' message receives less prominence. Since there is no sentential prosody in Thai, this issue falls beyond the scope of this study (for detailed discussions of this issue, see Halliday 1967; Chafe 1972, 1974, 1976; Clark and Haviland 1977; Dik 1978; Prince 1981; Brown and Yule 1983).
    ${ }^{21}$ The 'theme' is 'known information' or 'what is being talked about' while the 'rheme' is 'new information' or 'what is being said about the 'theme". The 'topic' is 'a point of departure for some new information' whereas the 'comment' is 'what is new'.

[^36]:    ${ }^{22}$ See Chesterman's (1999: 142-8) analysis, arguing that it is not always the case that definiteness can be inferred from information structure in Finnish.
    ${ }^{23}$ Analyses in these studies are, however, somewhat different (see details of the analyses in Singhapreecha 2000; Visonyanggoon 2000 and Simpson 2004).

[^37]:    ${ }^{1}$ This is in contrast to English, which is a stress-timed language, whose stressed syllables occur at regular intervals.

[^38]:    ${ }^{2}$ There are four levels of sounds in Thai syllables: unstressed, stressed, emphatic and intensified (cf. Naksakul 1998: 185). The study is concerned with the first two types.

[^39]:    ${ }^{3}$ Note that certain native Thais use the low tone on the first syllable of this word. The mid tone is, however, employed by the majority. It is worth investigating for future research what the reasons behind the two tones might be.

[^40]:    ${ }^{4}$ Peyasantiwong (1986: 214) used the term "a vowel of reduced length".
    ${ }^{5}$ The five tones in Thai can be classified into two tone groups: a level tone group and a contour tone group. A level tone is a tone whose sound level is relatively stable while a considerable change of the sound level can be found in a contour group (cf. Naksakul 1998: 113-115).

[^41]:    ${ }^{6}$ 'Baseline data', according to Yule (1997: 31-2), refers to data in the target language in the study produced by native speakers of that target language (e.g. English, produced by native speakers of English in this study) or data in the native language of L2 learners produced by L2 learners (e.g. Thai, produced by L1 Thai speakers in this study).

[^42]:    ${ }^{7}$ According to the Oxford Placement Test scores and proficiency levels assigned, scores between 120 and 134 are considered as the lower intermediate level and those in the range of 135 and 149 are the upper intermediate level (cf. Allen 2004). The participants in the intermediate level in the study were only those whose scores were between 135 and 149 . So, they were in the upper intermediate level only.

[^43]:    ${ }^{8}$ In the pilot study and in the experiment, there were no participants producing a noun with more than one adjective, e.g. a big yellow book.

[^44]:    ${ }^{9}$ Note that ${ }^{*} a$ boy is incorrect. As this NP referent is definite (it was mentioned before in the story), the definite article was supposed to be used with it. However, as the investigated errors were on article omissions, article substitutions were not included in the errors at this point.

[^45]:    ${ }^{10}$ It is worth noting here that the non-significant result of the advanced French group might be because of the high standard deviation. Analysis of different individuals could be one avenue for further research.
    ${ }^{11} \mathrm{~A}$ different statistics, i.e. the z -test for evaluating the significance of the difference between two proportions was also used to examine article omissions across contexts in the spoken data. The usual formula or the z -basic was employed (cf. Butler 1985: 92-5; Field 2004: 72). The significance of difference between omission proportions in the NP contexts: Art + N and Art + Adj + N for a non-directional, two-tailed test in the spoken production was $\mathrm{Z}=2.895, \mathrm{p}<.01$ for the intermediate Thai group, $\mathrm{Z}=2.181, \mathrm{p}<.05$ for the advanced Thai group, and $Z=1.553, p>.05$ for the advanced French group (cf. Pongpairoj 2007b: 112-3). So, similar results were obtained

[^46]:    ${ }^{12}$ According to the results from the z-test for evaluating the significance of the difference between two proportions for the written data, the significance of difference between two proportions: Art +N and Art $+\mathrm{Adj}+\mathrm{N}$ for a non-directional, two-tailed test were $\mathrm{Z}=2.003$,

[^47]:    $\mathrm{p}<.05$ for the intermediate Thai group, $\mathrm{Z}=2.656, \mathrm{p}<.01$ for the advanced Thai group, and Z $=1.048, \mathrm{p}>.05$ for the advanced French group (cf. Pongpairoj 2007b: 114-5). So, similar results are shown.

[^48]:    ${ }^{13}$ The cities outside Bangkok where the experiment was conducted were Chonburi and Phuket.

[^49]:    ${ }^{14}$ The materials 'The cat and the dog story' and 'the party story' were also employed to elicit first and second mention definite NP contexts (see details in 5.4.1).

[^50]:    ${ }^{15}$ From both the pilot study and the experiment for the controlled picture elicitation task, none of the native English and the L2 participants produced NPs with postmodifiers in sentences with expected NPs. For example, 'The woman is smelling the rose which is red.'

[^51]:    ${ }^{16}$ Note that, in the guided spontaneous production task, a time constraint was not imposed on the L2 production but, as discussed in 4.5.1.3, natural speed processing was encouraged. In that task, each cartoon story was quite long compared with the stories in the controlled picture elicitation task. So, the idea was that the participants should not take on the burden of both giving a long description and producing the data by being as quick as possible. However, by producing the data at a natural speed, the L2 learners were expected not to have sufficient time to activate their metalinguistic knowledge.

[^52]:    ${ }^{17}$ There are two other errors, i.e. ${ }^{*} \operatorname{dog}$ and ${ }^{*}$ cat. However, the two NP referents are not the targets here (they are the target NPs in second mention definite contexts) (cf. 5.4).

[^53]:    ${ }^{18}$ However, Spinner and Juffs (2006) report that their L1Turkish learner of L2 German (definite article) and L1 Italian / L2 German speaker (+articles) tended to omit more articles in nominal phrases when adjectives were present than in nominal phrases without adjectives. An interesting issue is that, despite the category determiner in Italian, the L1 Italian speaker exhibited asymmetries of article omissions in German. It might be assumed that perhaps native speakers from languages with articles go through this process of article omissions in adjectivally premodified contexts before the category determiner is acquired. Compare this phenomenon with German article production by the L1 German child speaker in Clahsen et al.'s (1994) study and French article production by Swedish-French bilingual children in Grandfelt's (2000) study. These children are reported to omit more articles in Art $+\mathrm{Adj}+\mathrm{N}$ than in Art +N structures. It was assumed that there was a stage where the learners had not yet acquired the category determiner. However, asymmetries in article omissions tended to disappear after this functional category was acquired (cf. 2.4.1.1).

    An interesting issue is that the results from the experiments show that there seems to be a gradual improvement from the intermediate Thai group to the advanced French group (cf. the results from the guided spontaneous production task in 4.5.2 and those from the controlled picture elicitation task in 4.6.2). A question that arises is whether it is possible that there might be continuity in the learning mechanisms. L2 learners from articleless backgrounds might take longer to go through the stages. This question cannot be fully answered here. The advanced L1 Thai speakers in the study might not be 'end state' learners (i.e. learners who are in the stage where their grammars cannot be developed further) (cf. Chapter 1). Production of English articles by L2 learners at the end-state level might indicate if variable production of English articles is still persistent.

[^54]:    ${ }^{19}$ Compare with an example about colour adjectives. If there is a single blue mug on a table and a native speaker of English wants the addressee to pass this mug to her, there is a tendency for her to say Pass me the mug rather than Pass me the blue mug. The fact that there is only one mug in the context makes it evident to the interlocutors which mug it refers to. The speaker might consider that the colour attribute blue can be contextually inferred and so she is not likely to identify the colour in this context (cf. Trenkic 2007: 9).

[^55]:    ${ }^{1}$ Grannis (1971:279) calls first mentioned use of the indefinite article the "introductory" usage.
    ${ }^{2}$ Note that some examples of first and second mention definite NPs were given in 2.2 (cf. the examples in (1) and (2)). However, more examples of these definite NPs were provided here for detailed discussion).

[^56]:    ${ }^{3}$ Fraurud (1990: 401) uses the term "subsequent-mention definite NPs" for anaphoric definite NPs. This term is also employed in this study.

[^57]:    ${ }^{4}$ Karttunen (1968: 16) refers to the visible use as "immediate environment". She gives a convincing argument that this definite use applies not only to physical entities within the

[^58]:    eyesight of the speaker and the hearer but also to such "immaterial particulars", for example, noise, heat, and events.
    ${ }^{5}$ Clark and Marshall (1981: 45) refer to anaphoric use as "linguistic copresence" and associative anaphoric use as "indirect linguistic copresence". Similarly, according to Liu and Gleason (2002: 7), the NP referent is mentioned directly in the anaphoric use and indirectly in the associative anaphoric use.
    ${ }^{6}$ Kartunnen (1968: 25) uses the term "entail", whereby the mention of an NP referent entails the existence of another referent (see also a discussion of 'entailment' in Warder 1981). Prince (1981: 236-7) refers to such a relationship as "inferrable".

[^59]:    ${ }^{7}$ Note a distinction between general knowledge in the larger situation use and associative anaphoric use. While the situation triggers the definite description use in the larger situation use, an introduced NP in the preceding discourse is a trigger in the associative anaphoric use.

[^60]:    ${ }^{8}$ Although associative anaphoric use depends on the NP referent in the preceding discourse, it is different from direct anaphoric use in that the previously mentioned NP triggers reference to a definite NP. Unlike direct anaphoric use, the definite NP referent in associative anaphoric use is not the same referent as in the preceding discourse. As the definite NP in the associative anaphora is mentioned for the first time, the use is considered non-anaphoric.

[^61]:    ${ }^{9}$ However, not all uses of first-mention nominals were employed in this study. I will come back to this point in the relevant section on the materials in experiments 1 and 2 (cf. 5.3 and 5.4).

[^62]:    ${ }^{10}$ As mentioned in Sharma (2005), although the subjects' L1 Indo-Aryan has the indefinite article, the native language does not possess the definite article.

[^63]:    ${ }^{11}$ The arrows in the pictures were used to tell the participants that the items indicated were required to be described.
    ${ }^{12}$ These two pairs of cartoons were also used to elicit non-premodified and adjectivally premodified NP structures. The two stories were presented in 4.6.1.2. However, they are presented again here for convenience.

[^64]:    ${ }^{13}$ This is the same objective as in the controlled picture elicitation task for production of Art +N and Art + Adj +N (cf. 4.6.1.2) .

[^65]:    ${ }^{1}$ As discussed in Footnote 7 of Chapter 2, 'cognitive resources' refer to 'working memory resources'.

[^66]:    ${ }^{2}$ An issue that should be addressed here is that, in the FishFilm task, simple, formulaic production (an active or a passive construction) produced the predicted differences in article omissions in the data. However, in the coin-on-picture elicitation task whose results showed non-significance in article omissions in the NP contexts tested, it was suggested that the language pattern required to be produced might be too simple and so allowed metalinguistic knowledge to be used (cf. 4.7.2).

    It is speculated that, although the language pattern required to be produced in the FishFilm task was simple, the design of the task might be demanding enough to cause differences in article production by L2 learners from articleless backgrounds. In the FishFilm task, it is assumed that an appearance of a flashing arrow is able to manipulate the saliency of a particular referent (by focusing the participants' attention on a referent immediately before production). This factor might negatively affect article production on the NP referent.

[^67]:    ${ }^{1}$ While Ionin, Ko and Wexler (2004) used the term 'specificity', the term 'referentiality' was employed in Ionin and Wexler (2003) to refer to the same theoretical construct.

[^68]:    ${ }^{2}$ The results of the individual performance are reported to partially confirm the predictions (see Ionin, Ko and Wexler 2004 for details of the results and see Hawkins et al. 2006 for counter-arguments).

[^69]:    ${ }^{3}$ The demonstrative this used as a marker of a specific indefinite NP referent is usually found in colloquial English. It is termed the 'colloquial non-demonstrative this' in Foder and Sag (1982), indefinite-this (Prince 1981), 'presentational this' in Maclaran (1982), cited in Ionin, Ko and Wexler (2004), 'new-this' in Wald (1983), 'indefinite this' (Lambrecht 1994), 'the colloquial use of this' (C. Lyons 1999)'and 'referential this' in Ionin, Ko and Wexler (2004).
    ${ }^{4}$ The opposite, however, does not hold. If the introductory this cannot replace the indefinite article, it does not mean that the referent is non-specific.

[^70]:    ${ }^{5}$ Logically, it is impossible to have a combination of [-spec] and [+ESK].

[^71]:    ${ }^{6}$ Note similarities of the contexts in the dialogues between [-def], [-spec; -ESK] (102) and [-def], [+spec; -ESK] (103), as well as [+def], [-spec; -ESK] (105) and [+def], [+spec; -ESK] (106).

    The contexts in (102) and (105) (from Ionin, Ko and Wexler 2004) should actually be treated as examples of [ + spec] contexts. Ionin, Ko and Wexler, however, treated their examples as [-spec] (cf. arguments as to why 'non-specific' contexts in Ionin, Ko and Wexler's (2004) materials should be treated as 'specific' in Trenkic 2008). However, Ionin, Ko and Wexler's classification was preserved for the sake of replicating the study. The only difference between each pair of contexts is that, in Ionin, Ko and Wexler's examples, which they treat as [-spec], they make the referent 'non-specific' by virtue of the speaker denying the knowledge of the referent being referred to. In the examples added to the current study, this denial of knowledge was preserved in the sense of the speaker denying the knowledge of the referent in question [-ESK], but at the same time the speaker is telling the hearer something specific about that referent anyway [ + spec].

    So, in all the examples added, the lack of knowledge is followed by mentioning something related to the referent, i.e. a pronominal reference to the referent (e.g. Peter...he is engaged to (a, the, --) merchant banker, but none of us knows who she is or what she is like in (103) and He is meeting with (a, the, --) director of his company. I don't know who it is ..., but he will decide whether Bob gets his promotion or not in (106)). In Ionin, Ko and Wexler's materials, the speaker denies knowledge of the referent being talked about and $\mathrm{s} / \mathrm{he}$ does not mention anything else about the referent, i.e. no direct reference to the person being talked about (e.g. She is interviewing (a, the, --) politician; I'm afraid I don't know who, exactly. I'll find out when I read her article! in (102) and He is having dinner with (a, the, --) manager of his office; I don't know who that is, but I'm sure that Samuel can't cancel this dinner in (105)).

