

# Systematicity in the Use of the Definite Article by Japanese Learners of English\*

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In this study, by examining the data concerning the use of the definite article by Japanese learners of English (JLEs), I illustrate and explain the systematicity in JLEs' interlanguage grammar. In the data collection, special attention was paid to control the contexts where the definite articles are used. The data suggest 1) JLEs tend to omit the definite articles; 2) JLEs do not regard that the Japanese demonstrative as the counterpart of the definite article; 3) JLEs use the English definite article systematically; and 4) the definite article in the JLEs' interlanguage grammar is closely related with the cardinal feature of the noun phrase. These findings are explained in a principled way, and it is concluded that JLEs do not use the definite article at random.

## 1. INTRODUCTION

In the early morpheme studies, it was suggested that there is a universal acquisition order for grammatical morphemes of English among L2 learners with diverse L1 backgrounds (cf. Larsen-Freeman and Long, 1991 for a general review). However, it has been noticed that L1 influence is clearly observed in the acquisition of the English articles (cf. e.g. Koike, 1983; Hiki, 1990, 1991; Shirahata, 1988, 1995; Terauchi, 1994; among others). One plausible explanation is that some languages (e.g. Japanese) lack markers of definiteness in the grammar and that whether or not the L1 has such markers influences the acquisition of the definite article. In this study, by examining data concerning the acquisition of the English definite article by Japanese Learners of English (JLEs), I suggest that when the L1 grammar has no definiteness markers, L2 learners systematically learn the property of the grammatical feature independent of available properties in their L1 grammar.

This paper is structured as follows: In section 2, I briefly illustrate the syntactic and semantic/pragmatic properties of the English definite article and suggest that the demonstrative *sono* is the most appropriate candidate for a Japanese counterpart. Then, I present four hypotheses, assuming that JLEs may use their L1 grammar to acquire L2 English. In section 3, data are presented from an experiment, where special attention has been paid to control for the contextual effects of article use. Unlike early studies on JLEs' use of the definite article, this experiment was designed to see how contexts (i.e. how [+definiteness] is given to the noun phrase) affect JLEs' success in using the target item. In section 4. I examine the hypotheses with data and explain various aspects of the data. In section 5. conclusions are given.

## 2. PROPERTIES OF THE ENGLISH DEFINITE ARTICLE AND ITS JAPANESE COUNTERPART

### 2.1 *Syntactic properties of D*

#### 2.1.1 Theoretical assumption

As the theoretical framework, I assume the Minimalist Program (Chomsky, 1995), where differences between grammars are all attributable to the differences of the lexical items available in the lexicon, in terms of what features are associated with which lexical items (Borer, 1984 ; Wexler and Manzini, 1987 ; Wakabayashi, 1997). I also adopt the Minimal Projection Principle of Radford (1995).

(1) *Minimal Projection Principle* (Radford, 1995 ; p.6)

Syntactic representations are the minimal projections of the lexical items they contain which are consistent with grammatical and lexical requirements.

#### 2.1.2 English noun phrase

In recent syntactic theories, the canonical noun phrase in English is DP, described in (2) (Abney, 1987 ; Longobardi, 1994 ; among others).

(2) [DP D [NP]]

Vangsnes (to appear) suggests a split DP hypothesis illustrated in (3).

(3) [QP [DefP [NumP [NP... ]]]]

Vangsnes (to appear) suggests that each projection in the split DP is associated with a certain semantic feature of the noun phrase, as illustrated in (4).

(4) Num : Number features  
Def : [+Definite]  
Q : Universal Quantifier

Following Vangsnes (to appear) and Longobardi (1994), I assume that at least one of these three functional categories must be projected in every English noun phrase, as in (5). Therefore, all English noun phrases are DPs. Here, notice that DP is the bundle of the three functional projections in (3).

(5) In English, projection of D is obligatory in every noun phrase  
(cf. Longobardi, 1994 ; Vangsnes, to appear)



With the Minimal Projection Principle in (1), an English noun phrase is one of the three structures in (6):

- (6) a. [<sub>DP</sub> = <sub>QP</sub> Q . . . ]  
 b. [<sub>DP</sub> = <sub>DefP</sub> Def . . . ]  
 c. [<sub>DP</sub> = <sub>NumP</sub> Num . . . ]

### 2. 1. 3 Japanese noun phrase

In Japanese noun phrases, it is not obligatory to express the number feature and the feature [ $\pm$ definite]. For example, the number [ $\pm$ plural] and [ $\pm$ definite] of apple in sentence (7) is ambiguous.

- (7) Taroo-ga ringo-o katta.  
 Taro-NOM apple-ACC bought  
 'Taro bought apple (an apple/ (some) apples/the apple/the apples)'

With this kind of evidence and others, Fukui (1986, 1988) claims that Japanese has no D. Noguchi (1993, 1995) suggests that Japanese has D, on the assumption that only lexical items associated with the categorical feature D can be used for variable binding<sup>1</sup>. I agree with Noguchi on this point, and suggest, following him, that Japanese demonstratives are D, and that the demonstratives are the only available lexical items associated with D in Japanese. Hence, D in Japanese is associated with feature [ $+$ demonstrative], as given in (8).

- (8) Japanese has D, the feature of which is [ $+$ demonstrative].  
 (cf. Noguchi, 1993, 1995)

Moreover, there is an obligatory/optionality difference between English D and Japanese D. In English noun phrases, D is projected in every noun phrase and hence English noun phrases are always DP. On the other hand, in Japanese noun phrases, D is optionally projected, and hence Japanese noun phrases are either DP or NP. This may be understood as a parameter in terms of the inclusion of lexical item D into the numeration in the lexicon. This is given in (9):

- (9) *D Parameter*<sup>2</sup>  
 The inclusion of D (and the associated features) in the numeration is either  
 (a)obligatory in every noun phrase; or (b) optional.

English has value (a) and Japanese has value (b) of the D Parameter.

## 2.2 *Semantic/Pragmatic properties of D*

### 2.2.1 Semantic properties

In terms of semantics, the definite article has no denotation. It can be described as ‘an indication that the conceptual representation to be assigned is accessible at justifiable processing cost [in the sense of the Relevance Theory: SW]’ (Kempson, forthcoming). To decide whether the referent of the noun phrase is definite or not, we have to refer to the pragmatic factors which determine the context.

### 2.2.2 Pragmatic Factors

Hawkins (1978) lists eight types of use for the definite article. The types are given in (10).

#### (10) From Hawkins (1978)

##### a. Anaphoric Use

Fred was wearing trousers. *The pants* had a big patch on them.

##### b. Immediate Situation Use (Visible Situation Use)

(There is only one bucket in the visible situation)

Pass me *the bucket*, please.

##### c. Immediate Situation Use (Immediate Situation Use)

(Opening conversation to a passenger, when you cannot see a dog)

Don't go in there, chum. *The dog* will bite you.

##### d. Larger Situation Use (specific, with presupposed knowledge)

(In Britain, among British people)

*The Prime Minister* has just resigned.

##### e. Larger Situation Use (general, without any specific presupposed knowledge)

(When invited to a wedding)

Have you seen *the bridesmaids*?

##### f. Associative Anaphoric Use

The man drove past our house in a car. *The exhaust fumes* were terrible.

##### g. Unfamiliar Use (with a modifier)

*The man* to go and see is my friend Bill Smith.

##### h. Unexplanatory Use

My wife and I share *the same secrets*.

### 2.2.3 Semantic Properties of Japanese Demonstratives

There are three Japanese demonstratives. They also have no denotation and are used as ‘indicators’. Their semantic properties are roughly given in (11).

- (11) *kono* : [close to the speaker]  
*sono* : [close to the hearer]  
*ano* : [close to neither speaker nor hearer]

Since *sono* indicates that the referent is close to the hearer, this semantic feature may be considered to be most close to that of the English definite article. In fact, *sono* can be used as a translation equivalent to the definite article in some cases. Among the translation equivalents to the sentences in (10), *sono* can be used for (10a, f) as given in (12a, f).

(12) a. Anaphoric Use

Fred-wa zubon-o haiteita. Sono zubon-ni-wa ookina tugiata-ga atta.  
 Fred-TOP trousers-ACC wearing was. The trousers-on-TOP big patch-NOM existed.  
 'Fred was wearing trousers. *The pants* had a big patch on them.'

b. Immediate situation Use (Visible Situation Use)

(There is only one bucket in the visible situation)  
 (? Sono) baketu-o totte kudasai.  
 The bucket-ACC pass please.  
 'Pass me *the bucket*, please.'

c. Immediate Situation Use (Immediate Situation Use)

(Opening conversation to a passenger, when you cannot see a dog)  
 Ozisan, soko-ni haitte-wa ikenai. (\*Sono) Inu-ga iru kara<sup>3</sup>.  
 Chum, there-in enter-TOP no-good. (The) dog-NOM exist because  
 'Don't go in there, chum. *The dog* will bite you.'

d. Larger Situation Use (specific, with presupposed knowledge)

(In Britain, among British people)  
 (\*Sono) sori-daizin ga tuisakki yameta  
 (The) Prime Minister just resigned  
 '*The Prime Minister* has just resigned.'

e. Larger Situation Use (general, without presupposed knowledge)

(When invited to a wedding)  
 (\* Sono) buraidomeido-o mita-no  
 (The) bride(s)maid (s) ACC saw Q  
 'Have you seen *the bridesmaids* ?'

f. Associative Anaphoric Use

Sono otoko-no hito-wa kuruma-de watasitati-no ie-no mae-o hasitteitta.  
 Sono haikigasu-ga hidokatta.  
 The male-GEN person-TOP car-by our-GEN house-GEN front-ACC ran.

The exhaust-fume-NOM terrible-was.

'The man drove past our house in a car. *The exhaust fumes* were terrible.'

g. Unfamiliar Use

(\*Sono) Ai-ni iku beki hito-wa watasi-no yuuzin-no Bill Smith da.

(The) see-to go should person-TOP my-GEN friend-GEN Bill Smith is.

'*The man* to go and see is my friend Bill Smith.'

h. Unexplanatory Use

Tsuma-to watasi-wa (\*sono) onazi hitu-o motteiru.

Wife and I-TOP (the) same secret-ACC have

'My wife and I share *the same secrets*.'

In (12 a, f), *sono* is optional. Hence, the translation equivalents with noun phrases without *sono* are also grammatical, as in (13).

(13) a. Fred-wa zubon-o haiteita. Zubon-ni-wa ookina tugiata-ga atta. (cf. 12a)

b. Sono otoko-no hito-wa kuruma-de watasitati-no ie-no mae-o hasitteitta.  
Haikigasuga hidokatta. (cf. 12f)

In all cases in Anaphoric Use, *sono* may be used as a translation equivalent of *the*, as in (12a). However, in some cases in Associative Use, *sono* cannot be used. In (14), adding *sono* makes the sentence ungrammatical.

(14) Soosya-wa (\*sono) gooru-rain-o mezasite rasuto-supaa-to-o kaketa.  
Runner-TOP (\*that/the) goal-line-ACC aiming-at last-spurt-ACC did.  
'The runner made a last spurt toward the finish line.'

Since Japanese seems to have no lexical item apart from *sono* as a translation equivalent to the definite article, and since the categorial feature of both *sono* and *the* is D, I assume that *sono* is the most appropriate available counterpart to the English definite article<sup>4,5</sup>.

### 3. EXPERIMENT

#### 3.1 Hypotheses

From what was given above, I posit four hypotheses concerning the acquisition of the definite article by JLE in this subsection.

D is optional in Japanese but obligatory in English. JLEs are likely to transfer this property to their interlanguage grammars. Hence, my first hypothesis is:

(15) JLEs tend to drop articles.

If L1 knowledge is exclusively used at the initial stage of SLA (Schwartz and Sprouse, 1994), JLEs should initially use the definite article where *sono* can be used and should not use it where *sono* cannot be used. More plausibly this L1 transfer can be hypothesised as in (16)<sup>6</sup>:

(16) JLEs tend to be more successful in using *the* when Japanese demonstrative *sono* can be used as its translation equivalent than when it cannot.

Another possibility is that JLEs may realise that the semantic property of the English definite article is different from that of Japanese *sono* at a very early stage. Then, JLEs' grammar concerning the definite article may be independent of their L1 grammar. This is given as a hypothesis in (17) :

(17) JLEs' grammar concerning the definite article is not influenced by their L1 grammar concerning Japanese *sono*.

If this is the case, it is a further question whether JLEs learn the definite article systematically or at random. Ellis (1985) and Young (1996, to appear) suggest that early L2 learners use some lexical items randomly when they are not sure about the 'rules' associated with them. This further implies that the use of the definite article by JLEs is governed by random guessing or some sort of problem-solving mechanism with no underlying grammar. I assume that this is highly unlikely and I hypothesise (18) :

(18) JLEs' interlanguage grammar concerning the definite article is systematic.

The hypotheses presented in this subsection will be examined with data in section 4 , after I present the experiment in the next subsection.

### 3.2 *Data Collection*

#### 3.2.1 Subjects

55 JLEs took part in the experiment. They were first to third year student of English language and literature at a university in Japan at the time of the experiment. 48 subjects passed the comprehension test of the text, and their data were analysed. 10 native speakers (NSs) took part in the experiment as a control group.

#### 3.2.2 Material and Procedure

The material of the experiment was a text (1946 words, including 183 *the*'s and 30 *a(n)*'s

extracted from a textbook used in Japanese high schools<sup>7</sup>. The text was reprinted with the omission of *the* and *a(n)*. Subjects were to add the articles (*the* and *a(n)*) where they thought they were required. It took 40 to 75 minutes for a subject to finish the task.

### 3.3 Data

#### 3.3.1 Selection of the items

Not all the native speakers agreed with the original text concerning when to use *the*, and hence I selected 137 occasions of the definite article as the target of the experiment (186 in the original) following two criteria: 1) *the* was used in the original; 2) more than 80% native speakers agreed that *the* should be used.

#### 3.3.2 Data analysis 1

The figures concerning overall successful use of the definite article are given in Table 1. They suggest that the correct use of *the* is extremely difficult for JLEs. The mean was 34% and the most successful subject reached 68% correct.

Table 1 : Overall successful use of *the* by JLE (%) (target=137)

	JLEs ( $N = 48$ )	NSs ( $N = 10$ )
Mean	34	95
SD	14	3
Range	9-68	90-99

There are two types of errors in the data: The definite article is not placed where it is required; or it is placed where it is not required. The data suggest that the former type is far more pervasive than the latter among JLEs. Among 137 positions where the definite article is required, they omitted it in 91, on average. On the other hand, they used it where it was not used in the target text (after the selection procedure given in 3.3.1) 19 times. It seems clear that JLEs tend to drop the definite article rather than overuse it (two tailed t-test  $t = 16.31$ ,  $p < .0001$ )<sup>8</sup>. See table 2.

Table 2 : Error types (mean numbers)

	JLEs	NSs	(Original Text)
Less than the target	91	7	(0)
More than the target	19	46	(49)

N.B. The reason why NSs and the original text has 46 and 49 errors as 'more than the target' is due to the selection of the items with the procedure given in 3.3.1.

## 3.3.3 Data analysis 2

In (10), I illustrated Hawkins's (1978) categorisation of the contexts. However, I cannot apply it to categorise the use of the definite article in the text in the experiment. Hence I modified the categorisation in (10) in order to make it applicable to the experiment : First, JLEs may understand that the definite article is 'the mark of the repeated noun phrase'. If this is the case, they may not make mistakes in the use of the definite article when a noun phrase is repeated ; otherwise they do. For example, JLEs may not fail to use the definite article in a noun phrase like *the trousers* in (19) even when they fail to use it in (10a).

## (19) Repetitive Anaphoric Use

Fred was wearing trousers. *The trousers* had a big patch on them.

I call the type of (19) the 'Repetitive Anaphoric Use' as a special case of the Anaphoric Use (10a). Consequently, other kinds of Anaphoric Use are referred to as 'Non-Repetitive Anaphoric Use' henceforth and I will consider them separately.

Secondly, the distinction between the Larger Situation Use (specific, with presupposed knowledge) (10d) and the Larger Situation Use (general, without any specific presupposed knowledge) (10e) is problematic. In fact, contra Hawkins's claim, the presupposition associated with (10e) is culturally specific, since in a different culture, for example in Japan, generally there are no bridesmaids in wedding. I combine these together as 'General Knowledge Use'. Besides, because the material of the experiment is in a written form, this is divided into two : the General Knowledge Use (lower case), which is General Knowledge Use with nouns starting with the lower case (e.g. *(the) national anthem*) and the General Knowledge Use (upper case), which is General Knowledge Use with nouns starting with the upper case (e.g. *(the) Allies*). This is because the learners may believe that using a capital letter makes a noun phrase a proper noun, which requires/allows no article to be attached. Third, as I suggested above, the Unexplanatory Use (10h) can be regarded as instances of the Unfamiliar Use (with a modifier). Therefore, I combine them together as 'With-Modifier Use.' Fourth, because of the nature of the task in the experiment (see below), it is impossible to investigate a JLEs interlanguage grammar concerning the Immediate Situation Use ((10b) and (10c)), and hence they are not included in the categorisation of the contexts in the material. Consequently, the categorisation of the use of the definite article in this is as in (20) :

## (20)

- a. Repetitive Anaphoric Use (cf. (19))
- b. Non-Repetitive Anaphoric Use (cf. (10a))
- c. General Knowledge Use (lower case) (cf. (10e))
- d. General Knowledge Use (upper case) (cf. (10d))
- e. Associative Anaphoric Use (cf. (10f))
- f. With-Modifier Use (cf. (10g, h))

Following the categorisation in (20), I categorised the articles in the target material into 6 types. The results in Table 3 show that the contexts play a very important role to decide whether JLEs succeed in using the definite article correctly or not. The differences are highly significant (repetitive ANOVA:  $F(5, 47) = 27.341, p = 0.0001$ ). The results of data analysis using the Sheffé F-test suggest that there are significant differences between the types of use of the definite article: Associative Use (20%) is clearly more difficult than the two Anaphoric Uses (Repetitive Anaphoric Use 40% and Non-Repetitive Anaphoric Use 41%:  $p < 0.001$  in both case); General Knowledge Use (lower case) (26%) is more difficult than the Anaphoric Uses (41% and 40%:  $p < 0.01$ ) and significantly easier than the General Knowledge Use (upper case) nouns (14%:  $p < 0.05$ ). The With-Modifier Use (38%) is not significantly more difficult than the Anaphoric Uses (41% and 40%:  $p > 0.05$  n.s.).

Table 3: Different use and correct answers (%)<sup>9</sup>

<i>Usage Type</i>	Mean	SD
Repetitive Anaphoric Use (n=36)	41	19
Non-Repetitive Anaphoric Use (n=8)	40	23
Associative Anaphoric Use (n=6)	20	25
General Knowledge Use (lower case) (n=12)	26	21
General Knowledge Use (upper case) (n=21)	14	20
With-Modifier Use (n=49)	38	16

### 3.3.4 Data analysis 3

It was observed that in the With-Modifier Use, JLEs were highly significantly more successful when the modifiers are 'of + noun phrase' (i.e. *the* in [*the* N [pp of. . .]]) than when modifiers are relative clauses (i.e. *the* in [*the* N [RC]]) (two tailed t-test,  $t = 4.0516, df = 47, p < 0.001$ ). The figures are given in Table 4.

Table 4: Different kinds of modifiers and success rate (percentage)<sup>10</sup>

<i>Usage Type</i>	<i>Mean</i>	<i>SD</i>
+ of noun phrase (n=30)	41	19
+ relative clause (n=10)	32	19

### 3.3.5 Data analysis 4

In the data, differences among individual learners were clearly observed, especially among the General Knowledge Use (upper case) (i.e. *the Champs-Elysee, the Eiffel Tower, the Marseilles, and the Nazi flag*). Subjects tend to either consistently use *the* or to consistently not use it, when the noun is the same. For example, among the eight occasions when *Eiffel Tower* appeared in the material, 94% (45/48) of the subjects put the definite article either 25% or less ( $n = 0, 1, 2$ ) or 75% or more ( $n = 6, 7, 8$ ). The figures are in Table 5 and Figure 1, Figure 1

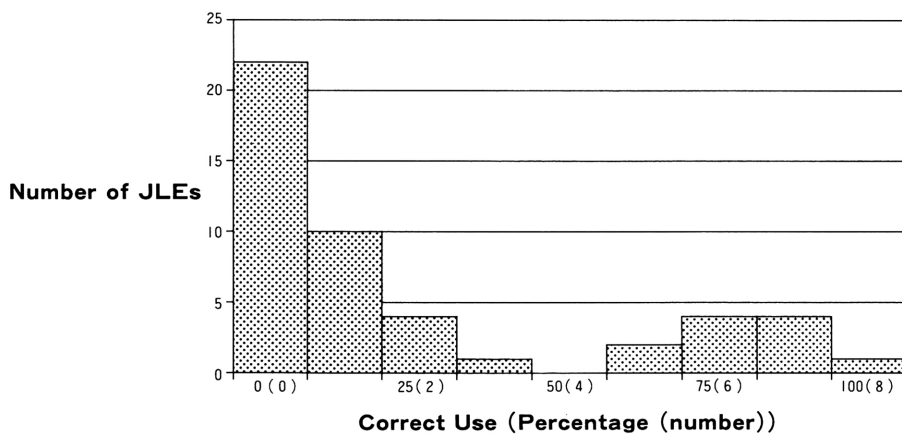


suggests that JLEs do not use the definite article randomly (chance=50 : 50), and that they tend to either consistently use the definite article or consistently not use it. In fact, there is no JLE who used the definite article 50% of the time, which is the expected case if the use is random.

Table 5 : The Number of the correct answers and the number of subjects concerning *the* in the *Eiffel Tower*

The percentage of the correct use of <i>the</i> (number)	0 (0)	12.5 (1)	25 (2)	37.5 (3)	50 (4)	62.5 (5)	75 (6)	87.5 (7)	100 (8)
Number of subjects	22	10	4	1	0	2	4	4	1
Number of subjects	36			3			9		

Figure 1 : Number of JLEs and Percentage (number) of the correct answers concerning *the* in the *Eiffel Tower*



### 3.3.6 Data Analysis 5

The data also suggest that the use of the definite article is closely related with the number feature of the noun phrase. In Table 6, I categorise the noun phrases by their number features. All of these noun phrases require the definite article as the target. The JLEs succeeded 40% of the time when the noun phrases are [singular], while they succeeded only 27% of the time when the noun phrases are [uncountable] and 23% when the noun phrases are [plural]. This analysis shows that the subjects tend to be more successful when the noun phrase is [singular] than when it is either [uncountable] or [plural] (see also Hiki, 1990a, b, 1991). The difference was statistically highly significant (repetitive ANOVA ;  $F(2, 47) = 35.574, p = 0.0001$ ).

Table 6 : Number features and correct answers (%)

<i>Number features</i>	Mean	(SD)
singular (n=78)	40	(15)
uncountable (n=31)	27	(16)
plural (n=28)	23	(17)

## 3.3.7 Data Analysis 6

The relationship between the number feature and the successful use of the definite article by JLEs is supported by a further analysis concerning the 'easiest' cases; that is, the noun phrases where the most successful JLEs consistently answered correctly. Sixteen JLEs were selected because their responses were correct in more than 40% of the cases. 27 noun phrases that require the definite article were selected because these 16 subjects performed better than 70% on these noun phrases. The number feature of 93% of these noun phrases (25 out of 27) was [singular]. The result of this analysis, in addition to the results given in Table 6, suggests that JLEs tend to be more successful in using the definite article when the noun phrase is [singular] than [uncountable] or [plural].

## 4. DISCUSSION

With the results of the data analyses given above, I examine the four hypotheses posited in section 3.1. which are repeated in (21):

(21)

- a. JLEs tend to drop articles. (=15)
- b. JLEs tend to be more successful in using *the* when Japanese demonstrative *sono* can be used as its translation equivalent than when it cannot. (=16)
- c. JLEs' grammar concerning the definite article is not influenced by their L1 grammar concerning Japanese *sono*. (=17)
- d. JLEs' interlanguage grammar concerning the definite article is systematic. (=18)

The data in Table 2 strongly suggest that hypothesis (21a) is correct. I suggest that this is due to the L1 transfer of the optionality of the projection of D. That is, JLEs transfer the value (b) of the D parameter in (9) to their interlanguage grammar, although the target grammar has the value (a). In the JLEs' interlanguage grammar, the inclusion of D in the numeration (and the projection of DP in the derivation) is still optional, and hence, JLEs tend to omit the definite article rather than overuse it.

The figures in Table 3 may appear to support hypothesis (21b): *The* in the Anaphoric Use is always able to be replaced by *sono* but not in some cases in the Associative Use and JLEs succeeded in the Anaphoric Use (41% and 40%) significantly more than the Associative Use (20%).

However, further examination of the data suggests that this observation is not precise. I sub-categorised the definite article for the Associative Use into two groups—those which can be translated by *sono* and those which cannot and then analysed the success rate in each case. The translatability of the English definite article to *sono* would seem to make little difference for the success rate, if the English definite article is limited to the Associative Use. Although the numbers of each type in Table 7 are pretty low (n=2 and 4), I assume that the lack of difference of the success rate still suggests that the translatability is not a great factor.

Table 7 : Translatability and success rate

<i>Usage Type</i>	<i>Mean</i>	<i>SD</i>
translatable to sono (n=2)	24	29
not translatable to sono (n=4)	26	22

In short, the L1 transfer of *sono* is unlikely to be so explicit as expected in hypothesis (21b). Rather, as hypothesised in (21c), JLEs may start to acquire knowledge of the use of the definite article independent of *sono*. This observation seems to be supported by the data in Tables 3, 4, 5 and 6, because the variations of the figures in these tables cannot be explained as L1 transfer of *sono*.

Moreover, the figures in these tables suggest that there is some systematicity operating independent of L1 knowledge. Since it is plausible that JLEs has no L1 knowledge that refers to [+definite], they have to figure out how [+definite] is determined. It was observed that JLEs succeed more when [+definite] is given by 'of+noun phrase' than by relative clauses in Table 4. One possible explanation is that the difference between these modifiers is attributable to the difference of the degree of 'definiteness': The definiteness of a noun phrase modified with 'of+noun phrase' is 'stronger' than that of a noun phrase modified with relative clauses, although how this 'strength' is justified must be left to further research. The same 'the degree of definiteness' argument may be applicable to the contextual effects in the use of the definite article, illustrated in Table 3. This systematicity suggests that hypothesis (21d) is correct, contra Ellis (1985) and Young (1996, to appear).

Lastly, we found that the number feature and the definite feature seem to interact in the acquisition of the definite article by JLE. This seems natural if we note that the acquisition of NumP and that of DefP should be closely related to each other, since they are both included in DP (see 2.1.2 above). From the syntactic point of view, the acquisition of obligatory D is in charge of the acquisition of these two features<sup>11</sup>.

The next question is why JLEs are more successful when the noun phrase is [singular] than [plural] or [uncountable]. The answer seems to lie in the free morphemes associated with these features: In [singular] noun phrases (except for proper nouns), a free morpheme has to be spelled-out at the head of D, while in [plural] or [uncountable] nouns, 'zero article' (Christophersen, 1939; Jespersen, 1949; Hewson, 1972; Chesterman, 1991) may be used. In this case, D of noun phrases may not be phonetically spelled-out as a free morpheme. Therefore, JLEs may believe that the use of 'articles' is obligatory when a noun phrase is [singular countable] but optional when it is either [plural] or [uncountable]. The optionality of the use of the article, interacting with the L1 transfer of the [optional] value of D parameter, may lead to more omission of the definite article when a noun phrase is [plural] or [uncountable]. This reasoning is plausible and I suggest that in JLEs' interlanguage, the definite article is not only associated with [+definite] but also with the number feature of the noun phrase.

The next question is why JLEs still make mistakes even in using the for [+singular countable] noun phrases. One reason could be that they fail to identify the noun phrase as [+definite]. Another reason could be the L1 transfer of the [optional] value of the D parameter.

On top of these factors, it is extremely difficult for JLEs to tell the number feature of noun phrases (cf. Hiki, 1990, 1991). Therefore, even when their interlanguage does not allow a singular noun without an article, they may fail to add it, since they fail to judge that a noun phrase has the feature [singular countable].

It should be mentioned here that it is certainly plausible that performance factors play important roles in the use of the definite article. However, if the omission were totally attributable to the performance factors, the overall figures should be much better than the figures collected in the experiment. Besides, the systematicity of data given in this study is very unlikely to be explained by any 'performance theory'.

## 5. CONCLUSION

In this paper, examining the acquisition of the English definite article by JLEs, I offered the following claims:

(22)

- a. JLEs tend to omit the definite articles because of the transfer of the [optional] value of the D parameter.
- b. JLEs know that the Japanese demonstrative *sono* is not the counterpart of the English definite article.
- c. JLEs use the English definite article systematically, which suggests that they have an underlying interlanguage grammar to use it, and hence it is wrong to assume that they use it randomly.
- d. The definite article in the JLEs' interlanguage grammar is closely related with the cardinal feature of the noun phrase.

Some questions are left unanswered in this study, such as how the 'strength' of definiteness influences the use of the definite article by JLEs.

As a more general suggestion in SLA research, I claim that the L1 influence on the SLA of the definite article observed in the morpheme studies is attributable to the difference whether the lexical item associated with the feature [+definite] exists in L1 lexicon or not (cf. e.g. Larsen-Freeman and Long, 1991): When [+definite] feature is not grammaticalised in the L1 but it is in the L2, L2 learners try to find out the semantic property of the feature and the syntactic property of the lexical item, possibly independent of their L1. If this is the case and if the L1 transfer is not observed in the acquisition of other grammatical morphemes of English as suggested in the morpheme studies, the lexical items associated with these grammatical morphemes may be universally included in the lexicon of languages. It is, however, a question for further research whether this is true or not<sup>12</sup>, since it seems to be the case that L1 transfer is observable in a wider context than used to be believed even in the acquisition of grammatical morphemes (Wakabayashi, 1997).

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1 Noguchi (1993, 1995) suggests some other evidence for his argument, such as that the lexical items associated with D (with his assumption) comprise a closed category. Some suggest that case markers are D in Japanese (Ueda, 1990; Tonoike, 1991). I do not adopt this assumption in this study (cf. Note 5).

2 This parameter can be subsumed under the Obligatory/Optionality Parameter in Wakabayashi (1997).

3 This is not a literal translation of the English sentence (4c). It is not very natural to say that the dog will bite you in this context where you cannot see the dog, but it is more natural to use the sentence given here.

4 Given (12b, c, d, e, g, h), some may suggest that *sono* is not the translation equivalent of the English article at all. However, given (13a, f), if L1 transfer is predicted in JLE's interlanguage, *sono* seems to be the only source for the L1 transfer. The question here is whether we can observe this L1 transfer or not. See section 3, 4 and 5.

5 I do not discuss the possibility that Japanese particles may be regarded as a translation equivalent of English articles in this paper. This is because Japanese particles are not associated with definiteness, as discussed in many articles (cf. Kuroda, 1972, for example.) For example, the alternation of *ga* and *wa* in the following examples has nothing to do with [ $\pm$ definite].

(23) a John ga kaettekita. zikan- \* ga/wa mada yozi datta.

John-NOM came-back. Time-\*NOM/TOP still 4 o'clock was.

= 'John came back. It was still 4 o'clock.'

b John ga kaettekita. zikan-ga/\*wa mada yoji datta-koto-ga hahaoya-o odorokaseta.

John-NOM came-back. Time-NOM/TOP yet 4 o'clock was-fact-NOM mother-ACC surprised.

= 'John came back. The fact that it was still 4 o'clock surprised his mother.'

6 If this is correct, the acquisition of the definite article by JLEs may follow the Subset Principle (Berwick, 1985). Since the expansion of the grammar from a subset to a superset is usually considered to be easy in SLA (Towell and Hawkins, 1994), this predicts that the acquisition of the definite article is easy for JLEs, which is obviously not true (cf. e.g. Koike, 1983; Hiki, 1990, 1991; Shirahata, 1988, 1995; Terauchi, 1994). This implies either hypothesis (16) is wrong or the assumption that the development from a subset to a superset is easy is wrong. In section 4, I will suggest that hypothesis (16) is wrong and leave the latter possibility open.

7 This material was much easier than the textbooks used in the course where the subjects were studying. Moreover, Japanese translations of 'difficult words' were given at the foot of each page.

8 Myers (1994) suggests that L2 learners of English tend to omit the English definite article if their L1 has no articles, while they tend to overuse them when their L1 has a definite article. The figures in Table 2 support this observation.

9 In four cases, *the*+noun is used for the generic meaning. Hence they are excluded from this table.

10 Since there are other modifiers, such as past participle, prepositional phrases other than [of+ something], superlative adjectives, the sum of these two types (n=40) is less than the frequency of *the* of those which categorised as Unfamiliar Use (n=49).

11 Typologically these two features are related (Gil, 1987).

12 Wakabayashi (1997) suggests that there is a clear L1 influence on the acquisition of 3rd person singular marker -s, and plural marker -s, among other properties, comparing data of SLA of English by Japanese learners with those by Spanish learners.