The Identity of Pre-verbal Noun Phrases in Japanese Learners' English [1]

日英中間言語における動詞直前に顕在する名詞句の正体について

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　日本語と英語の構造的違いに空主語の容認・非容認がある。時制節において、日本語には主語がなくてもよいが、英語には義務的に存在しなければならない。ミニマリスト・プログラムの枠組みでは、この違いは機能範疇Tに存在するD（または、EPP）素性の強弱の違いによって説明されている。このパラメターの相違にもかかわらず、日本人学習者の英語には、学習初期段階にあってさえも、動詞の前に名詞（句）が存在する。この問題に関する先行研究は、英語の主語の習得は日本人学習者にとってあまり困難ではないという見方を示している（Chaudron & Parker, 1990; Hirakawa, 2003; Wakabayashi, 1997, 2002; Wakabayashi & Negishi, 2003; Zobl, 1990）。

　本研究では、日本語母語話者による英語の主語の習得は困難を伴うことを実証し、以上の主張に反論する。英語の名詞話題句は θ 標示されたものでなくてはならないが、日本語のそれは、θ 標示されないものでもよいという特性がある。この特性と主語の有無を組み合わせて４つの構文を作成し、文法性判断テストを実施した。少なくとも英語習熟度初・中級の学習者は、「名詞話題句 — 主語 — 動詞」構造を、話題句の標 θ 示や主語の有無に関わらずすべて容認するという結果がでた。つまり、学習者は英語においても日本語特有の話題化構文が可能であると思っている事実が判明した。このことは、少なくとも中級レベルまでの日英中間言語における動詞直前に顕在する名詞句が、日本語統語上の主語または話題句であることを示唆する（cf. Hawkins, 2001; Kuribara, 2000, 2003）。

キーワード
第二言語習得理論（Second Language Acquisition Theory）、言語転移（Transfer）、日本人英語学習者（Japanese Learners of English）、主語（Subject）、話題（Topic）

1　Introduction

　One of the structural differences between Japanese and English is that the former allows null subjects but the latter does not.

(1)　a. Taro-wa doo shita no.

　　　Taro-top how did Q

　　　'What happened to Taro?'

　　b. ∅ moo　　kaetta.

　　　　already gone home

　　　'He has already gone home.'

　　　'*∅ has already gone home.'

Despite this parametric difference, Japanese learners of English tend to produce sentences with pre-verbal noun phrases, even at an early stage of acquisition. Zobl (1990), having examined a written corpus, reports that the number of null subjects produced by Japanese EFL learners is extremely limited, even at the beginner level (1.9%). A similar finding is reported by Chaudron & Parker (1990). Their written corpus, which was collected from low to advanced level Japanese learners of English, has no cases of null subjects.

Hirakawa (2003), Wakabayashi (1997, 2002) and Wakabayashi & Negishi (W&N) (2003) have further investigated this issue by conducting grammaticality judgement tests. Their studies are based on the minimalist assumption that the D (or EPP) feature in T is strong in English but weak in Japanese (Wakabayashi, 1997, 2002; cf. Yatsushiro, 1999). The strong D in T, being [− interpretable], attracts a DP in the Spec of VP to the Spec of TP, in order to be checked off before Spell-out. This results in sentences having obligatory subjects. However, if the D / EPP feature is weak, no DP needs to move into the [Spec, TP] position, and this is manifested as a null subject in terms of surface structure. Hirakawa (2003), examining the acquisition of the *there* construction, claims that Japanese learners acquire the English setting ([strong D / EPP]) by the time they reach the intermediate level. Wakabayashi (1997, 2002) and Wakabayashi & Negishi (2003) claim that Japanese learners acquire the strong D feature, without transferring their L1 parametric value responsible for null subjects. Wakabayashi (1997, 2002) claims that lack of overt subjects in the output of Japanese elementary-level learners is to do with the course of development, where functional categories are not yet available in the learners' lexicon or taken into the numeration.

All the above studies seem to suggest that it is quite straightforward for Japanese speakers to acquire English obligatory subjects, however we believe otherwise. This is because firstly, Hirakawa only deals with null subjects appearing at the sentence-initial position. Secondly, the finding that Wakabayashi has presented does not serve as evidence for no L1 transfer; he has only shown that Japanese learners

were more successful than Spanish learners in correctly rejecting null subject sentences. Thirdly, W&N's results have not actually shown that Japanese learners noticed lack of a subject: it is possible that their learners simply noticed the lack of a nominal phrase before a verb.

Our belief is supported by previous studies on acquisition of English by the speakers of Chinese, a language that exhibits a similar distribution pattern of null arguments to that in Japanese. Null arguments in both languages can be licensed by topics (Huang, 1984; cf. Hoji, 1985; Saito, 1985; Yuan, 1997). Xiao (1998) reports that low to intermediate level Chinese learners of English can detect the ungrammaticality of null subjects with a high degree of accuracy when they are clause-initial, but their accuracy rate is significantly lower when some other element occupies the clause-initial position. A similar report has also been made by Yip (1995), who analysed the data on intermediate-level Chinese speakers' performance on the *Topicalised Object DP — Null Subject — V sequence. The learners accepted at least 3 out of the 10 ungrammatical sentences included in the study. A similar result is also obtained for Japanese learners of English. Kuribara (2000, 2003) shows that even high intermediate level (Paper TOEFL score: 510-570) Japanese EFL learners find it difficult to detect the ungrammaticality of the *Adverbial DP/PP — null expletive *it* — V sequence; their success rate is about 60%. She argues that her finding can be plausibly explained by assuming that learners transfer the L1 topic structure.

The purpose of the present research is to show that Japanese learners, even at the intermediate level, transfer the properties responsible for the null subject and the topic constructions. To do this, we examine interlanguage data to see whether learners allow the L1 topic structure in English, as the Chinese speakers in Xiao (1998) and Yip (1995) do. If Japanese learners allow the topic structure including the Topic — Null Subject — V sequence, this would serve as evidence against the claim that they acquire the English obligatory subject by the time they reach the intermediate level. It would also provide further evidence for the claim that Japanese learners transfer the topic structure in processing English sentences.

The organisation of this paper is as follows. First, we describe syntactic structures of the left-periphery in Japanese and English sentences, and show parametric differences involving topic and subject in the two languages. We then describe our empirical study, which includes more detailed research hypotheses, methodology, and results. Finally we discuss results and draw conclusions to the hypotheses.

2 Theoretical Background

2.1 Subjects in Japanese and English

In the pre-minimalist framework, it was considered that licensing null subjects was to do with

underspecification of Infl (Sano & Hyams, 1994), or the lack of AGRP² (Speas, 1994). However, after the Minimalist Program was proposed by Chomsky (1995), the weakness of the D (or EPP) feature in T was claimed to be responsible for null subjects (Wakabayashi, 1997, 2002; cf. Yatsushiro, 1999). The D feature is weak in Japanese, but strong in English. Therefore, in Japanese, neither overt DPs need to merge with TP, nor expletive constructions need to exist in the language. In contrast, in English finite clauses, a subject DP, being triggered by the strong D feature of T, must merge as the Spec of TP in overt syntax. If not, an expletive DP has to be inserted at this position to fulfil the requirement of the strong D feature. Thus, the structures of English and Japanese would look as follows:

(2)　a. English: [$_{TP}$ Overt Subject DP [$_{VP}$　V　]]

　　　b. Japanese: [$_{TP}$ <a set of features>$_i$ [$_{VP}$　Null Subject DP$_i$　V　]]

2.2　Topic structures in Japanese and English

In Japanese, more than one noun phrase can be placed before a predicate. Tateishi (1991/1994) shows that apart from internal arguments, at most three noun phrases can occur before a predicate. The one that is the furthest from the predicate can only be marked with the topic marker -wa; the two closer to the predicate can be marked with either -wa or the nominative marker -ga. Only the one closest to the predicate is θ-marked; the others are non-θ-marked.

(3)　a. tabemono-**wa**/*-**ga**　itaria-ryoori-**wa**/-**ga**　　pasuta-**wa**/-**ga**　saikou-da.

　　　Food-top/*-nom　　Italian-cooking-top/-nom　pasta-top/-nom　the best-is

　　　'As to food, pasta is the best among Italian dishes.'

Topicalisation of other elements is also possible. Example (4) shows a topic which is internally θ-marked by the verb.

(4)　**Ano hon-wa**　　John-ga　　yon-da.

　　　That book-top　John-nom　read-past

　　　'That book, John read.'

No particle like -wa exists in English. In the language, it is usually the subject that functions as the topic (Shibatani, 1991). But when another phrase becomes the topic, the phrase is moved to the sentence-initial position, creating a similar structure to topic sentences in Japanese.

(5)　**This book**ᵢ, you should read **t**ᵢ.

There is a considerable amount of discussion as to whether movements are involved in constructing topic structures in Japanese, and if they do, whether they are an adjunction or an operator movement .³ The present paper will not pursue this question, but simply notes that in English, a topicalised noun phrase must be θ-marked, whilst in Japanese, it may only have an "aboutness relation" with the rest of the sentence (Saito, 1985)⁴.

2.3　The structures at the left periphery of Japanese and English: Summary

In English, subjects must be overt; whereas in Japanese, subjects may be null. In English, a topicalised noun phrase must be θ-marked; whereas in Japanese, it may just hold an "aboutness relation" with the rest of the sentence. This means that Japanese has more freedom with respect to the structure of the left periphery. Whilst structures (6) and (7) are possible in both languages, structures (8) ～(11)　are only possible in Japanese.

(6)　Overt Topic/Subject

　　　a. **Taroo-wa/-ga** hon-o　　yomu.⁵

　　　　Taroo-top/-nom　book-acc　read

　　　b. **Taro** reads a book.

(7)　Internally-θ-marked DP　―　Overt Subject

　　　a. **sono hon-wa, John-ga** yon-da.

　　　　that book-top　John-nom　read-past

　　　b. **That book, John** read.

(8)　Null Subject in the sentence-initial position

　　　a. ⊘ hon-o yomu.

　　　　'I/he, etc. read(s) a book / books.'

　　　b. *⊘ Read a book.

(9)　Internally-θ-marked DP　―　Null Subject

　　　a. kokusai-denwa-wa ⊘ kinoo kaketa.

　　　　'I/he, etc. made the international call yesterday.'

　　　b. *The international call ⊘ made yesterday.

(10) Non-θ-marked DP － Overt Subject

    a. niigata-wa sake-ga umai.

      'It is Nigata where sake is good.'

    b. *Nigata, sake is good.

(11) Non-θ-marked DP － Null subject

    a. kokusai-heiwa-wa $\oslash$ tano bunka-o rikaishi-nakutewanaranai.

      'We, etc. must understand other cultures in order to realise world peace.'

    b. *World peace $\oslash$ must understand other cultures.

3　Experiment

3.1 Hypotheses

We have seen in the previous section that subjects in Japanese and English differ in terms of the strength of the D feature in T: the D feature is strong in English but weak in Japanese. The consequence of this is that English has to have an overt subject in the Spec of TP, but Japanese does not. Previous literature has reported that this parametric difference has little effect on the interlanguage of Japanese EFL learners. The L1 parametric value does not transfer (Wakabayashi, 1997, 2002; Wakabayashi & Negishi, 2003), or even if it does, the learners reset it by the time they reach the intermediate level (Hirakawa, 2003).

We hypothesise, on the contrary, that Japanese learners, even at the intermediate level, do transfer the L1 value when they process English. This can be tested by providing learners with Topic － Null Subject － V constructions like (9) and (11). If the learners reset the strength feature of D, they would be able to reject both constructions equally well. If the data do not show this pattern, this would suggest that the learners have not managed to acquire the English setting. We further hypothesise that Japanese learners also transfer the L1 topic structure. If this is correct, it is expected that the learners would accept all types of topic structure exemplified in (7) and (9) ～ (11). In other words, the learners would accept structures that are allowed in Japanese but not in English, as well as structures that are possible in both languages. If these two hypotheses turn out to be true, the preverbal DPs in Japanese － English interlanguage are not subjects in the sense of English, but either topics or subjects in the sense of Japanese.

3.2　Participants

14 native speakers and 31 Japanese learners of English participated in the experiment. All the

native speakers had been teaching English at institutes of higher education in Japan, and acted as controls. The majority of the learners were students at universities enrolled in either graduate or undergraduate courses.[6] All the learners took the Oxford Placement Test prior to the experiment, and were divided into proficiency groups according to their scores and the criteria set by the author of the test. The scores ranged from 114 to 162 and were divided into three levels: Elementary to Pre-intermediate ($\leq$ 134), Lower-intermediate to Upper-intermediate (135 – 149), and Post-intermediate ($\geq$ 150). We refer to these groups as Elementary, Intermediate, and Post-intermediate.

Table 1. Number of learners in each level

Proficiency Level	Elementary	Intermediate	Post-intermediate
Number of Learners	8	8	15

3.3 Task and materials

The present research was conducted as part of a larger study. A written acceptability judgement test was administered to the participants, who were asked to respond to English sentences by circling one of the four options, 1. *Not OK,* 2. *Probably Not OK,* 3. *Probably OK,* or 4. *OK.* They were also asked to mark the parts of sentences that they thought were problematic, when they had chosen *Not OK* or *Probably Not OK.*

The test includes sentences that have DP Topic — Subject sequences. They can be grouped into four constructions that vary as to whether the topic is θ - marked, and whether the subject is overt or null. Only the one that has the Internally- θ -marked Topic — Overt Subject sequence is grammatical in English. Constructions and examples are presented; their abbreviated names and the number of tokens are indicated in brackets [7]:

(12) Constructions used in the acceptability judgement test:

    a. *Non- θ -marked DP — Null Subject (*Non- θ NS; 6 tokens)

      • 'People have been trying to stop another war. <u>World peace has</u> to understand other cultures.'

    b. *Non- θ -marked DP — Overt Subject (*Non- θ OS; 8 tokens[8])

      • 'Hiroshi used to go to the Italian restaurant in front of the university. <u>The pasta dish, he</u> often ate seafood spaghetti.'

    c. *Internally- θ -marked DP — Null Subject (*Int- θ NS; 6 tokens[9])

      • 'If Americans start the war, many people in Iraq will suffer. <u>This problem has</u> to solve immediately.'

d. Internally- θ -marked DP － Overt Subject (Int- θ OS; 8 tokens)

- 'Everybody says that the seafood spaghetti in that Italian restaurant tastes really good. <u>That dish, I</u> have eaten once, but I honestly think that their Carbonara spaghetti is much better.'

3.4　Results

3.4.1　Group results

Learners' responses are counted as 'reject' if the learners have chosen *Not OK* or *Probably Not OK*, and have marked the parts of the sentences which are relevant. If, however, the learners marked the parts of the sentence which are irrelevant, their responses are counted as 'accept'. Responses are counted as 'accept' if the learners have chosen *OK* or *Probably OK*. Both types of responses are tallied and converted into mean percentage scores for each construction type by group.

Figure 1 shows results of the four constructions that have the DP Topic － Subject sequence. They are *Non- θ -marked DP － Null Subject (*Non- θ NS), *Non- θ -marked DP － Overt Subject (*Non- θ OS), *Internally- θ -marked DP － Null Subject (*Int- θ NS), and Internally- θ -marked DP － Overt Subject (Int- θ OS). Note that only the fourth construction is possible in English, and the graph shows mean percentage rejection rates.
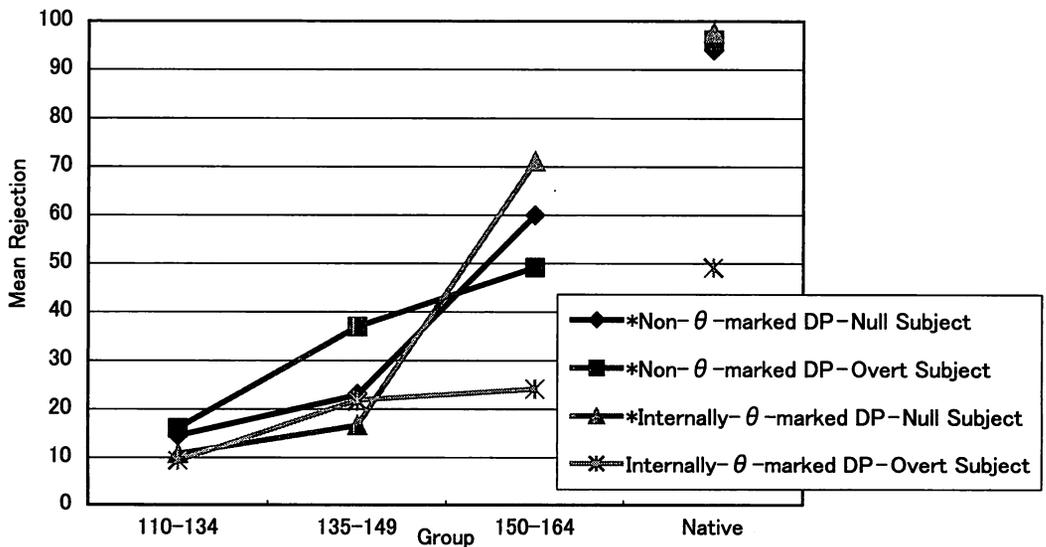

Figure 1.　**Mean percentage rejection scores on the Topic － Subject sequences**[10]

Native speaker rejection rates on the ungrammatical constructions are consistently around 95%. However, they have rejected the supposedly grammatical Int- θ OS 50% of the time. The elementary

learners accept all the constructions most of the time, regardless of their grammaticality. A similar tendency is observed in the results of the intermediate group, except that the rejection rate on *Non-θ OS is relatively higher than that of other ungrammatical constructions.

The data pattern of the post-intermediate group is radically different from those of the elementary and intermediate levels. While the rejection rate on the grammatical Int-θ OS remains low, the rejection rates on the ungrammatical constructions become high at this level. This suggests that the post-intermediate learners are able to differentiate the grammatical structure from the ungrammatical ones. This is supported statistically: the rejection rate on Int-θ OS is significantly different from each of the others ($x^2 \geq 15.13$, df=1, p ≤ 0.0001).

Only less than 25% of the post-intermediate learners think that Int-θ OS is unacceptable, but they reject *Non-θ OS 49.2% of the time. The rejection rate on *Non-θ NS is 60%, which is a little lower than that on *Int-θ NS (71.1%). These together may indicate that the learners generally perform better in constructions that contain θ-marked DPs than non-θ-marked DPs (x^2=14.14, df=1, p=0.002). Thus the data suggest that it is still difficult for the post-intermediate learners to judge the grammaticality of the Topic DP — Subject sequences when the DP topic is not θ-marked. They are not sure as to whether non-θ-marked DPs can be placed in the sentence-initial position alone, and whether they can be placed in the sentence-initial position when there is an overt subject which follows it. This implies that despite the fact that the learners distinguish the grammatical construction from the ungrammatical ones, their interlanguage grammar still has the Non-θ-marked Topic — (Overt/Null) Subject structure, which is possible in Japanese but not in English.

Let us summarise the group results. The elementary group accept all the four constructions, and a similar pattern is observed in the data of the intermediate group. The results of the post-intermediate group show a different picture. They seem to be able to distinguish the grammatical construction from the ungrammatical ones, and they generally perform better on the constructions containing internally-θ-marked DPs than those containing non-θ-marked DPs. The group's low accuracy in rejecting the latter constructions has revealed that their interlanguage allows the structure, Non-θ-marked Topic — Null/Overt Subject. This can be produced by their L1 but not by L2.

3.4.2 Individual Results

This section examines individual responses to see whether there are particular response patterns concerning the DP Topic — Subject sequences. To do this, learners who gave consistent responses to each construction are identified. The criterion for consistency was set as 70% or above.[11] If a learner has rejected sentences of a particular construction at the rate of 70% or more, we consider that s/he has consistently rejected the construction. In contrast, if a learner has accepted a particular construction at

the rate of 70% or more, we consider that s/he has consistently accepted the construction.

Table 2 shows the number of participants who consistently rejected / accepted the four individual Topic — Subject constructions (i.e. *Int - θ NS, *Non - θ NS, *Non - θ OS or Int - θ OS). The data generally confirm the results of our group analysis. Most elementary and intermediate learners consistently accept all four constructions, except that 3 out of 8 (37.5%) intermediate learners are not sure about the grammaticality of *Non - θ OS. Response patterns exhibited by post-intermediate learners are different from those of elementary and intermediate learners. The proportion of post-intermediate learners who reject the ungrammatical constructions is higher than those of elementary and intermediate level learners, whilst the proportion of post-intermediate learners who accept the grammatical construction stays the same. This implies that post-intermediate learners distinguish the grammatical construction from the ungrammatical ones. In addition, the number of post-intermediate learners who reject, accept or give chance responses to the null subject constructions (i.e. *Int - θ NS and *Non - θ NS) is exactly the same, and that the proportion of the learners who correctly reject those constructions amounts to over 50% (8 out of 15). Nevertheless, it should also be noted that 27 - 40% of them consistently accept the ungrammatical constructions, and that as it will become clear from the discussion below, the 8 learners who reject *Int - θ NS are not entirely the same individuals who reject *Non - θ NS, and that an individual who reject *Int - θ NS does not necessarily reject *Non - θ NS, or vice versa.

Table 2. **Number of participants who consistently ($\geqq$ 70%) rejected / accepted *Int - θ NS, *Non - θ NS, *Non - θ OS or Int - θ OS.**

Number of Participants		Elementary		Intermediate		Post-Int		Native	
		8	%	8	%	15	%	14	%
*Int - θ NS	Reject	0	0%	1	12.5%	8	53.3%	13	92.9%
	Accept	8	100%	7	87.5%	4	26.7%	0	0%
	Chance	0	0%	0	0%	3	20.0%	1	7.1%
*Non - θ NS	Reject	0	0%	1	12.5%	8	53.3%	14	100%
	Accept	7	87.5%	7	87.5%	4	26.7%	0	0%
	Chance	1	12.5%	0	0%	3	20.0%	0	0%
*Non - θ OS	Reject	0	0%	1	12.5%	5	33.3%	14	100%
	Accept	7	87.5%	4	50.0%	6	40.0%	0	0%
	Chance	1	12.5%	3	37.5%	4	26.7%	0	0%
Int - θ OS	Reject	0	0%	1	12.5%	2	13.3%	6	42.9%
	Accept	7	87.5%	6	75.0%	11	73.3%	5	35.7%
	Chance	1	12.5%	1	12.5%	2	13.3%	3	21.4%

Table 3 shows the number of subjects who consistently responded to the constructions having the *DP Topic — Null Subject structure (i.e., *Non - θ NS and/ or *Int - θ NS). All but one native speaker

reject both *Non-θ NS and *Int-θ NS. The number of learners who perform like native speakers increases as their proficiency rises. No one in the elementary group, one learner (13%) in the intermediate group, and 6 learners (40%) in the post-intermediate group, reject both constructions. However, looking across the column of the post-intermediate group, one notices that there is significant variation in the pattern exhibited by the rest of the post-intermediate learners (9 out of 15 (60%)). In addition, 88% (7 out of 8) of the learners in the elementary and intermediate groups accept both constructions. This pattern is also present in the data of the post-intermediate group, although the number is limited (2 out of 15 (13%)).

Table 3. Number of participants who consistently ($\geqq$ 70%) rejected / accepted *Non-θ-marked DP — Null Subject (*Non-θ NS) and/or *Internally-θ-marked DP — Null Subject (*Int-θ NS)

Number of Participants	Elementary		Intermediate		Post-Int		Native	
	8	%	8	%	15	%	14	%
Reject *Non-θ NS; Reject *Int-θ NS	0	0%	1	13%	6	40%	13	93%
Accept *Non-θ NS; Accept *Int-θ NS	7	88%	7	88%	2	13%	0	0%
Reject *Non-θ NS; Accept *Int-θ NS	0	0%	0	0%	1	7%	0	0%
Accept *Non-θ NS; Reject *Int-θ NS	0	0%	0	0%	2	13%	0	0%
Reject *Non-θ NS; Chance *Int-θ NS	0	0%	0	0%	0	0%	1	7%
Accept *Non-θ NS; Chance *Int-θ NS	0	0%	0	0%	0	0%	0	0%
Chance *Non-θ NS; Reject *Int-θ NS	0	0%	0	0%	2	13%	0	0%
Chance *Non-θ NS; Accept *Int-θ NS	1	13%	0	0%	1	7%	0	0%
Chance in Both Constructions	0	0%	0	0%	1	7%	0	0%

The same response pattern is also observed with the combinations of *Non-θ NS and *Non-θ OS, and *Int-θ NS and Int-θ OS (See Table 4 and 5). This suggests that Japanese learners, especially those at an early stage of acquisition, accept the DP Topic - Subject sequence, no matter whether the subject is null or overt, or whether the topic is θ-marked or not. This contrasts sharply with native speakers' response patterns; there is no native speaker who consistently accepts those combinations.

As can be seen from Table 5, although the Int-θ OS sequence is grammatical in English, not all native speakers accept it.[12] Nevertheless, their response pattern is consistent in that there is no single native speaker who accepts both *Int-θ NS and Int-θ OS sequences. This is in clear contrast to learners.

Table 4. Number of participants who consistently (≧70%) rejected / accepted *Non‐ θ ‐marked DP － Null Subject (*Non‐ θ NS) and/or *Non‐ θ ‐marked DP － Overt Subject (*Non ‐ θ OS)

Number of Participants	Elementary		Intermediate		Post-Int		Native	
	8	%	8	%	15	%	14	%
Reject *Non‐θ NS; Reject *Non‐θ OS	0	0%	1	13%	4	27%	14	100%
Accept *Non‐θ NS; Accept *Non‐θ OS	6	75%	4	50%	3	20%	0	0%
Reject *Non‐θ NS; Accept *Non‐θ OS	0	0%	0	0%	2	13%	0	0%
Accept *Non‐θ NS; Reject *Non‐θ OS	0	0%	0	0%	0	0%	0	0%
Reject *Non‐θ NS; Chance *Non‐θ OS	0	0%	0	0%	2	13%	0	0%
Accept *Non‐θ NS; Chance *Non‐θ OS	1	13%	3	38%	1	7%	0	0%
Chance *Non‐θ NS; Reject *Non‐θ OS	0	0%	0	0%	1	7%	0	0%
Chance *Non‐θ NS; Accept *Non‐θ OS	1	13%	0	0%	1	7%	0	0%
Chance in Both Constructions	0	0%	0	0%	1	7%	0	0%

Table 5. Number of participants who consistently (≧70%) rejected / accepted *Internally‐ θ ‐marked DP － Null Subject (*Int‐ θ NS) and/or Internally‐ θ ‐marked DP － Overt Subject (Int‐ θ OS)

Number of Participants	Elementary		Intermediate		Post-Int		Native	
	8	%	8	%	15	%	14	%
Reject *Int‐θ NS; Accept Int‐θ OS	0	0%	0	0%	7	47%	5	36%
Accept *Int‐θ NS; Accept Int‐θ OS	5	63%	6	75%	4	27%	0	0%
Reject *Int‐θ NS; Reject Int‐θ OS	0	0%	1	13%	2	13%	5	36%
Accept *Int‐θ NS; Reject Int‐θ OS	0	0%	0	0%	0	0%	0	0%
Reject *Int‐θ NS; Chance Int‐θ OS	0	0%	0	0%	1	7%	3	21%
Accept *Int‐θ NS; Chance Int‐θ OS	1	13%	1	13%	0	0%	0	0%
Chance *Int‐θ NS; Reject Int‐θ OS	0	0%	0	0%	0	0%	1	7%
Chance *Int‐θ NS; Accept Int‐θ OS	2	25%	0	0%	0	0%	0	0%
Chance in Both Constructions	0	0%	0	0%	1	7%	0	0%

Table 6 confirms the above observation that Japanese learners accept the DP Topic - Subject sequence, regardless of whether the subject is overt or null, and whether the topic is θ ‐marked or not. A comparison of the results presented in Table 3, 4 and 6 reveals that there is no native speaker who carelessly accepts or shows a chance-level performance with the constructions containing non‐ θ ‐ marked DP topics; only Japanese learners accept them. In addition, it is always the post-intermediate group which exhibits the greatest variation in response type, although it is also true that some members of the group seem to behave like native speakers.

Table 6. **Number of participants who consistently (≧70%) rejected / accepted *Non- θ -marked DP − Overt Subject (*Non- θ OS) and/or Internally- θ -marked DP − Overt Subject (Int- θ OS)**

Number of Participants	Elementary		Intermediate		Post-Int		Native	
	8	%	8	%	15	%	14	%
Reject *Non-θ OS; Accept Int-θ OS	0	0%	0	0%	3	20%	5	36%
Accept *Non-θ OS; Accept Int-θ OS	6	75%	4	50%	6	40%	0	0%
Reject *Non-θ OS; Reject Int-θ OS	0	0%	1	13%	1	7%	6	43%
Accept *Non-θ OS; Reject Int-θ OS	0	0%	0	0%	0	0%	0	0%
Reject *Non-θ OS; Chance Int-θ OS	0	0%	0	0%	1	7%	3	21%
Accept *Non-θ OS; Chance Int-θ OS	1	13%	0	0%	0	0%	0	0%
Chance *Non-θ OS; Reject Int-θ OS	0	0%	0	0%	1	7%	0	0%
Chance *Non-θ OS; Accept Int-θ OS	1	13%	2	25%	2	13%	0	0%
Chance in Both Constructions	0	0%	1	13%	1	7%	0	0%

Table 7 shows the number of participants who gave consistent responses across the four constructions. Participants are grouped into six categories: participants (1) whose responses are consistent with English syntax, (i.e. rejecting all three ungrammatical constructions and accepting the grammatical Internally- θ -marked DP − Overt Subject sequence), (2) who reject all four constructions including the grammatical one, (3) who reject all three ungrammatical constructions and give a chance-level response to the grammatical construction, (4) whose responses are consistent with Japanese syntax, (i.e. accepting all four constructions), (5) whose responses to all four constructions are random, and (6) whose response patterns do not fall into the first five categories. Because not all native speaker controls have accepted the grammatical Int- θ OS, we treat response patterns (1) ∼ (3) as possible native speaker patterns.

Table 7. **Number of participants who show particular patterns by giving consistent (≧70%) responses across the four constructions having the DP topic − subject structure**

	Elementary		Intermediate		Post-Int		Native	
Number of Participants	8	%	8	%	15	%	14	%
(1) English Pattern	0	0	0	0	2	13.3	5	35.7
(2) Reject Ung; Reject Gram	0	0	1	12.5	1	6.7	5	35.7
(3) Reject Ung; Chance Gram	0	0	0	0	1	6.7	3	21.4
Sub-Total: (1) ∼ (3)	0	0	1	12.5	4	26.7	13	92.9
(4) Japanese Pattern	5	62.5	4	50.0	2	13.3	0	0
(5) Chance for all	0	0	0	0	1	6.7	0	0
(6) other	3	37.5	3	37.5	8	53.3	1	7.1

Generally, with increasing proficiency level, the number of learners whose response patterns are

consistent with native speakers' increases, and the number of learners whose response patterns are consistent with Japanese grammar decreases. About 60% of elementary and 50% of intermediate learners accept all four constructions. About 40% of learners in both groups fall into category (6), either consistently accepting or giving inconsistent responses to the four individual constructions (See Table 8). These results suggest that except for one learner, all learners in both elementary and intermediate levels do not reject constructions that can be produced by Japanese syntax but not by English syntax.

As to post-intermediate learners, 27% of them show response patterns consistent with natives; however, 13% show response patterns consistent with Japanese. Further, 53% of them fall into category (6). Among them, 3 out of the 8 learners in the post-intermediate level correctly reject both *Int-θ NS and *Non-θ NS, but accept or give inconsistent responses to *Non-θ OS. This outcome may be interpreted as implying that these learners have acquired the strong D feature but have not abandoned the topic ― comment structure in Japanese. Nevertheless, the variability exhibited by the rest of the learners (5 out of 8) indicates that this is not a plausible explanation (See Table 8).

Table 8.　Response patterns exhibited by the learners who fall into category (6) in Table 7

		*Int-θ NS	*Non-θ NS	*Non-θ OS	Int-θ OS
Post-intermediate	162	Reject	Reject	Accept	Accept
	158	Reject	Accept	Accept	Accept
	157	Accept	Reject	Chance	Accept
	157	Chance	Accept	Chance	Accept
	156	Reject	Reject	Accept	Accept
	156	Reject	Reject	Chance	Reject
	155	Chance	Chance	Reject	Accept
	152	Accept	Chance	Accept	Accept
Intermediate	148	Accept	Accept	Chance	Accept
	145	Accept	Accept	Chance	Chance
	138	Accept	Accept	Chance	Accept
Elementary	134	Accept	Accept	Chance	Accept
	128	Accept	Chance	Accept	Accept
	121	Accept	Accept	Accept	Chance

To summarise the main outcomes of the individual analysis concerning the DP Topic ― Subject sequence, generally a greater proportion of learners behave like native speakers as their proficiency increases. Nevertheless, the majority of intermediate as well as elementary level learners accept the sequence, regardless of whether the DP topics are θ-marked or whether the subjects are overt or null. In addition, the post-intermediate learners, on the other hand, exhibit large variation in their response patterns.

3.5 Discussion and Conclusion

The results of group mean and individual consistency analyses have supported our claim: intermediate level Japanese EFL learners transfer their L1 parametric properties responsible for null subjects and the topic-comment structure. Data on the constructions involving the DP Topic — Subject sequence have provided the following evidence. The group and individual response analyses have shown that the majority of elementary and intermediate learners have generally accepted all four constructions irrespective of whether the DP topic is θ-marked or whether the subject is overt or null, exhibiting a pattern consistent with Japanese syntax. This implies that noun phrases appearing immediately before the verb in Japanese — English interlanguage are not subjects in the sense of English (i.e. DPs in the Spec of TP), but are topics or subjects in the sense of Japanese.

Our data also suggest some features of the interlanguage grammar of post-intermediate learners: some of the learners consistently reject one construction type (e.g. *Int-θ NS) but accept another (e.g. *Non-θ NS), or vice versa. This is not a kind of pattern that we would expect to see if learners had acquired the strong D feature. Therefore, it is even doubtful that the post-intermediate learners have reset the strength feature associated with D. Nevertheless, post-intermediate learners as a group, distinguish the grammatical Int-θ OS from the ungrammatical constructions. Moreover, the group is more accurate in the constructions containing internally θ-marked DPs than those containing non-θ-marked DPs. The former could be due to the fact that Int-θ OS is grammatical and that learners receive relevant input directly. The latter may be attributed to the learners' sensitivity to different θ-roles. They notice the contradiction in θ-roles, such that a DP being the theme of the sentence is in the position for the agent. This would have led the learners to reject *Int-θ NS more than *Int-θ NS and *Non-θ OS.

End Notes

2) Speas assumes here that Infl is split into two, AGR and T, each of which has its own projection (Pollock, 1989). She also assumes that subject moves to the specifier of AGRP, which is higher than TP in the structural hierarchy (Belletti, 1990; Chomsky, 1993).

3) See, for example, Hoji (1985), Ishii (1991), Mihara (1994), Saito (1985), Tateishi (1991/1994), Yanagida (1996) among others for the discussion of -wa phrases in Japanese, and Culicover (1991) for the discussion of topicalisation in English.

4) A clause following a topic must be a statement about the topic.

5) Simple sentences like '*John reads a book.*' are usually translated into Japanese or understood by Japanese learners of English, as sentences having a *-wa* phrase, as *John-* **wa** *hon-o yomu.*, instead of having a *-ga* phrase.

6) Two of the learners have already graduated from university and are currently working in companies.

7) * indicates that the construction is ungrammatical.

8) This is the number of sentences included in the actual test. However, one sentence has been excluded from the analysis because it contained a typographical error.

9) See note 8.

10) One sentence in *Non-θ-marked DP — Overt Subject and another sentence in *Internally-θ-marked DP — Null Subject have been eliminated from the analysis after typos were discovered. See note 8 and 9.

11) The number of test sentences contained in each construction varies from 5 to 8. When 70% of the number is not a whole number, it has been rounded to the nearest whole number.

12) This seems to be due to the fact that object topicalisation, though possible, is very rare in English.

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