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The diachronic development of English nominals: why is the article system so difficult?

Fuyo OSAWA

- Abstract -

This paper discusses the diachronic development of nominal structures of English. I argue that a functional D system was absent in earlier English like Old English and a D system emerged later in English as a syntactic device to compensate for the loss of morphological case. The syntactic DP is a new comer to the English language. The function of a D is identifying the referentiality of a nominal and changing it into an argument. However, this function is not always taken care of by a D. Without a D, morphological case can do the same task. In Old English, morphological case attached to nominals could change them into arguments. As a result of the demise of morphological case distinctions, this device became unavailable. Subsequently a functional D-system has developed to do the same job in English. The Present-day English DP is a syntactic necessity and appeared as such in the Middle English period.

A D system belongs to functional categories whose function is grammatical rather than semantic. This causes the difficulty of language learning for Japanese learners of English. It is very difficult for Japanese learners to understand a D system. The semantic contribution of a D system is secondary and then, it is not easy for language learners, since language learners and children are more dependent on semantic cues. The difficulty of a D system is inherent in its nature.

0. Introduction

In this paper, we take up the diachronic development of nominal structures in the history of English, putting a focus on the emergence of articles. There are two aims of this paper. The first aim is to show that the English determiner system (DP) is a syntactic necessity and appeared as such in the Middle English period. In doing so, I also show that, given the non-universality of functional categories (Gelderen 1993), Fukui (1995), Thráinsson (1996) Osawa (2003) and Osawa (2009), the view that the same functional categories should exist in all languages at any stage of their development is not always correct. Rather, it would be better to take a flexible view on the language development and on functional categories:

(1) Language variation is due to differences in the degree to which functional features are codified as grammatical categories, i.e., whether they are upgraded to functional categories which have their own projection in the clause structure and if so, which features are upgraded.

(Osawa 2003: 4)

The second aim is to show that the difficulty of the English article system is ascribed to its

historical development which is mentioned above and its nature as a functional category. It is often said that one of the most difficult problems for Japanese learners is the correct use of the English articles a/an and the. As we will see later in this paper, in a study of grammatical errors made by Japanese students, the article use had a higher percentage of mistakes than any other grammatical category (Kimizuka 1967). It would be better to point out that it is not always the fault of Japanese learners, but the English article system, or rather a determiner system has some problems. Concerning this, L1 interference will be discussed from a different viewpoint.

The outline of this paper is the following: the first chapter describes how difficult it is for Japanese learners to use English articles correctly. The second chapter deals with the historical facts to show that there was no determiner system in Old English and the system emerged later in the Middle English period. The third chapter argues the nature of a determiner system or rather a functional category in general in Present-day English.

The fourth chapter takes up the Japanese language and discusses the differences between English and Japanese, which may affect Japanese learners' acquisition of English. Finally, we conclude the discussion of this paper.

1. Japanese learners

As Swan (1980: § 63) says, the correct use of the articles (a/an and the) is one of the most difficult points in English grammar. Indeed, the English articles, both definite and indefinite articles are difficult items for Japanese learners of English to learn.

Kimizuka (1967) has investigated the article use of Japanese students and has argued that the article use had a higher percentage of mistakes than any other grammatical category. She writes:

(2) Japanese has no part of speech equivalent of English articles... That article usage constitutes one of the greatest problems for the Japanese learners is vividly revealed in the high frequency of mistakes, the highest of all the structural items. The Japanese student must not only learn the numerous rules for the usage with as many exceptions, but he/she must also practice them by drill. It is comparatively simple to learn the rules, but it is not equally simple to apply the rules to actual situations

(Kimizuka 1967: 78-79)

Kimizuka also states that "the use of articles belongs to the new category for the Japanese students" (Kimizuka 1967: 78).

More recently, Muto-Humphrey (2006) has examined the use of the English article system of Japanese studying English as a second language. Muto-Humphrey (2006) has collected the data for the written tasks from 36 university students (freshman, male and female) in Nagoya, Japan. All students are English major and then, motivated to learn English. Students were first required to read a short story and then produce four written tasks (200–250 words each) such as (i) making a summary, (ii) answering a question (iii) creating an original sequel, and (iv) writing a critique. In total, 144 written tasks which consist of 200–250 words each were investigated. 32

written tasks out of 144 were used for investigation of article usage. The classification of the article usage is shown in the table 1:

	144 writte	n tasks (total)	32 written tasks (random sample)		
	Total number of articles	Percentage of articles to total (%)	Total number of articles	Percentage of articles to total (%)	
a/an	758	26	212	28	
the	2,165	74	526	72	
Total	2,923	_	738	_	

Table 1

Errors of article usage are divided into 3 types: (i) omission, (ii) unnecessary insertion, and (iii) confusion. The result of the analysis is shown in Table 2:

	Omission	Unnecessary Insertion	Confusion	Total number of errors
a/an	74	16	33	122
the	128	17	34	179
Total	201	33	67	302

Table 2

The omission type of error has shown the highest frequency (201). Omission means the lack of an article where it is required. Unnecessary insertion indicates articles are inserted where they are not needed. Confusion means situations where a is used instead of *the* or vice versa.

There are some examples enumerated below:

- A. Omission of a/an
- (3) And he took out [a] knife that he hid in his pocket.
- (4) I think, it is not [a] good idea for the people.
- (5) ...he became unhappy. [A] Few decades later, the brave man...
- B. Omission of the
- (6) ... is decided by us and [the] people decide for all judgment...
- (7) ... was pleased. He liked [the] brave and strong man.
- C. Unnecessary Insertion of a/an, the
- (8) I think that politician are should get on *a* people.
- (9) ...people could watch *a* fighting which included soldiers...
- (10) ...of his country and *the* people
- (11) ...people liked to see *the* blood.
- D. Confusion: a/an used instead of the
- (12) And the princess and *a* [the] worker got married and...

- (13) ...king didn't know that *an* [the] accused worker was...
- E. the used instead of a/an
- (14) ...there was *the* [a] king who had semi-barbarism.
- (15) The king had *the* [a] very beautiful daughter and he...

How should we account for those errors made by Japanese students? Some researchers (cf. Muto-Humphrey 2006) argue that this is partly due to the way students learn the articles at school. Then, the improvement of teaching procedures solves this problem to some extent.

There has been wide agreement among researchers on the effect of L1. As pointed out above, the Japanese language has no article system, and hence, this may explain the highest frequency of omission type errors made by the Japanese students. Bryant (1984) has analysed 200 English essays written over a three-year period by different groups of Japanese university students who attended an Intensive English summer programme at an American university and he reports that errors of articles were frequently encountered especially among Asian and Slavic students with no article system. Furthermore, the Japanese language does not have singular and plural form distinction. There is no plural marking equivalent to the English ending -(e)s. Although the plural marker *tachi* is available, its use is not obligatory and limited to humans. These differences may also affect the acquisition of articles of Japanese learners.

It cannot be denied that the L1 interference has contributed to the article usage errors made by Japanese students. However, it would be useful to look at the English article system from a different point of view. Indeed, the usage of the English articles is often said to be unlearnable and unteachable, because it can only be acquired through natural exposure to the language (Dulay, Burt, and Krashen 1982). Celce-Murcia and Larsen-freeman (1983: 172) argue that "... to a great extent, we depend on discourse context to determine what is definite and what is indefinite."

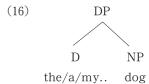
In the subsequent sections, I claim that the difficulty of the Present-Day English article system might be related to the diachronic development of the English article system. Old English (700 to 1100) lacked the current article system, more precisely a determiner system (DP), and the determiner system appeared in the Middle English period. The determiner system was an innovation introduced relatively recently into the English language. Furthermore, I suggest that L1 interference which is mentioned above might be better explained in terms of a functional category.

2. Historical facts: the lack of DP in Old English and its emergence in Middle English

2.1. NPs and DPs

Here in this chapter, I take up the historical emergence of a syntactic determiner system in English. I claim that the nominal in Old English is NP, not DP. This means that Old English had no articles such as a/an, the. According to the DP analysis (Abney 1987; Longobardi 1994),

nominals in Present-day English are assumed to be a projection of a head D, not a head N. The structure of nominals is the following:



The difference between NP and DP is described as follows. As Longobardi (1994: 628) argues, NPs are inherently predicative and thus cannot occur in argument positions such as subject and object. Indeed, predicative noun phrases expressing the profession, social status, sex etc. of human beings particularly tend to be bare (Lyons 1999, 104). NPs are not referential; referential nominals may be paraphrased as "those that are understood as denoting a particular entity in the universe of discourse" (Rapoport 1995: 154). This is exemplified in the following sentences:

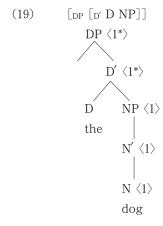
- (17) a. John is chairman of the Committee.
 - b. *I met chairman yesterday.
 - c. *Chairman donated a lot of money to the institution.

As is claimed in Longobardi (1994), NPs are inherently predicative and not referential. Only DP can occur in argument positions. As Longobardi (1994: 628) argues, a common noun is kind-referring, not referential.

(18) DP can be an argument, NP cannot. (Longobardi 1994: 628)

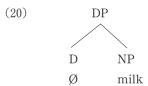
The role of picking out a particular referent is assumed to be taken care of by a functional D in Present-Day English; the role of a functional D is to change predicative nominals into arguments.

This picking out operation is best explained by the theory of theta-binding proposed by Higginbotham (1985). According to Higginbotham (1985), a simple noun like *dog* has an open place in it and so denotes each of the various dogs. This open place is a referential argument in the argument structure of the word *dog*, which is called "Referential role", or R role. This position must be bound for an NP to be an argument as discussed above. That is, a nominal must be specified as either definite or indefinite for interpretation. This binding mechanism is illustrated below:



Theta-grids shown in angle brackets are projected from lexical items and are carried over by every node in the tree. The Referential argument position 1 is theta-bound by D, that is, the position is discharged by theta-binding. The asterisk indicates that the position closes or is discharged. When every theta role in an associated theta grid is discharged, we can say that a constituent is saturated. The complete phrase DP is saturated, i.e. all positions are discharged and the phrase is thematically complete (cf. Higginbotham 1985: 561).

The bare noun milk is a DP headed by a null determiner:



Nouns like *milk*, *water*, or *wine* are mass nouns and have an indefinite existential interpretation. Plural count nouns which can occur without overt determiners are also understood as belonging to this category. This reading comes from the principle stating that an empty determiner is subject to the universal constraint that it has an existential interpretation by default:

(21) [De] = default existential interpretation (Longobardi 1994: 641) Since it is a default, this interpretation may be overruled by the presence of other elements like quantifiers or adjectives.

2.2. Absence of a D-system in Old English

In the previous section, we have observed that the function of a D is identifying the referentiality of a nominal and changing it into an argument. However, this function is not always taken care of by a D. Without a D, morphological case can do the same task. In this section, I turn to the Old English period and show that this is indeed the case with Old English. There are no DPs in Old English. I claim that without a D-system, morphological case bound the R-role of a nominal and change it into an argument in Old English. Although Old English had two demonstratives, se (seo/pæt), and pes (pis/peos), there were no articles (definite or indefinite) with the properties they have in Present-day English. It is widely accepted not only in traditional works such as Quirk and Wrenn (1955: 69-72), Mitchell and Robinson (1992: 106), and Pyles and Algeo (1993: 114, 128) but also in the more recent literature like Abraham (1997: 29-61), Philippi (1997: 62-93) and Giusti (1997: 77-93), that these demonstratives are not determiners, although the treatment of the issue varies from researcher to researcher. Traugott (1972: 85–87) already states that one of the most striking things about the NP in Old English is the almost complete absence of anything directly corresponding to a and the. More recently, Philippi (1997) states that the emergence of articles is a relatively recent development; languages like Gothic, Old High German, Old Saxon and Old English do not have a definite or an indefinite article. This position is based on the assumption that articles and demonstratives do not constitute a homogeneous category (see Giusti 1997: 95-123). I argue that demonstratives have the status of N.

First, look at the following Old English paradigm, which shows nouns inflected for case,

gender and number:

(22)	OLD E	NGLISH NOUN	DECLENSI	ON
	Strong	Masculine	Neuter	Feminine
	Singular	(stone)	(deer)	(love)
	Nominative	stan	deor	lufu
	Accusative	stan	deor	lufe
	Genitive	stanes	deores	lufe
	Dative	stane	deore	lufe
	Plural			
	Nominative	stanas	deor	lufa
	Accusative	stanas	deor	lufa
	Genitive	stana	deora	lufa
	Dative	stanum	deorum	lufum
	Weak	Masculine	Neuter	Feminine
	Singular	(name)	(eye)	(sun)
	Nominative	nama	eage	sunne
	Accusative	naman	eage	sunnan
	Genitive	naman	eagan	sunnan
	Dative	naman	eagan	sunnan
	Plural			
	Nominative	naman	eagan	sunnan
	Accusative	naman	eagan	sunnan
	Genitive	namena	eagena	sunnena
	Dative	namum	eagum	sunnum

The demonstratives were fully inflected just like nouns according to the case, gender and number of the nouns they modified:

(23) PARADIGM of se DEMONSTRATIVE

	Masculine	Neuter	Feminine	Plural
Nom.	Se	þæt	seo	þa
Acc.	þone	þæt	þa	þa
Gen.	þæs	þæs	þære	þara
Dat.	þæm	þæm	þære	þæm

Where we would use a definite article, one of the two demonstratives was typically used: and where we would use an indefinite article, either the numeral *an* 'one' or *sum* 'a certain' could be used. Numerals (from one to three) in Old English inflected according to gender, case and

number, too. However, more importantly, Old English frequently had no word at all where we would expect an article today. Consider the following examples:

(24) wælstowe gewald battlefield (fem. Gen.) command 'command of the battlefield'

(25) fram beaduwe from battle (mas. Dat.) 'from the battle'

(26) Oddan bearn
(Gen. Sg.) son (neut. Nom. Pl.)
'the sons of Odda'

(27) Eall eorðe ys min (Ælfric Exodus xix 5 (OED)) all earth is mine 'all the earth is mine'

(28) be suðan Temese (CP 3, 18) by south Thames 'the south of the Thames'

(29) holtes on ende wood (neut. Gen.sg.) on end (mas.) 'at the edge of a wood'

(30) on beorg onto mountain (mas. Acc.) 'onto a mountain'

(cf. Mitchell and Robinson 1992, 107, Pyles and Algeo 1993, 128. The examples from (24) to (26) and (29) (30) are from Mitchell and Robinson.)

In (27) or (28) the definite article *the* is necessary in Present-day English because they refer to something of which there is only one in the world. Later, the form pe replaced the masculine nominative se: at first in the Northern dialect around 950. The nominative masculine and feminine seo had become pe almost everywhere by 1300. This new form pe came to be used as an invariable definite article the after 1400. The neuter form pet and the plural form pa(tho) were left for the demonstrative function. From the other Old English demonstrative pes(pis/peos), the singular nominative-accusative neuter this came to be used for all singular functions, and a new plural form, thise or these appeared, the ending -e as in the plural of adjectives.

There is an alternative view of the situation, however. That is, se/seo/pat and an could have functioned as both article and demonstrative/numeral, while Present-day English has formerly separate articles. Hence, there is not much difference between Old English and Present-day English. Indeed, as John Anderson points out (p.c.), examples in which those demonstratives are used like articles are found in the Old English texts. Look at the following example:

(31)	Wið	<u>þa</u>	blegene,	genim	nigon	ægra	and	• • •	fæste,
	With	the	ulcer	take	nine	eggs	and		hard
	and nim <u>þa</u>	geolcan	and	do	þæt	hwite	aweg	and	l
	and take the	yolks	and	make	the	white	away	and	l

'With the ulcer, take nine eggs and boil them hard, and take the yolks and take the white away' (*Medicinal recipes* from Sweet 1953)

In this example, *ba* is used in a way similar to the article of Present-day English. However, as Phillippi (1997: 62–93) argues, "occasionally we find in Germanic languages demonstratives used in a way similar to the article of the modern Germanic languages. In much the same way, there are indefinite pronouns and numerals used in an article-like manner. However, it will be shown that the use of these pronouns is so restricted that we cannot label them as articles, the latter acting as obligatory definiteness markers in the modern Germanic languages." At worst, my claims must be relativized to yet earlier stages of the language. Still, the main claim that the obligatory determiner system emerged in the history of the languages is sustainable.

We should note that we are dealing with a change from one stage to the next, so that, at the linking stage, the residue from the previous grammars is not excluded from the data. Likewise, the earliest examples produced by new grammars may coexist with the examples from the older grammars. However, the presence of such mixed data does not invalidate the claim that there is a transition from stage A to B. Traugott, (1972: 86) says that we do indeed find a few instances of Old English *an* which are difficult to interpret as the numeral, nevertheless, it was many centuries before it came to be used as in NE (i.e. Present-day English).

At this point, we should also draw attention to the dates of the texts cited. The medicinal recipe example (31) is from the 11th century. As Quirk and Wrenn (1955: 70–71) suggest, there is a difference in the use of *se* across the time: it occurred mainly in late Old English prose.

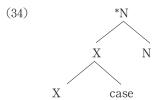
In the example below, an was placed after the nominal to mean alone, only, although an could also be placed prenominally. In this case, there was often no agreement between an and the antecedent noun. That is, it might be being used as an adverb:

(32	he <u>ana</u> wæs on lande	(Mark 6, 47)
	'he alone was on the land'	
(33	3) ðone naman <u>anne</u> we lufodon	(CP 5, 7)
	'we loved the name only'	

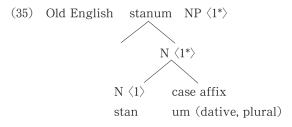
2.3. Case as a binder

In this section, we will see how referential argument positions could be bound by morphological case in languages without a D system. What follows directly from theta-binding is that when morphological case distinctions are present in a language, the position is discharged by theta-marking. There is no need for syntactic theta-binding. Therefore, no D-system is necessary. As a result of the demise of morphological case distinctions and the change in the case system from being morpho-semantically-based to being structurally based, as we discuss below,

theta-binding has become necessary. One thing I should make clear is that theta-binding is effected only by an element attached directly to a nominal projection. Therefore, the following is not possible:



In the absence of a D-system, the task of identifying the referentiality of a nominal is taken care of by morphological case on the head nouns in Old English. Case affixes attached to head nouns can bind the Referential role.



(Osawa 2000: 63)

That is, nouns can become arguments of predicates if they are case-marked in Old English. What made this possible is the lexical-thematic nature of Old English and its thematically motivated case system. The lexical-thematic nature means that all constituents in a given language belong to lexical categories (i.e. NP, VP, AP), and all sister constituents are thematically inter-related. Functional categories such as DP, CP, or TP do not exist or develop only limitedly in such a language. One instantiation of this nature is a morpho-semantic case system.

In Old English, morphological case was assigned to a thematically related NP. Morphological case was closely related to the thematic roles of nouns. In Present-day English the thematic role of subject of the verb like *undergo* meaning 'to bear', 'to suffer', is not Agent, but Patient. Still, the subject of the verb *undergo* can be assigned nominative case. Like this, there is no motivated relation between thematic roles and syntactic cases in Present-day English. There may be a many-to-many relationship between structural cases and thematic roles. Whatever its thematic role is, Agent, Patient, or Experiencer, nominative case can be assigned to the subject. However, in a lexical-thematic language like Old English, morphological case was assigned to a thematically related NP. Then, the NP with the semantic role of Experiencer tended to be realized as the dative NP object, rather than as the nominative subject. Under this case system, a constituent is licensed to occur in a given argument position only if it is assigned an appropriate theta role. Nouns can become arguments by theta role assignment only, and theta roles are expressed in the form of morphological case: morphological case marking is sufficient for a NP to be an argument.

2.4. The demise of case morphology and the emergence of a D system

In the previous section, we have observed how referential argument positions can be bound

by morphological case. The morphological case distinctions decayed in many languages and syntactic theta-binding by a D-system became necessary.

I propose that a change in the case system from a semantic-based to a structural based one also played an important role in the emergence of a D system. The leveling of inflectional endings had already begun in Old English, and by the early Middle English period many Old English inflectional distinctions were lost. Morphological case could not perform the task of identifying the Referential role of nouns and turning them into arguments any more. The thematically motivated case system decayed and, subsequently a functional D-system has developed to do the same job in English. The demise of morphological case already progressed to a considerable extent during the Middle English period. The definite article *the* may be established around 1400.

Thanks to the emergent D, new nominal constructions were made possible. For example, group genitive constructions such as *the king of England's wife* are not possible without a D-system, since in this construction another DP occurs in [Spec, DP] position. As Hamasaki (2003) argues, if we assume that the genitive form was reanalyzed as a D-head, we can easily explain this innovation.

3. The nature of functional categories

In the previous sections, I have observed that the nature of articles is a functional category head D, which emerged in English rather recently. In this section, I discuss the nature of functional categories, which is related to the difficulty of learning the English article system mentioned above. Why are the functional categories difficult for foreign learners to learn? In order to answer this question, we must examine what the functional categories are.

As Abney (1987) argues, the nature of functional categories is multi-faceted. I have enumerated important factors below, based on Abney (1987: 64f.):

- (36) 1. Functional elements constitute closed lexical classes.
 - 2. Functional elements are generally phonologically and morphologically dependent. They are stressless, often clitics or affixes, and sometimes even phonologically null.
 - 3. Functional elements permit only one complement, which is in general not an argument. (They select IP, VP, NP, but not CP, PP, and DP.)
 - 4. Functional elements are usually inseparable from their complements.
 - 5. Functional elements lack "descriptive content". Their semantic contribution is second-order, regulating or contributing to the interpretation of their complement. They mark grammatical or relational features, rather than picking out a class of objects.

None of these properties are criterial in deciding whether an element is lexical (thematic) or functional, although Abney says that the final characteristic is in some sense the crucial one. But,

each of these properties constitutes a tendency. Not all of these properties need to be shared by all functional categories.

We have argued that Old English demonstratives are not a functional D. The Old English demonstratives which have been observed above made an important semantic contribution of their own. These demonstratives were used to denote a person or a thing pointed out or present deictically, and attention was directed on to them. Furthermore, although the use of *an* or *sum* is rare, when they are used, they mean something more than just 'one' (cf. Mitchell and Robinson, 1992):

- (37) an mægð 'a certain tribe'
- (38) sum mon 'a certain man'

Secondly, Abney says that articles are strictly inseparable from their complement, and cannot occur without them as exemplified in (39).

- (39) a. I saw the/a* (boy).
 - b. *The is a great king.

However, demonstratives in Old English were not dependent on the noun or nominal elements, but they were independent lexical elements. The evidence to show this comes from the fact that they were used as demonstrative pronouns without the company of nominals.

The features enumerated by Abney (1987) strongly suggest that Old English demonstratives such as *se/seo* were not a functional category, but a lexical category.

Like this, functional categories are assumed to have mainly functional content and form closed classes. There is no agreement on how many functional categories we should posit in languages, although there is wide agreement on the presence of DP, CP, and TP/IP. Care is needed when we posit the invisible or inactive elements in languages. I follow the proposals made by Thráinsson (1996) and Fukui and Sakai (2003). Fukui and Sakai (2003: 329) argue that "if the functional categories are present in a language, but they are not active, what does their existence mean exactly?" They propose "The Visibility Guideline for Functional Categories" along similar lines with Thráinsson (1996).

(40) The Visibility Guideline for Functional Categories

A functional category has to be visible (i.e. detectable) in the primary linguistic data. (Fukui and Sakai 2003: 327)

Thráinsson (1996) argues that languages may vary with respect to the functional categories they have, and proposes the real Minimalist Principle: "Assume only those functional categories that you have evidence for".

In the case of Present-day English DP, visible elements such as a/an, the, are present and then, the presence of DP in English is confirmed. Considering the difficulty of the Present-day English determiner system, I suggest that the fifth feature is most important, which is repeated below:

5. Functional elements lack "descriptive content". Their semantic contribution is secondorder, regulating or contributing to the interpretation of their complement. They mark grammatical or relational features, rather than picking out a class of objects.

That is, the function of DP is grammatical rather than semantic, and Japanese learners of English are required to understand this in order to use English articles correctly. As we have observed in the previous sections, the Present-day English DP is a syntactic necessity and appeared as such in the Middle English period. It is very difficult for Japanese learners to understand this system fully. I suppose that Japanese learners use meaning to discover the structures of the language that they are learning (see semantic bootstrapping proposed by Pinker 1984), as children who are acquiring English as their L1 do so. The knowledge of semantics helps in acquiring syntax. It is suggestive that in first language acquisition (English) a functional D is also supposed to emerge later (Brown 1973). This suggests that the functional D is not easy for English children to acquire, either. Interestingly, the child's early grammatical development can be described as the acquisition of grammatical categories (Radford 1990). As is well known, the child's first language development is divided into the four main stages:

(41)	(i)	prelinguistic stage	0∼12 months
	(ii)	one-word stage	12∼18 months
	(iii)	early multi-word stage	18∼24 months
	(iv)	later multi-word stage	24∼30 months

At the one-word stage children begin to associate particular sounds sequences with particular concepts. They produce first words. However, at this stage the words produced by children are acategorial, that is, they have no grammatical properties. Children proceed to the two-word (early multi-word) stage which consists of lexical categories only. The stage involving functional categories in addition to lexical categories comes after this stage. The structures of early child grammars around the age of 24 months (+/-20%) lack a functional category D, and its related syntactic phenomena. That is, there is only N, and its projection NP, but no DP. Therefore, the absence of DPs and the absence of related phenomena are expected in the acquisition data. The examples support this prediction (Radford 1990: 83–84):

(42)	а.	Where helicopter?/ Here helicopter./ Where bee?	(Stefan 17 months)
	b.	Open door. / Want ball./ Want car	(Stefan 19)
	C	Open can / Open box / Fat cookie	(Allison 22)

Nouns or NPs can occur in places where DPs are expected in the corresponding adult English. The absence of determiners in the above examples leads to ungrammaticality in the adult grammars. Like this, children acquire semantic properties related to the lexical category N, while their grammars lack phenomena involving DP. Although it needs more elaborate discussion before concluding that children's early speech is organized purely semantically, it is safely said that children rely on semantic cues. Japanese learners also rely on semantic-based grammar when they are learning English.

Furthermore, although arguably, I suggest that the phonological null entities are difficult to

acquire, though it is possible (cf. Machida 1999). It is pointed out that functional elements are generally phonologically and morphologically dependent. They are stressless, often clitics or affixes, and sometimes even phonologically null. As we have observed in chapter 2 a Present-day English D head can be a null determiner. The phonological null elements in second language learning are not easy to acquire, although it needs much closer examination of acquisition facts.

4. Japanese

In chapter 1, we have observed the effect of L1 interference in the article usage errors made by Japanese students. In this chapter, I claim that this L1 interference is related to the nature of the Japanese language. That is, the Japanese language lacks functional categories. Fukui (1995) argues that Japanese lacks the functional categories C and D, although it may have a defective I, which contains no relevant agreement feature. It is a well-established fact that Japanese does not have the equivalents of English articles such as a or the. Thus, noun phrases can occur freely without being accompanied by anything, irrespective of differences in nouns such as "countable", or "mass", and singular or plural:

(43) a. John-ga hon-o katta

John-nominative book-accusative bought

Literal translation 'John bought book = John bought a book/John bought the book.'

cf. *John bought book (Present-day English)

b. John-ga takusan-no hon-o katta

many book

Literal translation 'John bought many book = John bought many books.'

c. John-ga mizu-o nonda water-accusative drank

'John drank water'

d. John-ga takusan-no mizu-o nonda much

'John drank much water.'

A candidate for a functional head D in Japanese might be a class of demonstratives such as *ko-no* 'this', *a-no* 'that over there', and *so-no* 'that, the'. However, they behave like pre-nominal modifiers, rather than a D head. They are different in meaning: *ko-no* near the speaker, *so-no* near the hearer *a-no* away from both of them. They can cooccur with other pre-nominal elements giving results parallel to "John's that car", as in (44a), and more importantly, *a-no* can be dispensed with as in (44b, c). The variant forms can stand by themselves as arguments like (44d):

(44)	a.	Tom-ga	John-no	a-no	kuruma-o	katta
		Tom	John's	that	car	bought
	b.	Tom-ga	kuruma-o		katta	
		Tom	car		bought	

c . Kuruma-ga kosyoo-si-ta Car broke down

d. A-re-ga watasi-no ie desu That-Nom. my-Gen. house is

'That is my house'

Concerning the I system, which involves syntactic phenomena such as modals, do-support, subject-verb agreement, (syntactic) nominative case assignment, and subject-Aux inversion in Present-day English, all of these properties are lacking in Japanese. Do-support and modals (where by modals, I mean a separate class of verbs which are distinguished syntactically from lexical verbs) are simply lacking in Japanese. And subject-verb agreement is likewise absent from Japanese as well, since in this language there are no devices to express ϕ -features.

Nominative case assignment (ga marking) takes place independently of whether the sentence is tensed or not. This total lack of the relevant properties strongly indicates the non-presence of the functional category I/T in Japanese. Thus, "tense morphemes" like -ta (past) and -ru (present/non-past) in Japanese do not form a syntactic category I/T, but are part of a verbal head; and Japanese sentences are basically projections of V, rather than those of I/T. (cf. Fukui 1995, 108–19).

Based on the evidence discussed above, we can conclude that the Japanese language lacks functional categories and then, the absence of DP follows. This absence definitely affects Japanese learners of English. This lack of functional categories is another aspect of L1 interference in second language acquisition.

5. Conclusion

In this paper, we have observed that a functional D system was absent in earlier English like Old English and the D system emerged later in English as a syntactic device to compensate for the loss of morphological case. The syntactic DP is a new comer to the English language. The semantic contribution of a D system is secondary and then, it is not easy for language learners to acquire, since language learners and children are more dependent on semantic cues. The difficulty of a D system is inherent in its nature.

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