# DEFINITENESS EFFECTS IN KOREAN NUMERAL CLASSIFIER CONSTRUCTIONS<sup>1</sup>

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#### RESUMO

Neste artigo examimamos os significados de construções com Classificadores Numerais (NC) pós-nominal e pré-nominal no Coreano, do ponto de vista do Efeito de Definitude tal qual estudado em Kiss (1995). Algumas pesquisas prévias insistiram que nomes no NC pós-nominal são definidos e nomes no NC pré-nominal são indefinidos. Mostraremos, contudo, que os nomes no NC pós-nominal podem ser definidos ou indefinidos, enquanto que os nomes no NC pré-nominal são definidos.

## ABSTRACT

In this paper we examine the meanings of two Korean Numeral Classifier (NC) constructions, i.e. the post NC and the pre NC, from the viewpoint of the Definiteness Effect in Kiss (1995). Some previous works have insisted that a noun of the post NC is definite and a noun of the pre NC is indefinite. But we will show that a noun of the post NC can be definite, while a noun of the pre NC is definite.

#### PALAVRAS-CHAVE

Construção com classificadores numerais. Efeito de definitude. Efeito de especifidade. Efeito de não especificidade.

#### KEY WORDS

Definiteness effect. Non-specificity effect. Numeral classifier construction. Specificity effect.

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#### Introduction

In this paper, I will argue that the noun of Numeral Classifier constructions in Korean can be interpreted as definite or indefinite, by showing that Numeral Classifier constructions (henceforth, NC constructions) are subject to the so-called 'definiteness effect'.

Since Milsark (1977), it is known that there are two kinds of determiners. As we see in (1), 'weak' determiners can appear in the existential constructions, whereas 'strong' determiners cannot.

- (1) a. There is/are {a/some/two/...} fox(es) in the henhouse.
  - b. \*There is/are {every/most/both/...} fox(es) in the henhouse.

This classification is reflected in the meaning of the determiners (Barwise and Cooper 1981; Heim 1982; Diesing 1992): The strong determiners presuppose in the previous discourse the restricting set identified by the noun. Therefore it is assumed that the audience can identify the set. By contrast, the weak determiners introduce new entities into a discourse and denote semantically the cardinality of the intersection of the restricting set and the set identified by the predicate.

However, quantifiers do not always have to be interpreted in a dichotomous way. It has been known that some weak NPs are interpreted ambiguously. For example, the weak NP in (2a) simply asserts the existence of mistakes. Yet the same weak NP in (2b), like a strong NP, presupposes the existence of mistakes in the manuscript and asserts that some of these are major. Following Diesing (1992), we call the former a 'cardinal' reading and the latter a 'presuppositional' reading.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> The 'presuppositional' reading is also called 'proportional' reading in other works.

- (2) a. There are <u>some major mistakes</u> in this manuscript.
  - b. <u>Some mistakes</u> in this manuscript are major.

It is said that Numeral Classifier Constructions show similar behavior to that of weak NPs in various aspects. In this paper, I would like to explore whether the NC constructions display semantic ambiguity as found in weak NPs. In section one, I will first explain the NC constructions and then review some previous works that investigate the meanings of these constructions. In section two, I will re-examine the meaning of NC constructions from the viewpoint of 'definiteness effects' as proposed in Kiss (1995). Lastly I will summarize our discussion.

# 1 Numeral classifier constructions

## 1.1 Two types of Korean NC constructions

NC constructions are relatively frequent in languages of Southeast Asia or in Japanese, Chinese, Turkish, and Korean (Allan 1977; Aikhenvald 2006).<sup>3</sup> An NC construction usually consists of three parts, i.e. a numeral expression, a classifier, and a noun. Classifiers may categorize the referent of a noun in terms of its animacy, shape, and other inherent properties. We see a Chinese example in (3) and Japanese examples in (4).

$(3)^{4}$	Zhangsan	chi-le	liang-ge	juzi.
	Zhangsan	eat	two-Cl	orange
	'Zhangsan l	nas eater	n two oranges.'	

<sup>&</sup>lt;sup>3</sup> According to Allan (1977), there are four types of classifier languages. The type discussed in this paper corresponds to 'numeral classifier languages'. In addition, there are 'concordial classifier languages', 'predicate classifier languages', and 'intra-locative classifier languages'.

<sup>&</sup>lt;sup>4</sup> Abbreviations used in glosses: Cl 'classifier', Top 'topic', Acc 'accusative case', Gen 'genitive case', Nom 'nominative case', Past 'past tense', Decl 'declarative', Q 'question', Pl 'plural', Con 'connective', Loc 'locative', Prog 'progressive', Perf 'perfective'.

(4) a.		John-wa	hon	san-sa	tsu-o	katta.	
		John-Top	book	3-Cl-A	cc	bought	
	b.	John-wa	san-sa	tsu-no	hon-o		katta.
		John-Top	3-Cl-C	Ben	book-A	\cc	bought
		'John bought	three bo	oks.'			

In comparison to Chinese, Japanese has two types of NC constructions. Korean, like Japanese, has two types of NC constructions. In the first type, a noun precedes a numeral classifier consisting of a numeral expression and a classifier as in (5a).<sup>5</sup> In the second type, a noun appears after a numeral classifier with a genitive marker '-uy' as in (5b).

(5)	a.	[haksyang [sye meyng]]-i			o-ass-ta.	
		student	3	Cl-Nom	come-	Past-Decl
	b.	[[sye meyng]-	uy	haksya	ang]-i	o-ass-ta.
		3 Cl-Gen	stı	udent-Nom	come-	Past-Decl
		'Three student	s ca	ame.'		

In this paper, we call the first type 'Post NC', and the second 'Pre NC', according to the position of a numeral classifier. As for the distribution, it is revealed from the corpus that the Post NC type appears more frequently than does the Pre NC type.<sup>6</sup> Therefore, the Post NC type is said to be the default construction in Korean.

#### 1.2 Previous works

There have been some works that try to explain the semantic differences between the two NC constructions. Most of these have

(i) haksyang-i sye meyng-(i) o-ass-ta.

<sup>&</sup>lt;sup>5</sup> In this type, we can form another construction, so-called 'quantifier floating', where a numeral classifier is moved from the whole NP as below.

student-Nom 3 Cl-(Nom) come-Past-Decl

<sup>&</sup>lt;sup>6</sup> According to Yang (1995), the post NC type is used more frequently in written text (78%) than is the pre NC type (22%).

insisted that the two kinds of Korean NC constructions correspond to the two readings of weak NPs.

First, the default construction, i.e. the post NC type, is considered to be related with the cardinal reading, because this type appears in constructions which represent focus information (Lee 2001). We see this type in question-answer pairs (6), or at the beginning of a story (7).

- (6) a. muess-ul sa-ass-ni? what-Acc buy-Past-Q 'what did you buy?'
  - b. {chyaksang twu kay/??twu kay-uy chyaksang}-ul sa-ass-ta.
    {desk 2 Cl / 2 Cl-Gen desk}-Acc buy-Past-Decl '(I) bought two desks.'
- (7) {kom sye mari/<sup>??</sup>sye mari-uy kom}-i han cip-ye iss-e. appa kom, emma kom, aki kom. ... {bear 3 Cl/3 Cl-Gen bear}-Nom a house-Loc be-Decl. papa bear, mammy bear, baby bear. ...
  <sup>°</sup>There are three bears in a house: a papa bear, a mammy bear, a baby bear, ...'

Beyond this, Kang (2000) insisted that the noun of a post NC type is not definite, based on the following observation:

(8)	a.	haksyang	sye meyng-i	tochakha-ess-ta.
		student	3 Cl-Nom	arrive-Past-Decl
	b.	haksyang-i	sye meyng	tochakha-ess-ta.
		student-Nom	3 Cl	arrive-Past-Decl
		'Three student	s arrived.'	
	c.	*ku haksyang-	(tul)-i sye meyng	g tochakha-ess-ta.

the student-Pl-Nom 3 Cl arrive-Past-Decl

It is known that the quantifier floating construction (8b) is formed from the Post NC type (8a). So if we accept the general view that the meanings of the two constructions are the same, we can conclude that the noun of post NC type is not definite. The reason for this is that the floating construction does not allow a definite noun to appear as we see in (8c).

As for the other type, i.e. the pre NC type, some works assume that this type is related with the presuppositional reading, where the referent of a noun is presupposed in the previous discourse (Chae 1983; Im 1991). In example (9), the noun *khokkili* ('elephant') of the pre NC construction in the second sentence refers to the same group of elephants that is introduced by the post NC construction of the first sentence.

(9) Indo-yese khokkili sye mari-ka tul-e tongmulwenye (ku) sye mali khokkili-ka iss-ta.
India-from elephant 3 Cl-Nom enter-Con o-ass-ta. c o m e -Past- Decl zoo-Loc the 3 Cl elephant-Nom be-Decl 'Three elephants arrived from India. Those three elephants are in the zoo.'

In addition, Lee (1989) observed that an indefinite noun *mwukkmuinka* ('someone') cannot appear in the pre NC type, but is acceptable in the post NC type. This observation supports the view that the noun of a pre NC type cannot be indefinite.

(10) a. <sup>??</sup>sye meyng-uy nwukwuinka-ka o-ass-ta.
3 Cl-Gen someone-Nom come-Past-Decl
b. nwukwuinka sye meyng-i o-ass-ta.
someone 3 Cl-Nom come-Past-Decl
'Three persons came.'

Based on these works, Lee (2001) concluded that the post NC type is related with a cardinal reading, and the pre NC type with a presuppositional reading. Yet such a conclusion seems hasty. Especially regarding the post NC type, we can find in a corpus many examples that go against the conclusion. Therefore we need to reexamine the constructions involved.

## 2 Definiteness effect

Now we will reexamine the meanings of NC constructions from the viewpoint of definiteness effects. According to Reuland and ter Meulen (1987), there are "linguistic environments in which either a definite or an indefinite expression is exclusively acceptable." Kiss (1995) divides definiteness effects into two kinds of effects, i.e. the Non-Specificity Effect and Specificity Effect.<sup>7</sup> We will examine Korean NC constructions from the viewpoints of these two effects in sequence.

#### 2.1 Non-specificity effect

Firstly consider the Non-Specificity Effect, where "a predicate asserting the existence of an argument does not allow the given argument to be realized by an NP carrying an existential presupposition" (Kiss 1995). That is, a definite noun cannot appear in a sentence whose predicate means a kind of 'EXIST', as we see in the following Hungarian examples (Kiss 1995).

<sup>&</sup>lt;sup>7</sup> Definiteness and specificity are not the same concept (Enç 1991; von Heusinger 2002), but we will not differentiate between the two concepts in this paper. That is, the discourse referents of definite or specific NP are linked to previously established discourse referents, while the discourse referents of indefinite or nonspecific NP are not.

(11)	a.	Gyerek	született.		
		Baby	was born		
	b.	*A gyerek	született.		
		The baby	was born		
(12)	a.	Janos ceget	alapitott.		
		John compa	ny-Acc founded		
	b.	*Janos 'alapito	otta a ceget.		
		John founde	ed the company-Acc		

This effect can be neutralized if a constituent is focused, in what called 'Neutralization of Effect' (Szabolcsi 1986; Kiss 1995). In (13), a definite noun appears, although the predicate means a kind of 'EXIST'. The reason for this is that one element within the sentence is focused ('on time' in (13a), 'John' in (13b)).<sup>8</sup>

(13)	a.	A gyerek	ʻidejeb	en	született.
		The child	on time	was born	1
		'The child was	born of	n time.'	
	b.	A korust	Janos	alapit'tt	a.
		The choir-Acc	John	founded	
		'As for the cho	oir, it wa	s John w	ho established it.'

Now let us see the application of this effect into Korean NC constructions. It has been observed that Korean has some constructions which are subject to the Non-Specificity Effect.<sup>9</sup> In addition, Jun (2002) insists that Korean conforms to the Non-Specificity Effect and the Neutralization of Effect involved with predicates meaning 'EXIST', like

<sup>&</sup>lt;sup>8</sup> In Hungarian, information structural concepts such as topic or focus are marked by word order. A focused element occupies the second position within a sentence.

<sup>&</sup>lt;sup>9</sup> For example, existential constructions, predicate nominals, and inalienable possession constructions are mentioned in the previous works.

Hungarian.<sup>10</sup> Among those predicates, he mentioned *thyaena-* ('born), *keylsengha-* ('form'), *sellipha-* ('establish'), *cis-* ('build'), etc.

$(14)^{11}$	a.	{ai/han ai/*ku	thyaena-ass-ta.	
		baby/a baby/the	baby-Nom	born-Past-Decl
		'A baby was bo	orn.'	
	b.	ku ai-ka	[ecye] <sub>F</sub> thyaena	a-ass-ta.
		the baby-Nom	yesterday	born-Past-Decl
		'It was yesterday that the baby was born.'		

According to Jun (2002), only indefinite nouns are allowed in sentences whose predicates mean 'EXIST'. But a definite noun is accepted in the same context, only if an element is focused. We will see below how to identify the definiteness of nouns in NC constructions by using the contexts of Jun (2002).

Let us begin with the Non-Specificity Effect. Consider the following examples.

- (15) a. {syakki sye mali/?\*sye mali-uy syakki}-ka thyaena-assta. *pigling 3 Cl / 3 Cl-Gen pigling-Nom born-Past- Decl*"Three piglings were born."
  - b. apeci-ka {cip sye chya/??sye chya-uy cip}-ul cis- ess-ta. father-Nom house 3 Cl/ 3 Cl-Gen house-Acc build- Past-Decl 'Father built three houses.'

<sup>&</sup>lt;sup>10</sup> Jun (2002) used the definiteness effect for the test of definiteness in Korean bare nouns. A Korean noun has no determiner, and therefore their definiteness is unspecified. According to him, we can determine the definiteness of a noun, if we apply Non-Specificity Effect into the bare nouns.

<sup>&</sup>lt;sup>11</sup> In general, a Korean focused element is identified by phonological information like accents. The phrase marked by a subscript F in (14) indicates a focused element.

The post NC type is allowed in the sentences containing the predicate meaning 'EXIST' such as *thayena-* ('born') or *cis-* ('build'), but the pre NC type is not acceptable in the same sentences. From this observation, we can say that the noun of a post NC type refers to an indefinite referent and the noun of a pre NC type to a definite referent.

Next, let us test the 'Neutralization of Effect'. The following shows the application of the Effect into Korean NC constructions:

- (16) a. {syakki sye mali/sye mali-uy syakki}-ka [ecye]<sub>F</sub> thyaena-ass-ta. *pigling 3 Cl/3 Cl-Gen pigling-Nom yesterday born-Past-Decl* 'It was yesterday that the three piglings were born.'
  b. apeci-ka [cakneyn-ye]<sub>F</sub> {cip sye chya/sye chya-uy cip}
  - ul cis-ess-ta. father-Nom last year-in house 3 Cl/ 3 Cl-Gen house-Acc build-Past-Decl

'It was last year that father built the three houses.'

According to the Neutralization of Effect, the existence of a focused element allows a definite noun to appear in the same sentence. Therefore it is expected that only the pre NC type appears in this 'neutralized' context, because the noun of the pre NC type is assumed to be definite. However, the post NC type is also allowed in the same context, as we see in (16). That goes against our expectation, so we need to revise the conclusion of the previous works. We assume tentatively that the noun of a post NC type can refer to a definite referent as well as to an indefinite referent.

## 2.2 Specificity effect

Kiss (1995) proposed the so-called 'Specificity Effect', in addition to the 'Non-Specificity Effect'. According to this work, "the Specificity Effect is triggered by predicates which presuppose the existence of their argument(s). The existential presupposition that must accompany the argument(s) of Specificity Effect predicates can be provided by realizing the given argument as a specific NP." She presented the following Hungarian examples, where the predicate expressing mental states in (17) or perfectivity in (18) requires a definite noun.

(17)	a.	*A matematikat		tudjak	fiuk.
		Mathematics-Act	c know	boys	
	b.	A fiuk	tudjak	a mater	matikat.
		The boys know	mathem	atics	
(18)	a.	*Meg-szuletett	gyerek	ζ.	
		Perf was born	child		
	b.	A gyerek	meg-sz	uletett	
		the child Perf wa	s born		

Based on Kiss (1995), Jun (2002) presents a list of Korean words which require a definite argument when he tests the definiteness of Korean bare nouns against the Specificity Effect: an aspectual adverb *acik* ('yet'), an aspectual verb *memchmu*- ('stop'), a repeat-adverb *tasi/tto* ('again'), a topic marker *nun*, etc. Let us examine the definiteness of NC constructions in the context of Jun (2002).

(19)	a.	{ai twu meyng/twu meyng-uy ai}-ka wulum-
		ul memchwu-ess-ta.
		baby 2 Cl/ 2 Cl-Gen baby-Nom cry-Acc
		stop-Past-Decl
		'the two babies stopped crying.'
	b.	{haksyang twu meyng/twu meyng-uy haksyang}-
		i acik ca-ko iss-ta.
		student 2 Cl/ 2 Cl-Gen student-Nom still
		sleep-Con Prog-Decl
		'the two students are still sleeping.'

c. {haksyang twu meyng/twu meyng-uy haksyang}-i taci ca-ko iss-ta.
student 2 Cl/ 2 Cl-Gen student-Nom again sleep-Con Prog-Decl
'the two students sleep again.'

As we see above, the two kinds of NC constructions are allowed in the context of the 'Specificity Effect', i.e. in the context of an aspectual verb *memchwu-* (19a), an aspectual adverb *acik* (19b), and a repeat-adverb *taci* (19c).

In addition, Lee (2000) observes that the two types of NC constructions are allowed in contexts related to perfectivity, e.g. in the sentence containing an auxiliary verb *peli*- that expresses perfectivity (20a), or an adverb *sam-pun manye* ('in three minutes') that is compatible with perfectivity (20b).

(20)

a. con-i {sakwa sye kya/sye kya-uy sakwa}-lul ta mek-e peli-ess-ta. John-Nom apple 3 Cl/3 Cl-Gen apple-Acc all eat-Con Perf-Past-Decl
'John ate up the three apples.'
b. con-i sam-pun manye {sakwa sye kya/sye kya-uy sakwa}-lul mek-ess-ta. John-Nom 3-minute in apple 3 Cl/ 3 Cl-Gen apple-Acc eat-Past-Decl
'John ate the three apples in three minutes.'

From this observation, we can say that the noun of a post NC type is definite in certain contexts. That view falls into line with the assumption of the last section. Therefore we conclude finally that the noun of a post NC type can be definite or indefinite.

# Conclusion

In this paper, we examined the meaning of Korean NC constructions. We started by examining the previous researches that have insisted that a noun of the post NC type refers to an indefinite referent and a noun of the pre NC type to a definite referent. We re-examined this conclusion from the viewpoint of the definiteness effect, especially the Non-Specificity Effect and Specificity Effect in the sense of Kiss (1995). As a result, we came to the following conclusion, which revises previous observations: A noun of the post NC type can be definite or indefinite, while a noun of the pre NC type is definite.

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