PLURALITY IN JAPANESE AND CHINESE*

Yasuki Ueda^a and Tomoko Haraguchi^b Nanzan University^a and Nagoya Gakuin University^b

1. Introduction

This paper presents a comparative analysis of plural markers and nominal constructions in Japanese and Chinese. Japanese has some morphemes that represent plurality. The suffix *-tati* is one of them. Chinese also has a similar suffix, *-men*. They are akin to each other in many ways. For example, they are attached to common nouns, proper nouns, and pronouns, as exemplified in (1).

(1)	a.	(Japanese) gakusei-tati, student-TATI	Taroo-tati, Taroo-TATI	watasi-tati I-TATI
	b.	(Chinese)		
		xuesheng-men,	XiaoQiang-men,	wo-men
		student-MEN	XiaoQiang-MEN	I-MEN

Many researchers have cast doubt on the analysis of *-tati* and *-men* as 'true' plural markers like *-s* in English (Chao 1968, Iljic 1998, and Martin 1988 among many others). This is because the plural markers in Japanese and Chinese have some unique properties that are not observed with *-s* in English. For example, they yield a special plural interpretation when they are attached to proper nouns. However, Li (1999) convincingly argues that *-men* is a 'true' plural marker and that its unique interpretive properties are attributed to the Chinese nominal structure and the morphological properties of the suffix.

In this paper, we build on Li's analysis and investigate the syntax of *-tati* in comparison with *-men*. We examine how syntactically similar or different *-tati* and *-men* are and whether *-tati* is a 'true' plural marker or not. We argue that *-tati* and *-men* differ in the positions where

^{*} The earliest version of this paper was presented at the International Symposium of the Cambridge-Conneticut-Hyderabad-Nanzan-Siena-Tsinghua Consortium for Linguistics, held at the National Tsinghua University, on December 15-17, 2007. The revised version was, then, presented at the Nanzan-Cambridge-EFL Joint Seminar on Parametric Syntax and Acquisition, which was held at the EFL University on January 25-27, 2008. We are grateful to the audiences, especially Ting-chi Tang, C.-T. James Huang, Wei-Tien Dylan Tsai, Hun-Tak Thomas Lee, Miao-Ling Hsieh, Ayesha Kidwai, and Tanmoy Bhattacharya for helpful comments. Thanks also to I-Ta Chris Hsieh and Tzong-Hong Jonah Lin. We are also indebted to Masatake Arimoto, Keiko Murasugi, Tomohiro Fujii, Tomoko Kawamura, Kensuke Takita, Chisato Fuji, and Eriko Watanabe for their discussions. Finally, we wish to thank our advisor Mamoru Saito for his instruction and patience. All errors are due to us.

they are generated and in the way they are attached to their hosts. Further, we argue that there are two distinct *-tatis* and that one of them is a 'true' plural marker. Along with the plural markers, we also discuss nominal structures in Japanese and Chinese. We show that one of the differences between *-tati* and *-men* can be well accounted for if we assume that Chinese and Japanese differ in the positions of a classifier projection (henceforce CLP).

This paper is organized as follows. Section 2 reviews Li's (1999) analysis of *-men* and Chinese nominal constructions. Then, we discuss the syntax of *-tati* in Section 3. This section consists of two parts. In the first subsection, we extend Li's analysis of Chinese nominal construction to Japanese noun phrases. Then, we introduce Saito, Lin, and Murasugi's (2006) analysis of prenominal CLP in Japanese as an NP adjunct. This hypothesis enables us to account for the compatibility of CLP and *-tati* in Japanese. The second subsection discusses the syntax of *-tati*. We first provide some data related to the recursion of *-tati* to argue that there are two *-tatis*. One is generated as the head of NumP, and the other is generated as the head of DP. Finally, we present more data to show that *-tati* and *-men* differ in the way they are suffixed to words. Section 4 contains concluding remarks.

2. Chinese Nominal Construction and -MEN

This section reviews Li's (1999) argument that *-men* can be analyzed as a 'true' plural marker like *-s* in English. Many researchers have cast doubt on the analysis of *-men* as a 'true' plural marker because of its properties that are not observed with plural markers like *-s* (Chao 1968, and Iljic 1998 among many others). For instance, *-men* yields a special plural interpretation when they are attached to proper nouns. Consider the examples in (2).

(2) a. xuesheng-men student-MEN

'the students'

b. XiaoQiang-men XiaoQiang-MEN

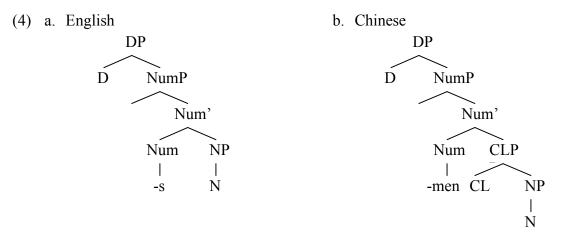
'XiaoQiang and his associates'

In (2a), *xuesheng-men* denotes a homogenous set of students just like the pluralized common noun *students* does. In (2b), the proper noun with *-men, XiaoQiang-men* denotes a heterogeneous set of people including *XiaoQiang*. Following Mizuguchi (2004), we call this interpretation the associative interpretation.¹ Another unique property of *-men* is that it cannot occur with a quantity expression when it is attached to a common noun, as in (3).

¹ Li calls the special plural interpretation the collective interpretation.

(3) * san-ge xuesheng-men three-CL student-MEN 'three students'

Thus, there are some considerations that argue against analyzing *-men* as a straightforward plural marker. Nevertheless, Li argues that *-men* is a 'true' plural marker. She proposes that the patterns that *-men* exhibits, in contrast with *-s*, can be attributed to the Chinese nominal structure and the morphological properties of *-men*. In her analysis, English and Chinese have essentially the same nominal structure except for the presence of CLP in the latter. DP, NumP, and NP are projected in both languages. In Chinese, however, CLP is projected between NumP and NP when a classifier appears in a noun phrase. Compare the two nominal structures in (4).

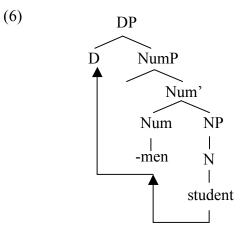


Plurality is specified in Num in both English and Chinese. Where the two languages differ is the category on which plurality is realized on the surface. In English, plurality surfaces as *-s* on N. In Chinese, plurality is realized as *-men* on N or D. That is, *-men* can be attached to D as well as to N. This accounts for the existence of the associative interpretation in Chinese.

Let us consider Li's analysis in more detail to see how the plural markers are suffixed to their hosts to yield the plural and/or associative interpretations. In English, common nouns are suffixed with *-s* through N-to-Num movement. Common nouns obligatorily move from N to Num when Num contains *-s*, or the plural feature. The derivation of *students* is illustrated in (5).

(5)

Li proposes that in Chinese, common nouns are suffixed with the plural marker through N-to-D movement.² The derivation of *xuesheng-men* 'student-men' is shown in (6).



In contrast, proper nouns are suffixed to *-men* through Num-to-D movement of *-men*, or the plural feature. More specifically, proper nouns like *XiaoQiang* are assumed to be base-generated in D, and *-men* moves from Num to D to be suffixed to proper nouns.

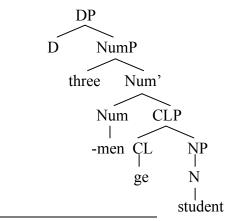
Li's analysis of Chinese noun phrases and *-men* accounts for why a common noun with *-men* cannot be preceded by a quantity expression, yielding the equivalent of 'three students' in English. The relevant example in (3) is repeated in (7).

(7) * san-ge xuesheng-men three-CL student-MEN

'three students'

Expressions like (7) are out because the affixation of *-men* to a common noun is possible only when N moves up to D through Num. If N moves up to D, then it should precede the numeral because the numeral is generated in the spec of NumP by assumption. The word order in (7) is possible only when N stays in situ, as in (8).

(8)



² The movement to D here is motivated by the fact that a common noun with *-men* always receives definite interpretation, another characteristic of *-men* not observed with *-s* in English. See Li (1999) for details.

In English, on the other hand, quantity expressions can precede plural-marked nouns because N does not have to move further up to D. The word order as in *three students* is obtained when N raises to Num.

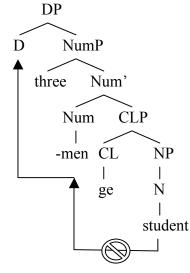
Li's analysis of the Chinese nominal constructions with CLP and *-men* accounts for another puzzling fact. In Chinese, quantity expressions can occur after proper nouns with *-men*, as shown in (9a), but cannot follow common nouns with *-men*, in (9b).

(9) a. XiaoQiang-men san-ge (ren) XiaoQiang-MEN three-CL person
'XiaoQiang (them) three'
b.* xuesheng-men san-ge (ren) student-MEN three-CL person

'three students'

Recall that N raises to D through Num when a common nouns is suffixed with *-men*, and that Num moves to D when *-men* is suffixed to a proper noun. Then, in (9b), *xuesheng* 'student' must move up from N to D through Num crossing the classifier *ge*. This movement violates the Head Movement Constraint in the sense of Travis (1984) and Chomsky (1986), as shown in (10).

(10)



In contrast, there is no illicit movement in the derivation of expressions like (9a). Num moves up to D without crossing any intervening head when proper nouns are suffixed with *-men*. Li's analysis of the Chinese noun phrases and *-men* thus captures the contrast in (9).

3. Japanese Nominal Construction and -TATI

3.1 Japanese Nominal Construction

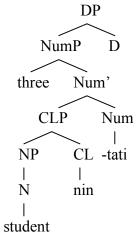
In Section 2, we have reviewed Li's (1999) analysis of nominal construction and the plural marker in Chinese. In this subsection, we discuss the Japanese nominal construction. One important difference between *-men* and *-tati* is that the Japanese counterpart of (7) is grammatical, as shown in (11).

(11) san-nin-no gakusei-tati three-CL-NO student-TATI'three students'

That is, a quantity expression may precede a common noun with *-tati*. We show that this difference follows from the hypothesis proposed in Saito, Lin, and Murasugi (2006) that CLP in Japanese, in distinction with Chinese, is an NP adjunct.³

It has been argued in the literature that Japanese and Chinese noun phrases are quite similar in structure (Kitagawa and Ross (1982) and many others). For example, they use classifiers for quantity expressions. However, if Japanese and Chinese noun phrases have essentially the same structures except for the Head Parameter, the contrast between (7) and (11) cannot be accounted for. Suppose that (11) has the structure in (12), which parallels (8), the structure Li (1999) assigns to (7).

(12)



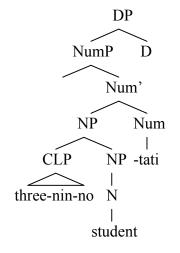
In (12), N must move up to Num to obtain the correct word order. This movement, however, violates the Head Movement Constraint just as in the case of (9b). If N stays in situ, *gakusei* 'student' precedes the classifier *nin* and follows the numeral. Then, we can never obtain the correct word order. Thus, (11) must have a structure distinct from (7). In particular, the

³ This was initially pointed out by I-Ta Chris Hsieh in his comments to Saito, Lin, and Murasugi (2006). It was this suggestion that inspired us to work on the comparison of *-men* and *-tati*.

grammaticality of (11) suggests that the classifier head should not intervene between N and Num.

The desired structure for (11) is in fact proposed by Saito, Lin, and Murasugi (2006). They propose that in Japanese a numeral and a classifier form a constituent and that it is an NP adjunct. According to their proposal, (11) has the structure shown in (13).

(13)



One piece of evidence for this structure has to do with the possible positions of quantity expression.⁴ Consider the sentences in (14).

(14) a.	Taroo-wa	san-satu-no	hon-o	katta
	Taroo-TOP	three-CL-NO	book-ACC	bought

'Taroo bought three books.'

b. San-satu, Taroo-wa hon-o katta three-CL Taroo-TOP book-ACC bought

As shown in (14b), a quantity expression can appear independently in a position not adjacent to the associate noun. In Chinese, however, there is no parallel phenomenon, as indicated in (15).

(15) a. Zhangsan mai-le san-ben shu Zhangsan buy-PERF three-CL book 'Zhangsan bought three books.'

b. * San-ben,	Zhangsan	mai-le	shu
three-CL	Zhangsan	buy-PERF	book

Since the numeral and the classifier do not form a constituent in Chinese, a quantity

⁴A more decisive argument is based on the different patterns Japanese and Chinese show with N'-ellipsis. See Saito, Lin, and Murasugi (2006) for the details.

expression cannot appear separated from the associate noun. The contrast between (14) and (15) suggests that Japanese and Chinese differ in the structure of quantity expressions.

In (13), the nominal structure based on Saito, Lin, and Murasugi's (2006) proposal, we have the correct word order. There is no intervening head between N and Num. Hence, nothing blocks the suffixation of *-tati* to the noun whether N is raised to Num or *-tati* hops onto the noun. The grammaticality of (11), thus, follows from the analysis of Japanese quantity expressions as NP adjuncts, and provides supporting evidence for Saito, Lin, and Murasugi's (2006) proposal.

3.2 -**TATI**

As discussed at the outset of this paper, *-tati* and *-men* have many overlapping properties (see Ishii (2000) and Kurafuji (2004) for relevant discussions). For example, both can be suffixed to common nouns, proper nouns, and pronouns.⁵ The relevant examples shown in (1) are repeated in (16).

(16)	a.	(Japanese) gakusei-tati, student-TATI	Taroo-tati, Taroo-TATI	watasi-tati I-TATI
	b.	(Chinese)		
		xuesheng-men,	XiaoQiang-men,	wo-men
		student-MEN	XiaoQiang-MEN	I-MEN

Another similarity is the range of interpretations the plural markers yield. Just like *-men, -tati* yields the plural interpretation when attached to common nouns, and it yields the associative interpretation when attached to proper nouns, as exemplified in (17).

- (17) a. gakusei-tati students-TATI'the students'
 - b. Taroo-tati Taroo-TATI

'Taroo and his associates'

The two suffixes, however, are different in some respects. A prominent difference concerns the multiple occurrence of *-tati*. In Japanese, common nouns and proper nouns can take more than one plural marker, as exemplified in (18).

⁵ Both also select animate nouns. See Kurafuji (2004) on this point.

(18) a. gakusei-tati-tati student-TATI-TATI

'the students and their associates'

b. Taroo-tati-tati Taroo-TATI-TATI

'Taroo and his associates and their associates'

In contrast, no parallel phenomenon is observed in Chinese, as indicated in (19).

(19) a. * xuesheng-men-men student-MEN-MEN

> b.*XiaoQiang-men-men XiaoQIang-MEN-MEN

The contrast shown in (18) and (19) suggests that *-tati* and *-men* are syntactically different. In this subsection, we discuss the syntax of *-tati* in comparison with *-men*.

Let us first take a closer look at the multiple occurrence of *-tati* to examine its possible syntactic position. In both of the examples in (18), the additional markers yield the associative interpretation. That is, recursion is allowed only when the second occurrence of *-tati* has the associative interpretation. It is impossible to have two occurrences of *-tati* with plural interpretation as shown in (20).

(20) * gakusei-tati-tati student-TATI(PL)-TATI(PL)

'The students'

The impossibility of multiple marking for the plural interpretation in (20) can be accounted for if we assume that multiple occurrence of NumP in a noun phrase is not allowed. This comes into play in Chinese, too. Since *-men* is the head of NumP, the multiple occurrence of *-men* is not allowed.

But there remains a fact to account for. A noun phrase can have more than one plural marker for the associative interpretation in Japanese. If the analysis of plural *-tati* as Num is on the right track, then we cannot identify the additional associative *-tati* as the head of NumP. We propose then that the associative *-tati* is a D on the assumption that the recursion of DP is possible. This is consistent with the fact that the associative *-tati* always occurs on the right edge of a noun phrase, as the ungrammaticality of (21) shows.

(21) * gakusei-tati-tati student-TATI(ASS)-TATI(PL)

Given that Japanese is head-final, (21) suggests that the associative -tati is in a position higher

than Num. If the plural *-tati* is a Num, and the associative *-tati* is a D, the former must be within the complement of the latter, and hence, must precede it. Thus, the ungrammaticality of (21) is predicted.

We provide two pieces of supporting evidence for the analysis of *-tati* as two distinct morphemes, one being a Num and the other a D. The first evidence is the existence of a plural suffix that yields only the plural interpretation in Japanese. Consider the examples in (22).

- (22) a. sensei-gata teacher-GATA 'the teachers'
 - b.* Smith-kyoozyu-gata Smith-Professor-GATA

'Professor Smith and his associates'

As in (22), the plural marker *-gata* can be attached only to common nouns to yield the plural interpretation. The multiple occurrence of *-gata* is impossible, as expected.

(23) * sensei-gata-gata teacher-GATA-GATA

Given our proposal, we can analyze *-gata* straightforwardly as a variant of the plural *-tati*, that is, as a Num. On the other hand, if there is only one *-tati*, a more complicated account would be required to explain the difference between *-gata* and *-tati*.

The second supportive evidence concerns the associative interpretation obtained in plural-marked common nouns in Japanese. Nakanishi and Tomioka (2004) and Mizushima (2007) observe that common nouns with *-tati* can have the associative interpretation in addition to the plural interpretation. This is shown in (24).

(24) gakusei-tati-ga koogisita student-TATI-NOM protested

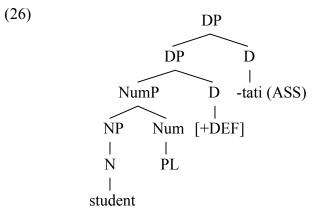
'The students (and their associates) protested.'

Note first that a common noun in Japanese can have plural interpretation by itself. Thus, (25) is ambiguous as indicated.

(25) gakusei-ga koogisita student-Nom protested 'The student(s) protested.'

This indicates that a plural Num can be null or be analyzed as *-tati*. If *gakusei* can be a DP with a null plural Num (meaning 'the students') and the associative *-tati* is a D that takes a DP

complement, the associative interpretation of (24) is in fact predicted. The precise structure for *gakusei-tati* in (24) will be as in (26).



Thus, the analysis of the associative *-tati* as a D renders it possible to capture the associative interpretation of common nouns with *-tati*.

In contrast with Japanese, the associative interpretation is not observed with common nouns followed by *-men*, as shown in (27).

(27) haizi-men zhengzai zai-gongyuan wan child-MEN PRES.PROG in-park play

'The children are playing in the park.'

This is also predicted by our analysis. In Chinese also, a common noun can have plural interpretation by itself. Thus, a plural Num head can be null or be analyzed as *-men*. However, if *haizi* is a DP with a null plural Num, then the Num position is filled and consequently, further suffixation of *-men* should be impossible. This is so because *-men*, unlike *-tati*, is always a Num head and never takes a DP complement. Thus, the absence of the associative interpretation in plural common nouns with *-men* provide further support for Li's (1999) analysis of *-men* as a Num head.

Now we focus on the relationship between the plural markers and their hosts, particularly on the attachment of the plural markers to their hosts. Recall that the suffixation of *-men* to its host requires the head movement of N to Num or of Num to D in Li's analysis. N raises to Num when common nouns are suffixed with *-men*, and Num moves up to D when proper nouns are suffixed with *-men*. However, there is evidence that no head movement is required for the suffixation of *-tati*, and that *-tati* is combined with its host by affix hopping or phonological merger. ^{6,7}

⁶ Then, an intervening head between *-tati* and its host does not induce a violation of the Head Movement Constraint, but breaks the adjacency between the two elements, which is required for affix hopping.

⁷ The data come from Martin (1988) and Ishii (2000). They argue that *-tati* is a phrasal suffix.

Let us first consider the following example, where *-tati* serves as a plural marker for conjoined common nouns:

(28) zyuuroku-nin-no sakka, hyooronka, sisooka, kagakusha-tati sixteen-CL-NO writer critic thinker scientist-TATI

'sixteen writers, critics, thinkers, and scientists'

In (28), the quantity expression quantifies a sequence of conjoined nouns, and *-tati* marks the whole expression as plural. Then, the plural *-tati* in Num may take the conjoined NPs and a quantity expression as its complement, as in (29).

If the rightmost N raises to Num, the movement should violate the coordinate structure constraint and (28) is incorrectly predicated to be ungrammatical. On the other hand, there is no problem with affix hopping if it only requires adjacency. Note that the English counterpart of (28) is totally ungrammatical, as shown in (30).

(30) * sixteen writer, critic, thinker, scientists

'targeted meaning: sixteen writers, critics, thinkers and scientists'

This is consistent with the analysis that a common noun and -s is combined through head movement (Delfitto and Schroten (1991) and Li (1999)).

A similar fact obtains with the associative *-tati*. (31) shows that it can take conjoined proper nouns as its complement.

(31) Taroo to Hanako-tati Taroo and Hanako-TATI

'Taroo and Hanako, and their associates'

Again, if *Taroo* and *Hanako* are Ds, the latter should not be able to move to *-tati* out of the coordinate structure. Thus, the associative *-tati* also seems to hop onto the adjacent D. As expected, the Chinese counterpart of (31) is ungrammatical. This is shown in (32).

(32) * A-Q he XiaoQiang-men A-Q and XiaoQiang-MEN

'A-Q and XiaoQiang and their associates'

The example can only mean 'A-Q, XiaQiang, and XiaoQiang's assocaites'. This follows from Li's (1999) analysis. If *-men* is the Num in a DP headed by *XiaoQiang*, then it should be able to move to D. But there is no way for it to raise to a conjunction of DPs. Given that *-men* is always a Num head and never takes a DP complement, it is in fact hard to imagine what structure (32) may have.

4. Concluding Remarks

This paper has pursued the comparative syntax of the plural markers and noun phrases in Japanese and Chinese. We have argued that Japanese and Chinese nominal constructions are essentially the same except for the structure and the position of quantity expressions. In Japanese, quantity expressions are best analyzed as NP adjuncts, as proposed in Saito, Lin, and Murasugi (2006). In Chinese, quantity expressions do not form a constituent, and a classifier heads its own projection in the nominal structure. We have also argued that *-tati* and *-men* are structurally different despite their superficial similarities. In Japanese, the plural marker that yields the plural interpretation is generated in Num, and the plural marker that yields the associative interpretation is generated in D. In Chinese, the plural marker is always generated in Num. Further, *-tati* and *-men* are different in the way they are attached to their hosts. In Japanese, no head movement is required when *-tati* is suffixed to common nouns or proper nouns: it simply hops onto the adjacent noun. In Chinese, the head movement of Num or N is required for the suffixation of *-men*.

Finally, we would like to make a small remark on the categorical status of the associative *-tati*. In Li's analysis, *-men* is a 'true' plural marker like *-s* in English in the sense that it is a plural feature in Num. We argue that *-tati*, on the other hand, can be generated in Num and D. What we have shown is that the associative *-tati* occurs in a head position higher than Num, and further that it can appear recursively. For this reason, we proposed that it is a D that takes a DP complement, but whether it is really a D or some other category remains to be seen. We must leave a more precise characterization of the categorical status of the associative *-tati* for future research.

References

- Baker, M. C. (2003) Lexical Categories: Verbs, Nouns, and Adjectives. Cambridge University Press, Cambridge.
- Chao, Y.-R. (1968) A Grammar of Spoken Chinese. University of California Press, Berkeley, CA.
- Cheng, L.-S. L., and R. Sybesma. (1999) 'Bare and Not-So-Bare Nouns and the Structure of NP,' *Linguistic Inquiry* 30, 4, 509-542.

- Chierchia, G. (1998) "Reference to Kinds across Languages," Natural Language Semantics 6, 339-405.
- Chomsky, N. (1986) Barriers, MIT Press, Cambridge, MA.
- Delfitto, D. (2006) "Bare Plurals," in M. Everaert, and H. V. Riemsdijk eds., *The Blackwell Companion to Syntax. Vol. 1*, Blackwell Publishers, Malden, MA, 214-259.
- Delfitto, D., and J. Schroten. (1991) 'Bare Plurals and the Number Affix in DP,' Probus 3, 155-185.
- Deprez, V. (2005) "Morphological Number, Semantic Number and Bare Nouns," Lingua 115, 857-883.
- Fabb, N. (1984) Syntactic Affixation, Ph.D. Dissertation, MIT.
- Hsieh, M.-L. (2007) *The Internal Structure of Noun Phrases in Chinese: Number and Referentiality,* unpublished ms., National Taiwan Normal University.
- Iljic, R. (1994) "Quantification in Mandarin Chinese: Two Markers of Plurality," *Linguistics* 32, 91-116.
- Ishii, Y. (2000) *Plurality and Definiteness in Japanese*, unpublished ms., Kanda University of International Studies.
- Kawashima, R. (1998) "The Structure of Extended Nominal Phrases: The Scrambling of Numerals, Approximate Numerals, and Quantifiers in Japanese," *Journal of East Asian Linguistics* 7, 1-26.
- Kitagawa, C. and C. N. G. Ross (1982) "Prenominal modification in Chinese and Japanese," *Linguistic Analysis* 9, 19-53.
- Kitahara, H. (1993) "Numeral Classifier Phrase Inside DP and the Specificity Effect," *Japanese/ Korean Linguistics* 3, 171-186.
- Kurafuji, T. (2004) "Plural Morphemes, Definiteness, and the Notion of Semantic Parameter," *Language and Linguistics* 5, 211-242.
- Landman, F. (1997) "Plurality," in Shalom Lapin ed., Contemporary Semantic Theory, Blackwell Publishers, Malden, MA, 425-257.
- Li, Y-H. A. (1999) "Plurality in Classifier Language," Journal of East Asian Linguistics 8, 75-99.
- Martin, S. (1988) A Reference Grammar of Japanese, Yale University Press, New Haven, CT.
- Mizushima, N. (2007) nihongo no fukusû hyôshiki tachi no imikaishaku to kozô. M. A. Theses. Nanzan University.
- Nakanishi, K., and S. Tomioka. (2004) "Japanese Plurals Are Exceptional," *Journal of East Asian Linguistics* 13, 113-140.
- Ritter, E. (1991) "Two Functional Categories in Noun Phrases: Evidence from Modern Hebrew," *Syntax and Semantics* 25, 37-62.
- Saito, M, and K. Murasugi. (1990) "N'-Deletion in Japanese: Preliminary Study," *Japanese/ Korean Linguistics* 1, 258-286.
- Saito, M., and T.-H. J. Lin, and K. Murasugi. (2006) *N'-Ellipsis and the Structure of Noun Phrases in Chinese and Japanese.* Presented at the International Conference on East Asian Linguistics, University of Toronto. November 10-12, 2006.
- Simpson, A. (2002) "On the Status of Modifying DE and the Structure of the Chinese DP," in S.-W. Tang, and C.-S. L. Lin eds., *On the Formal Way to Chinese Language*, CLSI, Stanford, CA.
- Travis, L. (1984) Parameters and Effects of Word Order Variation. Ph.D. dissertation, MIT.