Plurality and Its Syntactic Realization*
- Plurals in Classifier vs. Non-Classifier Languages -

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This paper discusses the differences between classifier and non-classifier languages in describing the plurality of NPs/DPs, but aims to disclose the universal principle based in the concept of plurality in both types of languages. We claim that all the common nouns/nominals are basically plural and can be regarded to be equivalent to mass nouns in the lexicon, and that the behavior of numeration is realized differently in syntax between the classifier and non-classifier languages. Classifier and non-classifier languages differ in their syntactic realization of plurality, but it is true that both types of languages contain mass nouns. Mass nouns can be checked for their singularity/plurality, though they may indicate the indivisible material as a whole. In other words, mass nouns can also be counted by means of partitives, such as a glass of, a kilo of, a sheet of, and others. Therefore, we claim that all nouns are mass/plural in the lexicon. Countability is the realization of the feature <div> in Borer (2005)'s term.

**Key words:** classifier vs. non-classifier languages, plural marker, number agreement, mass nouns, count nouns, classifiers, partitives, feature checking, listeme

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1. Introduction

This study starts with the hypothesis that plurality may be the default notion in the singular vs. plural distinctions of noun phrases or determiner phrases (NPs/DPs)\(^1\). Morphological marking of plurality in English checks the null inflection of the relevant verb satisfying agreement. In Korean, plurality may optionally be marked at the end of an NP/DP, but the relevant verb does not need to obey agreement. In English, number agreement is one of the most prominent grammatical facts relating the subject NP and the functional category of the predicate. For example, the inflectional variation of the predicate, especially that of a main verb, reflects the recognition of plurality or singularity of the NP. In contrast to English, Korean seems to have no such operation overtly applied for number agreement. However, it is clear that both of the languages share the common notion of singularity vs. plurality. Concerning number agreement, the difference between the two languages may lie only in the grammatical realization of the features retained in the related NP and the predicate.

The grammatical realization of plurality has evoked researches in various aspects, especially in the syntactic and semantic analyses of NPs/DPs. Among others, the syntactic realization of mass nouns is known to have a lot in common with plurals. Chierchia (1998b) claims that mass nouns come out of the lexicon; they are not pluralized since they are already plurals\(^2\). Classifiers seem to show the same syntactic behavior with mass nouns in that they never allow plural markers to be affixed to them. For example, in Korean classifiers are always accompanied with numerals, from one to more, but they have no singular/plural distinction. In other words, classifiers always come in their bare

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\(^1\) It can be said that this idea is a kind of extension of the ideas of Borer (2005) and Chierchia (2009), though neither of them made clear statement about the default notion of plurality. Borer (2005) assumes that every nominal starts as a listeme in their lexicon, and when we need to count the number of the item/atom represented by the listeme, the feature <div> intrigues the operation of syntactic plural marking. Terms like listeme and <div> will be explained later in section 3. Though not directly related to the assumption stated by the author of this paper, Chierchia (2009) recently gave forth the assumption that mass noun is also made of atoms like count nouns, but the wholesome mass differs from countable nouns in that the atoms of mass are vague in a way that impairs our capacity to count with them.

\(^2\) Pellietier and Schubert (2002) concentrates on mass expressions and distinguishes ‘mass NPs (MN)’ from ‘mass terms (MT)’. MNs, as syntactic classification of such phrases as water, blue water, water that is pure, semantically denote sets of individuals like count nouns (CNs). MTs are such phrases as water, little water, all water. For example, MT water converts into a CN by combining it with quantity of. They assume that mass CNs are predicates true not only of objects and quantities, but also of kinds.
form, like mass nouns. Mass nouns in the non-classifier languages and classifiers in the classifier languages seem to allude to a possible solution to the inquiry of the syntactic realization of plurality.

This paper aims to discuss the differences between classifier and non-classifier languages in describing the plurality of NPs/DPs. Non-classifier languages, including English and Italian, have a grammatical system of inflection for the checking of the agreement in number between the subject NP and the INFL of the predicate. Classifier languages, like Japanese, Chinese, and Korean do not have inflections to check the number agreement between the NP and the predicate. Though there are certainly quite a few language typological differences among these classifier languages, the distinctive criteria for a classifier language are considered to be that bare nouns may refer to plurals as a mass and that classifiers are always accompanied by numerals.

Classifier and non-classifier languages differ in their syntactic realization of plurality, however, it is true that both types of languages contain mass nouns. Mass nouns, like the English water or gold, need to check the singularity in number for the agreement of the NP with the I of INFL to indicate the indivisible material as a whole. However, those mass nouns can also be counted when taken in a context where the materials are divided by means of a container or a unit, such as a glass of, a kilo of, and others. Still the head noun water or gold remains homogeneous in substance. In non-classifier languages, counting of mass nouns are performed by means of partitive phrases; e.g., a piece of paper, two spoonfuls of sugar, three miles of cable, etc. Partitives differ from classifiers in that they refer to a unit to divide the mass into small parts or a container in which parts of the mass can be put.

3 In recent talks, Chierchia (2009) and Tsoulas & Zweig (T & Z; 2009) made distinction between substance mass and fake/object mass nouns. T & Z supports Barner and Snedeker (2005) in claiming that O-mass (object-mass nouns; furniture, footwear, clothing) differs from S-mass (substance mass; water, gold) in their syntactic behavior. Fake/object mass nouns do not remain homogeneous when divided into parts. Countability of O-mass has brought into a new issue in the distinction of classifier vs. non-classifier languages, for which further studies are to be expected.

4 In some of the linguistic literatures, partitives (as of whole-part relations) and quasi-partitives (like a piece of paper) are distinguished, but in this paper we refer to partitives encompassing the both.

5 Moreover, partitive phrases are often used in negating the statement. For example, a sentence ‘I could not find even a spec of dust on the floor’ implies the emphatic description about the clean state of the floor. In Korean the pronominal numeral hana (one), which comprises the numeral han (one) and the classifier myeng/kay, also has the same effect; e.g., hana (one) in the example of pang-ey salam-i hana-to epe-ta (room-LOC person-NOM one-PRT NEG-DECL: ‘there is not anybody in the room’) delivers a strong negative meaning. Partitives and classifiers differ from each other in that classifiers do not allow whole-part relations with the head noun, but in the use of partitives diversities are expected in
In Korean, if necessary, the suffix -tul may mark the plurality of an NP. According to Kim (2007), -tul is affixed quite optionally to mark plurality and may also be affixed to non-nominal categories, such as adverbs and predicates, resulting in -tul spreading. This property of -tul encourages us to assume that the implied pragmatic effect of the marker -tul may be to emphasize the plurality of the event of the predicate where the subject NP is involved. In fact the behavior of the plural marker -tul in Korean suggests that plurality is realized in some syntactic structure(s) of the specific language and may be realized by feature checking. The optionality of the plural marker -tul in Korean indicates that nouns may represent a set of individual things referred to by the noun, or may denote the group of things as a mass. NPs with a null determiner refer to a mass and the realization of the plural marker -tul does not influence the interpretation of plurality per se, but may refer to [+definiteness]. When counting is needed, the individuation is done by means of a classifier relevant to the noun, since every nominal expression of the classifier languages depends on a matching classifier that may describe the shape, weight, size, length, container, or unit.

In section 2, bare nouns of the classifier and non-classifier languages will be discussed in relation to their syntactic realization of plurality. The significance of D of DP will be discussed mainly with the introduction of the Italian DP structures. We argue that there is D in Korean and that bare nouns in Korean are marked to have null D. The concept of mass in relation to the syntactic bare nouns will also be discussed. Section 3 will be devoted to a discussion about the classifiers in Korean and the structural configuration of classifier phrases (CIP). The characteristics of singular/plural neutrality of classifiers and the concept of mass will be discussed in relation to the bare form of classifiers. The DPs and the description of plurality in Chinese and Japanese will also be introduced. Structural configurations of the classifier languages will be introduced with a discussion of the differences among them. Section 4 will provide a conclusion.

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6 It is construed that the marker -tul may not convey [+honorific] feelings of the speaker toward the hearers. For example, when we want to express [+honorific] to a group of the audience, the [+honorific] marker -kkeyse should be affixed in between -tul and the case-marker, as in (i).

i) emeni-tul-kkeyse-nun yeki-eyse kita-li-si-pi-o
   mother-PL-HON-NOM here-LOC wait-HON-IMP
   'Mothers, please wait here.'

7 Parts of the discussion made in section 3 are based on the sections 5-6 of Kim (2007).
2. Bare Nouns of the classifier vs. non-classifier languages

2.1 The features of D and the Bare Nouns in non-classifier languages

Classifier languages are distinguished from non-classifier languages by the features of the NPs. Chierchia (1998a,b) analyzes classifier languages, like Chinese and Japanese, as [+arg, -pred] languages. He argues that these languages have no plural marking (PL) and make use of a generalized classifier system, and that the NPs of these classifier languages are argumental, with generalized bare arguments denoting kinds, and thus the extension of all nouns is mass (Chierchia 1998a, 357). However, it has been discussed by many linguists, like Cheng & Sybesma (1999), Watanabe (2006), and Kim (2007) among others, that classifier languages do have mass-count distinction and also they do have plural markers along with the D of DP for [+definiteness]/[+definite].

Non-classifier languages, like French, Spanish, Italian, English and the Germanic languages, are analyzed as having the feature of [+pred], though they may differ from each other in the feature of [±arg]. Romance languages like French, Italian, and Spanish are all [-arg] languages, but English and the Germanic languages are [+arg] ones. The following table describes the differences.

| Chinese, Japanese | French | Italian, Spanish | English, Germanic |
|------------------|--------|-----------------|------------------|
| [+arg, -pred]    | [-arg, +pred] | [-arg, +pred] | [+arg, +pred] |
| no PL-marker, use classifiers | needs D to be an argument | subj-obj asymmetry | mass/count distinction |

French needs D to be an argument, so that NPs cannot be made into an argument.

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8 NP vs. DP: According to the DP hypothesis (Abney 1987, Postal 1969), traditionally assumed NP, [\[\{D\} \[\text{NP}\]], is construed as [\[\{\} \[\text{D} \[\{\text{NP}\}]]], which can be interpreted into an argument containing a predicate: NP functions as a predicate, and DP functions as an argument. A pronoun is considered as a determiner with no complement, [\[\{\} \[D\]].

9 According to Wilhelm (2008), Dene nouns do not fit the typology described in table-1. Dene is assumed to be of generalized bare arguments, since the language has no plural marking. However, it cannot be distinguished into a classifier language, because it lacks numeral classifiers and bare nouns combine directly with numerals. The combination of bare nouns and numerals without the help of classifiers are also found in Korean (sakwa hana ‘apple one: one apple’, haksang twal ‘student two: two students’, Turkish, Hungarian, and Armenian, etc., for which we leave the discussion for further research.
argument without projecting a D. For example, in (2a,b) the underlined determinerless NPs cause the ungrammaticality of the sentences:

(2) a. *Enfants sont venus chex nous
    'Kids have come by us.'
 b. *J'ai mangé biscuits dans mon lait
    ate cookies with my milk.' (Chierchia 1998a)

Italian or Spanish counterparts of (2) are in (3): (3a) is ungrammatical, but (3b) is grammatical, which shows the subject-object asymmetry in Italian or Spanish.

(3) a. *Bambini sono venuti da noi
    'Kids came by us.'
 b. Ho preso biscotti con il mio latte
    '(I) had cookies with my milk.' (Contreras 1986, Torrego 1989)

Chierchia (1998a), Contreras (1986), and Torrego (1989) argue that in object position the null Do will be licensed by the verbal head, but in subject position there is no suitable head that acts as a licenser. Chierchia (1998a) distinguishes NPs from DPs. DPs are arguments (type e), and NPs (common nouns) are predicates (type <e,t>).10 English and Germanic languages are [+arg, +pred] languages, and these languages have the mass/count distinction. In these languages, mass nouns will occur as bare arguments (the N => arg : mass nouns), but (singular) count nouns will not (N => pred : count nouns). ‘Kinds’ are entities of an argumental type (i.e., of type e). The Neocarlsonian view (Chierchia 1998a,b) confirms that bare arguments unambiguously refer to ‘kinds’.11 Thus, classifier languages differ with non-classifier languages with the feature of the D of DP.

Syntactic description about bare nouns in Italian is clearly made in Longobardi (2005), which we can adopt to the description of the DPs in Korean. According to Longobardi, bare singular nouns with null D, ð in Italian are either

10 The syntax and semantics of NPs: (Chierchia 1998a, 342)
 (i) a. [DP the [NP dog]]
 b. DP => e, GQ (Generalized Quantifiers) [arg]
 DPs are arguments
 c. NP => <e, t> [pred]
 NPs (common nouns) are predicates

11 What counts as ‘kind’ is not set by grammar, but by the shared knowledge of a community of speakers. (Chierchia 1998a, 348)
mass nouns or plural common nouns: singularity of common nouns need the D to be filled with a determiner. Korean is not the same with Italian about the features of D, but in Korean also, bare singular nouns with null D refer to mass or plural common nouns (further discussion will be made in section 3). According to the syntactic configuration of the Italian DPs of Longobardi (1994, 2005), the Italian bare arguments are in fact DPs with a null D. He argues that bare nouns are overtly indefinite DPs, which cannot be referential and are never to refer to the kind named by the head noun. According to him, bare nouns are open variables unselectively bound by existential or generic operators, and there is no N-to-D movement for bare nouns. The determinerless arguments are proper names (PNs) and bare nouns (BNs). PNs have singular count readings, but BNs have plural or mass readings in Italian: the N-raising to D is obligatory for PNs, but impossible for BNs. Diagram (4) explains the idea.

\[
(4) \quad \text{DP} \quad \text{D} \quad \text{NP} \\
\quad \partial \quad \text{potatoes}
\]

For common nouns, the position of D is filled either with a phonologically null D, \(\partial\) or with a D or a numeral adjective, by which the DP refers to a singular or definite number of individuals. Thus, D is regarded to be the position of [+definite], when it is filled with either a PN or a definite determiner. Plural NP, potatoes (potate in Italian), comes with phonologically null D, \(\partial\) and the unmarked choice of the NP is \(\cap\), the intension of the items referred to by the head N, and when the \(\cap\) is unavailable, the interpretation resets to existential \(\exists\). In English, the interpretation of the indefinite article is \(\exists\) and that of the definite article is

12 Carlson (1977) states that the complex properties of bare plurals can be explained by assuming that they refer to ‘kinds’, and the Neocarlsonian view (Chierchia 1998a,b) confirms that bare arguments unambiguously refer to ‘kinds’.

13 The following statements in (i) sum up the analysis of Longobardi (2005).

(i) a. Pronouns: are in D in all argument environments
b. Names of persons, geographical units and many others: raise to D if and only if the latter does not contain a lexical determiner
c. Names of days: raise to D only under particular semantic conditions (e.g., in deictic environments)
d. Casa and certain kinship terms: raise to D only if followed by a genitive modifier
e. Normal common nouns: never raise to D
ι, which is blocked in Italian.  

In the following section 2.2, we will discuss the concept of mass by introducing Chierchia (1998a), and will develop the idea of neutrality in number distinction of the mass nouns and the classifiers. In relation to the idea of neutrality, the idea of listeme of Borer (2005) will also be introduced. Discussions of the Korean bare nouns and the concept of mass will be given in section 2.3.

2.2 Mass Nouns and the classifiers/partitives

According to Chierchia (1998a, 347), pluralizing the mass nouns makes no sense since mass nouns come out of the lexicon already pluralized; mass nouns are quite literally the neutralization of the singular/plural distinction. Chierchia assumes that a mass noun, such as, say, furniture will be true in an undifferentiated manner of singular pieces of furniture, as well as of pluralities thereof. The idea is described as follows:

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14 The Frege-Russell definition of the iota operator ‘ι’ is generalized along the following lines: (Chierchia 1998a, 346)
   (i) a. ιX = the largest member of X if there is one (else, undefined)
       b. the dogs = ιDOGS = the largest plurality of dogs
       c. the dog = ιDOG = the only dog (if there is one)

The following table-2, based on Longobardi (2005), contrasts the two determinerless DPs in Italian, which are PNs and BNs. Table-2 illustrates that plurality of a head noun can be identified when it retains the null D. In other words, the whole DP with null D refers to a plural or mass reading.

[Table-2]

| Determinerless arguments | PNs (proper names) | BNs (bare nouns) |
|--------------------------|--------------------|------------------|
| examples                 | To denote a definite, specific entity: | Mass or plural head nouns: |
| (i) Ho incontrato Maria/te | ‘I met Maria/you’ | (i) Bevo sempre vino
   (Kripke 1980) | ‘I always drink wine.’ |
| (ii) Ho mangiato patate  | ‘I ate potatoes.’ |

| differences               | a. singular count reading | a. plural or mass reading |
|---------------------------|--------------------------|--------------------------|
|                           | b. definite specific interpretation | b. indefinite interpretation |
|                           | c. free distribution      | (existential or generic) |
|                           | d. widest possible scope: (de re in all intensional contexts) | c. distribution constrained by lexical-government |
|                           | e. rigid designation      | d. narrowest possible scope |
|                           | f. lexically restricted access to the determinerless construction | e. non-rigid designation |
|                           |                          | f. lexically general access to the determinerless construction |
Diagram (5) describes that a mass noun does not correspond to a set of atoms, like \{a,b\}, \{b,c\}, \{a,c\}, or \{a,b,c\}, which may represent plurals of count nouns. According to Chierchia (2009), atoms and sums are vague (=partial) concepts, but quantifiers or partitives yield a concept of stable entity (=something that is definitely an atom or definitely a sum).

For counting we need to individuate a level at which to count; for natural language this has to be a set of atoms. But a mass noun, unlike count ones, does not correspond to a set of atoms; hence it doesn’t provide a suitable counting criterion. That is why a classifier/partitive phrase (like piece of or truckload of) or a measure phrase (like tons of) is needed; classifier phrases map mass noun denotations into sets of atoms (Chierchia 1998a, 347).

Borer (2005) assumes that all noun extensions are mass. According to her, a plural marker is a spell-out of an abstract Dividing head feature \(<\text{div}>\) on a (moved) N-stem, and classifiers are the \(f\)-morphs, the independent grammatical functional formatives. In this sense, we assume that the basic concept of all nouns as listemes start from plural, and that when the listeme needs to be individuated, then the countability is realized syntactically with singular or plural distinction. Borer marks the feature by means of \(<\text{div}>\), which initiates noun movement within the DP. Structurally, we can identify the feature realized by means of the classifier Cl, of CIP (Classifier Phrase) in Li (1999)’s diagram, and #, of #P in Watanabe (2006). (Refer to sections 3.2 and 3.3)

### 2.3 Bare Nouns in Korean

In Korean, bare noun singular can bear the ‘kind’ reading of genericity when marked by a Topic-marker, -un\(\text{\text{\text{\text{\text{-}}}un/mun}}\), or by means of the predicates that refer to ‘kind’. When the DP conveys the reading of genericity, the affixation of the plural marker -\text{\text{\text{\text{\text{-}}}tul}}\) is not allowed. The addition of the plural marker will bring about the effect of [+definiteness].

\begin{align*}
(6) & \quad \text{a. sakwa-nun kenkang-ey coh-ta} \\
& \quad \text{apple-NOM health-for good-DECL} \\
& \quad \text{‘Apples (in general) are good for health.’}
\end{align*}
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b. sakwa-tul-un kenkang-ey coh-ta
   apple-PL-NOM health-for good-DECL
   ‘Apples (of various kinds) are good for health.’

c. i/ku sakwa-nun kenkang-ey coh-ta
   this/that apple-NOM health-for good-DECL
   ‘This/That apple is good for health.’

d. i/ku sakwa-tul-un kenkang-ey coh-ta
   these/those apple-PL-NOM health-for good-DECL
   ‘These/Those apples are good for health.’

Sakwa (apple) in (6a) is a bare noun with no element modifying the head N, which represents the listeme of the item or unit in the lexicon. However, in (6b), sakwa, with the plural marker -tul affixed in between the head N and the case marker -nun, becomes a concrete count noun. When the demonstrative determiner i/ku is specified as in (6c) and (6d), singular/plural distinction comes clear by the affixation of the plural marker -tul. In (6c), i sakwa (this apple) refers to a definite singular apple and cannot have a generic reading. (6d) refers to a definite set of apples, plural. In Borer (2005)’s term, the listeme, e.g., sakwa, needs the functional abstract feature of <div> to be marked, and when qualified with the [+definite] feature alluding to the countability of the listeme, then the plural marker -tul can be affixed. According to Borer, nouns are, on the whole, listemes which are unspecified with respect to many of their relevant grammatical properties. The idea can be described roughly as follows. (c.f. Borer 2005, 114)

(7) Plural-taking quantifiers, cardinals other than one (including zero)
   (Output: e.g., three apples, several apples)
   [DP [NP three/several <e>₃ [CL apple.<div><e>_<DIV> [NP apple]]]]]

In (7), [NP apple] is the state of the noun apple as a listeme in the lexicon, and when the entity <e> is recognized to be divisible/countable, then it needs the functional feature of <div> to be marked, which later is realized as a plural morpheme -(e)s, in English, and -tul, in Korean. The properties/features are realized in the formation of NPs: for the non-classifier languages, determiner and plural inflection, if they are necessary, are to be assigned in syntactic structures; for the classifier languages, the optional plural affix, such as -tul in Korean, and the classifier are to be assigned.

Pronouns and common nouns, either [+animate] or [-animate], can convey genericity by their bare forms. Classifier phrases in Korean are always
accompanied by numerals, and thus plurality need not be marked to the head of the classifier phrases. Thus, though we admit that in Korean bare nouns may refer to genericity denoting kinds or mass, we claim that in Korean we have D and plural-marker, and the count/mass distinction, as well. What can be distinguished from the non-classifier languages is the use of classifiers when we count with numerals. Numerals/cardinals other than one, including zero, refers to plurality, and the plural marker -tal turns to be optional in its use. Since numeral itself denotes the plurality of the head noun, any other plurality marking will be redundant, and the accompanying classifier is never marked with a plural marker. Classifiers are neutral in singular/plural marking, and any cardinal is to be accompanied by a classifier in its bare form. In this sense, we can assume that classifiers are number neutral, and thus resemble mass and the listeme itself.

3. Classifiers and the Plural Markers

3.1 Classifiers as mass in Korean

Classifiers resemble mass in concept in that the two get their identification checked in the lexicon. In the lexicon nouns need to match to their relevant classifier with regard to the features. Features tell the criteria of matching classifiers: e.g., counting of people in Korean needs a matching feature of [+human] in the classifier myeng, so that the phrase sey myeng makes a good expression for counting three people. Following Borer (2005), we regard classifiers as taking the grammatical function of an independent f-morph, like the English definite determiner the or will. According to Borer, nouns are, on the whole,

\[ \text{the or will} \]

Borer (2005) specifies grammatical formatives in two varieties: f-morphs, and head features. The f-morphs, such as the or will, are independent grammatical functional formatives in a sense they license functional structure independently without any head movement involved. On the other hands, head features require movement of a head. For example, phonologically abstract head feature, such as <pst> or <div> requires movement of a head to be instantiated as in the following examples. <pst> is for past tense, and <div> is for plurality. \(<e>_d\) represents an open value of the head D of DP, and the same applies to \(<e>_p\) of #P (number phrase) and others.

(i) a. \([v \text{ sink}] \begin{small} \langle \text{pst} \rangle [v \text{ sink}] \end{small} [\text{sank}]\) (sank)
   b. \([v \text{ dog}] \begin{small} \langle \text{pst} \rangle [v \text{ dog}] \end{small} [\text{dogged}]\) (dogged)
   c. \([v \text{ boat}] \begin{small} \langle \text{pst} \rangle [v \text{ boat}] \end{small} [\text{boat}]\) (boated)

(ii) \([v \text{ the }] \begin{small} \langle \text{div} \rangle [v \text{ the }] \end{small} [\text{cat}] \begin{small} \langle \text{div} \rangle [\text{cat}] \end{small} [\text{the cats}] \) \(\Rightarrow\) the cats

The projection of an abstract head feature requires movement of a head to be instantiated and the
listemes which are unspecified with respect to many of their relevant grammatical properties. The properties/features are realized in the formation of NPs: for the non-classifier languages, determiner and plural inflection, if they are necessary, are to be assigned in syntactic structures; for the classifier languages, the optional plural affix, such as -tul in Korean, and the classifier are to be assigned.

Diagram (8) describes the relation of head noun and the relevant number of it, and the corresponding specification of classifier. For example, for x (e.g., student), if there is a number of x \{1,2,\ldots,n\}, e.g., students, then the indefinite plurality of x is expressed by means of a classifier, which may represent the x’s collectively like a mass. Thus, the determinerless bare argument has either the existential indefinite interpretation or generic interpretation. The following examples in (9) illustrate that bare singular nouns in Korean come directly out of the listeme itself. Syntax decides the countability or plurality of the nominal.

(9) a. canton iss-e-yo?
    change have-Q-HON
    ‘Do you have any change?’

b. ney, canton manh-a-yo
    yes, change a lot-DECL-HON
    ‘Yes, I have a lot of change.’

c. ani-yo, canton-tul-i ta eti ka-ss-na?
    no-HON change-PL-NOM all where go-PAST-Q
    ‘No, I don’t have any change with me.’

In an interrogative (9a), canton (change) is a bare noun. What attracts our attention here is the fact that the nominal of the negative answer in (9c) is marked with the plural particle -tul. When negating the question, the speaker

result of free copy and merge yields the past forms in the parentheses. In this paper we do not apply the detailed procedure of formation, but we adopt the concept of the grammatical formatives in distinguishing the independent grammatical lexical items from the formatives of morphological affixation. Plural affixes, like -(es) in English and -tul in Korean, are another examples of morphological formation out of the head feature of \(<\text{div}\rangle\), i.e., the dividing head feature.
imagines the physical existence of the individual item *canton* (change), which sums up into a universal quantifying adverb *ta* (all), thus the divided items to be collected as a massive mass. In (9b), *canton* (change) takes a form of typical bare mass noun, and delivers the ‘kind’ reading. (9b) will also be acceptable when marked with *-tul*, but if affixed with the plural marker, then *canton* (change) will not be regarded as a mass noun any more, but will turn into a common noun referring to the practical items on the scene. This may support the argument of Chierchia (1998a), which states that mass bare arguments unambiguously refer to ‘kinds’. However, we differ from Chierchia in that we assign no grammatical function specified in bare singular nominals. We claim that the grammatical specifications, such as topic marker *-un/-nun*, plural marker/particle *-tul*, and the additive particle *-to* may convey plurality. In other words, when a concrete singular/plural/numeral distinction is needed, the relevant feature of [+plural] should be specified under C of CP, so that the syntactic realization coincides with the semantic interpretation.

The plural marker *-tul* is sensitive to count vs. mass distinction, and the acceptability hierarchy of *-tul* in CIP can be described as follows in (10). The [+mass] noun with classifier is unacceptable. With the [+human] feature, plural marker *-tul* looks quite naturally affixed to the head noun in (11c), but as in (11a,b) the nouns of [+mass] feature simply cannot be countable.

\[(10) \quad [+\text{human}] > [+\text{animate}] > [-\text{animate}] > [+\text{abstract}] > [+\text{mass}] \]

\[(11) \quad \begin{align*}
a. \ & \text{chwungko-} - \text{tul} \ & \text{sey} \ & \text{mati}^{16} \\
\end{align*}
\]

\[^{16} \text{We may think of a very interesting example that allows } -\text{tul} \text{ affixation to an abstract NP as follows. Tektam (good remarks) is an abstract noun, like } \text{chwungo (advice)} \text{ in (11a), but we admit that we often use the following examples in (ia,c). In (ia), } -\text{tul} \text{ does not refer to the plurality of the base noun tektram, but refers to the plurality of the hearers/audience who are listening to the speaker. Tektram is an object NP, and the accusative case marker } -\text{ul} \text{ is deleted in (ia). In imperatives, it is generally assumed that we delete the subject NP, e.g., } \text{yelepwan-tul (you-PL)} \text{ in (ib) is deleted in (ia). In (ic), } \text{twu-e} \text{ is a numeral meaning } \text{a few} \text{ in English, and the subject NP } \text{nay-ka (I-NOM)} \text{ is also deleted, which is common in Korean, especially in colloquial forms. I owe the examples (ia) and (ic) to one of the anonymous reviewers.} \]

\[(i) \quad \begin{align*}
a. \ & \text{tektram-tul} \ & \text{han} \ & \text{mati-ssik} \ & \text{hap-si-ta} \\
& \text{good remark-PL} \ & \text{one} \ & \text{CL-DIST(each)} \ & \text{do-HON-DECL} \\
& \text{‘Let’s make a piece of good remarks each.’} \\
b. \ & \text{yelepwan-tul} \ & \text{tektram-tul-ul} \ & \text{han} \ & \text{mati-ssik} \ & \text{hap-si-ta} \\
& \text{you-PL} \ & \text{good remark-PL-ACC} \ & \text{one} \ & \text{CL-DIST(each)} \ & \text{do-HON-DECL} \\
& \text{‘Let’s make a piece of good remarks each.’} \\
c. \ & \text{tektram} \ & \text{twu-e} \ & \text{mati} \ & \text{ha-keyss-upni-ta} \\
& \text{good remark} \ & \text{two-about} \ & \text{CL} \ & \text{do-will-HON-DECL} \\
\end{align*} \]
advice-PL three CL
‘three pieces of advice’
b. *mwul-tul sey can
water-PL three CL
‘three glasses of water’
c. haksayng-tul sey myeng
student-PL three CL
‘three students’

Mass nouns in English, such as *water, gold, and iron, etc. are characterized by their use of uncountable bare forms. Thus, following Chierchia (1998a) we define that bare nominal arguments are determinerless NPs occurring in canonical argumental positions. As can be seen in the examples of (12), proper names and other definites are ruled out in there-sentences.

definiteness effect (DE):
  a. *There is John/that boy/the boy.
  b. There are dogs. (bare arguments/kinds) (?)→ like overt kind-level NPs
c. There is that kind of animal in the zoo
d. There is every kind of student in my class. Chierchia (1998a)

Mass bare arguments unambiguously refer to ‘kinds’. Common nouns may take the bare plural form to refer to ‘kinds’. While we put plural kinds as functions from worlds into plural individuals, singular kind denoting the intension of a mass description is a function from worlds into a collective or totality of some sort. (Chierchia 1998a)

\( \cap \) tigers = ^PL(tiger) = \( \lambda w[\text{PL}(\text{tiger}_w)] \) 'plural kinds'
\( \wedge \text{THE} \) (MASS(tiger)) = ^g(\( \iota \) MASS(tiger)) 'singular kinds'
\( \cap \) THE (MASS(tiger)) = \( \lambda w[g(\iota \text{MASS}(\text{tiger}_w))] \) (see Dayal 1992)

(14) The tiger is rare rare \( \rightarrow ^\wedge \text{THE(MASS(tiger))} \) intensional, kind-level predicate
(15) a. The tiger is roaring in the zoo
    b. roaring in the zoo (g(\( \iota \)MASS(tiger))) object-level predicate

'Let me give one or two pieces of good remarks.'
Dayal (2004) also supports the idea saying that in languages with determiners, singular kinds typically occur with the definite determiner, but plural/mass kinds can be bare in some languages and definite in others.

In Korean, it is generally assumed that almost every noun takes the bare noun form. Korean uses demonstrative, but does not use articles. In this sense, Korean bare nominals are different from those of English. A bare noun can be interpreted either into singular or plural. Even though syntactically it appears to take a singular form, its semantic interpretation may turn into plural according to the context, which could be realized by another syntactic manifestation, such as Topic-marker, atelic expression, ‘kind’ predicates, and the spreading of -tul.17 If we think bare nouns in a singular form can refer to semantic plurality, then it would not be hard to relate the notion with that of Chierchia’s mass. Examples of the kind-referring NPs and the object-referring NPs are as follows in (16-17) and (18), respectively.

(16) a. The lion is a predatory cat. (definite singular count nouns)
b. Lions are predatory cats. (bare plural count nouns)
c. Gold is a precious metal. (bare mass nouns)

(17) indefinite singular NPs, denoting subspecies; taxonomic reading:
a. The World Wildlife Organization decided to protect a (certain) large cat, namely the Siberian tiger
b. One metal, namely copper, went strongly up on the market yesterday

(18) def sg NPs, bare pl NPs, bare sg NPs, indef sig NPs: (Krifka et al. 1989)
a. The lion /Lions escaped yesterday from the Hellabrunn zoo
b. Gold was stolen in yesterday’s bank robbery
c. A cat was sitting on the mat when John arrived at home

The noun phrases the lion, lions, gold in (16) are translated into bare noun forms of saca (lion) and kum (gold) in Korean denoting kinds. In contrast to them, the noun phrases of (18), the lion/lions, gold, a cat should either be marked with plural marker -tul or a classifier mali, as in koyangi han mali (cat one CL). (18b) can be explained with the ones in (19). In the following examples, the bare mass noun gold of (19a) refers to the genericity of the NP, and the same word in (19b) refers to the object that was stolen yesterday.

(19) a. Gold is a precious metal.
b. Gold was stolen in yesterday’s bank robbery. (Carlson et al. 1994)

17 For the phenomena of -tul spreading and the relevant interpretations, refer to Kim (2007).
Korean is one of the languages in which classifiers take major role in counting people or things, and as in English, mass nouns can hardly be used as plural unless they are accompanied by classifiers describing the container of the mass. Chierchia (1998a,b) analyzes [+arg, -pred] languages on the ground that the bare nouns may convey plurality by means of classifiers. It is quite interesting to think of the notion of Chierchia’s mass noun: mass nouns cannot be syntactically marked with plurality. In Korean, classifiers cannot be marked with plural morphemes. By the term of ‘mass’, we mean a collective group of individuals, and by classifier, we can also mean a number of or a collective group of individuals. As in the following example (20), we assume that a classifier comes right after the head noun in the original/basic order of the DP. Classifiers do not need the plural particle -tul.

(20) a. haksayng(-tul) twu myeng-i sensayngnim-ul kitali-ko iss-ta
    student(-PL) two CL-NOM teacher-ACC wait-DEL PROG-DECL
    ‘Two/Ten students are waiting for a/the teacher.’

b. twu myeng-uy haksayng(-tul)-i sensayngnim-ul kitali-ko iss-ta
    two CL-GEN student(-PL)-NOM teacher-ACC wait-DEL PROG-DECL
    ‘Two/Ten students are waiting for a/the teacher.’

(20a) is considered to be an unmarked construction compared to (20b). (Kang 1994, Lee 1989, Choe 1987, etc.). In (20b), the classifier phrase (CIP) has undergone movement, via IM (Internal Merge), and as a realization of movement the GEN (genitive) Case is marked to the CIP. If we introduce the possible word orders of the CIP, they are as follows in (21a-d). The examples are given in (22) and (23).

(21) a. head-first: N + Num + CL
    student three CL
    ‘three students’

b. head-final: Num + CL-GEN + N
    sey myeng-uy haksayng

c. pluralized: ?N-tul + Num + CL
    haksayng-tul sey myeng

d. *Num + CL-tul-GEN + N
    *sey myeng-tul-uy haksayng

(22) a. sakwa sey kay
    apple three CL
    ‘three apples’

b. sey kay-uy sakwa

(23) c. ?sakwa-tul sey kay
d. *sey kay-tul sakwa

(23) a. mwul sey pyeng
    water three CL
    ‘three bottles of water’
b. sey pyeng-uy mwul
c. *mwul-tul sey pyeng
d. *sey pyeng-tul mwul

(24) table-318

| Index | Word order               | Count N                  | Mass N       |
|-------|--------------------------|--------------------------|--------------|
|       |                          | [+human] | [-human] | mwul (water) |
|       |                          | haksayng (student) | sakwa (apple) |        |
| 1 i   | N + Num + CL            | √         | √         | √          |
| 1 ii  | Num + CL-GEN + N        | √         | √         | √          |
| 2 i   | N-tul + Num + CL        | √         | √?        | *          |
| 2 ii  | Num+CL-GEN + N-tul      | √         | √         | *          |
| 3 i   | N + Num + CL-tul        | *         | *         | *          |
| 3 ii  | Num + CL-tul-GEN + N    | *         | *         | *          |
| 4 i   | Num + N                 | √         | *         | *          |
| 4 ii  | N + Num                 | haksayng seys sakwa seys mwul twul |

The acceptability and unacceptability judgment of the constructions of numeral and classifier are as in (24) table-3. As can be read in (24) table-3, the plural marker -tul can be affixed to a count noun, but it is unacceptable when affixed to a mass noun (24-2i,ii). The structure of CL-tul is not allowed in any of the cases of (24-3i,ii). For [+human], simply counting with number is also acceptable, but for the other cases it is unacceptable, as in the case of (24-4i). (24-4ii) exemplifies that classifiers can be deleted. The contracted forms of numerals, sey-s (three), twu-l (two), etc. can substitute the classifier constructions. For these numerals, the phonological realization of -s, or -l, etc., signals deletion of classifier.19

18 This is a simplified version of the table introduced in Kim, Y-W (2007).
19 For the examples of each structural description of the classifier phrases, and the discussion of the Korean classifiers, please refer to Kim, Y-W (2007).
3.2 Plural morpheme -*men* and the classifiers in Chinese

Li (1999) claims that a classifier language can have a plural morpheme within a nominal expression. Plural morphemes of a classifier language shares the position where they are generated with those of a non-classifier language. They are generated under the node of Number (Num), but the difference in the realization of plurality follows from the project of a classifier. According to Li, -*men* in Chinese is a plural morpheme and in contrast to the English plural morpheme -(e)s, which is in N, -*men* is placed in D, as follows:\(^{20}\)

\[
\text{(25)}
\]

\[
\begin{array}{c}
\text{DP} \\
\text{Spec} \\
\text{D'} \\
\text{D} \\
\text{Spec} \\
\text{D} \\
\text{NumP} \\
\text{wo} \\
\text{Spec} \\
\text{Num'} \\
\text{san} \\
\text{Num} \\
\text{CIP} \\
\text{pl} \\
\text{Cl} \\
\text{NP} \\
\text{-men} \\
\text{ge} \\
\text{N} \\
\text{xuesheng}
\end{array}
\]

\[
\text{(26)} \ \text{wo-*men* san-ge xuesheng}
\]

'I-PL three-CL students'

'The tree diagram (25) describes the syntactic structure of the noun phrase (26), where the plural marker -*men* represents the plurality of the definite personal pronoun *wo* (I).\(^{21}\)

\(^{20}\) Ilijic (1994, 1998) proposes that -*men* can be regarded as a collective marker, and many other Chinese linguists, including Chao (1968), Lu (1947), and Norman (1988), regard -*men* as a plural morpheme when attached to pronouns and as a collective marker when attached to noun. In this paper, we follow Li's argument for the sake of the simplicity of discussion.

\(^{21}\) In a recent talk, Zhang (2009) claims that there is no independent CIP projected in Chinese. Cl combo \(s\) are portmanteau morphs that have both a sortal feature (similar to a gender feature) and a DIV feature. The Cl combo \(s\) is a place-holder of Num, which has neither a sortal nor a DIV feature.

A sortal classifier is the one which individuates whatever it refers to in terms of the kind of
According to Li (1999, 81), because of the blocking element of another head CI of CIP, the head N cannot be raised to the head Num in classifier languages. The head Num can be raised to D, where the plural morpheme -men is suffixed. When a nominal expression contains a demonstrative, a pronoun, a proper name, or a [+definite] supplied by the context, the D is projected; otherwise, a bare N can be simply projected as N(P), without further projections through CI, Num to D. (Li 1999, 91) However, for the non-classifier languages, which lack CIP, N-to-Num raising is obligatory, and the plural is realized on N. -men as a plural marker is affixed to a pronoun of [+human], proper names, and some common nouns: Common nouns with -men must be interpreted as definite; attachment of -men to proper names yields two different interpretations, a plural or a collective reading; a pronoun/proper name with -men can be followed, but not preceded, by a quantity expression (number + classifier) and even by another noun.

3.3 Classifier constructions in Japanese

In non-classifier languages, plurality is realized by the element generated in the noun, e.g., mostly by the inflection -(e)s in English. In English, mass nouns do not allow plural affix, and when counting is needed they make use of the partitives/classifiers but do not pluralize the head noun.

(27) a. two spoonfuls of sugar
    b. two boxes of books

Li (1999) argues that a classifier language can have a plural morpheme within a nominal expression, and that there exists a correlation between the use of classifiers with nouns and the absence of plural morphology. Watanabe (2006, 274) assumes the difference between the classifier and the non-classifier languages lies in the morphological realization of the number # head.

Strengthening the arguments by Cheng and Sybesma (1999), Watanabe (2006) argues that mass/count distinction exists in classifier language, and that a classifier occupies the Num head (# head), which combines only with a count noun. According to Watanabe, the mass/count distinction is universally entity that it is (Lyons 1977, 463). Generic classifier is the one which is not sensitive to the semantics of the noun (Grinevald 2003, 98). According to Zhang, in Chinese head noun is marked by double classifiers, Clsyntax and the Clgen, so that the sorting classifier -men can be accompanied by a generic classifier -ge for human nominals, which we do not allow in Korean. We admit that we are in need of further studies and discussions in relation to the analyses of sortal vs. generic classifiers.
represented by the \([\pm\text{number}]\) feature on the \# head:

\[(28)\] Mass/Count Universal (Watanabe 2006, 271)

The \# head is \([+\text{number}]\) in the case of count nouns, whereas it is \([-\text{number}]\) in the case of mass nouns.

Adopting Fukui and Takano’s (2000) proposal that a classifier occupies the head of \#P, Watanabe (2006) asserts that a classifier is a manifestation of number morphology and that Japanese lacks genuine plural morphology. Numeral is placed in Spec of \#P. NP undergoes obligatory phrasal movement to Spec of CaseP. The key idea of Watanabe is that a classifier is a manifestation of number morphology in Japanese. This explains the fact that Japanese lacks genuine plural morphology, because the \# head is also the locus of plural morphology. The following diagram (29a) describes the structure for the ordinary numeral classifier, a general pattern in Japanese, in which an ordinary classifier appears only when a numeral is in Spec of \#P. The \# head, which corresponds to Num of (25), undergoes number agreement with the head N, and if the \# head has an EPP feature, NP gets raised to another Spec of \#P as in (29b).

\[(29)\]

\[\text{a.} \quad \begin{array}{c}
\text{NP} \\
\text{san} \\
\# \\
\text{hon} \\
\text{satsu} \\
\text{‘three book CL’}
\end{array}
\quad \text{b.} \quad \begin{array}{c}
\text{NP} \\
\text{hon} \\
\# \\
\text{san} \\
\text{INP} \\
\text{Satsu}
\end{array}\]

Watanabe proposes that Japanese nominals have at least three layers of functional projections above NP and below DP, as shown in the following diagram (30). Watanabe also claims that NP undergoes obligatory phrasal movement to Spec of CaseP to trigger an EPP feature of the Case head. In (30), the \# head (Num) can be realized as a classifier, such as \textit{bun} (amount), or as zero.\[22\]

\[22\] The example is given below in (i), and the analysis of the classifier \textit{–bun} raises another issues to be discussed with the quasi-/pseudo-partitive examples given in (ii), for which we defer the discussion for next time. Hopefully, at that time the pronominal numerals of Korean, \textit{hana}, \textit{twul}, \textit{seys} (one, two, three), etc. will also be discussed. Examples (i) and (ii) are from Watanabe (2006).
The structural description of Watanabe is based on his argument that D exists in Japanese, but that there is no genuine plural morphology in Japanese because head is also the locus of plural morphology. He argues that the structural configuration in (30) can represent the occurrence of the Japanese classifiers in multiple positions within a nominal projection.

According to Watanabe, particle -mo takes place under D. He argues that mass nouns do not allow -mo, contrary to the cases of count nouns, as are described in (31a,b). However, for Korean, the corresponding particle -to does not show any distinction between mass and count nouns, as can be seen in (32a,b).

(30)

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(31) a. John-wa dono hon-mo yonda
   John-TOP which book-MO read
   ‘John read every book.’
   b. *John-wa dono mizu-mo nonda
      John-TOP which water-MO drank
      ‘John drank all the water.’ (Watanabe 2006, 278)

(i) Roger-wa gohan donburi(?-ni) yon-hai-bun-o tabeta.
   Roger-TOP rice big bowl-DAT 4-cl-amount-ACC ate
   ‘Roger ate four big bowls of rice.’
(ii) a. Two bottles of wine were/*was thrown into the soup. (Cover 1998)
    b. An assortment of responses was/were considered to those questions of yours. (Selkirk 1977)
(32) a. John-un etten chayk-to ilkul swu iss-da
   John-TOP which book-TO read able to be
   ‘John is able to read any book.’

b. John-un etten mwul-to masil swu iss-ta
   John-TOP which water-TO drink able to be
   ‘John is able to drink any kind of water.’

3.4 Syntactic configuration of DP in Korean

In this paper, we reject the argument of Watanabe in his placement of the particle -mo (or -to in Korean) under D. Instead, in support of Li (1999) and Longobardi (2005), we claim that D is the position of [+definite] feature, i.e., the position of the demonstratives, such as i (this), ce (that), ku (the), and etten (a/certain) in Korean. In comparison to Watanabe, if we introduce the structural configuration of the Korean DP with the specification of D, numerals, plural marker, and classifier, the possible constructions are as in (33a-f), and the relevant configurations are described in the tree diagram (34).

(33) a. ku haksayng sey myeng-i
    that student three CL-NOM
    ‘those three students’

b. ku sey myeng-uy haksayng-i

(34-①)

c. haksayng-man sey myeng-i

(34-②)

23 The reviewer, who suggested me the examples in note 16, also recommended me to change the indefinite determiner etten (which, a certain) into enu (any), suggesting that Korean also has the ungrammatical/unacceptable effect with mass nouns, as in the following example. According to him, enu makes it worse than etten, for which we need further discussion, but not in this paper. I appreciate his/her comment.

(i) *?John-i enu mwul-to masi-ess-ta
   John-NOM which water-TO drink-PAST-DECL
   ‘John drank any/all the water.’

24 The examples and the syntactic configuration is from Kim (2007). Accordingly we skip the detailed explanation about the configurations. nP can be recursively duplicated according to the semantic/pragmatic demands, such as plurality of -tul with definiteness, the exclusive -man (only), or the NPI -to, etc. The possible duplication can be proved by the following example, in which the semantic/pragmatic particles cluster one after another. (refer to Kim, 2007)

(i) haksayng-tul-man-ilato
    student-PL-only-even
    ‘only even the students’
We argue that in Korean CIP comprises the NumP of Chinese and Japanese since classifiers are always accompanied by numerals and phrasal movement is not exceptional in applying to CIP. Dim traces shown in the course of optional movement can be identified with the erased copies in the description of Borer (2005, 2009), of which we leave the discussion for next research.

4. Conclusion

In Korean, bare singular nouns have generic kind reading referring to vague mass. The concept of mass can be identified in the syntactic realization of CIP. Classifiers are syntactically singular/plural neutral as the mass nouns are.
Countability is realized by numerals for classifier phrases in classifier languages and by partitives for the mass nouns in non-classifier languages. The grammatical marking of plurality renders [+definite] reading to the nominal head.

We adopt Borer (2005)’s assumption and claim that lexemes in the lexicon allude to the property of mass, and that when individuation is needed, the feature <div> is marked to the lexeme, and the functional categories of NumP/#P and CIP are realized in the structural configuration of the classifier languages. The feature <div> forces singular vs. plural distinction to be specified and checked for the agreement among the head N, the numeral Num, and the D. Classifiers may represent the mass feature of the whole NP. Feature agreement is for the projection of the phrasal categories of NumP and CIP, but not for the inflection. Syntactically, classifiers are neutral between singular and plural distinction, and thus, never allow the plural marker -tul in Korean. However, we claim that classifiers essentially bare plurality in concept, which is equivalent to mass. D specifies the [+definite] feature. Specification of the plural marker -tul is optional and confirms the [+definite] feature, which bare singular nouns lack.

References

Abney, Steven Paul. 1987. The English Noun Phrase in Its Sentential Aspects. Doctoral Diss. MIT.
Barner, David and Jesse Snedeker. 2005. Quantity judgment and individuation: evidence that mass nouns count. Cognition 97: 41-66.
Borer, Hagit. 2005. Structuring Sense vol. I. Oxford University Press. Oxford.
Borer, Hagit. 2009. Syntax for Kinds? Ms. Mass/Count Workshop. University of Toronto.
Bošković, Želiko. 2007. Agree, Phases, and Intervention Effects. Linguistic Analysis 33:
Carlson, Gregory. 1977. No Lack of Determination. Ms.
Chao, Yuen-Ren. 1968. A Grammar of Spoken Chinese. University of California Press. Berkeley.
Cheng, Lisa Lai-Shen and Rint Sybesma. 1999. Bare and Not-So-Bare Nouns and the Structure of NP. Linguistic Inquiry 30: 509-542.
Chierchia, Gennaro. 1998a. Reference to Kinds across Languages. Natural Language Semantics 6: 339-405.
Chierchia, Gennaro. 1998b. Plurality of Mass Nouns and the Notion of Semantic Parameter. In S. Rothstein (ed.) Events and Grammar. Kluwer, Dordrecht.
53-103.
Chierchia, Gennaro. 2009. Mass Nouns, vagueness and number. Ms. Mass/Count Workshop. University of Toronto.
Choe, Jae-woong. 1987. *Anti-Quantifiers and a Theory of Distributivity*. Doctoral Dissertation. Umass, Amherst.
Chomsky, Noam. 2006. Approaching UG from below. Ms. MIT.
Contreas, H. Borgelois. 1986. Spanish Bare NPs and the ECP. In Borgelois, H. Contreras and K. Zagona (eds.) *Gerative Studies in Spanish Syntax*. Foris, Dordrecht.
Cover, Robert. 1998. Predicate Movement in Pseudopartitive Constructions. In A. Alexiadou and C. Wilder (eds.), *Possessors, Predicates and Movement in the Determiner Phrase*. John Benjamins, Amsterdam. 215-257.
Dayal, Venneta. 2004. Number Marking and (In)definiteness in Kind Terms. *Linguistics and Philosophy* 27: 393-450.
Fukui, Naoki and Yuji Takeo. 2000. Nominal Structure: An Extension of the Symmetry Principle. In P. Svenonius (ed.) *The Derivation of VO and OV*. John Benjamins, Amsterdam. 219-254.
Iljic, Robert. 1994. Quantification in Mandarin Chineses: Two Markers of Plurality. *Linguistics* 32: 91-116.
Iljic, Robert. 1998. Number and Person. Paper presented at IACL-7/NACCL-10. Stanford University.
Kang, Bem-Mo. 1994. Plurality and Other Semantic Aspects of Common Nouns in Korean. *Journal of East Asian Linguistics* 3: 1-24.
Kim, Young-Wha. 2007. Plurality and the Behavior of -tul: [-+PL] feature under C of CP. *Korean Journal of Linguistics*. Vol 32-1. 27-62.
Krifka, Manfred et al. 1989. Genericity: An Introduction. In G. Carlson (ed.) *The Generic Book*. University of Chicago Press.
Lee, Ik-Hwan. 1992. A Quantificational Analysis of Generic Expressions in Korean. In *Proceedings of SICOL ’92*, 1024-1035.
Li, Yen-Hui Audrey. 1999. Plurality in a Classifier Language. *Journal of East Asian Linguistics* 8. 75-99.
Longobardi, Giuseppe. 1994. Reference and Proper Names. *Linguistic Inquiry* 25. 609-666.
Longobardi, Giuseppe. 2005. Toward a Unified Grammar of Reference. *Zeitschrift für Sprachwissenschaft* 24. 5-44.
Lu, Shuxiang. 1947. *Zhongguo Wenfa Yaolue* [Chinese Grammar Outlines], Shangwu Publishers, Beijing.

Norman, Jerry. 1988. *Chinese*. Cambridge University Press. Cambridge.

Pelletier, Francis Jeffry and Lenhart K. Schubert. 2002. Mass Expressions. *Handbook of Philosophical Logic*. Vol 10. 1-87.

Torrego, Esther. 1989. Unergative-Unaccusative Alternations in Spanish. *MIT Working Papers in Linguistics*. Cambridge. MIT Press.

Tsoulas, George and Eytan Zweig. 2009. Object vs. Substance Mass Nouns: A crosslinguistic perspective. Ms. Mass/Count Workshop. University of Toronto.

Watanabe, Akira. 2006. Functional Projections of Nominals in Japanese: Syntax of Classifiers. *Natural Language & Linguistic Theory* 24: 241-306.

Wilhelm, Andrea. 2008. Bare Nouns and Number in Dene S̱úlíne. *Natural Language Semantics* 16: 39-68.

Zhang, Niina Ning. 2009. Packing Number and Gender Features in Classifiers. Ms. Mass/Count Workshop. Univ. of Toronto.

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