Classifier, Number and Countability

0. Abstract

In this thesis I will investigate the possibility that the functional layer #P between DP and NP exists universally in every language, and even the function of that functional category is proposed to be uniform across languages. The research mainly treats the typological difference of Number Languages (NLs) and Classifier Languages (CLs). I propose that the features on N are assumed to be uniform in terms of countability, and also the view that the feature composition of the head # as well is asserted to be uniform across languages. Special attention will be paid to classifiers and numeral construction, which is again asserted to have quite equivalent underlying structure across languages. These conclusions are fully in accordance with the contemporary proposal of the Uniformity Principle (Chomsky 2001).

1. Introduction

1.1. the Uniformity Principle

(1) the Uniformity Principle (Chomsky 2001; (2))
In the absence of compelling evidence to the contrary, assume languages to be uniform, with variety restricted to easily detectable properties of utterances.

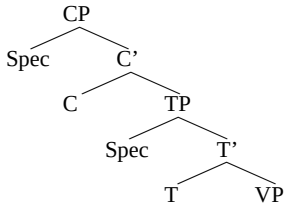
Some stronger variants…
(2) the Silent Principle (Sigurdsson 2003)
All languages share the same set of features; some are not pronounced.

(3) Even a stronger version (Miyagawa 2004, to appear)
Not only do all languages share the same set of features; but they must somehow be overtly manifested.

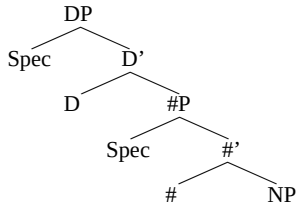
1.2. Some Proposals on

Similarity to the clausal syntax

(4) a. clausal syntax



b. DP-internal syntax



Crosslinguistic observation
Japanese: Watanabe 2004
Modern Hebrew: Ritter 1991
Walloon: Bernstein 1991, 1993, 2001
French: Valois 1991
Chinese: Tang 1990, Li 1999
Catalan: Picallo 1991

1.3. Tentative Typology

Numeral requires that either number morpheme or a classifier is present.

Classifier Languages (*CLs*):
Nouns are required to be provided with a classifier in order to be counted by numeral.
Japanese, Chinese, Persian, Bangla, Korean, Thai, other Southeast Asian languages, etc.

Number Languages (*NLs*):
Nouns are required to be morphologically inflected in terms of number in order to be counted by numeral.
English, French, German, Italian, Spanish, other Germanic-Romance languages, etc.

(5) a. san-*(nin)-no gakusei (Japanese)
three-CLA-GEN student
"three students"
b. three student-*(s) (English)

2. Equating Classifier with Number

2.1. Two Functions of Number

(i) indicating countability of nouns
(ii) marking singular/plural features on nouns[1]

[1] Note that there are also languages which employs dual (and even trial) in their number inflection. However, Greenberg (1963) observes (7) from his statistic survey of language universal.

(i) Greenberg's language universal 34.
No language has a trial number unless it has a dual. No language has a dual unless it has a plural.

Then, such additional dual and trial distinction on number is presumably a marked case, and in the discussion I put aside cases with dual and trial.

(6) a. * student
b. a/one student
c. some/three students

(7) a. water
b. * a/one water
c. * some/three waters

2.2. Various Arguments

-Greenberg (1963): there is a universal tendency for languages without grammatical number to have generalized classifier system.

-Ikoro (1994) describes the development of Kana, a Nigerian Cross River language, which lost its noun class related number morphology and replaced it with a count-classifier system, while other languages of the same family kept the original system and did not develop count-classifiers. (cited in Cheng and Sybesma 1998, to appear)

-Peyraube (1997) suggests that the development of count-classifiers in Chinese is related to the loss of an element which may have been a plurality marker. (cited in Cheng and Sybesma 1998, to appear)

2.3. Evidence from Chinese

(8) Chinese bare nouns can be construed both as singular and as plural.
a. Hufei mai shu qu le. (Mandarin)
Hufei buy book go SFP
"Hufei went to buy a book/books."
b. Gou jintian tebie tinghua.
dog today very obedient
"The dog/dogs was/were very obedient today."

(9) Chinese is an instance of CL
a. san ge ren (Mandarin)
three CLA people
"three persons"
b. san ben shu
three CLA book
"three books"

Chinese "bare" classifiers (Cheng and Sybesma 1998)
(10) a. Wo xiang mai ben shu (Mandarin)
I would.like buy CLA book
"I would like to buy a book"
b. * Ben shu bu hao.
CLA book not good
"The/A book is not good."

(11) a. Keoi seung maai gaa ce. (Cantonese)
he want buy CLA car
"I want to buy a car."
b. Keoi maai-zo gaa ce.
he sell-ZO CLA car
"I sold the car."
c. Gaa ce zo-zyu go ceot-hau
CLA car block-CONT CLA exit
"The/*A car is blocking the exit."

(12) Their obligatory singular interpretation[2]
a. Hufei mai shu qu le. (Mandarin)
Hufei buy book go SFP
"Hufei went to buy a book/books."
b. Wo xiang mai ben shu.
I would-like buy CLA book
"I would like to buy a book/*books."

The "plural" classifiers (see Cheng and Sybesma to appear)
(13) a. Siuming seung sik go mou wat ge saigwaa. (Cantonese)
Siuming want eat CLA no seed MOD watermelon
"Siuming wants to eat a seedless watermelon."
b. Siuming zungji sik di mou wat ge saigwaa.
Siuming like eat CLA.PL no seed MOD watermelon
"Siuming likes to eat seedless watermelons."

(14) a. Gaa ce zo-zyu go ceot-hau.
CLA car block-CONT CLA exit
"The car is blocking the exit."
b. Di ce zo-zyu go ceot-hau.
CLA.PL car block-CONT CLA exit
"The cars are blocking the exit."

3. Countability in Classifier Languages

3.1. Mass

(6) a. * student (7) a. water

[2] Note that the [CL + N] construction should not be treated as the phonologically reduced form of [*yi*-Cl + N] (*yi* 'one, a'), because the distribution of [Cl + N] is quite different from that of [*yi*-Cl + N]. See Cheng and Sybesma (1998), particularly §3.1.

b. a/one student
c. some/three students

b. * a/one water
c. * some/three waters

(15) a. three glasses of water
b. three huge bottles of water
c. three liters of water

(16) The diagnoses of nouns' mass status in NLs.
a. If a noun is a mass one, it cannot bear grammatical singular/plural inflectional morphemes on it.
b. If a noun is a mass one, it cannot be directly counted by numerals.

Nouns in CLs generally have status analogous to mass nouns in NLs.

(17) Kooen-ni inu-ga ita. (Japanese)
park-DAT dog-NOM be.there.PAST
"There is a dog in the park/ There are some dogs in the park."

(18) a. san-biki-no inu
three-CLA-GEN dog
"three dogs"
b. * san-no inu
three-GEN dog

3.2. Two hypotheses for mass

(A) *the Homogeneous Reference Hypothesis*
(Bunt 1985, Landman 1989a, 1989b, Link 1983)

Mass-nouns refer to entities as having a part-whole structure without singling out any particular parts and without making any commitments concerning the existence of minimal parts.
(Bunt 1985; pp. 46)

(B) *the Inherent Plurality Hypothesis*
(Chierchia 1998a, 1998b)

I propose instead that the extension of mass nouns (like *change*) is essentially the same as that of plurals (like *coins*). A mass noun simply denotes a set of ordinary individuals, *plus* all the pluralities of such individuals. For example "change" denotes, roughly, single coins and the possible sets or pluralities of coins. This view is an "atomistic" one: we are commited to claiming that for each mass noun there are minimal objects of that kind, just like for count nouns, even if the size of these minimal parts may be vague.
(Chierchia 1995; pp.54)

change = [{a, b, c} … ; {a, b} {a, c} {b, c} … ; a b c …]

coins = [{a, b, c} … ; {a, b} {a, c} {b, c} …]

coin = [a b c …]

3.2. Nomnal Mapping Parameter (Chierchia 1998)

[±arg]… whether bare Ns can refer to kinds (and can be argumentive) or not
[±pred]… whether bare Ns can be predicative or not

(19) a. [+arg, -pred] (e.g. Chinese, Japanese)
- generalized bare arguments
- all nouns are mass nouns
- no plural morphology
- generalized classifier system

} CL

b. [-arg, +pred] (e.g. French)
- no bare nominals in argument position
- count/mass distinction
- morphological plural
- no classifier system

c. [+arg, +pred] (e.g. English, Spanish)
- bare mass nouns and plurals in argument position
- no bare singular count nouns
- plural morphology
- no classifier system

} NL

d. [-arg, -pred] (non-existent)

3.3. Massifier and Count-Classifier

Count-classifiers "simply name the unit in which the entity denoted by the noun naturally occurs," while massifiers "*create* a unit of measure" to the nouns (Cheng and Sybesma 1998; pp. 515)

(20) Chinese count-classifiers (Mandarin)

a. san ben shu
three CLA book
“three books”

b. san ge ren
three CLA people
“three persons”

c. san zhi bi
three CLA pen
“three pens”

(21) Chinese massifiers

a. san ping jiu
three bottle liquor
“three bottles of liquor”

b. san ba mi
three handful rice
“three handfuls of rice”

c. san wan mi
three bowl rice
“three bowls of rice”

d. san wan tang
three bowl soup
“three bowls of soup”

-The modification marker *de* can intervene between massifiers and head nouns, but cannot between count-classifiers and nouns.

(22) a. ba tou (*de) niu (Mandarin)
eight CLA.head DE cow
“eight cows”

b. jiu gen (*de) weiba
nine CLA DE tail
“nine tails”

c. shi zhang (*de) zhuozi
ten CLA DE table
“ten tables”

(23) a. san bang (de) rou
three CLA.pound DE meat
“three pounds of meat”

b. liang xiang (de) shu
two CLA.box DE book
“two boxes of books”

-Only massifiers allow the modification of certain adjectives.

(24) a. * yi da zhi gou (Mandarin)
one big CLA dog
“one big dog”

b. * yi da wei laoshi
one big CLA teacher
“one big teacher”

(25) a. yi da zhang zhi
one big CLA.sheet paper
“one large sheet of paper”

b. na yi xiao xiang shu
that one small CLA.box paper
“that one small box of paper”

Watanabe (2004): the distinction of massifier and count-classifier is also found in Japanese.

(26) Japanese count-classifiers (Japanese)

a. ip-piki-no kitsune
one-CLA-GEN fox
“one fox”

b. futa-ri-no kyooshi
two-CLA-GEN teacher
“two teachers”

(27) Japanese massifiers

a. ni-hon-no wain
two-CLA-GEN wine
“two bottles of wine”

b. yon-hako-no gengogaku-no hon
four-CLA.box-GEN linguistics-GEN book
“four boxes of linguistics books”

(28) Test 1: the pure measure indicator *-bun*

a. ni-hon-(bun)-no wain
two-CLA-BUN-GEN wine
“two bottles of wine”

b. ni-hon-(*bun)-no botoru
two-CLA-BUN-GEN bottle
“two bottles”

(29) Test 2: adjective modification

a. ((chiisana) botoru) ni-hon-no wain (Japanese)
small bottle two-CLA-GEN wine
“two (small) bottles of wine”

b. ((ookina) danboorubako) yon-hako-no gengogaku-no hon

big cardboard.box four-CLA.box-GEN linguistics-GEN book
"four ((big) cardboard) boxes of linguistics books"

(30) English pseudopartitives (English)
a. five (big) cups of coffee
b. six (big) boxes of books

3.4. Countability

(31) A noun is *countable* if it has a count-classifier corresponding to the natural built-in partitioning on its own. Otherwise, the noun is uncountable.

To summarize:

At first sight the nouns in CLs are quite similar to mass nouns in NLs, in that they do not bear singular/plural marking, and that they cannot be directly counted by numerals. However, CLs employs two types of classifier, massifier and count-classifier, and in terms of the availability of count-classifier, the attested countable/uncountable distinction on nouns exists in CLs, quite analogous to the mass/count distinction in NLs.

Question:

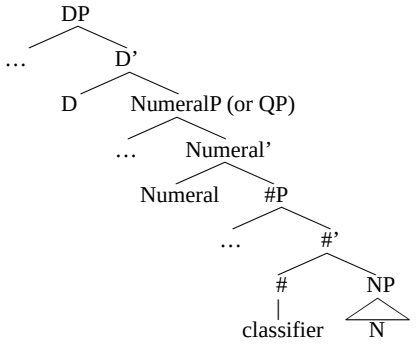
Is the mass/count distinction in NLs syntactically or semantically different from the countable/uncountable distinction in CLs?

-The negative answer is surely preferable. We want the result that humans' linguistic computation on counting is virtually uniform across languages, and the same intuition indicates that entities with built-in semantic partitioning are countable or count, and entities with no minimal parts are uncountable or mass. I will pursue this possibility, within the range of the ongoing research on #P.

4. Syntax of Classifier

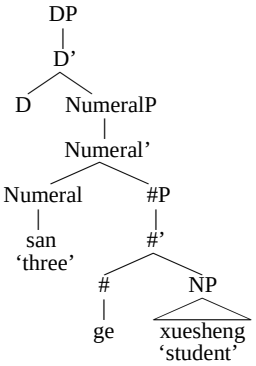
4.1. Incorporating the Universal Word Order

(32) Cheng and Sybesma's (1998) proposal for the Chinese DP structure



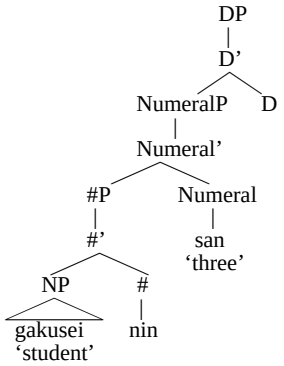
(33) san ge xuesheng
three CLA student
"three students"

(34)



(35) a. san-nin-no gakusei (Japanese)
three-CLA-GEN student
"three students"
b. * gakusei-(no) nin-(no) san
student-GEN CLA-GEN three

(36)



The universal word order: *classifier directly follows numeral.*

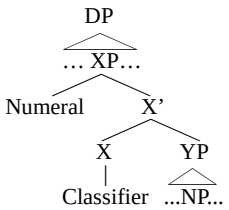
(37) a. Wo xiang kan san ben shu (Mandarin:
I would.like read three CLA book head-initial)
“I would like to read a book.”

b. Watashi-wa san-satsu-(no) hon-o yonda (Japanese:
I-TOP three-CLA-GEN book-ACC read.PAST head-final)
“I read three books.”

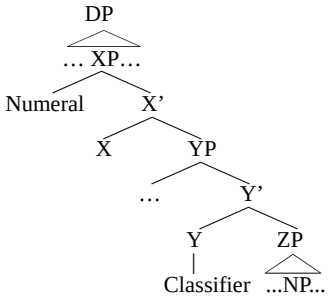
-The analysis of DP, therefore, must somehow incorporate this word order universal into its linguistic theory. Technically speaking, the syntactic structure of DP should be such that the word order of numeral-classifier is not to be affected by the value-variation of the head-parameter.

-The structures of (38) would fail such requirement.

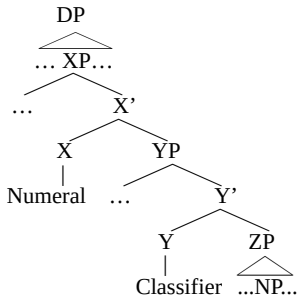
(38) a.



b.

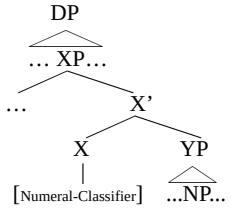


c.

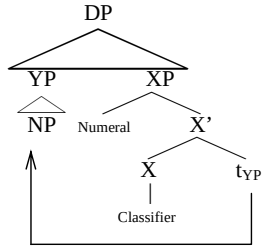


-Seemingly, there are at least two alternatives to the solution, schematized below.

(39) a.



b.



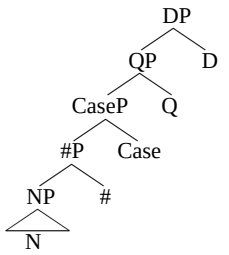
Hypothesis (39a) (Kitahara 1993, Kawashima 1998, Bhattacharya 1998, 2001, etc.):
-The numeral-classifier sequence occupies the single head position.
-The internal structure of this complex head is left for the domain of morphology.

Hypothesis (39b) (Watanabe 2004):
-Numeral occupy the Specifier position of the category headed by classifier.
-The word order that numeral precedes classifier is straightforwardly guaranteed by the well-attested and theoretically-motivated universal that *Specifier precedes head and complement.*

4.2. Watanabe's Analysis

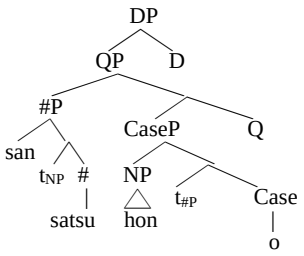
Watanabe (2004): the five-layered DP structure

(40)



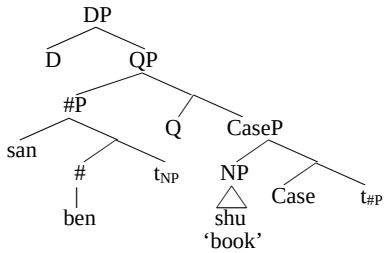
(41) a. John-wa san-satsu-no hon-o katta. (Japanese)
John-TOP three-CLA-GEN book-ACC bought
"John bought three books."

b.



(42) a. san ben shu (Chinese)
three CLA book
"three books"

b.



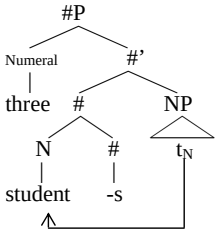
5. Agreement between # and N

5.1. X^0-movement or XP-movement

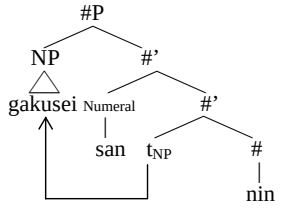
Proposal 1:

The agreement relation between # and N results in the head-movement of N to # in NLs, and the phrasal movement of NP into #P Spec in CLs.

(43) a. NL: English



b. CL: Japanese[3]



5.2. Agree in What?

(44) A noun is countable if it has a count-classifier corresponding to the natural built-in partitioning on its own. Otherwise, the noun is uncountable.

Proposal 2:

The interpretable countability feature, [±countable], is present uniformly on N. In CLs, the value-specification of this feature results in the countable/uncountable distinction, and in NLs it results in the count/mass distinction.

(45) N is [+countable] if it has a natural built-in semantic partitioning on its own. Otherwise, N is [-countable].

Proposal 3:

The agreement of # with N involves the countability feature [±countable].

(46) # bears an uninterpretable feature [øcountable], which need to be checked by the interpretable counterpart of the agreeing Ns.

Proposal 4:

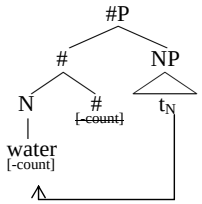
Only [+countable] nouns can have the further specification of [singular/plural].
(cf. Watanabe 2004 for the similar view).

(47) Only when the uninterpretable [øcountable] feature on # is valued as [+countable], # can bear the interpretable feature [±plural].

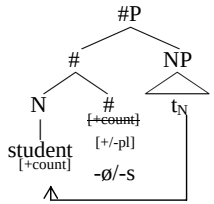
(48) The typology of Ns
[+countable]: countable nouns in CLs; e.g. *gakusei* 'student,' *hon* 'book,' etc.
count nouns in NLs; e.g. *student*, *book*, etc.
[-countable]: uncountable nouns in CLs; e.g. *mizu* 'water,' *wain* 'wine'
mass nouns in NLs; e.g. *water*, *wine*, *furniture*, etc.

[3] Indeed, Watanabe (2004) also refer to the possibility of NP-to-#PSpec movement, but he put aside whether this movement actually occurs or not, because the later NP-movement into the CaseP Spec hide the effect of this movement in his theory.

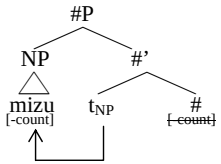
(49) a.



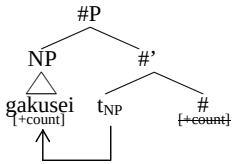
b.



(50) a.



b.



6. Visibility Requirement

6.1. Classifier as a Last Resort

The numeral construction of NLs: (51b) for the English case[4]

[4] The following Turkish example is of curious importance. Turkish has subject-verb agreement in its morphological system. Grammatical number is active, and normally bare nouns are inflected in terms of singular/plural distinction, so Turkish is a good example of NLs, satisfying the taxonomic properties presented above. As (ia) shows, a plural nominal is regularly marked by the plural suffix *-ler*. Interestingly, numerals are incompatible with plural marking in Turkish, as (ib) shows (The following Turkish examples are from Kornfilt 1996).

(i) a. ögrenci-ler (Turkish)
student-PL
'students'

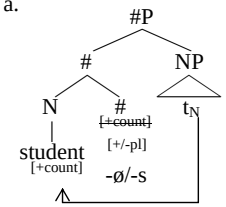
b. iki ögrenci-(*ler)
two student-(*PL)
'two students'

When numeral appears to modify the nouns, the resulting nominal phrase systematically drops its plural inflection, even if the number represented by that numeral is bigger than one. Moreover, Turkish nominals counted by numerals are in fact grammatically singular, and subjects in such a status requires singular number agreement on verbs as (iia), contrary to the fact that subject nominals with ordinary quantifier such as *bazl* 'some' are marked as plural in the exactly same syntactic environment (see (iib)).

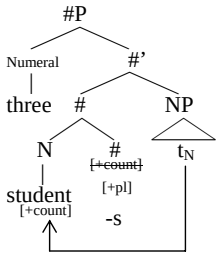
(ii) a. Iki ögrenci ben-im-le gör-üs-mek iste-di-(*ler).
two student I-GEN-INSTR see-RECIPR-INFIN want-PAST-3PL
'Two students wanted to meet with me.'

b. Bazl ögrenci-ler ben-im-le gör-üs-mek iste-di-ler.
some student-PL I-GEN-INSTR see-RECIPR-INFIN want-PAST-3PL
'Some students wanted to meet with me.'

(51) a.

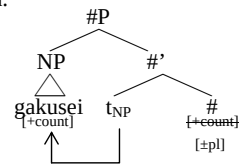


b.

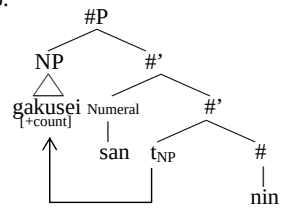


The numeral construction of CLs: (52b) for the Japanese case

(52) a.



b.



Problem: Why does the presence of numeral have influence on the morphological shape of # in CLs? Why does the head of #P in CLs host classifier in the presence of numeral, and why does it remain empty in the absence of numeral?

-Doetjes (1996, 1997):

In order for nouns to be counted, some kind of semantic partitioning of what they denote must be (made) syntactically visible. In other words, numerals require the presence of a syntactic marker of countability. In some languages (like English), number morphology serves for that purpose, whereas in languages that lack number morphology (like Chinese) the classifier does. On Doetjes's view, classifiers and number morphology both take the same role in explicitly indicating the presence of countable units.

Proposal 5:

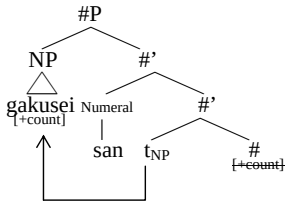
Numeral requires visible countability.

(53) Numeral occupying #P Spec requires the visible [+countable] feature on #.

feature visibility: the checked (valued) uninterpretable feature is deleted (spelled-out) immediately after the agreement (cf. Chomsky 2000, 2001)

This fact quite plausibly suggests that the Turkish numerals actually require the singular #. Then, the specification of [±plural] in the numeral construction is parametrized across NLs. For some NLs, the numeral construction requires uniform singular # as in Turkish, and for others singular/plural distinction on # in terms of the denoting quantity is required as in English.

(54)



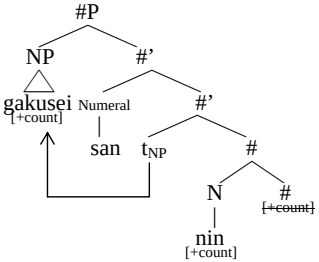
-If this structure is sent to LF, the requirement of (53) is necessarily violated, and hence the derivation will crash, or converged as deviant. In order to salvage the structure (54), some additional operation must be executed to provide the visible [+countable] feature on #.

Proposal 6:

The lexical insertion of classifier into # is a last resort to satisfy the visible countability requirement of numeral.

(55) A classifier is in itself an [+countable] N, with additional affixation feature [-#] inducing obligatory base-X^0-adjunction to #. This class of Ns are inserted to # by base-adjunction, in order to satisfy the visibility requirement of [+countable] feature on #.

(56)



-Some advantages of the treatment of classifier as N

(i) In many CLs the elements used as classifiers can also act as N in many cases.

(ii) Classifier's open class nature. Generally, a CL has a not-at-all small number of classifiers. For example, Japanese is asserted to have a rich number of classifiers, no less than twenty (even there is a view that 70 or more classifiers exists in the Japanese lexicon). If classifier is a functional category like #, such open class nature is mysterious.

(iii) The resulting # in numeral construction of CLs can be maintained to be quite uniform to that of NLs (Compare (52b) with (56)). In both cases it is [+countable] complex $[N\text{-}\#]^0$. This is quite a desirable result for the Uniformity Hypothesis (Chomsky 2001).

6.2. Further Issues: Classifier and Plurality

The majority of CLs have no singular/plural distinction on their classifiers.

(57) a. ip-piki-no inu (Japanese)
one-CLA-GEN dog
b. ni-hiki-no inu
two-CLA-GEN dog
c. san-biki-no inu
three-CLA-GEN dog

→The last resort nature of classifier

Proposal 7:

The incorporation of N into # is the prerequisite for the morphological singular/plural inflection.

(58) The feature specification of [±plural] on # is only available when N is incorporated into # to form complex head $[N\text{-}\#]^0$.

Chinese classifiers are exceptional in that they loose the last resort nature.
-Unlike other CLs, Chinese grammar allows numeral-less classifier to occur.
-Chinese classifier system employs the plural classifier *di*.

(59) a. Wo xiang mai ben shu (Mandarin)
I want buy CLA book
"I would like to buy a book."
b. Wo xiang mai xie shu
I want buy CLA.PL book
"I would like to buy some books."

-why can Chinese classifier have the further specification of [±plural]?[5]

[5] Indeed, the plural classifier *di* cannot occur with any numeral, as (i) shows.

(i) a. sahp bun syu (Cantonese)
ten CLA book
"ten books"
b. * sahp di syu
ten CLA.PL book
"ten books"

The only one exception is the numeral *yat* 'one', which can occur with *di* to mean 'one or more.'

7. Concluding Remarks

Now, things turn out to be perfectly favorable, fully conforming to the Uniformity Principle (Chomsky 2001). The crosslinguistic existence of #P is virtually guaranteed by our typological investigation of cases in CLs and NLs. The feature on N are assumed to be uniform, at least in terms of their countability. Count nouns in NLs and countable nouns in CLs share the [+countable] feature with each other, and mass nouns in NLs and uncountale nouns in CLs are equivalently specified as [-countable]. Moreover, the feature composition of the head # is asserted to be uniform across languages; they bear an uninterpretable feature [øcountable] to be checked by N, and optional [±plural] specification is available on # when it forms the complex $[N\text{-}\#]^0$ with the agreeing N. The agreement relation between # and N is uniformly found in all languages, with the two options of N^0- or NP-movement. Furthermore, The numeral constructions are quite uniform across languages. Classifiers as a last resort are inserted into # in demand of the visibility requirement of countability on #.

The Uniformity Principle set the dawn of the new age for the study of human languages. The notion of parameter is under critical restraint, on this strongest minimalist research agenda. The investigation of #P in this thesis is a quite small branch of this ongoing research.

Appendix: Japanese *-tati*

cf. Nakanishi and Tomioka (2004)

(60) a. Taroo-wa san-nin gakusei-(??tati)-o mita.
Taro-TOP three-CLA student-TATI-ACC saw
"Taro saw three students."

b. Taroo-wa san-nin-no gakusei-(??tati)-o mita.
Taro-TOP three-CLA-GEN student-TATI-ACC saw

c. Taroo-wa gakusei-(tati) san-nin-o mita.
Taro-TOP student-TATI three-CLA-ACC saw

d. Taroo-wa gakusei-(??tati)-o san-nin mita.
Taro-TOP student-TATI-ACC three-CLA saw

(61) a. *? Taroo-wa go-nin SMAP-o mita.
Taro-TOP five-CLA SMAP-ACC saw

b. *? Taroo-wa go-nin-no SMAP-o mita.
Taro-TOP five-CLA-GEN SMAP-ACC saw

c. Taroo-wa SMAP go-nin-o mita.
Taro-TOP SMAP five-CLA-ACC saw
"Taro saw SMAP, the five members."

d. *? Taroo-wa SMAP-o go-nin mita.
Taro-TOP SMAP-ACC five-CLA saw

(62) SMAP-wa go-nin da.
SMAP-TOP five-CLA COPULA

"SMAP consists of five persons." (lit:"SMAP is five persons.")

(63) a. *? Sensei-ga go-nin furyoo-gruupu-o yobidashita.
teacher-NOM five-CLA hooligan-group-ACC called

b. *? Sensei-ga go-nin-no furyoo-gruupu-o yobidashita.
teacher-NOM five-CLA-GEN hooligan-group-ACC called

c. Sensei-ga furyoo-gruupu go-nin-o yobidashita.
teacher-NOM hooligan-group five-CLA-ACC called
"The teacher called a certain group of hooligans, the five members."

d. *? Sensei-ga furyoo-gruupu-o go-nin yobidashita.
teacher-NOM hooligan-group-ACC five-CLA called

(64) Furyoo-gruupu-wa (taitei) go-nin da.
hooligan-group-TOP usually five-CLA COPULA
"A group of hooligans (usually) consists of five persons."

References

Allan, Keith. 1977. Classifiers. *Language* 53(2), 285-311.

Bernstein, Judy. 1991. DPs in French and Walloon: Evidence for Parametric Variation in Nominal Head Movement. *Probus*, 3, 1-26.

Bernstein, Judy. 1993. The Syntactic Role of Word Markers in Null Nominal Constructions. *Probus*, 5, 5-38.

Bernstein, Judy. 2001. The DP Hypothesis: Identifying Clausal Properties in the Nominal Domain. in M. Baltin and C. Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, Blackwell, Oxford, pp. 536-561.

Bhattacharya, Tanmoy. 1998. *DP-internal NP Movement*. UCL Working Papers in Linguistics, vol 10.

Bhattacharya, Tanmoy. 1999. Specificity in the Bangla DP. in *Yearbook on South Asian Languages and Linguistics*, vol 2, ed. Rajendra. Singh, SAGE Publications.

Bhattacharya, Tanmoy. 2000. Bangla; Bengali. *Encyclopedia of World's Languages: Past and Present* ed. by Jane Gary and Carl Rubino, WW Wilson, New York.

Bhattacharya, Tanmoy. 2001. Numeral/Qunantifier-Classifier as a Complex Head. in *Semi-Lexical Heads*, eds. Henk van Riemsdijk & Norbert Corver, Mouton de Gruyter

Cheng, Lisa Lai-Shen, and Rint Sybesma. 1999. Bare and Not-So-Bare Nouns and the Structure of NP. *Linguistic Inquiry* 30, 509-542.

Cheng, LL-S. and R. Sybesma. to appear. Classifiers in Four Varieties of Chinese. in G. Cinque and R. Kayne (eds.) *The Oxford Handbook of Comparative Syntax*, Oxford University Press, New York.

Chierchia, Gennaro. 1998a. Reference to Kinds across Languages. *Natural Language Semantics* 6, 339-405.

Chierchia, Gennro. 1998b. Plurality of Mass Nouns and the Notion of "Semantic Parameter." in S. Rothstein (ed.) *Events and Grammar*. Dordrecht: Kluwer, pp.53-103

Chomsky, Noam. 1995. Categories and Transformations. in N. Chomsky, *The Minimalist*

Program. Cambridge, Mass.: MIT Press, pp. 219-394
Chomsky, Noam. 2000. Minimalist Inquiries. in R. Martin, D. Michaels, and J. Uriagereka (eds.), *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*. Cambridge, Mass.: MIT Press., pp. 89-155.
Chomsky, Noam. 2001. Derivation by Phase. in M. Kenstowicz (ed.), *Ken Hale: A Life in Language*. MIT Press, Cambridge, MA., pp. 1-52.
Collins, Chris. 2002. Eliminating Labels. in S. D. Epstein and T. D. Seely (eds.), *Derivation and Explanation in the Minimalist Program*. Oxford: Blackwell, pp. 42-64.
Dikken, Marcel den and Singhapreecha, Pornsiri. 2004. Complex Noun Phrases and Linkers. *Syntax* 7:1, April 2004, 1-54.
Doetjes, Jenny. 1996. Mass and Count: Syntax or Semantics? In *Proceedings of Meaning on the HIL*, 34-52. (HIL Occasional Papers in Linguistics 1.) HIL/Leiden University.
Doetjes, Jenny. 1997. *Quantifiers and Selection: On the Distribution of Quantifying Expressions in French, Dutch and English*. Doctoral dissertation, Leiden University.
Fukui, Naoki and Sakai, Hiromu. 2003. The Visibility Guideline for Functional Categories: Verb Raising in Japanese and Related Issues. *Lingua* 113, 321-375.
Fukui, Naoki and Takano, Yuji. 1998. Symmetry in Syntax: Merge and Demerge. *Journal of East Asian Linguistics* 7, 27-86.
Fukui, Naoki and Takano, Yuji. 2000. Nominal Structure: An Extension of the Symmetry Principle. in P. Svenonius (ed.), *The Derivation of VO and OV*, John Benjamins, Amsterdam, pp. 219-254.
Ghomeshi, Jila. 2003. Plural Marking, Indefiniteness, and the Noun Phrase. *Studia Linguistica* 57(2) 47-74.
Greenberg, Joseph H. 1966. Some Universals of Grammar with particular Reference to the Order of Meaningful Elements. In J. H. Greenberg (ed.), *Universals of Language*, Cambridge, Mass.: MIT Press, pp. 73-113.
Greenberg, Joseph H. 1975. Dynamic Aspects of Word Order in the Numeral Classifier. In C. N. Li (ed.), *Word Order and Word Order Change*, Austin: University of Texas Press, pp. 27-45.
Greenberg, Joseph H. 1978. How does a Language Acquire Gender Markers? In J. H. Greenberg et al. (eds.), *Universals of Human Language*, vol. 3: *Word Structure*, Stanford, Calif.: Stanford University Press, 47-82.
Iljic, Robert. 1994. Quantification in Mandarin Chinese: Two Markers of Plurality. *Linguistics* 32, 91-116.
Kamio, Akira. 1977. Suuryoushi-no Shintakkusu. *Gengo* 6(13), 83-91.
Kawashima, Ruriko. 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, Chisato and Claudia N. G. Ross. 1982. Prenominal Modification in Chinese and Japanese, *Linguistic Analysis* 9, 19-53.
Kitahara, Hisatsugu. 1993. Numeral Classifier Phrases inside DP and the Specificity Effect. in S. Choi (ed.), *Japanese/Korean Linguistics* 3, CSLI, Stanford University, 171-186.
Kornfilt, Jaklin. 1996. Naked Partitive Phrases in Turkish. in Hoeksma (ed.), *Partitives*. Berlin: Mouton de Guyter., pp107-142.
Kratzer, Angerika. 1989. An Investigation of the Lumps of Thought. *Linguistics and Philosophy*. 12. 607-653.
Landman, Fred. 1989a. Groups I. *Linguistics and Philosophy*, 12, 559-605.
Landman, Fred. 1989b. Groups II. *Linguistics and Philosophy*, 12, 723-744.
Landman, Fred. 1996. Plurality. in S. Lappin (ed.), *The Handbook of Contemporary Semantic Theory*, Blackwell, Oxford, 425-457.
Li, Yen-Hui Audrey. 1999. Pluarlity in a Classifier Language. *Journal of East Asian Linguistics* 8, 75-99.
Lin, Jo-Wan. 1998a. Distributivity in Chinese and its Implications. *Natural Language Semantics* 6, 201-243.
Link, München Godehard. 1983. The Logical Analysis of Plurals and Mass Terms: A Lattice-Theoretical Approach. in R. Bäuerle et al. (eds.), *Meaning, Use, and Interpretation*, 302-23. Berlin: de Gruyter.
Longobardi, Giuseppe. 2001. The Structure of DPs: Some Principles, Parameters, and Problems. in M. Baltin and C. Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, Blackwell, Oxford, 562-603.
Martin, Samuel E. 1975. *A Reference Grammar of Japanese*. Yale University Press, New Haven.
Martin, Samuel E. 1992. *A Reference Grammar of Korean*. Japan: Charles E. Tuttle publishing Co.
Miyagawa, Shigeru. to appear. On the EPP. in *Proceedings of the EPP/Phase Workshop*, (eds.) N Richards and M McGinnis, MIT Working Papers in Linguistics.
Munn, Alan and Schmitt, Christina. 1999. Bare nouns and the morpho-syntax of number. *Proceedings of the Linguistic Symposium on Romance Languages 1999*.
Nakanishi, Kimiko. 2003. Semantic Properties of (Non-)Floating Quantifiers and their Syntactic Implications. in W. McClure (ed.), *Japanese/Korean Linguistics* vol. 12, CSLI Publications, Stanford, pp. 365-376.
Nakanishi, Kimiko and Satoshi Tomioka. 2004. Japanese Plurals are Exceptional. *Journal of East Asian Linguistics* 13, 113–140, 2004.
Picallo, M. C. 1991. Nominals and Nominalization in Catalan. *Probus*, 3, 279-316
Rijkhoff, Jan. 1990. Explaining Word Order in the Noun Phrase. *Linguistics* 28, 5-42.
Ritter, Elizabeth. 1988. A Head-Movement Approach to Construct-State Noun Phrases. *Linguistics*, 26, 909-29
Ritter, Elizabeth. 1991. Two Functional Categories in Noun Phrases: Evidence from Modern Hebrew. in S. Rothstein (ed.), *Syntax and Semantics 26*, Academic Press, New York, pp. 37-62.
Roberts, Ian. 2001. Head Movement. in M. Baltin and C. Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, Blackwell, Oxford, pp. 113-147.
Sigurdsson, Halldór Ármann. 2003. Meaningful Silence, Meaningless Sounds. Ms., Lund University, Sweden
Tang, Jane. 1990. A Note on the DP analysis of Chinese Noun Phrase. *Linguistics* 28, 337-354.
Valois, Daniel. 1991. *The Internal Syntax of DP*, unpublished Ph.D. dissertation, UCLA, Los Angeles.
Watanabe, Akira. 2004. Functional projections of nominals in Japanese: Syntax of classifiers. Ms., University of Tokyo.
Yoshida, Tomoyuki. 1990. Structure of the Noun Phrase in Japanese. Ms., Cornell University.