

# Plurality in Chinese with a restricted class of *noun-classifier* words\*

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This study is concerned with the realization of plurality in the nominal in Chinese. It is part of a larger research program (cf. Fassi Fehri & Vinet 2007). It here focuses on a restricted type of lexical form which has received less attention in the literature, namely a word formed by a Noun-Classifier sequence, such as *chēliàng* (car fleet) or *xìnjiàn* (letters, mail). Classifiers can indeed combine in a reverse manner [N-CI]<sub>No</sub> with the Ns they denote to form a N<sup>o</sup>. It is argued that if such Ns form a group Pl in the grammar, under the projection Nb, before getting to D, then this explains why their grammatical Group nature makes it incompatible with a singular interpretation, simultaneous counting, as well as other semantic readings. It is proposed, as discussed in previous research, that the two functional projections, ClassifierP and NumberP, are both overtly realized in Chinese.

## 1. Introduction

This research is concerned with the study of plurality in the Chinese DP and with the semantico-referential status of a restricted class of words formed by a noun-classifier sequence. Plurality in the DP in the languages of the world remains a complex phenomenon because it can be expressed in various ways across languages. English, for instance, generally exhibits morphological Number marking on nouns, whereas French has morphological Number marking on determiners and a non-phonetically realized plural marker on nouns. In Chinese, morphological Number marking is neither expressed on nouns nor on determiners. Plurality is morphologically unmarked in this grammar or appears as an irregular phenomenon.

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Moreover, there can be different types of pluralities within the same language. Plurality is not limited to a [ $\pm$  count] dichotomy, as is most usually argued. The account proposed in this study differs from the dominant theories in the field. It rather poses that individual plurals, group plurals and kinds do not bear the same definition of plurality. Individual plurals have entities which have no improper N-parts; they can be counted. Group or collective plurals have an internal plural value. They apply to a plurality of wholes and they are entities which have flexible, non essential part structures. Kinds have N-parts but are not necessarily specified as such. Reference to their number is vague and left unspecified. This explains why counting with kinds and group plurals is usually more difficult. We therefore believe that a thorough analysis of plurality within the Chinese DP must first distinguish these different types of pluralities (cf. also Fassi Fehri and Vinet 2007).

This article is organized as follows. In the next section, we first look at various forms of plurality and quantification in the Chinese noun phrase. Section 3 examines the larger context of the research and discusses previous proposals. In section 4, the distributional and syntactic properties of a restrictive class of nouns formed by a N+Cl sequence are analyzed. The study of these words and their referentiality status has escaped attention almost entirely and we argue that they correspond to group plurals in Chinese. Other forms of group plurals in Chinese are presented and discussed. In section 5, we provide an account, based on previous work in Arabic and in Chinese, namely Fassi Fehri and Vinet (2007). The proposal is based on a four-way distinction for the referentiality of nouns across languages and deviates from the dominant theories taken over by linguistic semantics which most usually subdivide nouns in a two-way distinction. Section 6 concludes briefly.

## 2. Plurality in the Chinese noun phrase

As is well-known, and as mentioned in Fassi Fehri and Vinet (2007), plurality in Mandarin Chinese can appear on bare nouns. A non-inflected noun may express Nb without any morphological mark on it. Chinese nouns, which are normally bare, and therefore not inflected for Number, can still be interpreted as singular or plural. Moreover, they are not marked for (in)definiteness. Thus a construction like (1) is four-way (existentially) ambiguous:

- (1) wǒ kànjiàn māo le  
 I<sub>s</sub> see cat LE  
 ‘I saw (a/the) cat(s).’

Second, bare Ns can also be read as generic/kind, as in (2):

- (2) a. wǒ xīhuān māo  
 I<sub>s</sub> love cat  
 ‘I love cats.’
- b. māo shì bǔrǔ dòngwù  
 cat be mammal animal  
 ‘The cat is a mammal / Cats are mammals.’

Another well-known important property of Chinese is that referents of nouns, whether the counterparts of English count or non-count Ns, need a CI or a measure phrase to be counted. Thus CIs such as *zhī* are necessarily mediating the counting of individuals, as in (3a and 3b). Numerals (Num) such as *yī* "one" or *sān* "three" must be followed by a CI N sequence, otherwise the result is ungrammatical, as in (3c). Note that (3c) is possible in some oral varieties of Chinese but not in Mandarin Chinese, which is the grammar under study:

- (3) a. wǒ kànjiàn yī zhī gǒu  
 1s see a/one CI dog  
 'I saw a dog.'
- b. wǒ kànjiàn sān zhī gǒu  
 1s see three CI dog  
 'I saw three dogs.'
- c. \* wǒ kànjiàn sān gǒu  
 1s see three dog  
 'I saw three dogs.'

Plurality can be expressed as well through different forms, namely classifier recursion. Classifiers can reduplicate to express a universal quantification, as exemplified in (4):

- (4) a. tā gègè xuésheng dōu rènde  
 3s CI CI student all know  
 'S/he knows all the students.'
- b. tiáo tiáo dàolù tōng Běijīng  
 CI CI road connect Beijing  
 'All roads lead to Beijing.'

Plural marking on nouns with the suffix *-men* is different from what is usually observed in Indo-European languages. It is not syntactically obligatory and it is semantically and pragmatically oriented. The suffix *-men* is interpreted with a definite/specific reading in (5) and it has been analyzed by some as a collective or group plural (Iljic 2001, 1994, Cheng and Sybesma 1999, Norman 1988, Chao 1968, Lü 1947) or just a plural (Li 1999, Li and Thompson 1981). As is well-known, *-men* is an irregular plural marker and can only be used with a human noun (5c):<sup>1</sup>

- (5) a. wǒ-men  
 1s-MEN  
 'we/us'

<sup>1</sup> Cf. also Xiaofei Zhang (2006/this volume).

- b.    lǎoshī-men  
       professor-MEN  
       ‘professors’
- c.    \*yīzi-men  
       chair-MEN  
       ‘chairs’

The marker of indefinite quantity, *xiē* (some) is of a different kind, it can sometimes trigger a plural interpretation, as illustrated in (6):

- (6) a.    yī xiē shū  
       one some book  
       ‘a few books’
- b.    zhè-xiē      kǔn shū  
       Dem-some    Cl book  
       ‘those piles of books’
- c.    yī      xiē      shuǐ (mass)  
       a/one    some    water  
       ‘water’
- d.    \*sān xiē shū  
       three some book (three books)

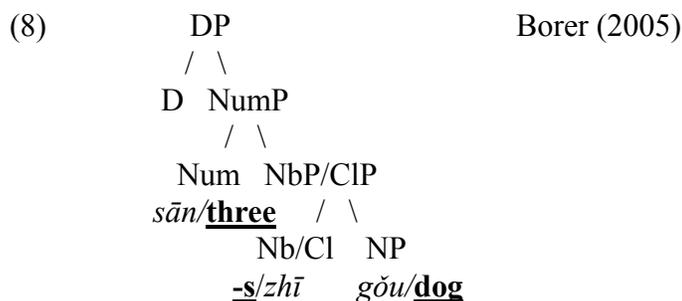
*Xiē* refers to an imprecise quantity of the element denoted by the noun and means *some*. It identifies an indefinite plural number as in (6a, c) or an indefinite amount as in (6b) (cf. Fassi Fehri and Vinet 2005, to appear). *Xiē* is incompatible with numerals (6d) but it is compatible with the restricted class of group plural words under study. These words are formed by a noun-classifier sequence such as *chēliàng* and *zhǐzhāng*. Relevant examples with these forms of group plurals combining with the indefinite plural *xiē* are illustrated in (7).

- (7) a.    Gōngsī jīnnián gòumǎi le yī xiē chēliàng  
       firm this year buy LE a XIE car  
       ‘The firm bought (some) cars this year.’
- b.    zhè xiē      zhǐzhāng shì jìnkǒu de  
       dem XIE    paper    be import DE  
       ‘These papers were imported.’

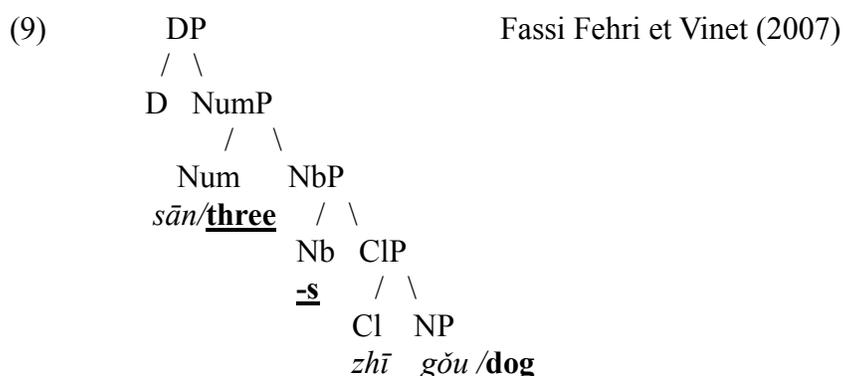
### 3. The larger context of the research

Our study is part of a larger research developed in Fassi Fehri (2003), Fassi Fehri and Vinet (2004, 2007) and Vinet and Fassi Fehri (2005). Fassi Fehri and Vinet (2007) argues against a so-called systematic complementary distribution between Classifier and Number in

the languages of the world, a position defended namely by T'sou (1976) for Chinese and, more recently, by Borer (2005). This position is roughly sketched in (8), leaving details aside, and proposes that number marking is a classifier:



We rather assume a DP structure as in (9), where Num (Numeral) is the head position for Number marking. Number affixes are identified under the Nb (Number) head and classifiers are identified under a separate head Cl :



Our claim is that languages rather exhibit various forms of classifiers and various forms of plurals, namely group plural forms in Chinese, quantity plural modifiers in Arabic, recursive classifiers in Chinese, all of which point to the inadequacy of the complementary hypothesis as argued in Fassi Fehri and Vinet (2007). Kratzer (2005) also adopts the position, contra Borer (2005), that classifiers and a plurality feature can both be present in the languages of the world. Based on work by Krifka (1995), she argues that English has non-overt classifiers and indicates that the root count noun *zebra* can be ambiguous between an interpretation where it denotes an individuation, as in (10a), or a set of subspecies of the species, as in (10b). These examples are from Kratzer (2005):

- (10) a. The zebra has not been fed  
 b. The zebra is almost extinct

In the first example, in (10a), there is a non-overt individual classifier and in the second one, Kratzer posits the presence of a non-overt kind classifier, referring to a *type of zebra*. She notes that the plural noun, exemplified in (11), is ambiguous in the same way as the 'singular' noun *zebra* is.

- (11) a. Those two zebras have not been fed.  
 b. Those two zebras are almost extinct.

These facts support her claim that a plural feature cannot be responsible for both individuation and pluralisation. They also serve to support the claim that Number marking and Classifiers are not in complementary distribution in human languages.

### 3.1. Chinese nouns as referring to mass nouns?

It has often been argued that in Chinese all nouns are mass. Most studies and all traditional and pedagogical grammars on plurality are based indeed on the well known two-way division between mass and count nouns defined according to morphological and syntactic criteria rather than ontological distinctions (cf. Quine 1960, Pelletier 1975, McCawley 1975, Allan 1980, Bunt 1985, among many others). This position maintains that most count nouns can behave as mass terms and vice versa even if some terms have a stronger tendency than others to be considered as a count noun (*table*) or a mass term (*gold*).

Chinese is not an inflectionally productive language like French or English. All nouns, whether the counterpart of English count or mass Ns, need a Cl or a measure phrase to be counted, as illustrated in (3), repeated below, for counting individuals and (12)-(13) for measuring the amount of the mass or counting the container words (cf. also Krifka 1995).

- (3) a. wǒ kànjiàn yī zhī gǒu  
 1s see a/one Cl dog  
 ‘I saw a dog.’
- b. wǒ kànjiàn sān zhī gǒu  
 1s see three Cl dog  
 ‘I saw three dogs.’
- (12) a. yī bēi kāfēi  
 one Cl coffee  
 ‘a cup of coffee’
- b. sān píng jiǔ  
 three Cl wine  
 ‘three bottles of wine’
- c. yí piàn miànbāo  
 one Cl bread  
 ‘a slice of bread’
- (13) tā kànjiàn sān zhǒng yóu  
 3s saw three sort oil  
 ‘S/he saw three sorts of oil (three oils).’

Individual classifiers and measuring classifiers have different roles. Individual classifiers are used for counting sets while measure words are not used for counting but for measuring both sets, as in *yì jīn píngguǒ* (a pound of apples) or non-sets, as in *yī píng jiǔ* (a bottle of wine).

In the present study it is claimed that, ontologically, there exists more than a two-way distinction to refer to nouns and we now focus our attention on collective nouns or group plurals. Chierchia (2003) has mentioned that there were no collective nouns (like *furniture*) in Chinese. The word *furniture* can indeed be used with a classifier and a numeral in Chinese, but as is well known, languages vary in the use of collective nouns. French, for instance, has a lexical form for the collective interpretation *meublier* and a different lexical form for the individuated interpretation which appear in the plural or in the singular : *les meubles /le meuble*. But what exactly is a collective? Collective nouns can denote a collection of persons or things regarded as one unit. The definitions proposed in the literature usually vary between an interpretation where the collective noun is viewed as a group-unit, a generic and a mass. Chierchia (1998), for instance, considers that things are mass if they are not quantized, even if they are mereologically structured.

#### 4. The distributional and syntactic properties of this *N+Cl* sequence

To the list of markers of plurality given above (cf. section 1), we would like to add another form which has been poorly discussed in the literature on plurality in Chinese. We now turn to a more detailed study of the distributional and syntactic properties of this restricted type of word formed by a noun-classifier sequence in Chinese where classifiers can indeed appear in a reverse manner  $[N-Cl]_{N_0}$  with the Ns they denote, to form a  $N^0$ . Yip and Rimmington (1997: 19) do mention a few examples of these forms, indicating that these ‘collective nouns are generally formed by attaching a measure word as a kind of suffix to their related nouns’.

A partial list of these nouns is given in (14). The classifiers which appear within these words is most usually an individual classifier, it can sometimes be a different individual classifier from the usual one as in (14d) where the usual classifier for *xìn* (a letter) is not *jiàn* but *fēng*.

Note that the word *xìnfēng* also exists in Chinese but it means *envelope* and it is not a group plural. This type of example clearly illustrates how this class of collective nouns is restricted. A precise literal translation for these words is given below:

- (14) a. chēliàng  
car + Individual Cl  
‘a group of cars’
- b. chuánzhī  
boat + Individual Cl  
‘boats’
- c. mǎpǐ  
horse + Individual Cl  
‘horses’

- d. xìnjiàn  
letter + Individual CI  
'mail, correspondence'
- e. shūběn  
book + Individual CI  
'books'
- f. zhǐzhāng  
paper + Individual CI  
'paper'

Moreover, the classifier is not exclusively individual with these collective words, it can be a measure classifier as in (15a) or a collective classifier as in (15b).

- (15) a. bùpǐ  
fabric + Measure CI  
'fabric'
- b. rénrún  
person + Collective CI  
a group of persons

As already mentioned, such forms are lexically restricted. For instance, the forms in (16) are all unacceptable:

- (16) a. \*hétiáo  
rivers
- b. \*bǐzhī  
pens
- c. \*réngè  
persons
- d. \*gǒuzhī  
dogs
- e. \*shānzhuò  
mountains

This noun-classifier collective form always triggers a plural interpretation of the referent, as illustrated in (17) and (18). These nouns correspond to group plurals in the sense that they denote a collection of persons or things and we here argue that these nouns cannot be considered to be mass or individuals, both ontologically and syntactically.

- (17) a. zhuōzi shàng yǒu hěn duō **xìnjiàn**  
 table on have very much letter-Cl  
 ‘There is/are a lot of mail/letters on the table.’
- b. **chēliàng** bù gòu  
car-Cl Neg sufficient  
 ‘The number of cars is insufficient.’
- c. **shūběn** lǐ de zhīshí bù yíding duì  
books-Cl in DE knowledge Neg certainly correct  
 ‘The knowledge in books is not necessarily correct.’
- d. **rénqún** kāishǐ sāodòng qǐlái  
 person+Coll Cl start stir up  
 ‘The crowd began to stir.’
- (18) a. Tāmen yǒu dà xiǎo **chuánzhī** 20 sōu.<sup>2</sup>  
 3pl have big small boat-Cl 20 CL  
 ‘They have big and small boats, twenty all together.’
- b. Chē shàng de **bùpi** dōu shì cóng Zhōngguó lái de.  
 Car on DE fabric-Cl all be from China arrive DE  
 ‘The pieces of fabric in the truck all came from China.’
- c. Cǎoyuán shàng de **mǎpǐ** dōu hěn jiànzhuàng.  
 Steppe on DE horse-Cl all very robust  
 ‘Horses from the steppe are all strong.’

These nouns formed by N-Cl sequences, as in *zhǐzhāng* (paper), cannot be preceded by a numeral + classifier sequence (cf. the ungrammatical (19b, c)), contrary to what is observed with the regular non inverted sequence Cl + N in (19a):

- (19) a. liǎng zhāng zhǐ  
 two Cl paper  
 ‘two sheets of paper’
- b. \*liǎng zhāng zhǐzhāng  
 two Cl paper-Cl
- c. \*Tā cóng běnzi shàng sīxià le liǎng zhāng zhǐzhāng dìgěi le wǒ.  
 3sg from notebook on tear LE two CL paper-Cl pass LE 1sg  
 ‘He tore two sheets of paper from the notebook and passed them to me.’

<sup>2</sup> Note that in example (18a), a numeral and classifier appear following the N *chuánzhī* (boat+Cl) but it is not part of the DP. It is rather external to the DP, as can be observed from the translation. The sequence \*20 *sōu chuánzhī* (twenty Cl boats) is ruled out in Mandarin Chinese.

Note that the simple form of the noun *zhǐ* and the combined N+ Cl sequence *zhǐzhāng* can both be preceded by the quantifier *xǔduō* which combines with a plural.

- (20) a.     *xǔduō zhǐ*  
           a lot paper  
           ‘a lot of paper’
- b.     *xǔduō zhǐzhāng*  
           a lot paper-Cl  
           ‘a lot of paper’

However, if these forms cannot appear with an individual classifier, they can combine with a measure classifier or a collective classifier as in (21):

- (21) a.     *liǎng xiāng zhǐzhāng / zhǐ*  
           two MeasCl paper / paper  
           ‘two boxes of paper’
- b.     *yī pái chēliàng*  
           a CollCl car+Cl  
           ‘a line of cars’

But what is the distinctive behavior between collectives, mass nouns, generic nouns and individual nouns? We claim that studies on the referentiality of nouns must bear on form and also on matter and that languages identify N types differently.<sup>3</sup> In the same way, in Chinese, the grammar and the referentiality of collectives is distinct from the grammar and the referentiality of mass nouns.

A classification of the referentiality of nouns is often based on the use of determiners or quantifiers. For instance, the syntax of the sentence in French or in English presents most often a two-way distinction between mass/count using certain determiners or quantifiers for identifying nouns. But these determiners do not always allow the right identification. We illustrate with a few examples to show how a predefined classification of common nouns is not always the solution.

For instance, the collective word *funds* in English cannot be used with the quantifiers *many* or *much* and the word *comité* in French is possible with a mass quantifier only, even if a *comité* is a collective and not a mass term:

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<sup>3</sup> Also, as mentioned earlier, languages vary in the use of collective words. The number of different collective types is also restricted in English. Allan (1976) makes a distinction between collection words (*herd*) and collectivized words (*antelope*). He analyzes the case of animal nouns which permit plural reference without the use of a plural form and defines collectivising in English as follows: “Collectivising is the process which results in hunted animals nouns being used in the unmarked (singular) form for plural reference and with plural concord even though a normal plural form may exist and be used.” (Allan 1976:99).

- (22) a. \* I don't have much/ many funds (cf. I don't have much in terms of funds)  
 b. \* La majorité du comité (cf. la plus grande partie du comité)  
 'The majority of the committee'

Tovena (2004) also shows that the negative polarity determiner *le moindre* in French can co-occur with count nouns as well as abstract mass nouns (usually considered as mass) but not with concrete mass nouns (examples from Tovena 2004):

- (23) a. Il n'a pas lu le moindre livre  
 'He didn't read a single book.'  
 b. Il n'a pas montré le moindre courage  
 'He didn't show the least bit of courage.'  
 c. \*Il n'a pas bu la moindre eau  
 'He did not drink a drop of water.'

Following Chierchia (1998), collectives are mass terms even if they have minimal parts. They have the semantics of words like *furniture*, *drapery*, *cutlery*, *hardware*, *change* in English. They are morphologically bare, syntactically non-count in the sense that they cannot be used with numerals or plurals, as in (24).

- (24) a. \*I have three hardwares/changes  
 b. \*There are furniture in the garden

Moreover, collectives are group-like, they refer to a group as a whole (group-level predicates apply (cf. 25)) and they are individuated (individuality predicates also apply to collectives (cf. (26))):

- (25) a. A team (John, Mary and Bill) gathered  
 b. \*John/ \*a dog gathered
- (26) a. I counted/listed the furniture  
 b. #I counted the chair

In Chinese collective words like *furniture*, *jewelry* and *clothing* can have a collective interpretation or an individuated interpretation. Syntactically, they can appear with an individual classifier, a plural quantifier or as a bare form. This is illustrated in (27a-f) with the word *furniture* and one can see from the translation in French that the collective interpretation (*mobilier*) is most often compatible with the individuated plural form (*meubles*). The individuated form in the singular or plural appears with the individuated classifier *jiàn* (piece) as in (27a) whereas a collective interpretation of the same word is used with the collective classifier *tào* (set) in (27b).

- (27) a. wǒ kàndào le yí jiàn hěn piàoliàng de jiājù.  
1sg see LE a Cl very nice DE furniture  
'I saw a very nice (piece of) furniture.'  
( 'J'ai vu un très joli meuble/\* mobilier.' )
- b. Tā xiǎng mǎi yí tào jiājù.  
3sg want buy a Cl furniture  
'He wants to buy a set of furniture.'  
( 'Il veut acheter du mobilier/ des meubles.' )
- c. Tāmén gāng lái, yào zhù dài jiājù de fángzi.  
3pl just arrive want rent equip furniture DE house  
'They have just arrived, they want to rent a furnished house.'
- d. Xiànzài jiājù tài guì le.  
Now furniture too expensive LE  
'Furniture is now too expensive.'  
( 'Aujourd'hui les meubles/le mobilier coûte(nt) trop cher(s).' )
- e. Wǒ zhèlǐ yǒu jǐ jiàn jiājù, nǐ búyòng mǎi le.  
1sg here have Q Cl furniture 2sg NEG buy LE  
'I have a few pieces of furniture here, you don't need to buy any.'  
( 'J'ai des meubles ici, tu n'as pas besoin d'en acheter.' )
- f. Wǒ xiǎng qù mǎi diǎnr jiājù / sān jiàn jiājù.  
1sg want go buy Q furniture/ three Cl furniture  
'I would like to go buy some furniture/ three (pieces of) furniture.'  
( 'J'aimerais acheter du mobilier/ des meubles /trois meubles.' )

They can co-occur with group-level predicates as well as individuality predicates in the plural but not with individuality predicates in the singular (cf. (28)).

- (28) a. wǒmen bǎ jiājù fāngzài yīqǐ.  
1pl BA furniture put together  
'We gathered the furniture.'  
( 'Nous avons rassemblé le mobilier/ les meubles.' )  
but ( '\*Nous avons rassemblé le meuble.' )
- b. wǒ shù le (yī xià) jiājù.  
1sg count LE (one XIA) furniture  
'I counted the furniture.'  
( 'J'ai compté le mobilier/ les meubles/ \*le meuble.' )

The distinction therefore lies in the semantics of the collective. A group plural like *furniture* refers to discrete entities taken collectively whereas a mass term like *water* does not refer to visible discrete entities.

## 5. A four-way distinction for a N classification

The account proposed here deviates from the dominant theories taken over by linguistic semantics which subdivide nouns in a two-way distinction, mass and count. It differs also from other classificatory systems for nouns (cf. Fassi Fehri 2005 for discussion and references of other works cited on the topic, namely Jackendoff 1991, Verkuyl 1993 and Rothstein 2004).

In Fassi Fehri and Vinet (2007) a four way distinction has been proposed for the study of Chinese and Arabic. Four classes of nouns cross-classified by two feature values have been presented. The four classes are identified as Kinds (K), Individuals (I), Mass (M) and Group or collectives (G). The classes with their feature values are given in (29). They are exemplified in English in (30) and in (31) for Chinese:

(29) **N classification**

- a. **Kinds** = [ $\emptyset$ atom, + sing]
- b. **Individuals** = [+ atom, + sing]
- c. **Mass** = [ $\emptyset$ atom,  $\emptyset$ sing]
- d. **Groups** = [+ atom,  $\emptyset$  sing]

- (30) a. I like apples (K)  
 b. I ate an apple (I)  
 c. I bought oil (M)  
 d. There is mail on the table (G)

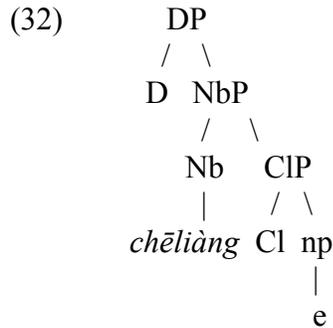
- (31) a. wǒ xǐhuān píngguǒ (K)  
 1s like apple  
 'I like apples.'
- b. wǒ chī le yī gè píngguǒ (I)  
 1s eat LE a Cl apple  
 'I ate an apple.'
- c. wǒ mǎi le yóu (M)  
 1s buy LE oil  
 'I bought oil.'
- d. zhuōzi shàng yǒu xìnjiàn (G)  
 table on have letter-Cl  
 'There is mail/correspondence on the table.'

Individuals and groups are marked [+atom] because they have entities which have no improper N-part (a chair is part of a set of furniture but not the leg of a chair). Kinds and Mass have N-parts but are not necessarily specified as such. Vagueness in specification is marked as [ $\emptyset$ atom]. A singulative feature is a property of an entity that is N-integral. The term singulative is less common in the literature on referentiality, it comes from the Celtic and Arabic tradition. It is essentially a measure noun naming an appropriate unit of

the stuff in question, as in ‘a *grain* of rice’.

Groups are conceptually [ $\emptyset$ sing] in the sense that they apply to a plurality of wholes, including integral wholes, but the latter are not N-integral. A team may be composed of John and Mary but the whole and the parts are not in an N-part-whole relation. Groups or collections are entities that have flexible, non essential part structures. Mass and groups are therefore different in terms of the atom property: in opposition to mass which is cumulative, a collective or a group is a non-cumulative atom.

The structure of *chēliàng* or *xìnjiàn*, as well as other words of the same class, would then appear as follows in the multi-layered DP. The N *chēliàng* is moved from the np projection to be identified as a group plural in the number (Nb) projection:



If, as argued, Ns such as *chēliàng*, *xìnjiàn*, etc., form a group Pl in the grammar, under Nb, before getting to D, then their grammatical Group nature makes it incompatible with a singular interpretation (33a) and simultaneous counting (33b-c):<sup>4</sup>

<sup>4</sup> The presence of this type of collective word in the sentence can influence the interpretation of the whole structure, as illustrated in (i) and (ii):

- (i) tā mǎi le chē/ \*chēliàng / jiājù  
 3sg buy LE car / car+Cl/ furniture (mobilier/des meubles)  
 ‘He bought cars / furniture.’
- (ii) a. Chē hěn fāngbiàn  
 car very useful  
 ‘Cars are very useful.’
- b. \*Chēliàng hěn fāngbiàn  
 car+Cl very useful

The acceptability seems to depend on a particular reading closely connected to this group plural reading. The position of the word in the sentence is not really at stake. Other acceptable examples with *chēliàng* indicate that it can appear as well in object position with *yì xiē* (iiia) or as in (iiib):

- (iii) a. gōngchǎng mǎi le yì xiē chēliàng  
 firm buy LE a XIE car+Cl  
 ‘The firm bought some cars.’

- (33) a. \*qù LóngQīngxiá chéng shénme chēliàng?  
go LongQing.gorge take wh car-cl  
'What car should we take to go to the LongQing gorge?'
- b. zhuōzi shàng yǒu (\*wǔ gè) xìnjiàn  
table on have five CI letter+CI  
'There are five letters/\*mail on the table.'
- c. (\*sān gè) mǎpǐ dōu hěn jiànzhuàng  
three CI horse+CI all very robust  
'The (three) horses are all robust.'

This incompatibility with a singular interpretation and simultaneous counting is not related to a so-called mass interpretation of collectives, as usually argued. We believe that this type of incompatibility is rather connected to the fact that group plurals apply to a plurality of wholes. Group plurals are entities which have flexible, non essential part structures. It is therefore these referential properties which make counting difficult with this restricted class of collectives in Chinese.

## 6. Conclusion

This research on a class of collective nouns in Chinese has demonstrated that collective words or group plurals do exist in Chinese. We have illustrated how a restricted class of words formed by a CI+N internal sequence, words such as *chēliàng* (cars), *xìnjiàn* (mail), *mǎpǐ* (horses), etc. are group plurals syntactically (they cannot be preceded by a numeral and an individual classifier) and ontologically they cannot be considered to be mass or individuals since they correspond to discrete entities.

These words also behave differently from other words like *furniture* (*jiājù*) since *jiājù* in Chinese can be interpreted as collective, as individual entities or as a single individuality.

We therefore propose, as discussed in Fassi Fehri & Vinet (2007), that the two functional projections, CIP and NbP, are both projected in Chinese. They can both be overtly realized in some cases. The non-complementarity of Classifier (CI) and Number (Nb) in grammar is supported by the diversity of plural forms in languages. Plurality cannot be limited to a singular/plural basic distinction.

Further questions remain to be clarified, namely what exactly is the semantic property of these words that can sometimes influence the interpretation of the whole sentence? Why is

- 
- b. zhè gè gōngsī zhǐ chǔlǐ bèi dào de chēliàng  
dem CI company only deal BEI steal DE car  
'This company deals only with stolen cars.'

Some informants reject *chēliàng* in the following context:

- (iv) \*Gōngchǎng mǎi le (xǔduō) chēliàng  
Firm buy LE many car  
'The firm bought a lot of cars.'

this type of collective word lexically restricted? Could they belong to a particular class of words historically connected to a special (military) register or lexical semantic domain? What also is the difference between these words and other words formed by the same sequence but with a measure word (*shuǐpíng* (a bottle for water), *mǐli* (a grain of rice)), words which can be countable and which are therefore not identified as group plurals?

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